September 2006
PNNL-15892, APP. 2

HANFORD SITE

NEAR-FACILITY ENVIRONMENTAL MONITORING DATA REPORT

for Calendar Year 2005

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Hanford Site Near-Facility Environmental Monitoring Data Report for Calendar Year 2005

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LIST OF TERMS

CA	contamination area
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CFR	*Code of Federal Regulations*
CSB	Canister Storage Building
CVDF	Cold Vacuum Drying Facility
DCG	derived concentration guides
DOE	U.S. Department of Energy
EDP (code)	environmental data point (identification number indicating sample location)
ERDF	Environmental Restoration Disposal Facility
GEA	gamma energy analysis
IDF	Integrated Disposal Facility
PFP	Plutonium Finishing Plant
PHMC	Project Hanford Management Contract
PNNL	Pacific Northwest National Laboratory
PUREX	Plutonium-Uranium Extraction
QA	quality assurance
RCT	radiological control technician
RMA	radioactive material area
RMSA	radioactive material storage area
RPP	River Protection Project
TEDF	Treated Effluent Disposal Facility
TLD	thermoluminescent dosimeters
URM	underground radioactive material
WAC	*Washington Administrative Code*
WDOH	Washington State Department of Health
WSCF	Waste Sampling and Characterization Facility

CONTENTS

1.0 NEAR-FACILITY ENVIRONMENTAL MONITORING AT HANFORD

Near-facility environmental monitoring is defined as monitoring near facilities that have the potential to discharge or have discharged, stored, or disposed of radioactive or hazardous materials. Monitoring locations are associated with nuclear facilities such as the Plutonium Finishing Plant (PFP), Canister Storage Building (CSB), and the K Basins; inactive nuclear facilities such as N Reactor and the Plutonium-Uranium Extraction (PUREX) Facility; and waste storage or disposal facilities such as burial grounds, cribs, ditches, ponds, tank farms, and trenches.

Much of the monitoring consists of collecting and analyzing environmental samples and methodically surveying areas near facilities. The program is also designed to evaluate acquired analytical data, determine the effectiveness of facility effluent monitoring and controls, assess the adequacy of containment at waste disposal units, and detect and monitor unusual conditions. The program implements applicable portions of U.S. Department of Energy (DOE) Orders 435.1 (DOE 2001), 450.1 (DOE 2005), and 5400.5 (DOE 1993); DOE Manual 231.1-1A, *Environment, Safety, and Health Reporting Manual*; *Washington Administrative Code* (WAC) 246-247; Title 40, *Code of Federal Regulations* (CFR) Part 61 (40 CFR 61), Subpart H; and 10 CFR 835.

Several types of environmental media are sampled near facilities to monitor waste management and environmental restoration activities, and to evaluate the effectiveness of effluent treatment and control practices. Routine sampling and monitoring includes ambient air, soil, vegetation, external radiation, and water. The parameters typically monitored are radionuclide concentrations and radiation fields. Sampling methods are discussed in detail in the Duratek Technical Services Manual DTS-OEM-001, *Operational Environmental Monitoring*.

Samples are collected from known or expected effluent pathways. These pathways are generally downwind of potential or actual airborne releases and down gradient of liquid discharges. Table 1-1 shows the type and location of routine near-facility monitoring samples collected in 2005.

Table 1-1. Near-Facility Routine Environmental Monitoring Samples and Locations, 2005.

	Number of sample	Operational Area								
Sample Type	**Locations**	100 B/C	100 D	100 F	100 H	100 K	100 N	200/600	300/400	ERDF[a]
Air	88	5	2	6	2	13	4	46[b]	7	3
Soil	87	5	0	5	2	4	5	55	10	1
Vegetation	58	0	0	0	0	0	4	45	9	0
External Radiation	136	4	0	0	0	20	14	68	27	3

[a]Environmental Restoration Disposal Facility in the 200 West area.

[b]Includes one station at the Wye Barricade.

This Appendix contains brief discussions, specific sampling location information, and complete analytical data results for the various near-facility environmental monitoring efforts for 2005. Detailed discussions and summarized analytical results are provided in PNNL-15892, *Hanford Site Environmental Report for Calendar Year 2005*.

1.1 AIR MONITORING

Near-facility air sampling monitors the effectiveness of waste management and environmental remediation controls, and effluent treatment systems in reducing effluents and emissions. These air samplers also monitor diffuse source emissions.

Ambient air monitoring is conducted to determine baseline concentrations of radionuclides in the operations areas, assess the impact of operations on the local environment, and monitor diffuse and fugitive emissions from sources located within the operations area. These measurements also provide an indication of the Project Hanford Management Contract (PHMC), River Protection Project (RPP), and River Corridor Closure (RCC) Project managed facilities' performance and are used to demonstrate compliance with environmental protection criteria.

In 2005, air radioactivity was sampled by a network of continuously operating samplers at 88 locations. Location-specific maps and monitoring results are provided in Section 2.0, "Ambient Air Monitoring."

1.2 SOIL SAMPLING

Soil samples were collected on or adjacent to waste disposal units, and from locations downwind and near or within the boundaries of the operating facilities. Soil samples were collected to detect potential migration and deposition of facility effluents. Migration of radionuclides can occur as the result of resuspension from radioactively contaminated surface areas or intrusion by animals.

Radiological analyses of soil samples included strontium-90, plutonium-239/240, isotopic uranium, and gamma-emitting radionuclides. Location-specific maps and the analytical results are presented in Section 3.0, "Soil Monitoring."

1.3 VEGETATION SAMPLING

Vegetation samples were collected on or adjacent to waste disposal units, and from locations downwind and near or within the boundaries of the operating facilities. Vegetation samples were collected to detect potential migration of facility effluents. Migration of radionuclides into vegetation can occur primarily as the result of absorption by the roots growing on or near underground and surface water disposal units.

Radiological analyses of vegetation samples included strontium-90, plutonium-239/240, isotopic uranium, and gamma-emitting radionuclides. Location-specific maps and the analytical results are presented in Section 4.0, "Vegetation Monitoring."

1.4 EXTERNAL RADIATION

External radiation levels were monitored near facilities and waste handling, storage, and disposal sites to measure, assess, and control the impacts of operations. Thermoluminescent dosimeters (TLD) are used at numerous fixed locations to gather dose rate information over extended periods of time. TLD results can be used individually or averaged to determine dose rates in a given area for a particular sampling period.

Environmental dosimeters measure dose rates from all types of external radiation sources, including cosmic radiation, naturally occurring radioactivity in air and soil, and fallout from nuclear weapons testing, as well as any contribution from Hanford Site activities. During any year, changes in soil moisture and snow cover can cause external radiation levels to vary from 15% to 25% at any given location. The results are reported in units of millirems per year (mrem/yr). Individual TLD results and their locations are provided in Section 5.0, "External Radiation."

1.5 RADIOLOGICAL SURVEYS

Waste disposal sites and the surrounding terrain are surveyed to detect and characterize radioactive surface contamination. Routine radiological surveys are conducted across the surfaces of underground radioactive material areas and along the perimeters of contamination areas. Locations include cribs, trenches, retention basins, ponds, ditches, solid waste disposal sites, unplanned release sites, tank farm perimeters, stabilized waste disposal sites, roads, and firebreaks in and around the Site operational areas. A discussion and survey location maps are provided in Section 6.0, "Radiological Surveys."

In 2005, the Hanford Site had approximately 3,592 ha (8,876 acres) of posted outdoor surface contamination, and 635 ha (1,569 acres) of posted underground radioactive material, not including the production facilities (e.g., PUREX, T Plant, etc.). The total area of surface contamination was approximately six times larger than the area of underground radioactive material.

1.6 INVESTIGATIVE SAMPLING

Investigative sampling was conducted in the operations areas to confirm the absence or presence of radioactive and/or hazardous contaminants. Investigative sampling took place near facilities, such as storage and disposal sites, for at least one of the following reasons:

- To follow up radiological surface surveys that had indicated radioactive contamination was present.

- To conduct preoperational surveys to characterize the radiological/hazardous conditions at a site prior to facility construction, operation, or ultimate remediation.

- To determine if biotic intrusion (e.g., animal burrows or deep-rooted vegetation) has created a potential for contaminants to spread.

- To determine the integrity of waste containment systems.

Generally, the predominant radionuclides detected during these efforts were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area. Hazardous chemicals generally have not been identified above background levels in preoperational environmental monitoring samples. Complete results and general discussion of special characterization samples collected in 2005, are provided in Section 7.0, "Investigative Sampling."

2.0 AMBIENT AIR MONITORING

Air samplers are located primarily at or near (within approximately 500 m [1,600 ft]) sites and/or facilities having the potential for, or history of, environmental releases, with emphasis on potential source terms as well as prevailing wind direction. Meteorological conditions are monitored continuously by the Pacific Northwest National Laboratory (PNNL) meteorology stations, which are strategically positioned in and around the Hanford Site.

A network of continuously operating samplers at 88 near-facility monitoring locations sampled radioactivity in air during 2005. Some air sampling stations provided monitoring for more than one project (Table 2-1). Data from several PNNL ambient air monitoring stations were utilized in 2005 to provide additional air monitoring information for several River Corridor Closure (RCC) remediation projects. The RCC projects and the associated PNNL stations are listed in Table 2-2.

Near-facility air monitoring location maps are provided in Figures 2-1 through 2-11. Historical air sampling results for the 100-K, 100-N, 200 and 300 Areas are represented in graph form in Figures 2-12 through 2-23.

A summary of near-facility ambient air sampling results for selected radionuclides collected during 2005 is presented in Table 2-3. The 2005 composited, sampler-specific monitoring results are provided in Table 2-4. The 2005 air monitoring results from the PNNL ambient air monitoring locations used as supplemental data for RCC projects can be found in Table 2-5. Additional discussion of the 2005 air sampling results can be found in Section 10.2 of PNNL-15892.

Near-facility environmental air samplers operate at a flow rate of 0.057 m^3/min (2 ft^3/min), drawing a sample through a 47 mm (2 in.), open-faced filter about 2 m (6 ft) aboveground. All sample filters are exchanged biweekly, held one week (to allow for decay of short-lived natural radioactivity), and then sent to the analytical laboratory for initial analysis of total alpha and total beta activity. These initial analyses serve as an indicator of potential environmental problems.

Depending on project/facility requirements, the filters were stored until the end of either a three- or six-month sample period, then segregated and composited by sample location for specific radionuclide analysis as shown in Table 2-1. Segregating and compositing air filters by site provides a larger sample size and, thus, a more sensitive and accurate measurement of the concentration of airborne radionuclides.

To help assess the impact of Site operations, monitoring results are compared to U.S. Department of Energy derived concentration guides (DCG), to the results obtained from the distant communities of Yakima and Sunnyside as reported by PNNL Site Environmental Surveillance Program, and to data acquired from collocated sampling locations managed by Near-Facility Monitoring, PNNL and the Washington State Department of Health (WDOH). Collocated sampling results are used for comparability and precision of data.

Table 2-1. Near-Facility Air Sampling Locations and Analyses, 2005.

Site	Number of Samplers	EDP Code [a]	Analyses	
			Bi-weekly	Composite [b]
100-B/C Field Remediation project[c]	5	N464, N465, N466, N496, N497	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-D Interim Safe Storage project	1	N523	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-DR Interim Safe Storage project	1	N492	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-F Field Remediation project[c]	6	N519, N520, N521, N552, N553, N558	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
105-H Interim Safe Storage project	2	N524, N525	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-K Decontamination & Demolition project[c]	2	N476, N477	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-K Spent Nuclear Fuels	8	N401, N402, N403[d], N404, N476, N477, N478, N479	Gross α, β	GEA, Sr-90, Pu-iso, U-iso Pu-241, Am-241
100-KR-1 Field Remediation project[c]	3	N528, N529, N530	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
118-K-1 Field Remediation project	3	N403, N534, N535	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
100-NR-1 Field Remediation project[c] and 100-N D4 project	4	N102, N103, N106, N526	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
200 East Area	17	N019, N158, N498, N499, N957, N967, N968, N969, N970, N972, N973, N976, N977, N978, N984[d], N985, N999	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
Canister Storage Building, 200 East Area	2	N480, N481	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
Integrated Disposal Facility (200 East Area)	1	N532	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
200 West Area	23	N155, N161, N165, N168, N200 N304, N433, N441, N442, N449, N456, N457, N554, N555, N956, N963, N964, N965, N966, N974, N975, N987, N994	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
U-Ancillary Decontamination & Demolition project (200 West Area)	2	N550, N551	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
300 Area Decontamination & Demolition project[c]	1	N557	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
300-FF-2 Field Remediation project[c] (300 Area)	6	N130, N527, N546, N547, N548, N549	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
Environmental Restoration Disposal Facility[c]	4	N482[d], N517, N518, N963	Gross α, β	GEA, Sr-90, Pu-iso, U-iso
600 Area	1	N981[e]	Gross α, β	GEA, Sr-90, Pu-iso, U-iso

[a] EDP Code = Sampler location code.

[b] GEA = Gamma energy analysis; Pu-iso = isotopic plutonium-238 and plutonium-239/240; U-iso = isotopic uranium-234, uranium-235, and uranium-238.

[c] PNNL air sampling station(s) provide supplemental air monitoring data. See Table 2-2 for a listing of locations.

[d] Collocated sampling location with Washington State Department of Health.

[e] Collocated sampling location with Washington State Department of Health and PNNL.

Figure 2-1. 100-B/C Area Air Sampler Locations.

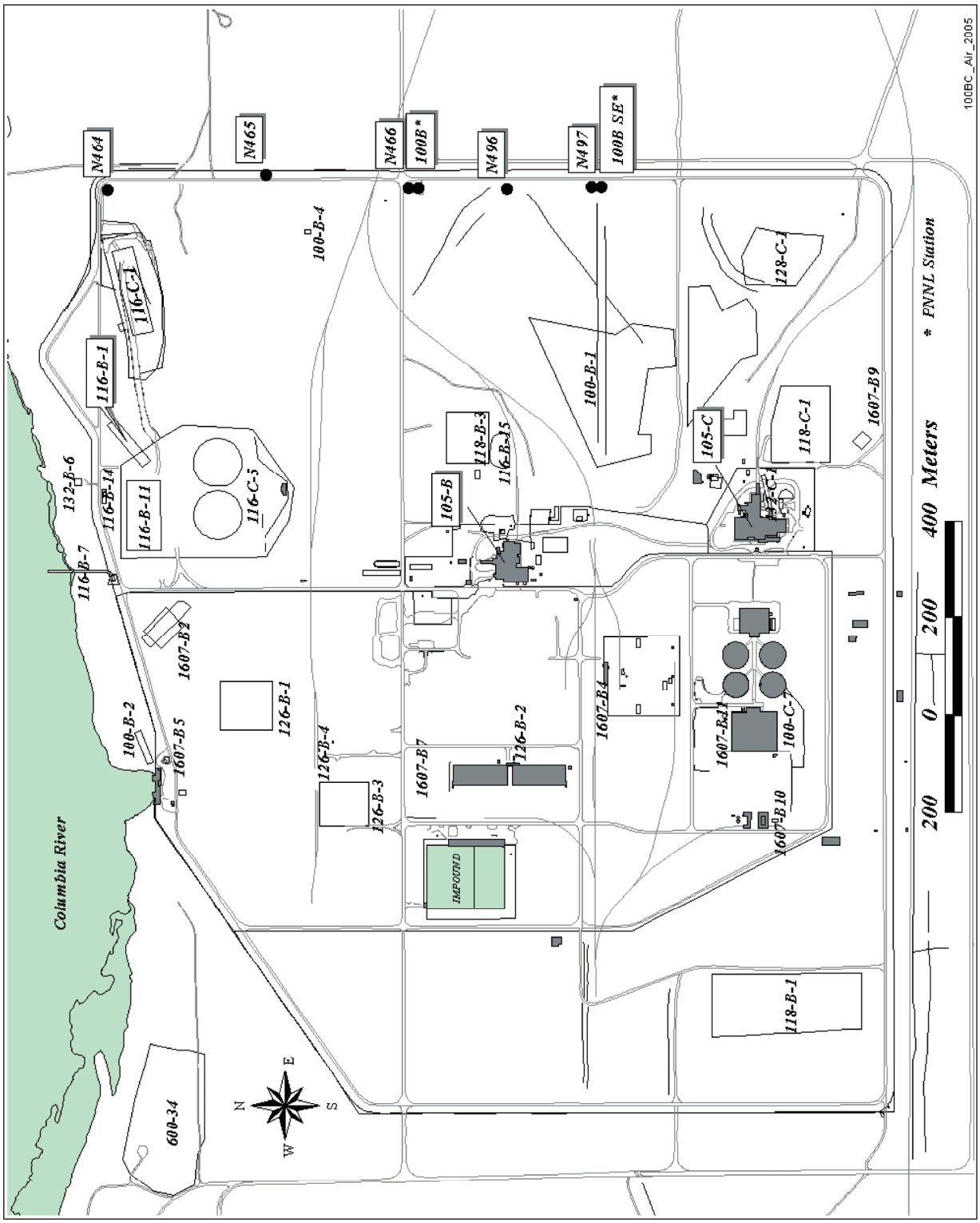

Figure 2-2. 100-D/DR Area Air Sampler Locations.

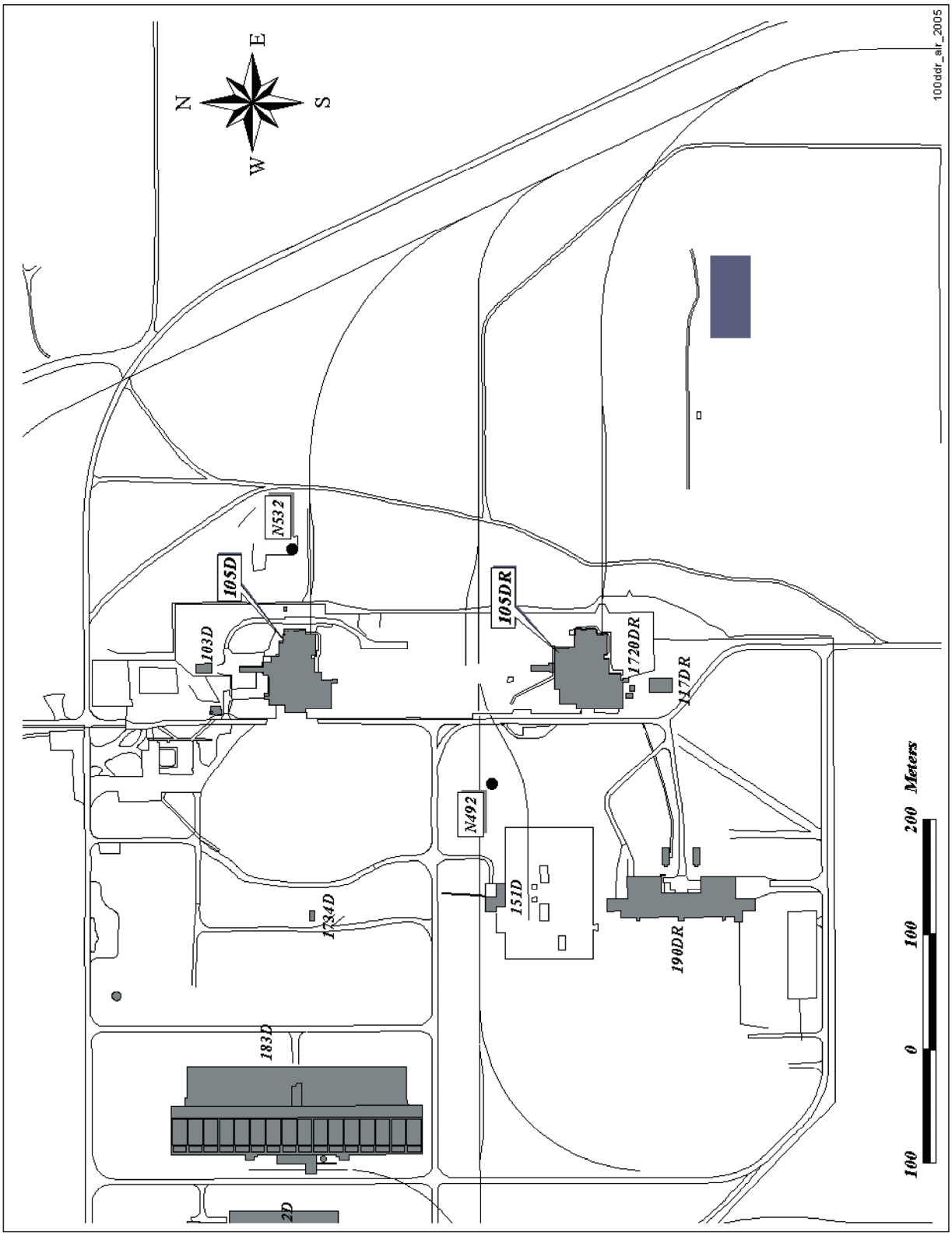

Figure 2-3. 100-F Area Air Sampler Locations.

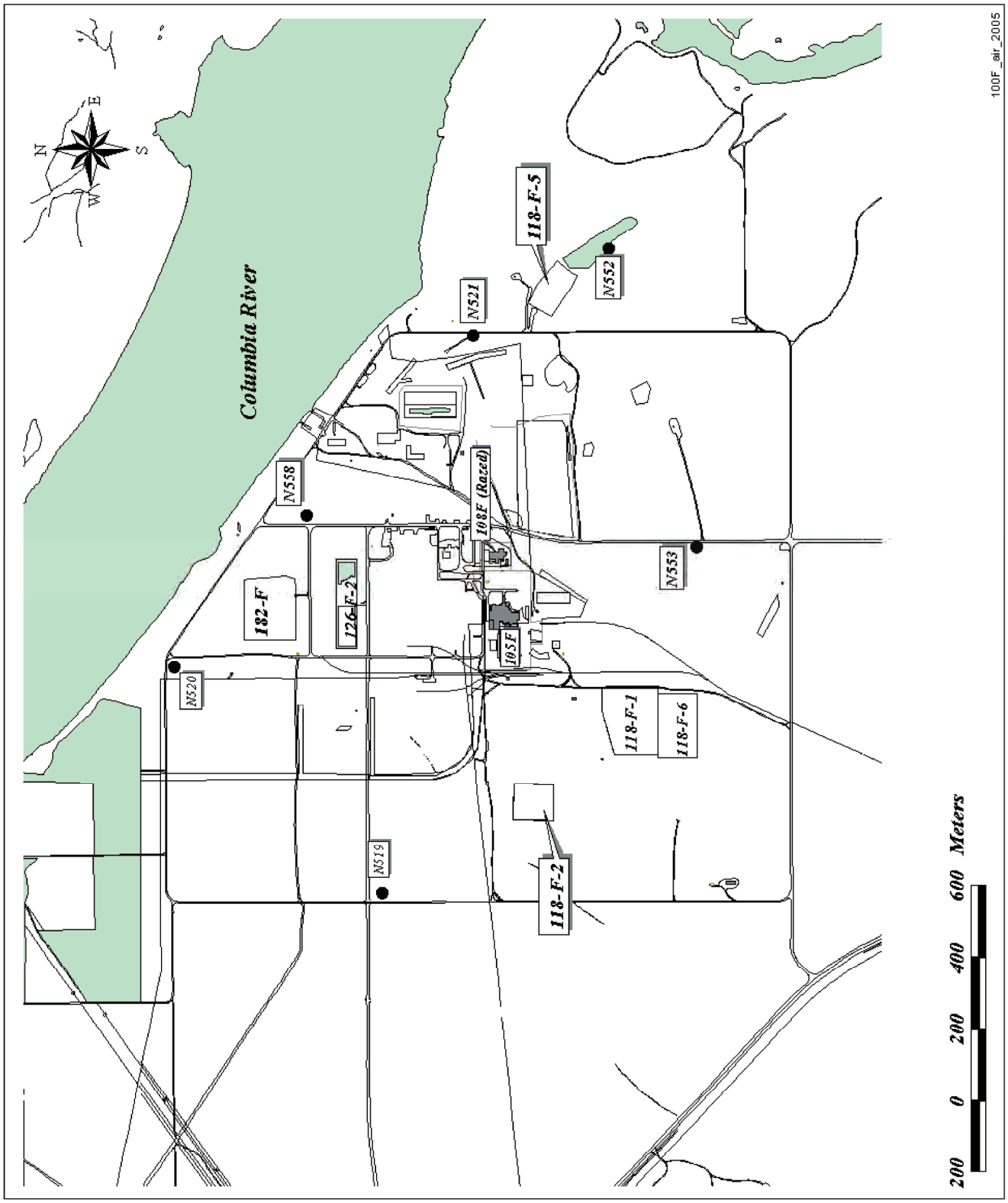

Figure 2-4. 100-H Area Air Sampler Locations.

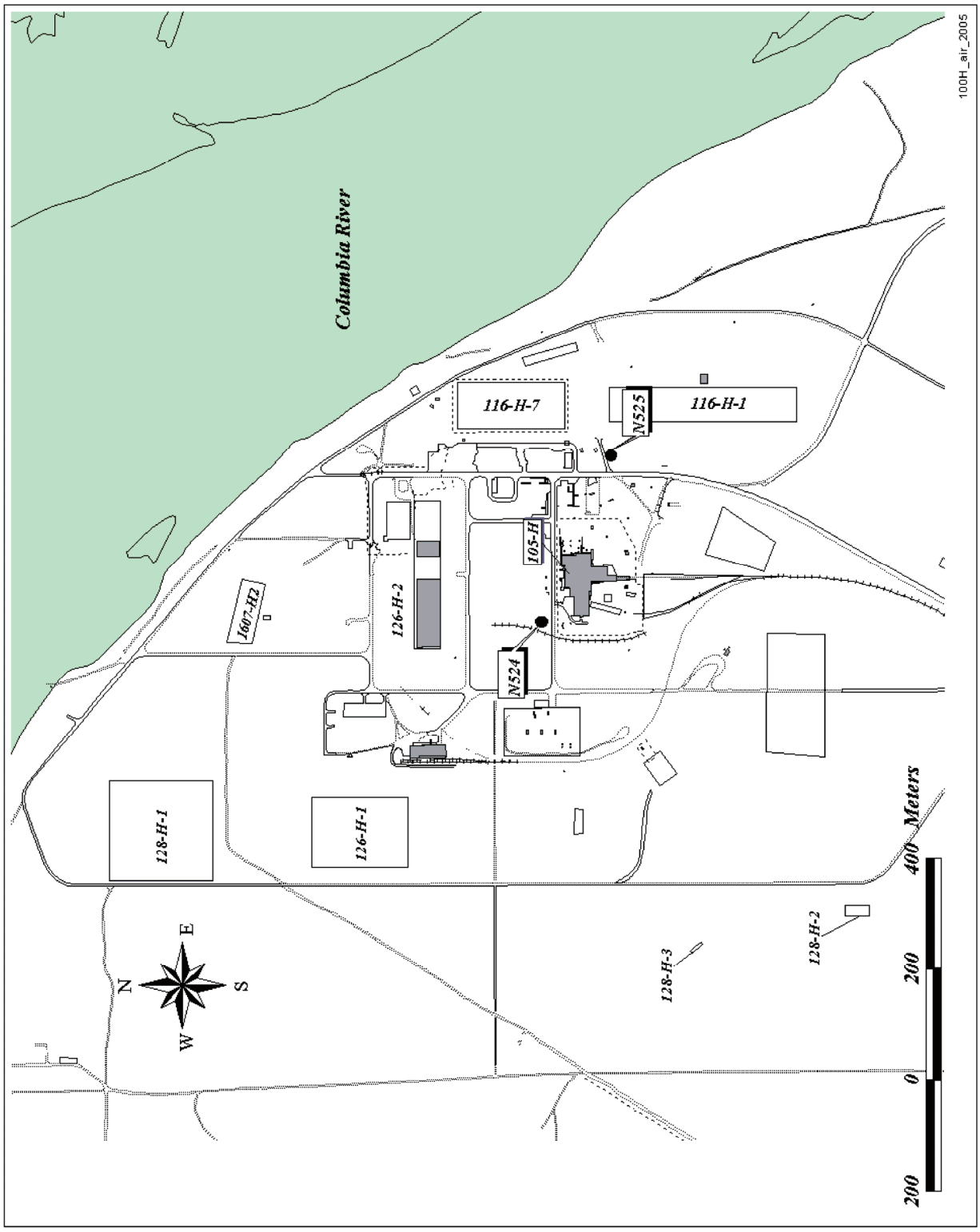

Figure 2-5. 100-K Area Air Sampler Locations.

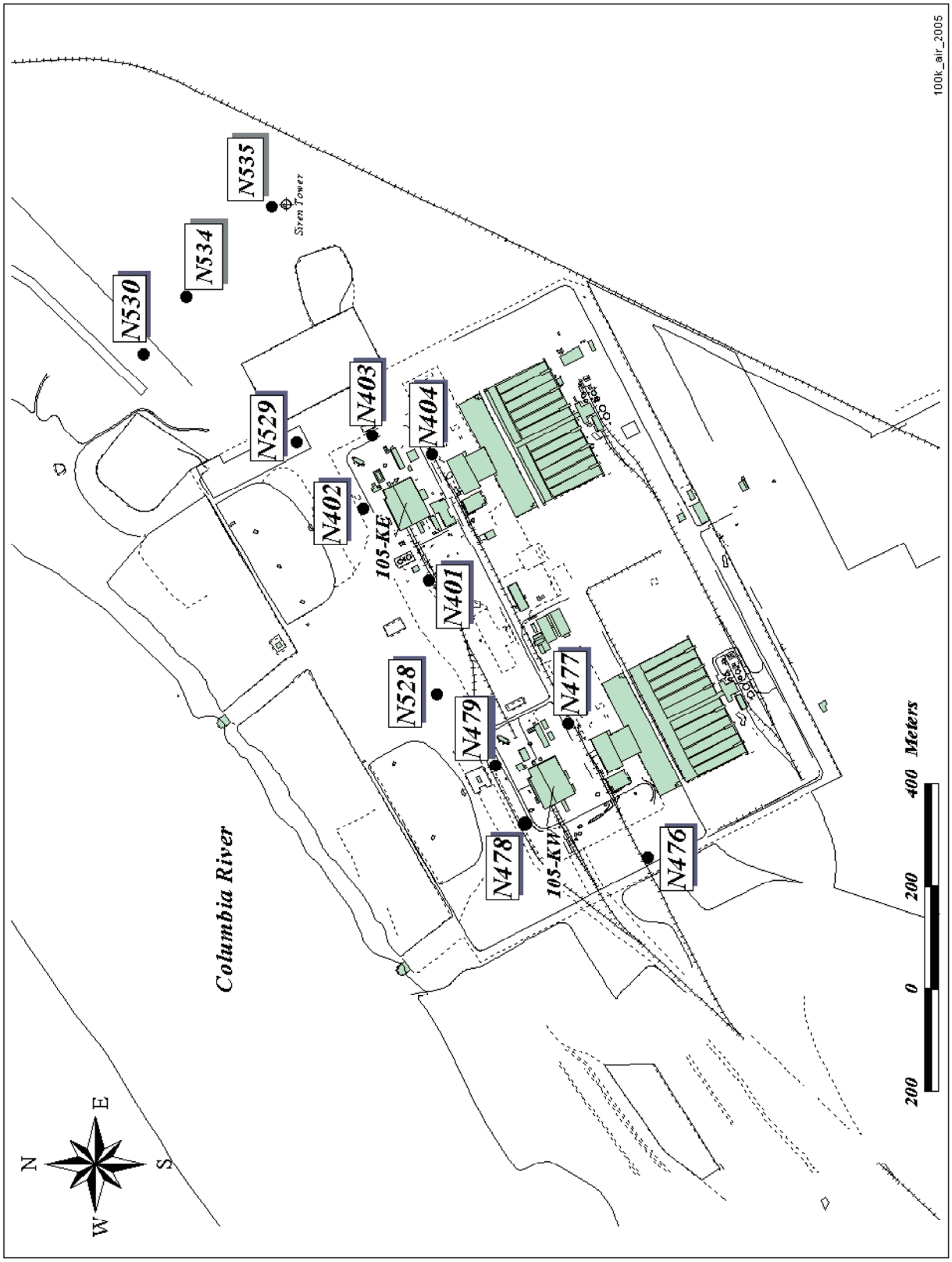

Figure 2-6. 100-N Area Air Sampler Locations.

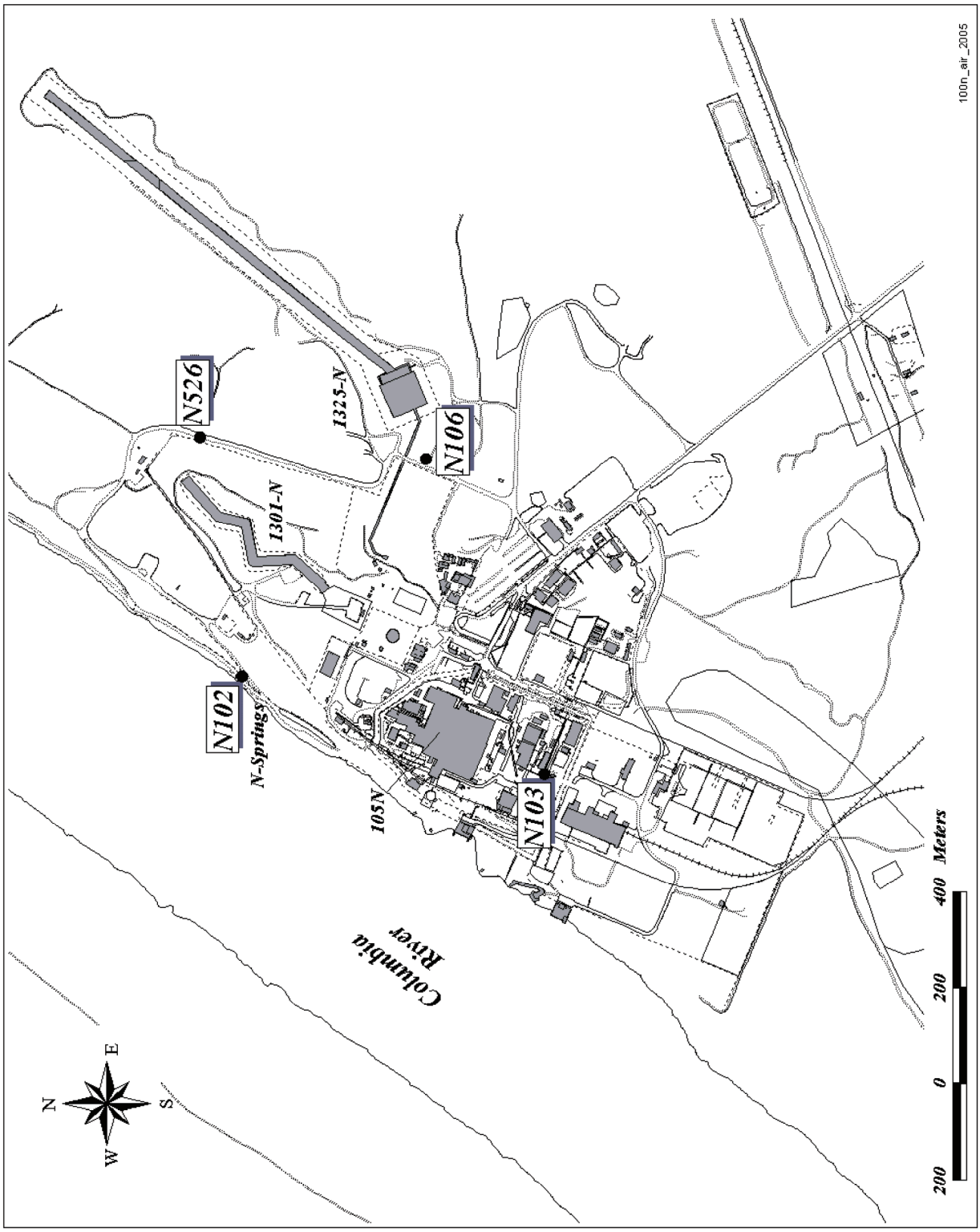

Figure 2-7. 200 East Area Air Sampler Locations.

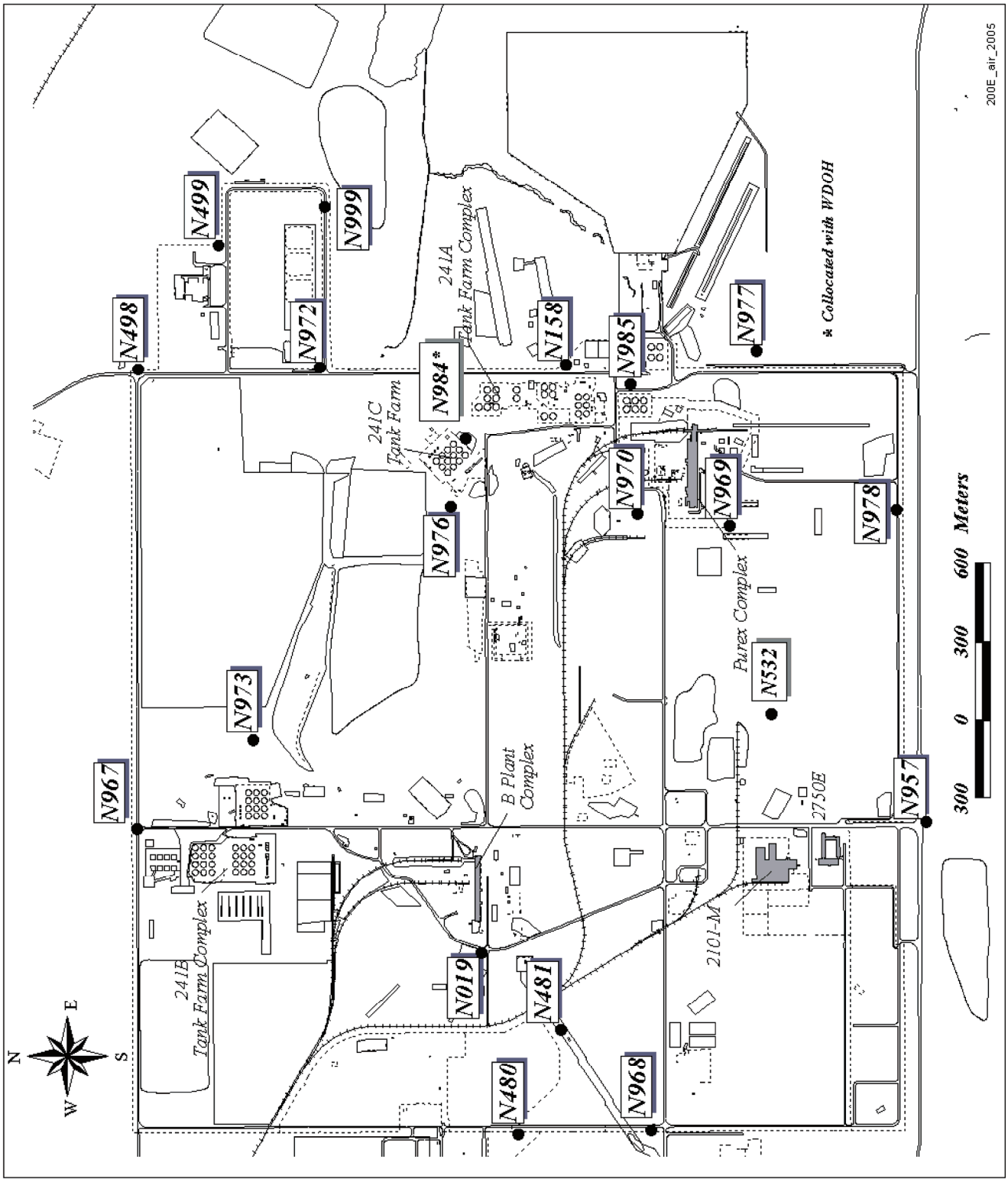

Figure 2-8. 200 West Area Air Sampler Locations.

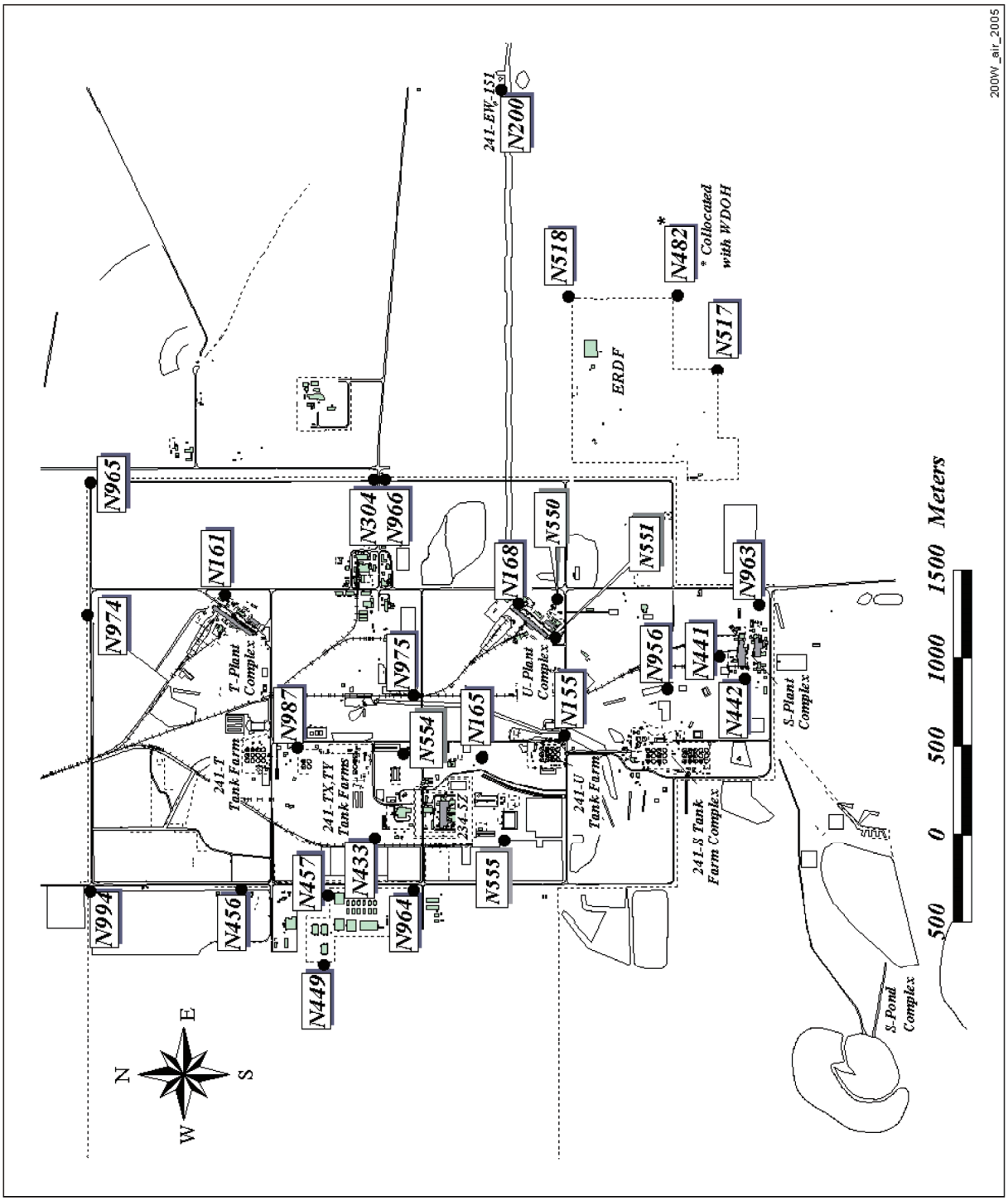

Figure 2-9. 300 Area Air Sampler Locations.

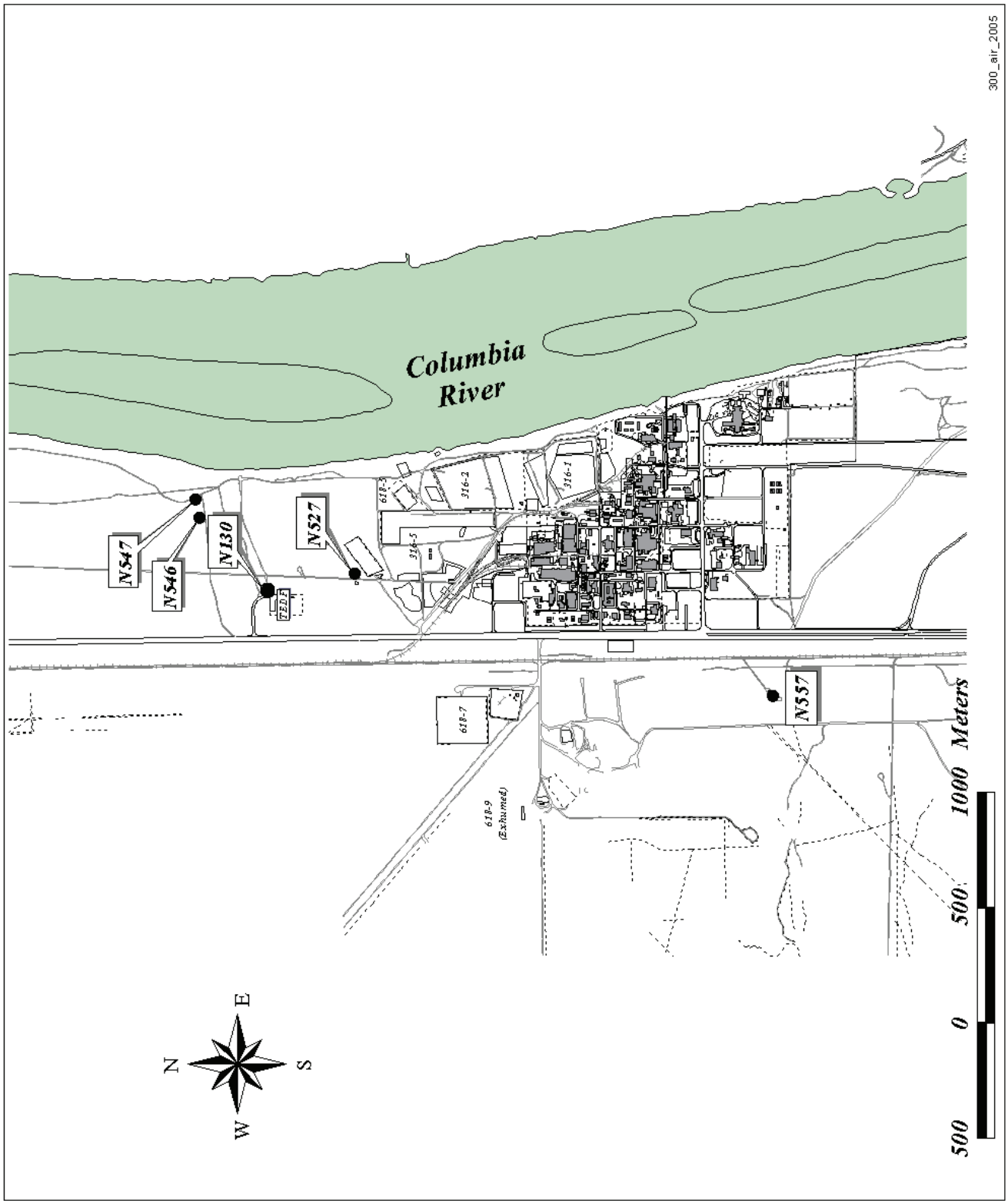

Figure 2-10. 300 Area (North) Air Sampler Locations.

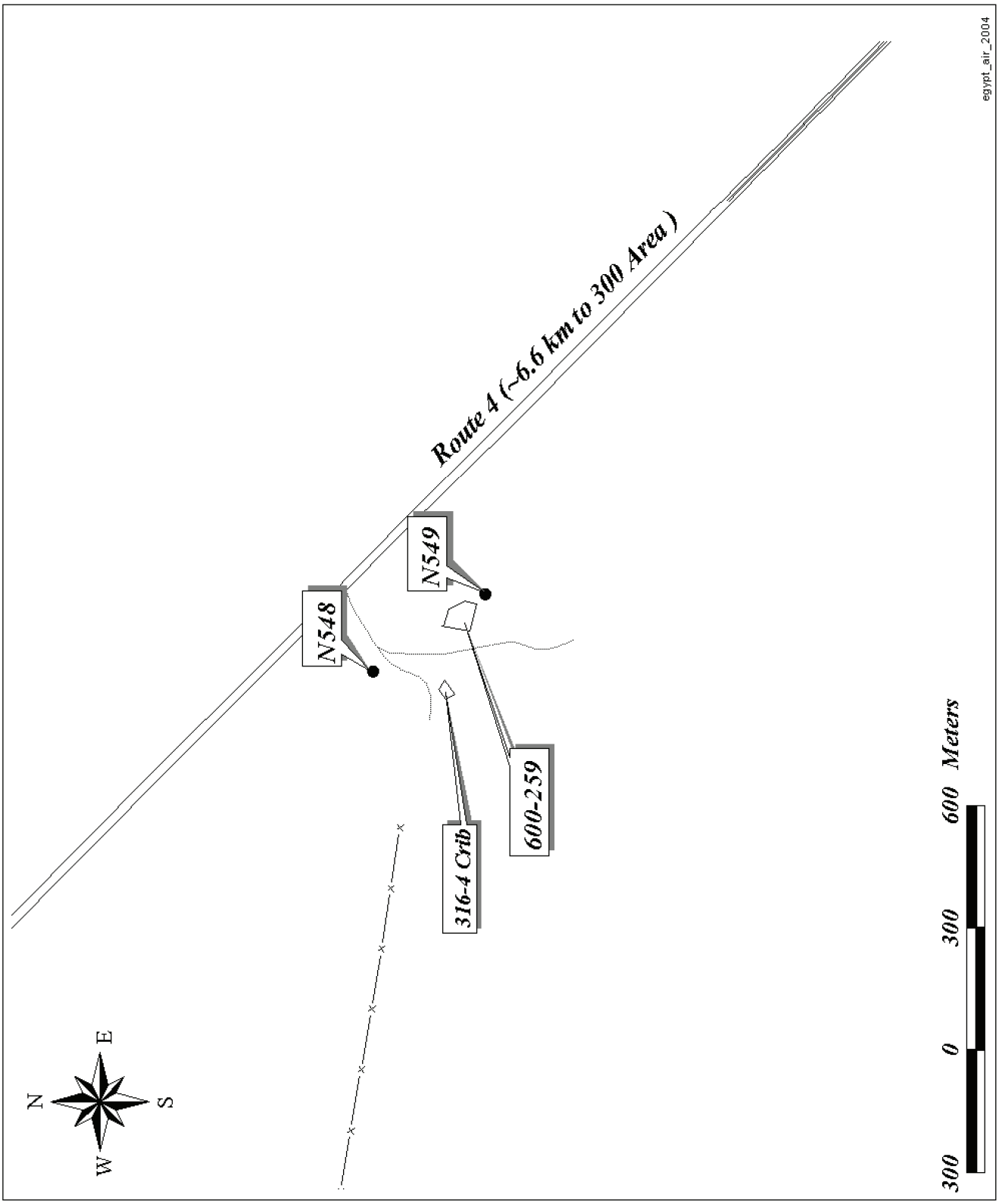

Figure 2-11. 600 Area Air Sampler Location.

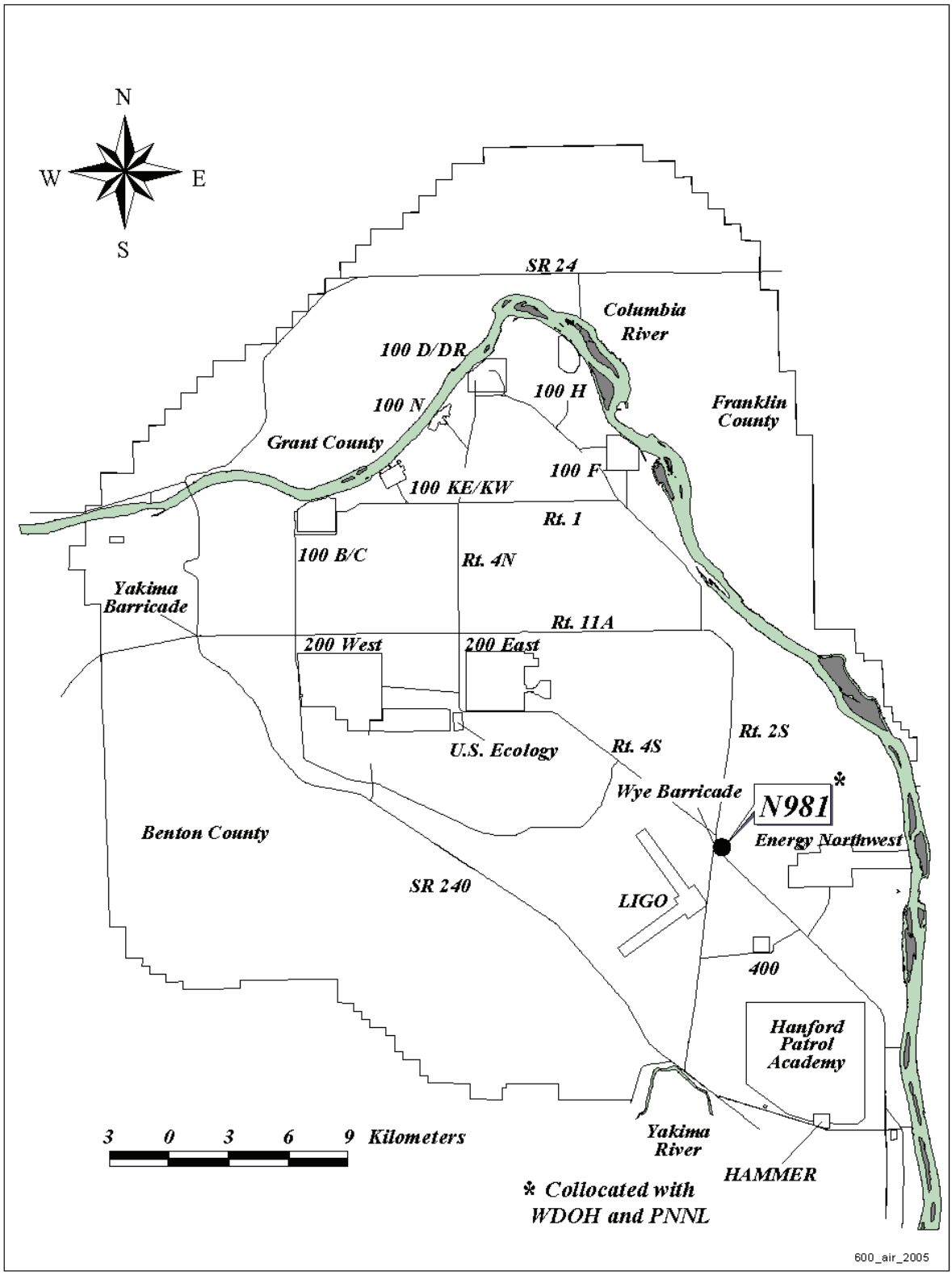

Figure 2-12. Annual Average Strontium-90 Concentrations in Air, 100-K Area.

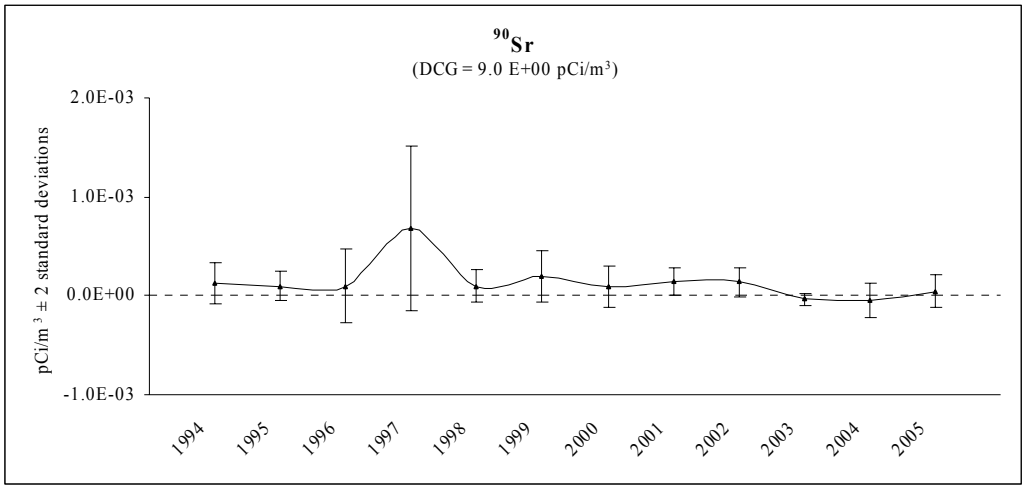

Figure 2-13. Annual Average Plutonium-239/240 Concentrations in Air, 100-K Area.

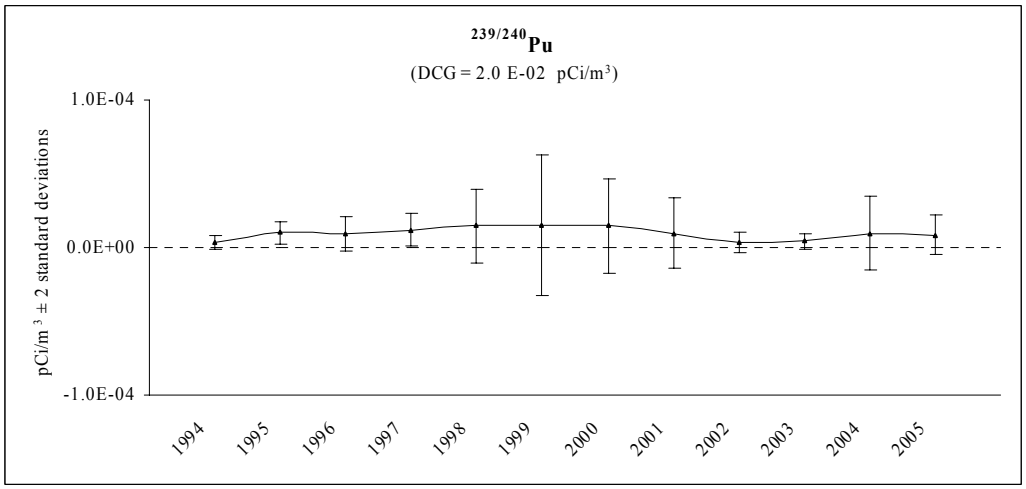

Figure 2-14. Annual Average Americium-241 Concentrations in Air, 100-K Area.

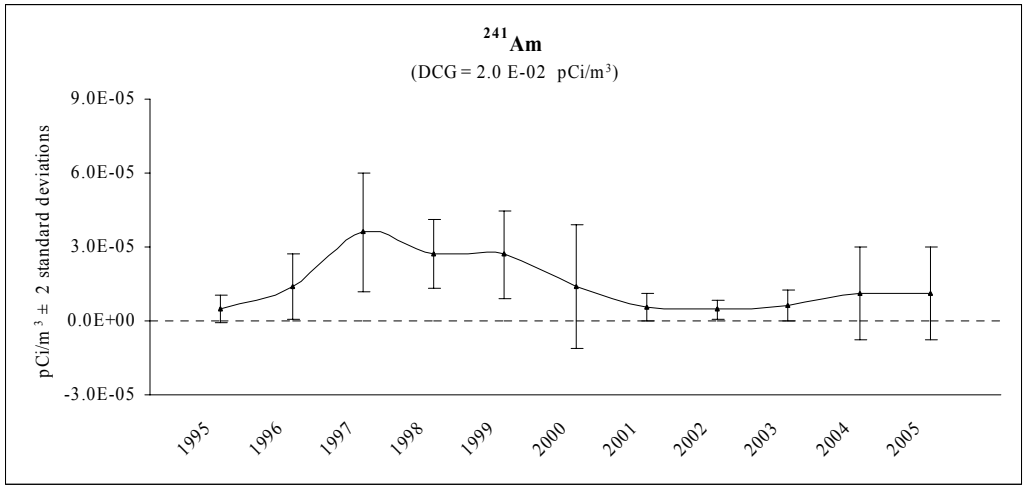

Figure 2-15. Annual Average Cobalt-60 Concentrations in Air, 100-N.

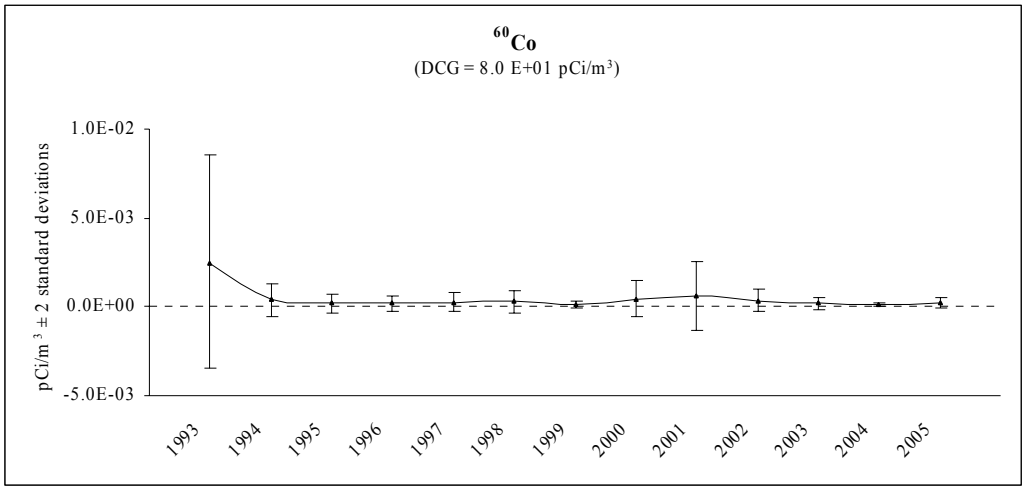

Figure 2-16. Annual Average Strontium-90 Concentrations in Air, 100-N.

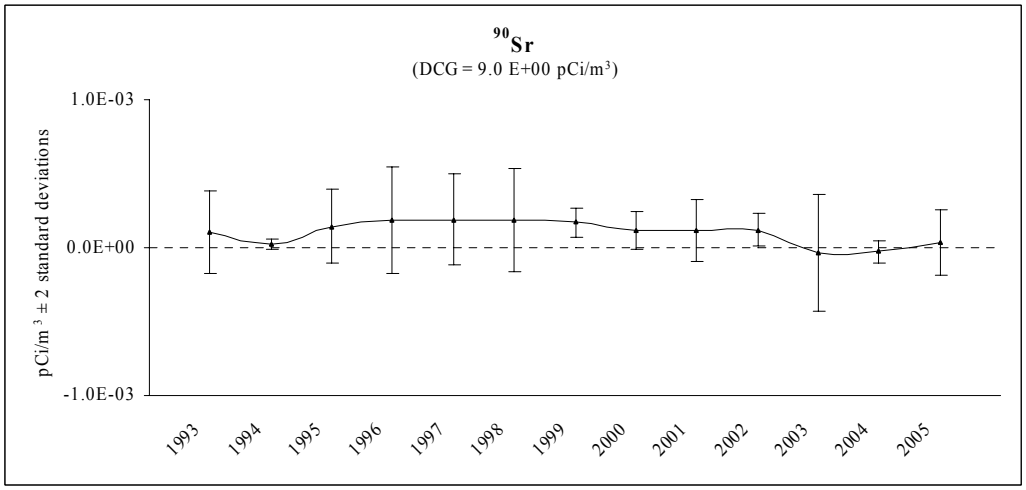

Figure 2-17. Annual Average Cesium-137 Concentrations in Air, 100-N.

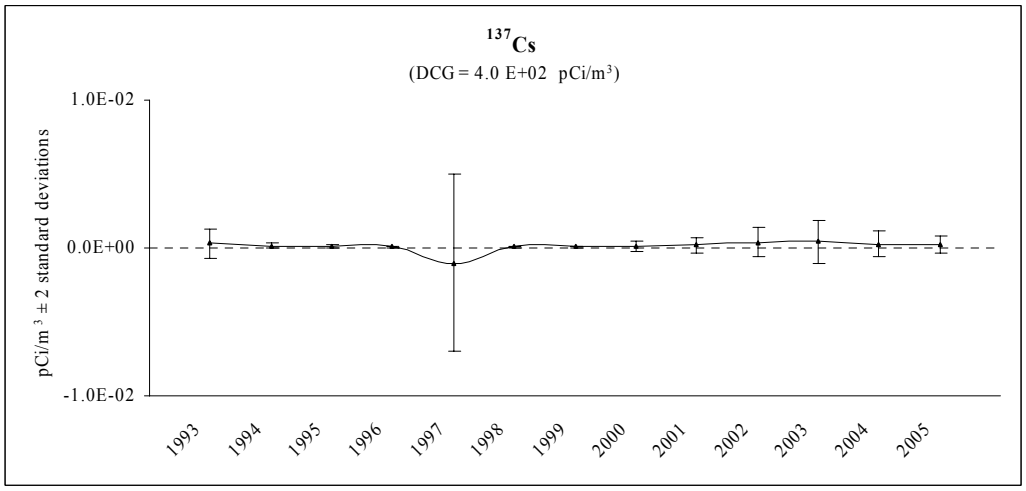

Figure 2-18. Annual Average Plutonium-239/240 Concentrations in Air, 100-N Area.

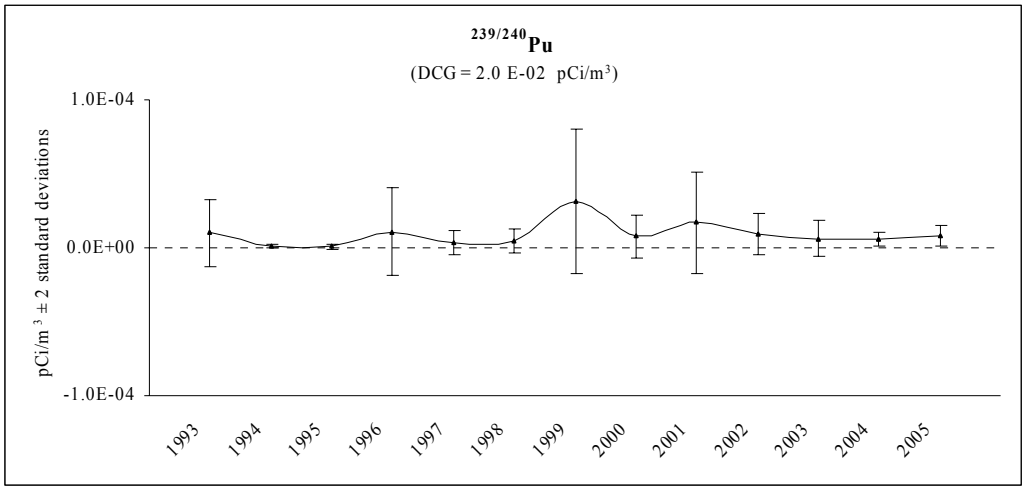

Figure 2-19. Annual Average Strontium-90 Concentrations in Air, 200 Areas.

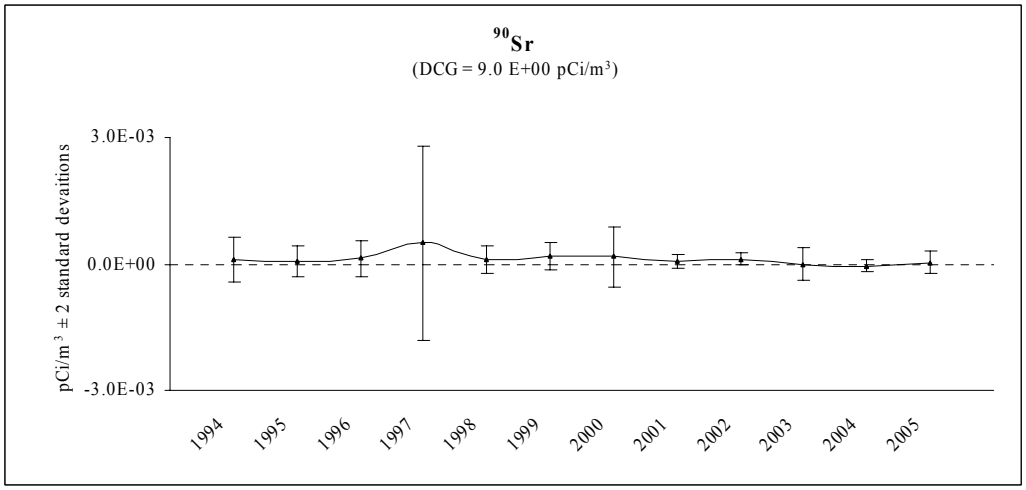

Figure 2-20. Annual Average Cesium-137 Concentrations in Air, 200 Areas.

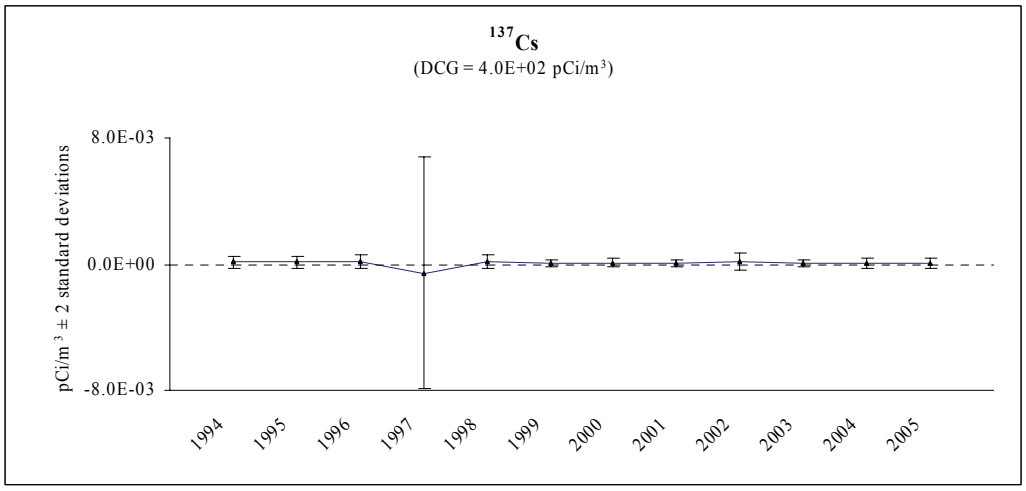

Figure 2-21. Annual Average Plutonium-239/240 Concentrations in Air, 200 Areas.

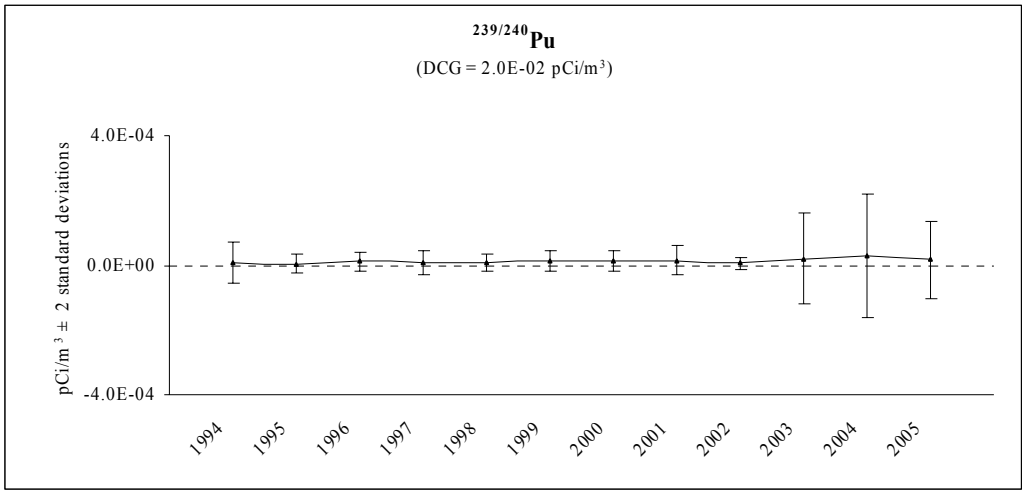

Figure 2-22. Annual Average Uranium-234 Concentrations in Air, 300 Area.

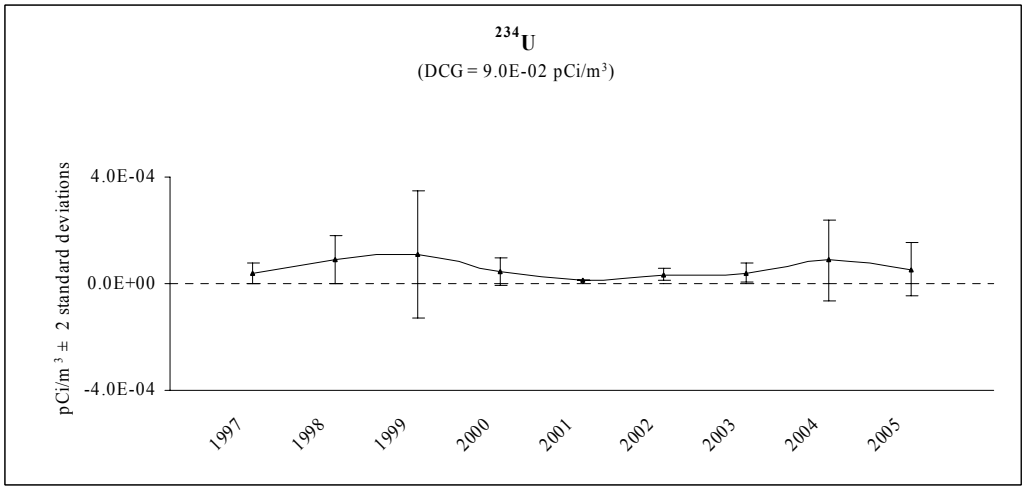

Figure 2-23. Annual Average Uranium-238 Concentrations in Air, 300 Area.

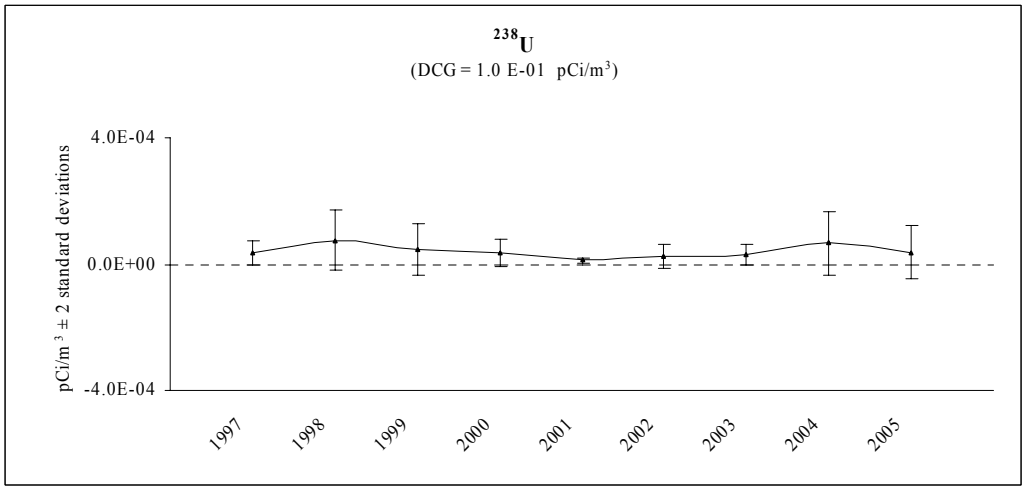

Table 2-2. PNNL Supplemental Air Sampling Locations[a], 2005.

Site	Sampling Location
100-B/C Field Remediation project	100 B, 100 B SE, Yakima Barricade
100-F Field Remediation project	WYE Barricade, Yakima Barricade
100-K Decontamination & Demolition project	100 K Area
100-KR-1 Field Remediation project	Yakima Barricade
100-NR-1 Field Remediation project	Yakima Barricade
300 Area Decontamination & Demolition project	300 NE, 300 Trench, 300 Water Intake
300-FF-2 Field Remediation project	300 NE, 300 Trench, 300 Water Intake
Environmental Restoration Disposal Facility	200 W SE

[a] Maps showing specific locations are available in PNNL-15892.

Table 2-3. Summary of Near-Facility Ambient Air Sampling Results (pCi/m^3) for Selected Radionuclides, 2005.

Isotope	Number of Detects	Number of Samples	Mean[a]	Maximum[b]	Location	Sampler
^{241}Am	4	20	9.8E-06 ± 1.8E-05	3.8E-05 ± 2.3E-05	100-K East	N403
^{60}Co	8	172	1.6E-05 ± 3.0E-04	4.4E-04 ± 1.6E-04	100-NR-1 (100-N Area)	N526
^{137}Cs	15	172	5.2E-05 ± 3.0E-04	9.9E-04 ± 3.9E-04	200 East Area	N158
$^{239/240}Pu$	47	170	1.6E-05 ± 1.3E-04	6.2E-04 ± 2.5E-04	300-FF-2 (300 Area)	N548
^{90}Sr	25	164	3.2E-05 ± 3.8E-04	9.5E-04 ± 4.3E-04	118-K-1 (100-K Area)	N534
^{234}U	149	172	1.7E-05 ± 4.1E-05	1.7E-04 ± 1.2E-04	300-FF-2 (300 Area)	N548
^{235}U	45	172	5.1E-06 ± 2.2E-05	1.3E-04 ± 8.9E-05	300-FF-2 (300 Area)	N548
^{238}U	142	172	1.3E-05 ± 3.1E-05	1.5E-04 ± 1.0E-04	300-FF-2 (300 Area)	N548

[a] ± 2 standard deviations

[b] ± total analytical uncertainty

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N464 (100-B/C) Composite Period 12/21/04 to 06/21/05	^{144}Ce	-5.2E-04 ± 6.9E-04	U
	^{60}Co	-5.7E-06 ± 5.7E-05	U
	^{134}Cs	8.9E-07 ± 8.9E-06	U
	^{137}Cs	-2.5E-05 ± 6.9E-05	U
	^{152}Eu	-4.9E-05 ± 1.7E-04	U
	^{154}Eu	6.5E-06 ± 6.6E-05	U
	^{155}Eu	-4.9E-05 ± 1.7E-04	U
	^{238}Pu	4.2E-06 ± 1.4E-05	U
	$^{239/240}Pu$	-4.2E-06 ± 4.3E-06	U
	^{103}Ru	-3.3E-05 ± 9.5E-05	U
	^{106}Ru	-7.9E-05 ± 6.4E-04	U
	^{125}Sb	-3.7E-05 ± 1.6E-04	U
	^{113}Sn	1.1E-05 ± 7.8E-05	U
	^{90}Sr	-2.1E-05 ± 1.1E-04	U
	^{234}U	5.2E-06 ± 4.2E-06	
	^{235}U	7.1E-07 ± 2.5E-06	U
	^{238}U	5.7E-06 ± 4.1E-06	
	^{65}Zn	7.9E-05 ± 2.2E-04	U
N464 (100-B/C) Composite Period 06/21/05 to 12/20/05	^{60}Co	-1.1E-05 ± 7.7E-05	U
	^{134}Cs	-5.6E-05 ± 7.2E-05	U
	^{137}Cs	3.5E-05 ± 6.8E-05	U
	^{152}Eu	-1.3E-05 ± 1.3E-04	U
	^{154}Eu	9.1E-05 ± 1.9E-04	U
	^{155}Eu	-6.3E-05 ± 1.9E-04	U
	^{238}Pu	1.5E-06 ± 1.5E-05	U
	$^{239/240}Pu$	3.0E-06 ± 3.2E-06	
	^{106}Ru	-7.4E-04 ± 7.6E-04	U
	^{125}Sb	-4.7E-05 ± 1.6E-04	U
	^{90}Sr	-3.4E-05 ± 7.9E-05	U
	^{234}U	1.3E-05 ± 8.1E-06	
	^{235}U	7.2E-06 ± 5.3E-06	
	^{238}U	1.2E-05 ± 7.2E-06	
N465 (100-B/C) Composite Period 12/21/04 to 06/21/05	^{144}Ce	-1.7E-04 ± 5.5E-04	U
	^{60}Co	5.8E-06 ± 5.8E-05	U
	^{134}Cs	-1.2E-05 ± 6.5E-05	U
	^{137}Cs	-3.0E-05 ± 5.6E-05	U
	^{152}Eu	-4.8E-05 ± 1.3E-04	U
	^{154}Eu	1.4E-05 ± 1.4E-04	U
	^{155}Eu	-1.2E-05 ± 1.2E-04	U
	^{238}Pu	7.1E-06 ± 1.2E-05	U
	$^{239/240}Pu$	4.4E-06 ± 3.9E-06	
	^{103}Ru	-2.2E-07 ± 2.2E-06	U
	^{106}Ru	1.3E-05 ± 1.3E-04	U
	^{125}Sb	-5.4E-06 ± 5.4E-05	U
	^{113}Sn	-6.5E-05 ± 7.3E-05	U
	^{90}Sr	-6.4E-05 ± 8.9E-05	U
	^{234}U	6.3E-06 ± 5.2E-06	
	^{235}U	3.1E-06 ± 3.2E-06	
	^{238}U	7.9E-06 ± 6.3E-06	
	^{65}Zn	1.2E-04 ± 1.7E-04	U
N465 (100-B/C) Composite Period 06/21/05 to 12/20/05	^{60}Co	1.9E-05 ± 1.1E-04	U
	^{134}Cs	1.2E-06 ± 1.3E-05	U
	^{137}Cs	-1.1E-05 ± 1.0E-04	U
	^{152}Eu	-7.9E-05 ± 2.4E-04	U
	^{154}Eu	-3.4E-05 ± 3.3E-04	U
	^{155}Eu	-6.5E-05 ± 1.8E-04	U
	^{238}Pu	4.0E-06 ± 1.7E-05	U
	$^{239/240}Pu$	8.0E-07 ± 3.6E-06	U
	^{106}Ru	5.1E-04 ± 8.6E-04	U
	^{125}Sb	-1.4E-05 ± 1.4E-04	U
	^{90}Sr	2.3E-05 ± 8.7E-05	U
	^{234}U	1.2E-05 ± 7.4E-06	
	^{235}U	2.8E-06 ± 3.0E-06	
	^{238}U	5.1E-06 ± 4.5E-06	
N466 (100-B/C) Composite Period 12/21/04 to 06/21/05	^{144}Ce	-4.1E-04 ± 7.2E-04	U
	^{60}Co	-4.8E-05 ± 7.3E-05	U
	^{134}Cs	1.0E-05 ± 7.1E-05	U
	^{137}Cs	3.9E-05 ± 5.7E-05	U
	^{152}Eu	7.1E-05 ± 1.8E-04	U
	^{154}Eu	4.3E-05 ± 1.9E-04	U
	^{155}Eu	-7.0E-05 ± 1.8E-04	U
	^{238}Pu	5.7E-06 ± 1.2E-05	U
	$^{239/240}Pu$	3.8E-06 ± 4.3E-06	U
	^{103}Ru	-2.0E-05 ± 8.7E-05	U
	^{106}Ru	-2.0E-04 ± 5.5E-04	U
	^{125}Sb	-1.9E-06 ± 1.9E-05	U
	^{113}Sn	1.9E-05 ± 8.0E-05	U
	^{90}Sr	5.5E-05 ± 7.9E-05	U
	^{234}U	7.6E-06 ± 5.5E-06	
	^{235}U	3.1E-06 ± 3.8E-06	U
	^{238}U	8.3E-06 ± 5.7E-06	
	^{65}Zn	1.3E-04 ± 1.7E-04	U
N466 (100-B/C) Composite Period 06/21/05 to 12/20/05	^{60}Co	7.1E-05 ± 8.4E-05	U
	^{134}Cs	1.2E-06 ± 1.2E-05	U
	^{137}Cs	5.6E-05 ± 6.7E-05	U
	^{152}Eu	2.8E-06 ± 2.8E-05	U
	^{154}Eu	1.2E-04 ± 2.2E-04	U
	^{155}Eu	-1.6E-04 ± 1.7E-04	U
	^{238}Pu	8.7E-06 ± 1.3E-05	U
	$^{239/240}Pu$	7.2E-07 ± 3.2E-06	U
	^{106}Ru	1.6E-04 ± 6.3E-04	U
	^{125}Sb	-5.2E-05 ± 1.6E-04	U
	^{90}Sr	1.7E-04 ± 1.1E-04	
	^{234}U	7.9E-06 ± 6.1E-06	
	^{235}U	2.9E-06 ± 3.1E-06	
	^{238}U	7.9E-06 ± 6.1E-06	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N496 (100-B/C) Composite Period 12/21/04 to 06/21/05	^{144}Ce	-3.3E-05 ± 3.3E-04	U
	^{60}Co	-3.7E-05 ± 9.6E-05	U
	^{134}Cs	-7.9E-05 ± 1.1E-04	U
	^{137}Cs	7.2E-05 ± 1.2E-04	U
	^{152}Eu	-5.2E-05 ± 2.4E-04	U
	^{154}Eu	1.7E-04 ± 3.2E-04	U
	^{155}Eu	2.5E-05 ± 1.7E-04	U
	^{238}Pu	8.3E-06 ± 1.3E-05	U
	$^{239/240}$Pu	2.6E-06 ± 3.7E-06	U
	^{103}Ru	4.9E-05 ± 1.4E-04	U
	^{106}Ru	3.8E-04 ± 8.8E-04	U
	^{125}Sb	1.3E-05 ± 1.3E-04	U
	^{113}Sn	-7.2E-05 ± 1.2E-04	U
	^{90}Sr	1.5E-04 ± 1.0E-04	
	^{234}U	5.9E-06 ± 4.9E-06	
	^{235}U	3.6E-06 ± 4.1E-06	U
	^{238}U	7.0E-06 ± 5.2E-06	
	^{65}Zn	-3.0E-04 ± 3.1E-04	U
N496 (100-B/C) Composite Period 06/21/05 to 12/20/05	^{60}Co	5.3E-06 ± 5.3E-05	U
	^{134}Cs	-3.5E-05 ± 6.4E-05	U
	^{137}Cs	5.0E-05 ± 6.3E-05	U
	^{152}Eu	2.2E-06 ± 2.2E-05	U
	^{154}Eu	7.4E-05 ± 2.1E-04	U
	^{155}Eu	2.3E-05 ± 1.4E-04	U
	^{238}Pu	-9.1E-06 ± 1.3E-05	U
	$^{239/240}$Pu	2.1E-06 ± 3.2E-06	U
	^{106}Ru	1.7E-04 ± 5.5E-04	U
	^{125}Sb	1.7E-05 ± 1.3E-04	U
	^{90}Sr	-7.7E-06 ± 8.0E-06	U
	^{234}U	1.0E-05 ± 7.1E-06	
	^{235}U	5.0E-06 ± 4.2E-06	
	^{238}U	8.4E-06 ± 6.2E-06	
N497 (100-B/C) Composite Period 12/21/04 to 06/21/05	^{144}Ce	-1.4E-04 ± 6.3E-04	U
	^{60}Co	1.7E-05 ± 6.6E-05	U
	^{134}Cs	-3.0E-05 ± 6.7E-05	U
	^{137}Cs	9.5E-05 ± 7.1E-05	U
	^{152}Eu	-1.2E-04 ± 1.6E-04	U
	^{154}Eu	2.1E-04 ± 2.0E-04	U
	^{155}Eu	-3.8E-05 ± 1.5E-04	U
	^{238}Pu	5.7E-06 ± 1.4E-05	U
	$^{239/240}$Pu	1.7E-06 ± 3.4E-06	U
	^{103}Ru	5.3E-05 ± 8.3E-05	U
	^{106}Ru	3.3E-04 ± 5.3E-04	U
	^{125}Sb	1.1E-04 ± 1.4E-04	U
	^{113}Sn	9.7E-05 ± 8.1E-05	U
	^{90}Sr	2.1E-04 ± 1.1E-04	
	^{234}U	9.7E-06 ± 7.0E-06	
	^{235}U	2.9E-06 ± 3.6E-06	U
	^{238}U	8.3E-06 ± 5.8E-06	
	^{65}Zn	-1.9E-05 ± 2.0E-04	U
N497 (100-B/C) Composite Period 06/21/05 to 12/20/05	^{60}Co	-4.3E-05 ± 1.1E-04	U
	^{134}Cs	-2.8E-05 ± 1.3E-04	U
	^{137}Cs	6.0E-05 ± 9.6E-05	U
	^{152}Eu	-1.7E-04 ± 2.3E-04	U
	^{154}Eu	1.7E-04 ± 2.9E-04	U
	^{155}Eu	6.1E-05 ± 1.7E-04	U
	^{238}Pu	2.9E-05 ± 2.1E-05	
	$^{239/240}$Pu	8.8E-06 ± 6.1E-06	
	^{106}Ru	2.1E-04 ± 8.5E-04	U
	^{125}Sb	-4.1E-05 ± 2.3E-04	U
	^{90}Sr	-4.3E-06 ± 4.3E-05	U
	^{234}U	6.5E-06 ± 5.5E-06	
	^{235}U	3.6E-06 ± 3.5E-06	
	^{238}U	5.2E-06 ± 4.9E-06	U
N492 (100-D) Composite Period 12/22/04 to 03/29/05	^{144}Ce	-9.0E-04 ± 1.3E-03	U
	^{60}Co	-2.4E-05 ± 1.4E-04	U
	^{134}Cs	-8.4E-05 ± 1.2E-04	U
	^{137}Cs	4.7E-05 ± 1.1E-04	U
	^{152}Eu	-5.1E-05 ± 3.6E-04	U
	^{154}Eu	3.2E-04 ± 3.6E-04	U
	^{155}Eu	-1.1E-04 ± 3.5E-04	U
	^{238}Pu	8.6E-06 ± 2.7E-05	U
	$^{239/240}$Pu	5.1E-06 ± 6.3E-06	
	^{103}Ru	2.7E-05 ± 1.1E-04	U
	^{106}Ru	3.3E-05 ± 3.3E-04	U
	^{125}Sb	1.4E-04 ± 2.9E-04	U
	^{113}Sn	4.3E-05 ± 1.3E-04	U
	^{90}Sr	-2.0E-04 ± 2.1E-04	U
	^{234}U	6.7E-06 ± 1.0E-05	U
	^{235}U	4.4E-06 ± 8.1E-06	U
	^{238}U	1.1E-05 ± 8.5E-06	
N523 (100-D) Composite Period 12/22/04 to 03/29/05	^{144}Ce	-6.9E-04 ± 7.6E-04	U
	^{60}Co	2.4E-05 ± 9.2E-05	U
	^{134}Cs	-2.6E-05 ± 8.4E-05	U
	^{137}Cs	3.1E-05 ± 7.9E-05	U
	^{152}Eu	1.0E-04 ± 1.9E-04	U
	^{154}Eu	-1.1E-04 ± 2.8E-04	U
	^{155}Eu	1.8E-04 ± 1.9E-04	U
	^{238}Pu	6.0E-06 ± 2.5E-05	U
	$^{239/240}$Pu	1.6E-06 ± 8.3E-06	U
	^{103}Ru	5.7E-05 ± 6.8E-05	U
	^{106}Ru	-3.3E-04 ± 7.1E-04	U
	^{125}Sb	2.9E-06 ± 2.9E-05	U
	^{113}Sn	-1.1E-05 ± 7.7E-05	U
	^{90}Sr	-1.0E-04 ± 1.6E-04	U
	^{234}U	1.7E-05 ± 1.3E-05	
	^{235}U	5.6E-06 ± 5.7E-06	
	^{238}U	5.1E-06 ± 9.2E-06	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
	^{65}Zn	-3.1E-05 ± 2.5E-04	U
N524 (100-H)	^{144}Ce	-2.7E-04 ± 1.0E-03	U
Composite Period	^{60}Co	9.1E-05 ± 1.6E-04	U
12/22/04 to 03/29/05	^{134}Cs	1.0E-04 ± 1.4E-04	U
	^{137}Cs	3.2E-05 ± 1.2E-04	U
	^{152}Eu	-1.8E-04 ± 2.8E-04	U
	^{154}Eu	4.1E-04 ± 4.7E-04	U
	^{155}Eu	-2.9E-05 ± 2.6E-04	U
	^{238}Pu	1.6E-06 ± 1.6E-05	U
	$^{239/240}$Pu	6.1E-06 ± 6.3E-06	
	^{103}Ru	3.0E-05 ± 9.4E-05	U
	^{106}Ru	-4.2E-04 ± 1.1E-03	U
	^{125}Sb	5.6E-06 ± 5.6E-05	U
	^{113}Sn	2.0E-05 ± 1.2E-04	U
	^{90}Sr	-2.5E-04 ± 2.6E-04	U
	^{234}U	1.7E-05 ± 1.2E-05	
	^{235}U	5.8E-06 ± 6.0E-06	
	^{238}U	5.3E-06 ± 5.5E-06	
	^{65}Zn	-1.7E-04 ± 3.3E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
	^{65}Zn	-1.2E-04 ± 2.0E-04	U
N524 (100-H)	^{144}Ce	-5.5E-04 ± 1.5E-03	U
Composite Period	^{60}Co	-6.4E-05 ± 1.6E-04	U
03/29/05 to 06/21/05	^{134}Cs	1.1E-04 ± 1.5E-04	U
	^{137}Cs	-3.2E-05 ± 1.4E-04	U
	^{152}Eu	4.3E-05 ± 4.3E-04	U
	^{154}Eu	-5.8E-05 ± 4.3E-04	U
	^{155}Eu	-2.7E-04 ± 4.0E-04	U
	^{238}Pu	-2.0E-05 ± 3.2E-05	U
	$^{239/240}$Pu	1.5E-05 ± 1.2E-05	
	^{103}Ru	-1.0E-04 ± 1.5E-04	U
	^{106}Ru	3.2E-04 ± 1.3E-03	U
	^{125}Sb	3.4E-05 ± 3.3E-04	U
	^{113}Sn	2.0E-04 ± 1.7E-04	U
	^{90}Sr	6.0E-06 ± 6.0E-05	U
	^{234}U	6.6E-06 ± 1.0E-05	U
	^{235}U	6.6E-06 ± 6.8E-06	
	^{238}U	9.2E-06 ± 7.6E-06	
	^{65}Zn	-7.9E-04 ± 8.1E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N524 (100-H)	^{60}Co	-7.2E-05 ± 1.7E-04	U
Composite Period	^{134}Cs	5.9E-05 ± 1.4E-04	U
06/21/05 to 09/27/05	^{137}Cs	3.1E-04 ± 2.6E-04	
	^{152}Eu	1.9E-04 ± 3.3E-04	U
	^{154}Eu	-8.6E-05 ± 4.0E-04	U
	^{155}Eu	-7.0E-05 ± 3.1E-04	U
	^{238}Pu	-9.8E-06 ± 2.8E-05	U
	$^{239/240}$Pu	1.4E-06 ± 6.3E-06	U
	^{106}Ru	-5.9E-05 ± 5.9E-04	U
	^{125}Sb	-1.2E-05 ± 1.2E-04	U
	^{90}Sr	3.3E-04 ± 2.1E-04	
	^{234}U	1.7E-05 ± 1.1E-05	
	^{235}U	4.3E-06 ± 5.1E-06	
	^{238}U	1.7E-05 ± 1.1E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N524 (100-H)	^{60}Co	8.5E-05 ± 1.8E-04	U
Composite Period	^{134}Cs	-1.8E-05 ± 1.6E-04	U
09/27/05 to 12/20/05	^{137}Cs	-8.0E-05 ± 1.5E-04	U
	^{152}Eu	1.7E-04 ± 3.7E-04	U
	^{154}Eu	1.3E-04 ± 5.3E-04	U
	^{155}Eu	-7.1E-05 ± 3.6E-04	U
	^{238}Pu	-5.1E-05 ± 4.4E-05	U
	$^{239/240}$Pu	2.0E-06 ± 4.0E-06	U
	^{106}Ru	1.7E-04 ± 1.3E-03	U
	^{125}Sb	2.1E-05 ± 2.1E-04	U
	^{90}Sr	4.8E-04 ± 4.6E-04	
	^{234}U	2.4E-05 ± 1.5E-05	
	^{235}U	1.7E-05 ± 1.3E-05	
	^{238}U	1.9E-05 ± 1.3E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N525 (100-H)	^{144}Ce	-3.7E-04 ± 1.3E-03	U
Composite Period	^{60}Co	3.5E-05 ± 1.3E-04	U
12/22/04 to 03/29/05	^{134}Cs	-5.7E-05 ± 1.2E-04	U
	^{137}Cs	7.0E-06 ± 7.0E-05	U
	^{152}Eu	-7.4E-05 ± 3.3E-04	U
	^{154}Eu	-7.6E-05 ± 3.5E-04	U
	^{155}Eu	-2.5E-04 ± 3.6E-04	U
	^{238}Pu	1.8E-05 ± 3.0E-05	U
	$^{239/240}$Pu	7.6E-05 ± 3.5E-05	
	^{103}Ru	-1.0E-06 ± 1.0E-05	U
	^{106}Ru	-2.5E-04 ± 1.0E-03	U
	^{125}Sb	1.6E-04 ± 2.8E-04	U
	^{113}Sn	2.8E-05 ± 1.2E-04	U
	^{90}Sr	2.6E-05 ± 1.6E-04	U
	^{234}U	8.6E-06 ± 8.7E-06	U
	^{235}U	1.2E-06 ± 1.3E-06	U
	^{238}U	4.8E-06 ± 5.0E-06	
	^{65}Zn	-1.9E-06 ± 1.9E-05	U

Location	Isotope	Result ± Uncertainty	RQ*
N525 (100-H)	^{144}Ce	-9.9E-05 ± 9.9E-04	U
Composite Period	^{60}Co	-1.4E-05 ± 1.4E-04	U
03/29/05 to 06/21/05	^{134}Cs	-5.9E-05 ± 1.4E-04	U
	^{137}Cs	-6.2E-05 ± 1.3E-04	U
	^{152}Eu	-9.5E-05 ± 3.2E-04	U
	^{154}Eu	1.3E-04 ± 4.3E-04	U
	^{155}Eu	-1.0E-04 ± 3.9E-04	U
	^{238}Pu	1.9E-05 ± 2.5E-05	U
	$^{239/240}$Pu	5.3E-06 ± 8.1E-06	U
	^{103}Ru	1.6E-05 ± 1.4E-04	U
	^{106}Ru	1.2E-03 ± 1.2E-03	U
	^{125}Sb	2.8E-05 ± 2.8E-04	U
	^{113}Sn	4.3E-05 ± 1.5E-04	U
	^{90}Sr	-1.3E-04 ± 1.4E-04	U
	^{234}U	1.6E-05 ± 1.1E-05	
	^{235}U	7.1E-06 ± 7.3E-06	
	^{238}U	1.0E-05 ± 8.3E-06	
	^{65}Zn	-2.2E-04 ± 3.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N525 (100-H)	^{60}Co	5.5E-05 ± 1.3E-04	U
Composite Period	^{134}Cs	5.5E-06 ± 5.5E-05	U
06/21/05 to 09/27/05	^{137}Cs	-5.3E-05 ± 1.0E-04	U
	^{152}Eu	-1.4E-04 ± 2.4E-04	U
	^{154}Eu	8.3E-05 ± 3.6E-04	U
	^{155}Eu	-8.7E-05 ± 2.3E-04	U
	^{238}Pu	-1.8E-05 ± 3.0E-05	U
	$^{239/240}Pu$	2.8E-06 ± 5.6E-06	U
	^{106}Ru	-2.4E-04 ± 1.1E-03	U
	^{125}Sb	1.0E-04 ± 2.5E-04	U
	^{90}Sr	-2.0E-04 ± 2.0E-04	U
	^{234}U	1.5E-05 ± 1.1E-05	
	^{235}U	1.5E-06 ± 5.1E-06	U
	^{238}U	1.9E-05 ± 1.2E-05	
N519 (100-F)	^{60}Co	-1.7E-05 ± 8.2E-05	U
Composite Period	^{134}Cs	-3.7E-05 ± 7.6E-05	U
06/30/05 to 12/20/05	^{137}Cs	1.2E-04 ± 1.0E-04	
	^{152}Eu	-4.5E-05 ± 1.7E-04	U
	^{154}Eu	-7.1E-05 ± 2.1E-04	U
	^{155}Eu	-5.3E-06 ± 5.3E-05	U
	^{238}Pu	9.6E-06 ± 1.2E-05	U
	$^{239/240}Pu$	-9.6E-07 ± 3.4E-06	U
	^{106}Ru	-3.9E-04 ± 6.3E-04	U
	^{125}Sb	4.0E-05 ± 1.6E-04	U
	^{90}Sr	-3.0E-05 ± 1.1E-04	U
	^{234}U	1.5E-05 ± 9.1E-06	
	^{235}U	4.7E-06 ± 4.5E-06	
	^{238}U	1.3E-05 ± 9.2E-06	
N520 (100-F)	^{60}Co	1.9E-05 ± 1.1E-04	U
Composite Period	^{134}Cs	4.2E-05 ± 1.1E-04	U
06/30/05 to 12/20/05	^{137}Cs	-1.6E-06 ± 1.7E-05	U
	^{152}Eu	-6.5E-06 ± 6.5E-05	U
	^{154}Eu	2.5E-04 ± 3.0E-04	U
	^{155}Eu	-4.0E-05 ± 1.7E-04	U
	^{238}Pu	2.9E-06 ± 7.0E-06	U
	$^{239/240}Pu$	7.3E-07 ± 3.9E-06	U
	^{106}Ru	-4.3E-04 ± 8.9E-04	U
	^{125}Sb	-9.5E-05 ± 2.4E-04	U
	^{90}Sr	2.4E-05 ± 1.1E-04	U
	^{234}U	1.1E-05 ± 7.8E-06	
	^{235}U	7.4E-06 ± 5.6E-06	
	^{238}U	6.0E-06 ± 5.6E-06	U

Location	Isotope	Result ± Uncertainty	RQ*
N525 (100-H)	^{60}Co	6.8E-05 ± 1.5E-04	U
Composite Period	^{134}Cs	-2.6E-05 ± 1.4E-04	U
09/27/05 to 12/20/05	^{137}Cs	-1.4E-05 ± 1.1E-04	U
	^{152}Eu	-2.4E-04 ± 2.9E-04	U
	^{154}Eu	1.2E-05 ± 1.2E-04	U
	^{155}Eu	1.4E-04 ± 2.7E-04	U
	^{238}Pu	1.9E-05 ± 4.5E-05	U
	$^{239/240}Pu$	2.2E-06 ± 7.5E-06	U
	^{106}Ru	2.3E-04 ± 1.1E-03	U
	^{125}Sb	-1.4E-04 ± 2.9E-04	U
	^{90}Sr	-5.0E-04 ± 5.1E-04	U
	^{234}U	4.6E-05 ± 2.4E-05	
	^{235}U	9.6E-06 ± 9.2E-06	
	^{238}U	2.1E-05 ± 1.4E-05	
N520 (100-F)	^{144}Ce	-4.5E-04 ± 3.1E-03	U
Composite Period	^{60}Co	1.4E-04 ± 3.2E-04	U
03/24/05 to 05/10/05	^{134}Cs	-2.5E-06 ± 2.5E-05	U
	^{137}Cs	-8.7E-05 ± 2.7E-04	U
	^{152}Eu	-7.3E-04 ± 8.3E-04	U
	^{154}Eu	-7.4E-04 ± 9.0E-04	U
	^{155}Eu	-2.7E-04 ± 9.3E-04	U
	^{238}Pu	-1.6E-05 ± 1.8E-05	U
	$^{239/240}Pu$	2.7E-06 ± 2.7E-05	U
	^{103}Ru	-2.4E-04 ± 3.8E-04	U
	^{106}Ru	2.2E-03 ± 2.5E-03	U
	^{125}Sb	-1.4E-04 ± 6.9E-04	U
	^{113}Sn	7.7E-05 ± 3.4E-04	U
	^{90}Sr	-3.2E-04 ± 3.3E-04	U
	^{234}U	2.9E-05 ± 2.0E-05	
	^{235}U	1.4E-05 ± 1.4E-05	
	^{238}U	2.0E-05 ± 1.8E-05	U
	^{65}Zn	-3.3E-04 ± 6.8E-04	U
N521 (100-F)	^{60}Co	4.8E-05 ± 8.4E-05	U
Composite Period	^{134}Cs	-1.2E-05 ± 6.7E-05	U
06/30/05 to 12/20/05	^{137}Cs	4.0E-05 ± 6.5E-05	U
	^{152}Eu	-9.4E-06 ± 9.4E-05	U
	^{154}Eu	2.7E-05 ± 2.1E-04	U
	^{155}Eu	1.5E-05 ± 1.5E-04	U
	^{238}Pu	6.5E-06 ± 1.1E-05	U
	$^{239/240}Pu$	8.1E-07 ± 3.6E-06	U
	^{106}Ru	-3.0E-04 ± 5.4E-04	U
	^{125}Sb	6.9E-05 ± 1.4E-04	U
	^{90}Sr	-7.4E-05 ± 9.2E-05	U
	^{234}U	1.4E-05 ± 9.1E-06	
	^{235}U	4.6E-06 ± 4.5E-06	
	^{238}U	5.1E-06 ± 5.2E-06	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N552 (100-F)	^{60}Co	-8.0E-05 ± 8.8E-05	U
Composite Period	^{134}Cs	-1.6E-07 ± 1.6E-06	U
06/30/05 to 12/20/05	^{137}Cs	-1.7E-05 ± 6.5E-05	U
	^{152}Eu	-5.9E-05 ± 1.4E-04	U
	^{154}Eu	1.6E-04 ± 2.4E-04	U
	^{155}Eu	3.3E-05 ± 1.7E-04	U
	^{238}Pu	-7.5E-07 ± 7.5E-06	U
	$^{239/240}$Pu	1.5E-06 ± 2.2E-06	U
	^{106}Ru	3.6E-04 ± 5.9E-04	U
	^{125}Sb	6.0E-05 ± 1.4E-04	U
	^{90}Sr	-1.6E-05 ± 6.9E-05	U
	^{234}U	7.8E-06 ± 6.4E-06	
	^{235}U	3.8E-06 ± 4.0E-06	
	^{238}U	1.4E-05 ± 8.9E-06	
N558 (100-F)	^{144}Ce	3.2E-04 ± 2.8E-03	U
Composite Period	^{60}Co	7.5E-04 ± 5.4E-04	
03/22/05 to 05/10/05	^{134}Cs	-5.3E-05 ± 2.9E-04	U
	^{137}Cs	-2.0E-04 ± 2.9E-04	U
	^{152}Eu	-2.2E-05 ± 2.2E-04	U
	^{154}Eu	-2.0E-04 ± 9.6E-04	U
	^{155}Eu	5.3E-04 ± 7.2E-04	U
	^{238}Pu	-5.8E-05 ± 7.1E-05	U
	$^{239/240}$Pu	3.5E-06 ± 3.6E-05	U
	^{103}Ru	-3.5E-04 ± 4.0E-04	U
	^{106}Ru	4.3E-04 ± 2.4E-03	U
	^{125}Sb	-2.2E-04 ± 6.5E-04	U
	^{113}Sn	-1.5E-04 ± 3.2E-04	U
	^{90}Sr	-2.6E-04 ± 3.9E-04	U
	^{234}U	2.8E-05 ± 2.4E-05	U
	^{235}U	-3.1E-06 ± 3.1E-06	U
	^{238}U	3.1E-06 ± 3.1E-06	U
	^{65}Zn	-2.2E-04 ± 8.9E-04	U
N401 (100-KE)	^{241}Am	1.8E-05 ± 9.3E-06	
Composite Period	^{60}Co	-4.3E-05 ± 1.1E-04	U
06/21/05 to 12/20/05	^{134}Cs	1.1E-04 ± 1.4E-04	U
	^{137}Cs	6.8E-05 ± 1.0E-04	U
	^{152}Eu	1.3E-04 ± 2.5E-04	U
	^{154}Eu	-1.8E-04 ± 3.4E-04	U
	^{155}Eu	-2.9E-05 ± 1.7E-04	U
	^{238}Pu	7.8E-06 ± 1.5E-05	U
	$^{239/240}$Pu	1.3E-06 ± 4.6E-06	U
	^{241}Pu	2.6E-04 ± 5.1E-04	U
	^{106}Ru	-3.6E-04 ± 9.0E-04	U
	^{125}Sb	-3.2E-05 ± 2.3E-04	U
	^{90}Sr	-3.7E-05 ± 6.4E-05	U
	^{234}U	2.2E-05 ± 1.2E-05	
	^{235}U	2.4E-06 ± 2.9E-06	
	^{238}U	9.6E-06 ± 6.8E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N553 (100-F)	^{60}Co	2.1E-05 ± 8.3E-05	U
Composite Period	^{134}Cs	1.8E-05 ± 7.4E-05	U
06/30/05 to 12/20/05	^{137}Cs	-4.9E-06 ± 4.9E-05	U
	^{152}Eu	1.7E-05 ± 1.5E-04	U
	^{154}Eu	-1.1E-04 ± 2.3E-04	U
	^{155}Eu	1.2E-06 ± 1.2E-05	U
	^{238}Pu	-2.6E-06 ± 1.8E-05	U
	$^{239/240}$Pu	1.7E-06 ± 3.5E-06	U
	^{106}Ru	-1.7E-04 ± 5.9E-04	U
	^{125}Sb	2.3E-04 ± 1.9E-04	U
	^{90}Sr	-3.7E-05 ± 7.4E-05	
	^{234}U	1.4E-05 ± 1.0E-05	
	^{235}U	3.0E-06 ± 3.7E-06	
	^{238}U	1.5E-05 ± 9.2E-06	
N401 (100-KE)	^{241}Am	-8.4E-06 ± 1.2E-05	U
Composite Period	^{144}Ce	-7.8E-05 ± 6.4E-04	U
12/21/04 to 06/21/05	^{60}Co	2.1E-05 ± 6.9E-05	U
	^{134}Cs	-1.9E-05 ± 6.0E-05	U
	^{137}Cs	1.5E-05 ± 5.9E-05	U
	^{152}Eu	-4.6E-05 ± 1.6E-04	U
	^{154}Eu	1.6E-04 ± 2.1E-04	U
	^{155}Eu	-6.8E-05 ± 1.8E-04	U
	^{238}Pu	1.3E-05 ± 2.7E-05	U
	$^{239/240}$Pu	2.6E-05 ± 1.8E-05	
	^{241}Pu	4.5E-05 ± 4.5E-04	U
	^{103}Ru	1.3E-05 ± 5.8E-05	U
	^{106}Ru	-2.8E-04 ± 5.4E-04	U
	^{125}Sb	2.9E-05 ± 1.4E-04	U
	^{113}Sn	-8.4E-06 ± 6.7E-05	U
	^{90}Sr	9.8E-05 ± 1.4E-04	
	^{234}U	5.4E-06 ± 6.1E-06	U
	^{235}U	3.6E-06 ± 3.5E-06	
	^{238}U	1.3E-05 ± 7.5E-06	
	^{65}Zn	-1.1E-04 ± 1.6E-04	U
N402 (100-KE)	^{241}Am	1.7E-05 ± 1.4E-05	U
Composite Period	^{144}Ce	-7.5E-05 ± 7.5E-04	U
12/21/04 to 06/21/05	^{60}Co	1.7E-05 ± 1.0E-04	U
	^{134}Cs	-4.5E-07 ± 4.5E-06	U
	^{137}Cs	1.6E-05 ± 9.0E-05	U
	^{152}Eu	-8.3E-05 ± 2.3E-04	U
	^{154}Eu	5.6E-05 ± 2.7E-04	U
	^{155}Eu	8.6E-05 ± 1.7E-04	U
	^{238}Pu	1.6E-05 ± 2.1E-05	U
	$^{239/240}$Pu	8.4E-06 ± 7.6E-06	
	^{241}Pu	-1.3E-04 ± 1.4E-04	U
	^{103}Ru	-2.7E-05 ± 9.0E-05	U
	^{106}Ru	-7.4E-05 ± 7.3E-04	U
	^{125}Sb	6.3E-05 ± 2.2E-04	U
	^{113}Sn	-9.6E-05 ± 1.0E-04	U
	^{90}Sr	2.0E-04 ± 1.5E-04	
	^{234}U	6.4E-06 ± 4.9E-06	
	^{235}U	3.1E-06 ± 3.3E-06	
	^{238}U	3.8E-06 ± 3.3E-06	
	^{65}Zn	-1.3E-04 ± 2.2E-04	U

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N402 (100-KE) Composite Period 06/21/05 to 12/20/05	^{241}Am	1.5E-05 ± 1.8E-05	U
	^{60}Co	-3.0E-05 ± 7.8E-05	U
	^{134}Cs	5.0E-05 ± 7.9E-05	U
	^{137}Cs	1.0E-04 ± 8.4E-05	U
	^{152}Eu	-6.6E-05 ± 2.3E-04	U
	^{154}Eu	7.8E-05 ± 2.2E-04	U
	^{155}Eu	8.2E-05 ± 2.2E-04	U
	^{238}Pu	-1.6E-06 ± 1.6E-05	U
	$^{239/240}$Pu	1.1E-05 ± 9.3E-06	
	^{241}Pu	4.2E-04 ± 6.0E-04	U
	^{106}Ru	-1.4E-04 ± 6.4E-04	U
	^{125}Sb	8.6E-05 ± 1.8E-04	U
	^{90}Sr	4.4E-05 ± 9.7E-05	U
	^{234}U	1.1E-05 ± 7.3E-06	
	^{235}U	3.2E-06 ± 3.4E-06	
	^{238}U	5.2E-06 ± 4.3E-06	
N403 (100-KE) Composite Period 06/21/05 to 12/20/05	^{241}Am	1.6E-05 ± 8.9E-06	U
	^{60}Co	2.5E-05 ± 1.0E-04	U
	^{134}Cs	3.0E-05 ± 7.7E-05	U
	^{137}Cs	1.0E-04 ± 7.8E-05	U
	^{152}Eu	1.9E-05 ± 1.7E-04	U
	^{154}Eu	3.3E-05 ± 2.4E-04	U
	^{155}Eu	1.2E-05 ± 1.2E-04	U
	^{238}Pu	-2.8E-06 ± 1.4E-05	U
	$^{239/240}$Pu	8.3E-06 ± 7.5E-06	
	^{241}Pu	1.7E-04 ± 5.5E-04	U
	^{106}Ru	3.0E-04 ± 6.3E-04	U
	^{125}Sb	4.5E-05 ± 1.6E-04	U
	^{90}Sr	-6.1E-05 ± 7.5E-05	U
	^{234}U	1.4E-05 ± 9.0E-06	
	^{235}U	7.5E-06 ± 6.5E-06	
	^{238}U	1.0E-05 ± 7.1E-06	
N404 (100-KE) Composite Period 06/21/05 to 12/20/05	^{241}Am	3.3E-06 ± 1.7E-05	U
	^{60}Co	-7.1E-05 ± 8.4E-05	U
	^{134}Cs	9.8E-05 ± 9.2E-05	U
	^{137}Cs	3.8E-05 ± 7.8E-05	U
	^{152}Eu	2.7E-04 ± 3.0E-04	
	^{154}Eu	-8.2E-05 ± 2.2E-04	U
	^{155}Eu	-2.9E-05 ± 1.5E-04	U
	^{238}Pu	1.9E-05 ± 3.3E-05	U
	$^{239/240}$Pu	9.5E-06 ± 1.1E-05	U
	^{241}Pu	5.1E-04 ± 6.8E-04	U
	^{106}Ru	2.8E-04 ± 6.0E-04	U
	^{125}Sb	-1.1E-05 ± 1.1E-04	U
	^{90}Sr	3.5E-05 ± 8.5E-05	U
	^{234}U	1.1E-05 ± 7.0E-06	
	^{235}U	8.4E-07 ± 2.9E-06	U
	^{238}U	6.2E-06 ± 4.9E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N403 (100-KE) Composite Period 12/21/04 to 06/21/05	^{241}Am	3.8E-05 ± 2.3E-05	
	^{144}Ce	-5.8E-04 ± 6.2E-04	U
	^{60}Co	1.2E-05 ± 7.0E-05	U
	^{134}Cs	-3.2E-05 ± 6.8E-05	U
	^{137}Cs	1.3E-04 ± 9.7E-05	
	^{152}Eu	3.1E-05 ± 1.4E-04	U
	^{154}Eu	-1.6E-04 ± 2.1E-04	U
	^{155}Eu	1.1E-06 ± 1.1E-05	U
	^{238}Pu	1.6E-05 ± 2.8E-05	U
	$^{239/240}$Pu	1.0E-05 ± 1.0E-05	U
	^{241}Pu	-5.7E-05 ± 5.9E-05	U
	^{103}Ru	3.5E-06 ± 3.5E-05	U
	^{106}Ru	1.1E-04 ± 5.2E-04	U
	^{125}Sb	3.0E-05 ± 1.4E-04	U
	^{113}Sn	1.9E-05 ± 6.1E-05	U
	^{90}Sr	1.7E-04 ± 1.5E-04	
	^{234}U	1.1E-05 ± 6.7E-06	
	^{235}U	2.1E-06 ± 2.6E-06	
	^{238}U	9.3E-06 ± 5.6E-06	
	^{65}Zn	8.4E-05 ± 1.4E-04	U
N404 (100-KE) Composite Period 12/21/04 to 06/21/05	^{241}Am	8.3E-07 ± 8.6E-07	U
	^{144}Ce	9.2E-05 ± 8.5E-04	U
	^{60}Co	8.6E-05 ± 1.3E-04	U
	^{134}Cs	-1.1E-05 ± 1.1E-04	U
	^{137}Cs	-1.8E-05 ± 1.1E-04	U
	^{152}Eu	-4.6E-05 ± 2.5E-04	U
	^{154}Eu	1.4E-04 ± 3.4E-04	U
	^{155}Eu	1.9E-05 ± 1.9E-04	U
	^{238}Pu	2.1E-05 ± 3.2E-05	U
	$^{239/240}$Pu	4.8E-06 ± 8.8E-06	U
	^{241}Pu	-2.5E-04 ± 2.6E-04	U
	^{103}Ru	2.7E-05 ± 1.0E-04	U
	^{106}Ru	3.0E-04 ± 8.3E-04	U
	^{125}Sb	-5.0E-06 ± 5.0E-05	U
	^{113}Sn	1.2E-04 ± 1.1E-04	U
	^{90}Sr	-7.5E-06 ± 7.5E-05	U
	^{234}U	3.4E-06 ± 5.8E-06	U
	^{235}U	2.3E-06 ± 3.4E-06	U
	^{238}U	2.7E-06 ± 3.8E-06	U
	^{65}Zn	-2.3E-05 ± 2.3E-04	U
N476 (100-KW) Composite Period 12/21/04 to 06/21/05	^{241}Am	1.0E-05 ± 1.4E-05	U
	^{144}Ce	-5.0E-04 ± 6.7E-04	U
	^{60}Co	4.9E-08 ± 4.9E-07	U
	^{134}Cs	-2.5E-05 ± 8.2E-05	U
	^{137}Cs	4.1E-05 ± 7.3E-05	U
	^{152}Eu	-3.8E-05 ± 1.6E-04	U
	^{154}Eu	-5.2E-05 ± 2.2E-04	U
	^{155}Eu	-3.4E-05 ± 1.6E-04	U
	^{238}Pu	1.6E-06 ± 1.6E-05	U
	$^{239/240}$Pu	1.6E-06 ± 1.6E-05	U
	^{241}Pu	2.2E-04 ± 6.5E-04	U
	^{103}Ru	3.3E-05 ± 8.9E-05	U
	^{106}Ru	-2.4E-04 ± 6.8E-04	U
	^{125}Sb	2.0E-04 ± 1.7E-04	U
	^{113}Sn	2.7E-05 ± 7.8E-05	U
	^{90}Sr	2.2E-04 ± 1.6E-04	
	^{234}U	7.9E-06 ± 5.8E-06	
	^{235}U	5.3E-06 ± 5.4E-06	U
	^{238}U	1.2E-05 ± 7.9E-06	
	^{65}Zn	-6.0E-05 ± 1.9E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N476 (100-KW) Composite Period 06/21/05 to 12/20/05	^{241}Am	8.9E-06 ± 5.7E-06	
	^{60}Co	3.4E-05 ± 7.6E-05	U
	^{134}Cs	-1.1E-05 ± 6.6E-05	U
	^{137}Cs	3.9E-05 ± 6.1E-05	U
	^{152}Eu	-4.3E-06 ± 4.3E-05	U
	^{154}Eu	6.2E-05 ± 2.3E-04	U
	^{155}Eu	2.8E-05 ± 1.3E-04	U
	^{238}Pu	-1.4E-06 ± 9.6E-06	U
	$^{239/240}$Pu	5.8E-06 ± 6.1E-06	
	^{241}Pu	4.3E-04 ± 5.8E-04	U
	^{106}Ru	1.0E-04 ± 5.5E-04	U
	^{125}Sb	4.3E-05 ± 1.4E-04	U
	^{90}Sr	2.2E-06 ± 2.2E-05	U
	^{234}U	1.5E-05 ± 9.1E-06	
	^{235}U	1.8E-06 ± 2.6E-06	U
	^{238}U	1.1E-05 ± 7.1E-06	
N477 (100-KW) Composite Period 06/21/05 to 12/20/05	^{241}Am	1.3E-05 ± 7.3E-06	U
	^{60}Co	-8.1E-05 ± 1.1E-04	U
	^{134}Cs	-1.1E-04 ± 1.2E-04	U
	^{137}Cs	3.2E-05 ± 1.3E-04	U
	^{152}Eu	-7.3E-05 ± 2.3E-04	U
	^{154}Eu	-3.3E-05 ± 3.2E-04	U
	^{155}Eu	9.5E-05 ± 2.1E-04	U
	^{238}Pu	1.2E-06 ± 9.0E-06	U
	$^{239/240}$Pu	1.2E-06 ± 2.5E-06	U
	^{241}Pu	3.0E-05 ± 3.0E-04	U
	^{106}Ru	1.9E-04 ± 9.1E-04	U
	^{125}Sb	-1.3E-04 ± 2.5E-04	U
	^{90}Sr	6.0E-06 ± 6.0E-05	U
	^{234}U	1.4E-05 ± 8.7E-06	
	^{235}U	4.4E-06 ± 4.3E-06	
	^{238}U	6.4E-06 ± 5.6E-06	
N478 (100-KW) Composite Period 06/21/05 to 12/20/05	^{241}Am	1.5E-05 ± 8.2E-06	
	^{60}Co	1.7E-05 ± 7.7E-05	U
	^{134}Cs	6.9E-05 ± 8.2E-05	U
	^{137}Cs	7.8E-06 ± 7.5E-05	U
	^{152}Eu	-1.6E-04 ± 1.9E-04	U
	^{154}Eu	1.3E-04 ± 2.8E-04	U
	^{155}Eu	-5.2E-05 ± 1.9E-04	U
	^{238}Pu	4.2E-06 ± 9.3E-06	U
	$^{239/240}$Pu	1.4E-06 ± 4.8E-06	U
	^{241}Pu	3.5E-04 ± 6.6E-04	U
	^{106}Ru	1.6E-04 ± 7.1E-04	U
	^{125}Sb	5.1E-05 ± 1.6E-04	U
	^{90}Sr	-6.4E-05 ± 8.5E-05	U
	^{234}U	1.5E-05 ± 9.8E-06	
	^{235}U	8.5E-07 ± 8.6E-06	U
	^{238}U	1.0E-05 ± 7.0E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N477 (100-KW) Composite Period 12/21/04 to 06/21/05	^{241}Am	5.2E-06 ± 9.5E-06	U
	^{144}Ce	-3.1E-04 ± 7.1E-04	U
	^{60}Co	-2.3E-05 ± 6.6E-05	U
	^{134}Cs	-4.1E-05 ± 7.2E-05	U
	^{137}Cs	3.7E-05 ± 5.9E-05	U
	^{152}Eu	1.7E-05 ± 1.7E-04	U
	^{154}Eu	3.7E-05 ± 2.3E-04	U
	^{155}Eu	-5.8E-05 ± 1.8E-04	U
	^{238}Pu	1.7E-05 ± 2.9E-05	U
	$^{239/240}$Pu	1.1E-05 ± 9.7E-06	
	^{241}Pu	7.6E-06 ± 7.6E-05	U
	^{103}Ru	-3.3E-05 ± 8.9E-05	U
	^{106}Ru	4.7E-04 ± 5.9E-04	U
	^{125}Sb	-6.4E-05 ± 1.4E-04	U
	^{113}Sn	-1.6E-05 ± 8.0E-05	U
	^{90}Sr	1.2E-04 ± 1.3E-04	
	^{234}U	8.3E-06 ± 6.1E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	9.7E-06 ± 6.5E-06	
	^{65}Zn	-4.2E-05 ± 1.6E-04	U
N478 (100-KW) Composite Period 12/21/04 to 06/21/05	^{241}Am	2.8E-06 ± 1.2E-05	U
	^{144}Ce	-5.3E-04 ± 9.4E-04	U
	^{60}Co	-7.7E-05 ± 1.2E-04	U
	^{134}Cs	-2.4E-05 ± 1.3E-04	U
	^{137}Cs	5.6E-05 ± 1.4E-04	U
	^{152}Eu	-1.2E-04 ± 2.6E-04	U
	^{154}Eu	2.9E-04 ± 2.9E-04	U
	^{155}Eu	-5.3E-05 ± 1.9E-04	U
	^{238}Pu	1.2E-05 ± 3.0E-05	U
	$^{239/240}$Pu	1.7E-05 ± 1.4E-05	
	^{241}Pu	4.5E-04 ± 7.3E-04	U
	^{103}Ru	-7.1E-05 ± 1.6E-04	U
	^{106}Ru	-7.1E-04 ± 9.5E-04	U
	^{125}Sb	4.7E-05 ± 2.8E-04	U
	^{113}Sn	-4.6E-05 ± 1.4E-04	U
	^{90}Sr	-2.5E-05 ± 1.4E-04	U
	^{234}U	9.9E-06 ± 6.7E-06	
	^{235}U	8.2E-07 ± 8.4E-07	U
	^{238}U	7.3E-06 ± 5.5E-06	
	^{65}Zn	-1.4E-04 ± 3.1E-04	U
N479 (100-KW) Composite Period 12/21/04 to 06/21/05	^{241}Am	1.3E-05 ± 1.3E-05	U
	^{144}Ce	-8.6E-05 ± 6.1E-04	U
	^{60}Co	8.9E-05 ± 8.1E-05	U
	^{134}Cs	-3.3E-05 ± 6.3E-05	U
	^{137}Cs	4.9E-05 ± 5.9E-05	U
	^{152}Eu	-7.5E-05 ± 1.3E-04	U
	^{154}Eu	-1.3E-04 ± 2.0E-04	U
	^{155}Eu	-1.0E-04 ± 1.5E-04	U
	^{238}Pu	-2.5E-05 ± 2.6E-05	U
	$^{239/240}$Pu	1.7E-05 ± 1.3E-05	
	^{241}Pu	1.9E-04 ± 5.4E-04	U
	^{103}Ru	1.3E-05 ± 8.1E-05	U
	^{106}Ru	7.3E-05 ± 5.8E-04	U
	^{125}Sb	-5.5E-05 ± 1.3E-04	U
	^{113}Sn	1.7E-05 ± 6.7E-05	U
	^{90}Sr	4.8E-05 ± 1.3E-04	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	1.2E-05 ± 7.9E-06	
	^{238}U	8.3E-06 ± 6.0E-06	
	^{65}Zn	-2.6E-05 ± 1.5E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N479 (100-KW)	^{241}Am	9.8E-06 ± 1.1E-05	U
Composite Period	^{60}Co	3.1E-06 ± 3.1E-05	U
06/21/05 to 12/20/05	^{134}Cs	4.3E-05 ± 1.1E-04	U
	^{137}Cs	-1.1E-05 ± 1.1E-04	U
	^{152}Eu	5.7E-05 ± 2.3E-04	U
	^{154}Eu	-9.4E-05 ± 3.4E-04	U
	^{155}Eu	-9.2E-06 ± 9.2E-05	U
	^{238}Pu	1.3E-06 ± 1.3E-06	U
	$^{239/240}$Pu	3.9E-06 ± 4.7E-06	
	^{241}Pu	2.0E-04 ± 5.4E-04	U
	^{106}Ru	1.4E-04 ± 9.0E-04	U
	^{125}Sb	8.9E-05 ± 2.4E-04	U
	^{90}Sr	1.7E-05 ± 8.2E-05	
	^{234}U	1.0E-05 ± 7.8E-06	
	^{235}U	1.6E-06 ± 3.2E-06	U
	^{238}U	7.9E-06 ± 6.4E-06	
N528 (100-K)	^{60}Co	-1.2E-05 ± 7.7E-05	U
Composite Period	^{134}Cs	-1.5E-06 ± 1.5E-05	U
06/21/05 to 12/20/05	^{137}Cs	7.9E-05 ± 7.2E-05	U
	^{152}Eu	-1.2E-04 ± 1.9E-04	U
	^{154}Eu	-9.6E-05 ± 2.0E-04	U
	^{155}Eu	3.2E-06 ± 3.2E-05	U
	^{238}Pu	6.9E-06 ± 1.9E-05	U
	$^{239/240}$Pu	8.6E-07 ± 1.8E-06	U
	^{106}Ru	3.3E-04 ± 5.8E-04	U
	^{125}Sb	-1.4E-04 ± 1.9E-04	U
	^{90}Sr	8.5E-04 ± 2.9E-04	
	^{234}U	8.2E-06 ± 5.8E-06	
	^{235}U	2.7E-06 ± 3.5E-06	U
	^{238}U	8.2E-06 ± 5.8E-06	
N529 (100-K)	^{60}Co	6.7E-05 ± 1.1E-04	U
Composite Period	^{134}Cs	-5.2E-05 ± 9.6E-05	U
06/21/05 to 12/20/05	^{137}Cs	4.7E-05 ± 1.0E-04	U
	^{152}Eu	-1.3E-04 ± 2.4E-04	U
	^{154}Eu	-1.3E-04 ± 3.5E-04	U
	^{155}Eu	-1.4E-04 ± 1.9E-04	U
	^{238}Pu	5.4E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.4E-05 ± 9.5E-06	
	^{106}Ru	2.7E-04 ± 8.9E-04	U
	^{125}Sb	5.1E-05 ± 2.4E-04	U
	^{90}Sr	1.1E-04 ± 8.4E-05	U
	^{234}U	1.1E-05 ± 7.3E-06	
	^{235}U	3.2E-06 ± 3.4E-06	
	^{238}U	5.9E-06 ± 5.9E-06	U

Location	Isotope	Result ± Uncertainty	RQ*
N528 (100-K)	^{144}Ce	-3.7E-04 ± 8.2E-04	U
Composite Period	^{60}Co	-8.1E-05 ± 1.4E-04	U
12/21/04 to 06/21/05	^{134}Cs	-5.2E-05 ± 1.1E-04	U
	^{137}Cs	-6.3E-06 ± 6.3E-05	U
	^{152}Eu	-3.7E-05 ± 2.3E-04	U
	^{154}Eu	1.3E-04 ± 2.8E-04	U
	^{155}Eu	1.2E-04 ± 1.8E-04	U
	^{238}Pu	6.8E-07 ± 7.0E-07	U
	$^{239/240}$Pu	8.5E-06 ± 6.2E-06	
	^{103}Ru	-1.2E-04 ± 1.5E-04	U
	^{106}Ru	-1.7E-04 ± 8.3E-04	U
	^{125}Sb	-1.7E-04 ± 2.4E-04	U
	^{113}Sn	2.3E-05 ± 1.2E-04	U
	^{90}Sr	-1.1E-04 ± 1.2E-04	U
	^{234}U	1.1E-05 ± 8.2E-06	
	^{235}U	1.7E-06 ± 2.4E-06	U
	^{238}U	6.9E-06 ± 5.2E-06	
	^{65}Zn	-5.7E-05 ± 2.6E-04	U
N529 (100-K)	^{144}Ce	-2.1E-04 ± 6.5E-04	U
Composite Period	^{60}Co	-6.5E-05 ± 7.0E-05	U
12/21/04 to 06/21/05	^{134}Cs	1.6E-06 ± 1.6E-05	U
	^{137}Cs	1.8E-05 ± 6.6E-05	U
	^{152}Eu	4.9E-05 ± 1.7E-04	U
	^{154}Eu	-7.7E-05 ± 2.1E-04	U
	^{155}Eu	2.3E-05 ± 1.6E-04	U
	^{238}Pu	-1.4E-06 ± 3.9E-06	U
	$^{239/240}$Pu	8.6E-06 ± 5.8E-06	
	^{103}Ru	4.2E-05 ± 7.7E-05	U
	^{106}Ru	-1.5E-04 ± 5.8E-04	U
	^{125}Sb	1.6E-05 ± 1.4E-04	U
	^{113}Sn	3.0E-05 ± 7.4E-05	U
	^{90}Sr	-1.4E-05 ± 8.6E-05	U
	^{234}U	7.2E-06 ± 5.7E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	7.2E-06 ± 6.0E-06	
	^{65}Zn	3.4E-05 ± 1.6E-04	U
N530 (100-K)	^{144}Ce	3.3E-05 ± 3.3E-04	U
Composite Period	^{60}Co	-2.8E-05 ± 8.2E-05	U
12/21/04 to 06/21/05	^{134}Cs	1.0E-05 ± 7.9E-05	U
	^{137}Cs	3.9E-05 ± 7.1E-05	U
	^{152}Eu	4.1E-07 ± 4.1E-06	U
	^{154}Eu	-1.6E-04 ± 3.2E-04	U
	^{155}Eu	1.6E-04 ± 1.7E-04	U
	^{238}Pu	1.8E-06 ± 2.8E-06	U
	$^{239/240}$Pu	3.1E-06 ± 3.5E-06	U
	^{103}Ru	-2.8E-05 ± 9.3E-05	U
	^{106}Ru	-8.0E-04 ± 8.3E-04	U
	^{125}Sb	-7.6E-05 ± 1.5E-04	U
	^{113}Sn	-1.7E-05 ± 7.7E-05	U
	^{90}Sr	-1.2E-04 ± 1.2E-04	U
	^{234}U	1.0E-05 ± 6.6E-06	
	^{235}U	3.7E-06 ± 3.6E-06	
	^{238}U	7.6E-06 ± 5.3E-06	
	^{65}Zn	-1.7E-04 ± 2.0E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N530 (100-K)	^{60}Co	9.6E-06 ± 6.9E-05	U
Composite Period	^{134}Cs	2.0E-05 ± 6.6E-05	U
06/21/05 to 12/20/05	^{137}Cs	3.0E-05 ± 5.9E-05	U
	^{152}Eu	-2.4E-05 ± 1.3E-04	U
	^{154}Eu	1.3E-04 ± 2.0E-04	U
	^{155}Eu	-4.0E-05 ± 1.5E-04	U
	^{238}Pu	-1.4E-06 ± 1.4E-05	U
	$^{239/240}$Pu	1.4E-06 ± 4.5E-06	U
	^{106}Ru	2.4E-04 ± 5.3E-04	U
	^{125}Sb	9.9E-05 ± 1.4E-04	U
	^{90}Sr	1.6E-04 ± 9.9E-05	U
	^{234}U	7.1E-06 ± 5.4E-06	
	^{235}U	5.2E-06 ± 4.1E-06	
	^{238}U	1.1E-05 ± 6.9E-06	
N534 (100-K)	^{60}Co	5.5E-04 ± 5.7E-04	
Composite Period	^{134}Cs	-1.7E-04 ± 2.4E-04	U
11/03/05 to 12/20/05	^{137}Cs	-1.6E-04 ± 2.3E-04	U
	^{152}Eu	3.2E-04 ± 5.4E-04	U
	^{154}Eu	-8.1E-05 ± 8.1E-04	U
	^{155}Eu	-4.4E-04 ± 5.1E-04	U
	^{238}Pu	2.2E-05 ± 4.6E-05	U
	$^{239/240}$Pu	5.4E-05 ± 3.3E-05	
	^{106}Ru	-2.8E-04 ± 2.1E-03	U
	^{125}Sb	-2.7E-04 ± 5.4E-04	U
	^{90}Sr	9.5E-04 ± 4.3E-04	
	^{234}U	1.8E-05 ± 2.0E-05	U
	^{235}U	2.3E-05 ± 2.3E-05	U
	^{238}U	2.1E-05 ± 1.9E-05	
N535 (100-K)	^{60}Co	3.3E-04 ± 4.0E-04	U
Composite Period	^{134}Cs	-9.2E-05 ± 3.9E-04	U
11/03/05 to 12/20/05	^{137}Cs	-9.6E-05 ± 3.8E-04	U
	^{152}Eu	5.6E-04 ± 8.5E-04	U
	^{154}Eu	-7.7E-04 ± 1.2E-03	U
	^{155}Eu	2.5E-04 ± 6.6E-04	U
	^{238}Pu	3.3E-05 ± 6.0E-05	U
	$^{239/240}$Pu	1.0E-05 ± 1.5E-05	U
	^{106}Ru	-1.6E-03 ± 3.2E-03	U
	^{125}Sb	-3.6E-04 ± 8.7E-04	U
	^{90}Sr	6.4E-04 ± 4.1E-04	
	^{234}U	8.4E-05 ± 4.3E-05	
	^{235}U	1.5E-05 ± 1.7E-05	U
	^{238}U	3.9E-05 ± 2.6E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N534 (100-K)	^{144}Ce	-2.4E-03 ± 4.4E-03	U
Composite Period	^{60}Co	-6.5E-05 ± 5.4E-04	U
02/18/05 to 03/15/05	^{134}Cs	2.8E-04 ± 4.8E-04	U
	^{137}Cs	1.1E-04 ± 4.8E-04	U
	^{152}Eu	-5.8E-05 ± 5.8E-04	U
	^{154}Eu	3.4E-04 ± 1.5E-03	U
	^{155}Eu	2.0E-04 ± 1.1E-03	U
	^{238}Pu	2.9E-05 ± 1.0E-04	U
	$^{239/240}$Pu	-5.6E-06 ± 2.5E-05	U
	^{103}Ru	-2.8E-04 ± 5.8E-04	U
	^{106}Ru	-1.9E-03 ± 3.9E-03	U
	^{125}Sb	-1.8E-04 ± 1.0E-03	U
	^{113}Sn	-7.0E-05 ± 5.2E-04	U
	^{90}Sr	-8.7E-04 ± 8.8E-04	U
	^{234}U	1.5E-05 ± 1.8E-05	
	^{235}U	5.1E-06 ± 1.0E-05	U
	^{238}U	9.7E-06 ± 1.4E-05	U
	^{65}Zn	9.8E-04 ± 1.2E-03	U
N535 (100-K)	^{144}Ce	-5.6E-03 ± 6.1E-03	U
Composite Period	^{60}Co	-7.9E-05 ± 7.1E-04	U
02/18/05 to 03/15/05	^{134}Cs	9.7E-04 ± 7.8E-04	U
	^{137}Cs	4.2E-05 ± 4.3E-04	U
	^{152}Eu	1.9E-03 ± 1.7E-03	U
	^{154}Eu	2.2E-04 ± 2.0E-03	U
	^{155}Eu	1.6E-04 ± 1.2E-03	U
	^{238}Pu	-3.0E-05 ± 8.9E-05	U
	$^{239/240}$Pu	-1.5E-05 ± 2.2E-05	U
	^{103}Ru	1.1E-03 ± 1.1E-03	U
	^{106}Ru	4.8E-03 ± 6.5E-03	U
	^{125}Sb	-4.4E-04 ± 1.8E-03	U
	^{113}Sn	-2.3E-04 ± 9.2E-04	U
	^{90}Sr	5.2E-05 ± 4.4E-04	U
	^{234}U	5.1E-05 ± 3.9E-05	
	^{235}U	5.7E-06 ± 2.0E-05	U
	^{238}U	3.6E-05 ± 3.5E-05	U
	^{65}Zn	-2.9E-03 ± 3.0E-03	U
N102 (100-N)	^{144}Ce	4.1E-05 ± 4.1E-04	U
Composite Period	^{60}Co	2.4E-04 ± 1.2E-04	
12/22/04 to 06/21/05	^{134}Cs	1.7E-05 ± 6.4E-05	U
	^{137}Cs	5.4E-05 ± 6.1E-05	U
	^{152}Eu	1.5E-05 ± 1.3E-04	U
	^{154}Eu	-1.0E-04 ± 1.9E-04	U
	^{155}Eu	5.0E-05 ± 1.3E-04	U
	^{238}Pu	6.2E-06 ± 1.3E-05	U
	$^{239/240}$Pu	8.4E-06 ± 7.0E-06	
	^{103}Ru	-3.0E-05 ± 7.4E-05	U
	^{106}Ru	-4.6E-04 ± 5.3E-04	U
	^{125}Sb	6.9E-05 ± 1.3E-04	U
	^{113}Sn	6.9E-06 ± 6.6E-05	U
	^{90}Sr	4.2E-05 ± 7.0E-05	U
	^{234}U	1.0E-05 ± 7.0E-06	
	^{235}U	2.1E-06 ± 3.2E-06	U
	^{238}U	5.2E-06 ± 4.2E-06	
	^{65}Zn	9.9E-05 ± 2.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N102 (100-N) Composite Period 06/21/05 to 12/20/05	^{60}Co	2.5E-05 ± 9.8E-05	U
	^{134}Cs	8.4E-06 ± 7.2E-05	U
	^{137}Cs	3.1E-05 ± 7.8E-05	U
	^{152}Eu	5.6E-05 ± 1.7E-04	U
	^{154}Eu	5.8E-05 ± 2.3E-04	U
	^{155}Eu	9.3E-06 ± 9.3E-05	U
	^{238}Pu	4.3E-06 ± 1.2E-05	U
	$^{239/240}$Pu	6.8E-06 ± 5.4E-06	
	^{106}Ru	2.9E-04 ± 6.4E-04	U
	^{125}Sb	1.1E-05 ± 1.1E-04	U
	^{90}Sr	2.0E-04 ± 1.2E-04	
	^{234}U	1.5E-05 ± 8.5E-06	
	^{235}U	2.4E-06 ± 3.6E-06	U
	^{238}U	9.4E-06 ± 6.3E-06	
N103 (100-N) Composite Period 06/21/05 to 12/20/05	^{60}Co	2.8E-04 ± 1.5E-04	
	^{134}Cs	8.7E-05 ± 1.1E-04	U
	^{137}Cs	4.5E-05 ± 1.1E-04	U
	^{152}Eu	9.2E-05 ± 2.4E-04	U
	^{154}Eu	1.4E-04 ± 3.0E-04	U
	^{155}Eu	4.2E-05 ± 1.8E-04	U
	^{238}Pu	2.2E-05 ± 1.5E-05	U
	$^{239/240}$Pu	5.5E-06 ± 5.6E-06	U
	^{106}Ru	3.9E-04 ± 8.8E-04	U
	^{125}Sb	6.7E-05 ± 2.4E-04	U
	^{90}Sr	1.0E-04 ± 1.0E-04	U
	^{234}U	1.1E-05 ± 6.9E-06	
	^{235}U	4.7E-06 ± 4.2E-06	
	^{238}U	9.4E-06 ± 6.3E-06	
N106 (100-N) Composite Period 06/21/05 to 12/20/05	^{60}Co	-3.5E-05 ± 9.9E-05	U
	^{134}Cs	2.6E-05 ± 6.8E-05	U
	^{137}Cs	1.6E-04 ± 1.1E-04	
	^{152}Eu	-1.6E-04 ± 1.7E-04	U
	^{154}Eu	-1.3E-04 ± 2.2E-04	U
	^{155}Eu	-1.3E-05 ± 1.3E-04	U
	^{238}Pu	1.0E-06 ± 1.0E-05	U
	$^{239/240}$Pu	3.1E-06 ± 3.8E-06	
	^{106}Ru	-1.1E-04 ± 5.4E-04	U
	^{125}Sb	-3.6E-05 ± 1.4E-04	U
	^{90}Sr	7.3E-05 ± 9.7E-05	U
	^{234}U	7.2E-06 ± 5.3E-06	
	^{235}U	4.0E-06 ± 4.4E-06	U
	^{238}U	8.7E-06 ± 5.9E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N103 (100-N) Composite Period 12/22/04 to 06/21/05	^{144}Ce	-1.9E-04 ± 7.2E-04	U
	^{60}Co	1.8E-04 ± 1.2E-04	
	^{134}Cs	-3.1E-05 ± 7.4E-05	U
	^{137}Cs	-1.3E-05 ± 6.2E-05	U
	^{152}Eu	-2.3E-05 ± 1.7E-04	U
	^{154}Eu	1.8E-04 ± 1.9E-04	U
	^{155}Eu	9.2E-06 ± 9.2E-05	U
	^{238}Pu	-7.0E-06 ± 2.0E-05	U
	$^{239/240}$Pu	7.0E-06 ± 7.1E-06	U
	^{103}Ru	-8.9E-05 ± 9.3E-05	U
	^{106}Ru	5.4E-04 ± 5.9E-04	U
	^{125}Sb	-6.6E-05 ± 1.8E-04	U
	^{113}Sn	-3.2E-05 ± 7.6E-05	U
	^{90}Sr	1.4E-04 ± 9.3E-05	
	^{234}U	9.1E-06 ± 5.9E-06	
	^{235}U	7.0E-07 ± 1.4E-06	U
	^{238}U	4.0E-06 ± 4.5E-06	U
	^{65}Zn	1.7E-04 ± 1.6E-04	U
N106 (100-N) Composite Period 12/22/04 to 06/21/05	^{144}Ce	-4.1E-04 ± 6.5E-04	U
	^{60}Co	2.5E-04 ± 1.3E-04	
	^{134}Cs	1.8E-05 ± 7.9E-05	U
	^{137}Cs	7.1E-05 ± 7.4E-05	U
	^{152}Eu	7.2E-05 ± 1.7E-04	U
	^{154}Eu	-2.4E-05 ± 2.2E-04	U
	^{155}Eu	3.7E-06 ± 3.7E-05	U
	^{238}Pu	-3.0E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.1E-05 ± 7.6E-06	
	^{103}Ru	4.5E-05 ± 9.2E-05	U
	^{106}Ru	-3.0E-06 ± 3.0E-05	U
	^{125}Sb	2.5E-05 ± 1.5E-04	U
	^{113}Sn	-2.8E-05 ± 7.8E-05	U
	^{90}Sr	-1.1E-04 ± 1.2E-04	U
	^{234}U	8.4E-06 ± 5.7E-06	
	^{235}U	6.9E-07 ± 1.4E-06	U
	^{238}U	4.4E-06 ± 4.1E-06	U
	^{65}Zn	-1.8E-04 ± 1.9E-04	U
N526 (100-N) Composite Period 12/22/04 to 06/21/05	^{144}Ce	3.8E-04 ± 5.6E-04	U
	^{60}Co	4.4E-04 ± 1.6E-04	
	^{134}Cs	-3.0E-05 ± 7.2E-05	U
	^{137}Cs	6.0E-04 ± 2.6E-04	
	^{152}Eu	6.5E-05 ± 1.3E-04	U
	^{154}Eu	7.8E-05 ± 2.1E-04	U
	^{155}Eu	-2.7E-05 ± 1.3E-04	U
	^{238}Pu	2.0E-06 ± 5.6E-06	U
	$^{239/240}$Pu	1.6E-05 ± 8.6E-06	
	^{103}Ru	3.1E-05 ± 7.4E-05	U
	^{106}Ru	5.8E-05 ± 5.1E-04	U
	^{125}Sb	1.2E-04 ± 1.4E-04	U
	^{113}Sn	-6.8E-05 ± 7.1E-05	U
	^{90}Sr	-5.0E-05 ± 7.6E-05	U
	^{234}U	7.1E-06 ± 6.0E-06	U
	^{235}U	7.1E-07 ± 3.2E-06	U
	^{238}U	7.8E-06 ± 5.4E-06	
	^{65}Zn	3.0E-05 ± 1.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N526 (100-N)	^{60}Co	2.5E-04 ± 1.4E-04	
Composite Period	^{134}Cs	-6.4E-05 ± 7.3E-05	U
06/21/05 to 12/20/05	^{137}Cs	8.0E-04 ± 3.2E-04	
	^{152}Eu	1.1E-04 ± 1.7E-04	U
	^{154}Eu	6.5E-05 ± 2.3E-04	U
	^{155}Eu	-1.7E-06 ± 1.7E-05	U
	^{238}Pu	5.9E-06 ± 1.0E-05	U
	$^{239/240}$Pu	7.5E-06 ± 6.6E-06	U
	^{106}Ru	2.6E-04 ± 6.6E-04	U
	^{125}Sb	1.8E-04 ± 1.7E-04	U
	^{90}Sr	-1.2E-04 ± 1.2E-03	U
	^{234}U	1.4E-05 ± 8.9E-06	
	^{235}U	2.6E-06 ± 3.1E-06	
	^{238}U	6.3E-06 ± 5.5E-06	
N482 (200-W)	^{60}Co	7.9E-06 ± 6.6E-05	U
Composite Period	^{134}Cs	-1.5E-05 ± 6.7E-05	U
06/20/05 to 12/21/05	^{137}Cs	8.5E-05 ± 7.6E-05	U
	^{152}Eu	-6.1E-05 ± 1.6E-04	U
	^{154}Eu	1.4E-04 ± 2.2E-04	U
	^{155}Eu	1.7E-04 ± 1.7E-04	U
	^{238}Pu	7.5E-06 ± 1.4E-05	U
	$^{239/240}$Pu	2.2E-06 ± 4.0E-06	U
	^{106}Ru	-2.7E-04 ± 6.0E-04	U
	^{125}Sb	-5.3E-05 ± 1.5E-04	U
	^{90}Sr	2.3E-04 ± 1.1E-04	
	^{234}U	1.3E-05 ± 8.9E-06	
	^{235}U	2.3E-06 ± 3.6E-06	U
	^{238}U	7.1E-06 ± 5.9E-06	
N517 (200-W)	^{60}Co	1.5E-04 ± 1.2E-04	U
Composite Period	^{134}Cs	-8.3E-06 ± 8.1E-05	U
06/20/05 to 12/21/05	^{137}Cs	2.6E-04 ± 1.5E-04	
	^{152}Eu	1.6E-04 ± 1.9E-04	U
	^{154}Eu	1.2E-05 ± 1.2E-04	U
	^{155}Eu	9.4E-05 ± 1.8E-04	U
	^{238}Pu	-3.4E-06 ± 9.5E-06	U
	$^{239/240}$Pu	1.1E-05 ± 7.4E-06	
	^{106}Ru	-3.2E-04 ± 7.0E-04	U
	^{125}Sb	-9.5E-05 ± 1.7E-04	U
	^{90}Sr	8.6E-05 ± 1.1E-04	U
	^{234}U	1.2E-05 ± 7.7E-06	
	^{235}U	3.7E-06 ± 3.6E-06	
	^{238}U	1.4E-05 ± 8.2E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N482 (200-W)	^{144}Ce	9.3E-05 ± 8.7E-04	U
Composite Period	^{60}Co	-1.5E-05 ± 7.9E-05	U
12/22/04 to 06/20/05	^{134}Cs	-1.2E-05 ± 7.0E-05	U
	^{137}Cs	7.5E-05 ± 7.3E-05	U
	^{152}Eu	-2.4E-05 ± 1.6E-04	U
	^{154}Eu	3.3E-06 ± 3.3E-05	U
	^{155}Eu	-6.2E-05 ± 1.9E-04	U
	^{238}Pu	-6.2E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.4E-06 ± 2.8E-06	U
	^{103}Ru	-1.4E-05 ± 9.0E-05	U
	^{106}Ru	-4.0E-05 ± 4.0E-04	U
	^{125}Sb	-6.2E-05 ± 1.6E-04	U
	^{113}Sn	-2.4E-05 ± 8.3E-05	U
	^{90}Sr	1.2E-04 ± 1.3E-04	
	^{234}U	1.9E-05 ± 1.0E-05	
	^{235}U	3.7E-06 ± 4.2E-06	U
	^{238}U	1.5E-05 ± 9.1E-06	
	^{65}Zn	8.5E-05 ± 1.6E-04	U
N517 (200-W)	^{144}Ce	-2.9E-04 ± 9.7E-04	U
Composite Period	^{60}Co	8.5E-05 ± 1.3E-04	U
12/22/04 to 06/20/05	^{134}Cs	-1.9E-05 ± 1.2E-04	U
	^{137}Cs	6.9E-06 ± 6.9E-05	U
	^{152}Eu	-8.1E-05 ± 2.6E-04	U
	^{154}Eu	5.8E-05 ± 3.5E-04	U
	^{155}Eu	-5.9E-05 ± 1.9E-04	U
	^{238}Pu	1.3E-05 ± 1.6E-05	U
	$^{239/240}$Pu	8.0E-06 ± 5.8E-06	
	^{103}Ru	1.6E-04 ± 1.6E-04	U
	^{106}Ru	3.2E-05 ± 3.2E-04	U
	^{125}Sb	-1.7E-04 ± 2.8E-04	U
	^{113}Sn	4.4E-05 ± 1.4E-04	U
	^{90}Sr	-5.6E-05 ± 1.3E-04	U
	^{234}U	2.9E-05 ± 1.5E-05	
	^{235}U	4.3E-06 ± 4.9E-06	U
	^{238}U	3.2E-05 ± 1.6E-05	
	^{65}Zn	-1.3E-04 ± 2.8E-04	U
N518 (200-W)	^{144}Ce	1.3E-04 ± 6.2E-04	U
Composite Period	^{60}Co	-7.6E-05 ± 9.4E-05	U
12/22/04 to 06/20/05	^{134}Cs	4.4E-05 ± 6.8E-05	U
	^{137}Cs	6.1E-05 ± 6.8E-05	U
	^{152}Eu	8.1E-05 ± 1.4E-04	U
	^{154}Eu	1.3E-04 ± 2.0E-04	U
	^{155}Eu	7.7E-05 ± 1.5E-04	U
	^{238}Pu	8.5E-06 ± 1.4E-05	U
	$^{239/240}$Pu	3.6E-06 ± 4.4E-06	U
	^{103}Ru	2.5E-05 ± 8.3E-05	U
	^{106}Ru	4.9E-04 ± 6.3E-04	U
	^{125}Sb	-1.8E-05 ± 1.3E-04	U
	^{113}Sn	-2.2E-05 ± 7.6E-05	U
	^{90}Sr	-4.2E-05 ± 1.2E-04	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	7.8E-06 ± 5.7E-06	
	^{238}U	1.5E-05 ± 8.5E-06	
	^{65}Zn	1.4E-05 ± 1.4E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N518 (200-W)	^{60}Co	-5.1E-05 ± 8.1E-05	U
Composite Period	^{134}Cs	1.9E-05 ± 5.8E-05	U
06/20/05 to 12/21/05	^{137}Cs	1.1E-04 ± 7.4E-05	U
	^{152}Eu	6.9E-05 ± 1.3E-04	U
	^{154}Eu	4.6E-05 ± 2.0E-04	U
	^{155}Eu	1.3E-04 ± 1.3E-04	U
	^{238}Pu	-2.3E-06 ± 1.1E-05	U
	$^{239/240}Pu$	3.8E-06 ± 3.7E-06	
	^{106}Ru	1.4E-04 ± 4.5E-04	U
	^{125}Sb	5.1E-05 ± 1.2E-04	U
	^{90}Sr	1.8E-05 ± 9.4E-05	U
	^{234}U	1.3E-05 ± 8.0E-06	
	^{235}U	2.3E-06 ± 3.6E-06	U
	^{238}U	1.1E-05 ± 7.2E-06	
N019 (200-E)	^{60}Co	4.3E-05 ± 7.5E-05	U
Composite Period	^{134}Cs	-5.4E-05 ± 7.0E-05	U
06/20/05 to 12/19/05	^{137}Cs	2.4E-05 ± 6.4E-05	U
	^{152}Eu	-7.6E-05 ± 1.7E-04	U
	^{154}Eu	-3.7E-05 ± 2.0E-04	U
	^{155}Eu	-6.4E-05 ± 1.9E-04	U
	^{238}Pu	-1.2E-05 ± 1.2E-04	U
	$^{239/240}Pu$	7.9E-07 ± 7.9E-06	U
	^{106}Ru	-2.3E-05 ± 2.3E-04	U
	^{125}Sb	-3.4E-05 ± 1.5E-04	U
	^{90}Sr	-2.3E-05 ± 7.4E-05	U
	^{234}U	8.3E-06 ± 5.7E-06	
	^{235}U	4.5E-06 ± 4.6E-06	U
	^{238}U	9.6E-06 ± 6.3E-06	
N158 (200-E)	^{60}Co	-2.2E-05 ± 7.3E-05	U
Composite Period	^{134}Cs	-1.2E-05 ± 6.8E-05	U
06/20/05 to 12/19/05	^{137}Cs	9.9E-04 ± 3.9E-04	
	^{152}Eu	-1.2E-04 ± 2.0E-04	U
	^{154}Eu	-1.7E-04 ± 2.3E-04	U
	^{155}Eu	-2.4E-05 ± 1.9E-04	U
	^{238}Pu	-6.2E-06 ± 9.8E-06	U
	$^{239/240}Pu$	-1.4E-06 ± 3.9E-06	U
	^{106}Ru	7.2E-04 ± 6.4E-04	U
	^{125}Sb	-6.5E-05 ± 1.6E-04	U
	^{90}Sr	7.7E-05 ± 8.5E-05	U
	^{234}U	7.2E-06 ± 5.3E-06	
	^{235}U	7.9E-07 ± 1.6E-06	U
	^{238}U	1.2E-05 ± 7.5E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N019 (200-E)	^{144}Ce	-7.2E-06 ± 7.2E-05	U
Composite Period	^{60}Co	4.6E-05 ± 8.8E-05	U
12/21/04 to 06/20/05	^{134}Cs	5.6E-05 ± 7.9E-05	U
	^{137}Cs	2.6E-05 ± 7.0E-05	U
	^{152}Eu	-3.6E-05 ± 1.6E-04	U
	^{154}Eu	6.3E-05 ± 2.4E-04	U
	^{155}Eu	-1.5E-04 ± 2.0E-04	U
	^{238}Pu	4.6E-06 ± 1.8E-05	U
	$^{239/240}Pu$	8.8E-07 ± 9.2E-07	U
	^{103}Ru	-6.5E-06 ± 6.4E-05	U
	^{106}Ru	-1.0E-04 ± 6.1E-04	U
	^{125}Sb	6.4E-05 ± 1.6E-04	U
	^{113}Sn	-4.5E-05 ± 7.4E-05	U
	^{90}Sr	-7.4E-06 ± 7.4E-05	U
	^{234}U	8.8E-06 ± 7.0E-06	
	^{235}U	1.7E-06 ± 2.4E-06	U
	^{238}U	3.9E-06 ± 4.4E-06	U
	^{65}Zn	-6.4E-05 ± 2.0E-04	U
N158 (200-E)	^{144}Ce	-2.6E-04 ± 6.9E-04	U
Composite Period	^{60}Co	-2.4E-05 ± 6.6E-05	U
12/21/04 to 06/20/05	^{134}Cs	-1.3E-05 ± 6.8E-05	U
	^{137}Cs	3.2E-05 ± 6.6E-05	U
	^{152}Eu	-2.1E-04 ± 2.2E-04	U
	^{154}Eu	-6.2E-06 ± 6.2E-05	U
	^{155}Eu	3.3E-05 ± 1.9E-04	U
	^{238}Pu	8.5E-07 ± 8.8E-07	U
	$^{239/240}Pu$	-7.8E-07 ± 2.7E-06	U
	^{103}Ru	8.6E-06 ± 5.5E-05	U
	^{106}Ru	-6.5E-04 ± 6.7E-04	U
	^{125}Sb	1.8E-05 ± 1.5E-04	U
	^{113}Sn	1.3E-05 ± 7.0E-05	U
	^{90}Sr	9.2E-05 ± 9.5E-05	
	^{234}U	8.5E-06 ± 5.7E-06	
	^{235}U	7.1E-07 ± 1.4E-06	U
	^{238}U	6.9E-06 ± 4.7E-06	
	^{65}Zn	-9.0E-05 ± 1.7E-04	U
N480 (200-E)	^{241}Am	2.8E-06 ± 1.1E-05	U
Composite Period	^{144}Ce	2.7E-06 ± 2.7E-05	U
12/21/04 to 06/20/05	^{60}Co	6.1E-05 ± 9.4E-05	U
	^{134}Cs	1.2E-05 ± 7.1E-05	U
	^{137}Cs	-4.3E-08 ± 4.3E-07	U
	^{152}Eu	-6.5E-05 ± 1.6E-04	U
	^{154}Eu	-1.1E-04 ± 2.5E-04	U
	^{155}Eu	1.3E-04 ± 1.7E-04	U
	^{238}Pu	7.1E-06 ± 2.5E-05	U
	$^{239/240}Pu$	1.5E-06 ± 1.5E-06	U
	^{241}Pu	-7.8E-06 ± 8.1E-06	U
	^{103}Ru	-7.6E-05 ± 9.5E-05	U
	^{106}Ru	9.4E-04 ± 7.1E-04	U
	^{125}Sb	-1.1E-04 ± 1.5E-04	U
	^{113}Sn	-2.5E-05 ± 7.8E-05	U
	^{90}Sr	7.1E-06 ± 7.1E-05	U
	^{234}U	1.1E-05 ± 8.2E-06	
	^{235}U	5.5E-06 ± 4.6E-06	
	^{238}U	8.5E-06 ± 5.9E-06	
	^{65}Zn	4.4E-05 ± 1.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N480 (200-E)	^{241}Am	2.3E-06 ± 7.6E-06	U
Composite Period	^{60}Co	-5.1E-05 ± 8.7E-05	U
06/20/05 to 12/19/05	^{134}Cs	-8.2E-06 ± 7.1E-05	U
	^{137}Cs	2.2E-06 ± 2.2E-05	U
	^{152}Eu	-1.3E-04 ± 1.6E-04	U
	^{154}Eu	1.0E-04 ± 2.4E-04	U
	^{155}Eu	8.5E-05 ± 1.6E-04	U
	^{238}Pu	-1.8E-05 ± 2.6E-05	U
	$^{239/240}$Pu	1.5E-06 ± 7.7E-06	U
	^{241}Pu	1.7E-04 ± 5.7E-04	U
	^{106}Ru	7.4E-06 ± 7.4E-05	U
	^{125}Sb	-6.8E-06 ± 6.8E-05	U
	^{90}Sr	3.5E-05 ± 9.5E-05	U
	^{234}U	8.7E-06 ± 7.3E-06	U
	^{235}U	4.0E-06 ± 3.9E-06	
	^{238}U	1.2E-05 ± 7.6E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N481 (200-E)	^{241}Am	2.6E-06 ± 6.8E-06	U
Composite Period	^{144}Ce	-3.4E-04 ± 5.3E-04	U
12/21/04 to 06/20/05	^{60}Co	1.7E-05 ± 7.4E-05	U
	^{134}Cs	-2.8E-05 ± 1.1E-04	U
	^{137}Cs	6.2E-05 ± 6.1E-05	U
	^{152}Eu	-6.7E-05 ± 1.3E-04	U
	^{154}Eu	-3.5E-05 ± 1.9E-04	U
	^{155}Eu	7.7E-05 ± 1.3E-04	U
	^{238}Pu	4.7E-06 ± 2.8E-05	U
	$^{239/240}$Pu	1.6E-06 ± 5.6E-06	U
	^{241}Pu	1.2E-04 ± 5.9E-04	U
	^{103}Ru	-1.8E-05 ± 7.4E-05	U
	^{106}Ru	1.9E-04 ± 5.4E-04	U
	^{125}Sb	-7.0E-05 ± 1.3E-04	U
	^{113}Sn	-1.1E-05 ± 6.5E-05	U
	^{90}Sr	7.2E-05 ± 1.3E-04	U
	^{234}U	1.2E-05 ± 7.8E-06	
	^{235}U	5.6E-06 ± 4.7E-06	
	^{238}U	1.3E-05 ± 8.3E-06	
	^{65}Zn	8.7E-05 ± 2.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N481 (200-E)	^{241}Am	1.3E-05 ± 1.6E-05	U
Composite Period	^{60}Co	-1.9E-05 ± 6.4E-05	U
06/20/05 to 12/19/05	^{134}Cs	1.1E-04 ± 7.3E-05	U
	^{137}Cs	2.8E-05 ± 5.7E-05	U
	^{152}Eu	3.0E-05 ± 1.3E-04	U
	^{154}Eu	2.2E-04 ± 2.2E-04	U
	^{155}Eu	1.4E-04 ± 1.4E-04	U
	^{238}Pu	1.3E-06 ± 5.9E-06	U
	$^{239/240}$Pu	4.0E-06 ± 4.8E-06	
	^{241}Pu	3.5E-04 ± 6.3E-04	U
	^{106}Ru	3.2E-04 ± 5.1E-04	U
	^{125}Sb	6.2E-05 ± 1.2E-04	U
	^{90}Sr	-2.7E-04 ± 2.7E-03	U
	^{234}U	1.5E-05 ± 8.8E-06	
	^{235}U	3.5E-06 ± 3.8E-06	
	^{238}U	7.3E-06 ± 6.0E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N498 (200-E)	^{144}Ce	2.2E-04 ± 5.0E-04	U
Composite Period	^{60}Co	-6.2E-05 ± 7.6E-05	U
12/21/04 to 06/20/05	^{134}Cs	4.7E-05 ± 5.9E-05	U
	^{137}Cs	3.8E-05 ± 6.1E-05	U
	^{152}Eu	-5.9E-05 ± 1.4E-04	U
	^{154}Eu	-8.7E-06 ± 8.7E-05	U
	^{155}Eu	5.8E-05 ± 1.4E-04	U
	^{238}Pu	3.8E-06 ± 1.1E-05	U
	$^{239/240}$Pu	1.9E-06 ± 2.9E-06	U
	^{103}Ru	-1.4E-05 ± 6.7E-05	U
	^{106}Ru	8.6E-04 ± 7.6E-04	
	^{125}Sb	1.1E-04 ± 1.3E-04	U
	^{113}Sn	1.1E-05 ± 5.9E-05	U
	^{90}Sr	-2.9E-05 ± 8.1E-05	U
	^{234}U	6.7E-06 ± 5.9E-06	U
	^{235}U	2.9E-06 ± 3.6E-06	U
	^{238}U	9.4E-06 ± 6.7E-06	
	^{65}Zn	-1.1E-04 ± 1.5E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N498 (200-E)	^{60}Co	9.6E-06 ± 9.6E-05	U
Composite Period	^{134}Cs	-6.2E-05 ± 1.1E-04	U
06/20/05 to 12/19/05	^{137}Cs	9.4E-05 ± 1.1E-04	U
	^{152}Eu	4.5E-05 ± 2.3E-04	U
	^{154}Eu	-1.0E-04 ± 2.9E-04	U
	^{155}Eu	3.3E-05 ± 1.7E-04	U
	^{238}Pu	1.4E-06 ± 1.2E-05	U
	$^{239/240}$Pu	1.4E-06 ± 2.1E-06	U
	^{106}Ru	-1.5E-04 ± 8.9E-04	U
	^{125}Sb	2.5E-05 ± 2.4E-04	U
	^{90}Sr	5.5E-05 ± 1.1E-04	U
	^{234}U	1.5E-05 ± 9.0E-06	
	^{235}U	2.2E-06 ± 3.3E-06	U
	^{238}U	1.7E-05 ± 9.3E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N499 (200-E)	^{144}Ce	1.1E-04 ± 7.4E-04	U
Composite Period	^{60}Co	4.8E-05 ± 7.8E-05	U
12/21/04 to 06/20/05	^{134}Cs	2.1E-05 ± 7.1E-05	U
	^{137}Cs	-3.9E-05 ± 6.2E-05	U
	^{152}Eu	-1.6E-04 ± 1.7E-04	U
	^{154}Eu	1.1E-04 ± 2.2E-04	U
	^{155}Eu	-7.8E-06 ± 7.9E-05	U
	^{238}Pu	-7.5E-06 ± 1.6E-05	U
	$^{239/240}$Pu	1.6E-06 ± 4.6E-06	U
	^{103}Ru	-9.5E-05 ± 9.8E-05	U
	^{106}Ru	-6.1E-04 ± 6.3E-04	U
	^{125}Sb	1.3E-05 ± 1.3E-04	U
	^{113}Sn	7.4E-06 ± 7.4E-05	U
	^{90}Sr	-3.7E-05 ± 8.7E-05	U
	^{234}U	1.2E-05 ± 7.7E-06	
	^{235}U	4.3E-06 ± 4.8E-06	U
	^{238}U	9.0E-06 ± 6.3E-06	
	^{65}Zn	-1.3E-05 ± 1.3E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N499 (200-E)	^{60}Co	6.2E-05 ± 7.3E-05	U
Composite Period	^{134}Cs	-1.9E-05 ± 6.6E-05	U
06/20/05 to 12/19/05	^{137}Cs	7.6E-05 ± 7.9E-05	U
	^{152}Eu	-5.3E-05 ± 1.5E-04	U
	^{154}Eu	5.5E-05 ± 2.1E-04	U
	^{155}Eu	-1.5E-04 ± 1.7E-04	U
	^{238}Pu	-8.6E-06 ± 1.3E-05	U
	$^{239/240}$Pu	8.6E-07 ± 3.9E-06	U
	^{106}Ru	2.4E-04 ± 5.9E-04	U
	^{125}Sb	8.5E-05 ± 1.4E-04	U
	^{90}Sr	-5.8E-05 ± 1.0E-04	U
	^{234}U	1.0E-05 ± 6.8E-06	
	^{235}U	4.1E-06 ± 4.0E-06	
	^{238}U	4.5E-06 ± 4.6E-06	U
N532 (200-E)	^{60}Co	-3.2E-05 ± 7.6E-05	U
Composite Period	^{134}Cs	1.5E-05 ± 7.4E-05	U
06/20/05 to 12/19/05	^{137}Cs	-7.3E-05 ± 8.0E-05	U
	^{152}Eu	-1.1E-05 ± 1.1E-04	U
	^{154}Eu	-2.1E-04 ± 2.2E-04	U
	^{155}Eu	-1.0E-04 ± 1.7E-04	U
	^{238}Pu	-6.5E-06 ± 1.1E-05	U
	$^{239/240}$Pu	5.0E-06 ± 5.1E-06	U
	^{106}Ru	1.7E-04 ± 6.2E-04	U
	^{125}Sb	8.3E-07 ± 8.3E-06	U
	^{90}Sr	2.2E-04 ± 1.1E-04	
	^{234}U	1.7E-05 ± 9.6E-06	
	^{235}U	2.9E-06 ± 3.1E-06	
	^{238}U	1.6E-05 ± 9.3E-06	
N957 (200-E)	^{60}Co	4.2E-05 ± 1.1E-04	U
Composite Period	^{134}Cs	1.7E-05 ± 1.0E-04	U
06/20/05 to 12/19/05	^{137}Cs	1.3E-04 ± 1.1E-04	U
	^{152}Eu	2.4E-04 ± 2.7E-04	U
	^{154}Eu	-2.8E-04 ± 3.2E-04	U
	^{155}Eu	6.4E-05 ± 1.8E-04	U
	^{238}Pu	4.4E-06 ± 5.1E-06	U
	$^{239/240}$Pu	1.3E-06 ± 2.6E-06	U
	^{106}Ru	2.5E-04 ± 8.6E-04	U
	^{125}Sb	-4.1E-05 ± 2.4E-04	U
	^{90}Sr	-2.3E-05 ± 6.6E-05	
	^{234}U	4.5E-06 ± 5.9E-06	U
	^{235}U	3.3E-06 ± 3.5E-06	
	^{238}U	9.8E-06 ± 6.6E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N532 (200-E)	^{144}Ce	-2.5E-04 ± 5.5E-04	U
Composite Period	^{60}Co	-3.6E-05 ± 6.1E-05	U
11/30/04 to 06/20/05	^{134}Cs	5.6E-07 ± 5.6E-06	U
	^{137}Cs	1.3E-06 ± 1.3E-05	U
	^{152}Eu	7.8E-05 ± 1.3E-04	U
	^{154}Eu	1.3E-04 ± 1.9E-04	U
	^{155}Eu	-2.4E-05 ± 1.4E-04	U
	^{238}Pu	-6.8E-06 ± 1.4E-05	U
	$^{239/240}$Pu	3.0E-06 ± 3.1E-06	
	^{103}Ru	1.5E-05 ± 5.5E-05	U
	^{106}Ru	5.6E-05 ± 4.2E-04	U
	^{125}Sb	2.5E-05 ± 1.2E-04	U
	^{113}Sn	9.2E-06 ± 6.0E-05	U
	^{90}Sr	2.5E-05 ± 6.8E-05	U
	^{234}U	1.2E-05 ± 7.1E-06	
	^{235}U	6.2E-07 ± 1.3E-06	U
	^{238}U	7.5E-06 ± 5.5E-06	
	^{65}Zn	-1.9E-04 ± 2.0E-04	U
N957 (200-E)	^{144}Ce	8.5E-05 ± 6.4E-04	U
Composite Period	^{60}Co	3.7E-05 ± 8.6E-05	U
12/21/04 to 06/20/05	^{134}Cs	2.2E-05 ± 7.4E-05	U
	^{137}Cs	-6.1E-07 ± 6.1E-06	U
	^{152}Eu	-4.0E-06 ± 4.0E-05	U
	^{154}Eu	2.5E-04 ± 2.3E-04	U
	^{155}Eu	-2.1E-04 ± 2.2E-04	U
	^{238}Pu	-1.4E-05 ± 1.4E-05	U
	$^{239/240}$Pu	4.1E-06 ± 4.2E-06	U
	^{103}Ru	1.1E-05 ± 6.4E-05	U
	^{106}Ru	-4.4E-04 ± 5.9E-04	U
	^{125}Sb	-3.9E-05 ± 1.6E-04	U
	^{113}Sn	7.0E-06 ± 6.9E-05	U
	^{90}Sr	-2.2E-05 ± 9.1E-05	U
	^{234}U	1.1E-05 ± 7.4E-06	
	^{235}U	3.0E-06 ± 3.7E-06	U
	^{238}U	8.0E-06 ± 5.5E-06	
	^{65}Zn	6.5E-05 ± 1.7E-04	U
N967 (200-E)	^{144}Ce	-2.8E-04 ± 5.0E-04	U
Composite Period	^{60}Co	4.5E-05 ± 6.5E-05	U
12/21/04 to 06/20/05	^{134}Cs	-2.6E-05 ± 6.2E-05	U
	^{137}Cs	-4.5E-07 ± 4.5E-06	U
	^{152}Eu	-2.2E-05 ± 1.2E-04	U
	^{154}Eu	5.8E-05 ± 2.1E-04	U
	^{155}Eu	-1.7E-06 ± 1.7E-05	U
	^{238}Pu	1.3E-06 ± 1.1E-05	U
	$^{239/240}$Pu	9.9E-06 ± 6.8E-06	
	^{103}Ru	1.0E-06 ± 1.0E-05	U
	^{106}Ru	-2.0E-04 ± 4.8E-04	U
	^{125}Sb	-2.5E-05 ± 1.2E-04	U
	^{113}Sn	2.0E-05 ± 5.8E-05	U
	^{90}Sr	-1.4E-05 ± 7.8E-05	U
	^{234}U	9.9E-06 ± 7.0E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	8.4E-06 ± 6.0E-06	
	^{65}Zn	-1.4E-05 ± 1.3E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N967 (200-E)	^{60}Co	-1.2E-04 ± 1.2E-04	U
Composite Period	^{134}Cs	4.0E-05 ± 7.1E-05	U
06/20/05 to 12/19/05	^{137}Cs	9.3E-05 ± 8.1E-05	U
	^{152}Eu	2.1E-04 ± 1.8E-04	U
	^{154}Eu	-3.6E-05 ± 2.5E-04	U
	^{155}Eu	-7.5E-05 ± 1.7E-04	U
	^{238}Pu	6.2E-07 ± 6.4E-07	U
	$^{239/240}Pu$	6.2E-07 ± 1.3E-06	U
	^{106}Ru	7.0E-05 ± 6.3E-04	U
	^{125}Sb	7.1E-05 ± 1.5E-04	U
	^{90}Sr	5.8E-06 ± 5.8E-05	U
	^{234}U	1.0E-05 ± 7.4E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	1.0E-05 ± 7.4E-06	
N968 (200-E)	^{60}Co	-1.5E-05 ± 8.3E-05	U
Composite Period	^{134}Cs	2.9E-05 ± 7.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	-5.8E-06 ± 5.9E-05	U
	^{152}Eu	8.3E-05 ± 2.0E-04	U
	^{154}Eu	6.9E-05 ± 2.4E-04	U
	^{155}Eu	2.2E-04 ± 1.8E-04	U
	^{238}Pu	2.1E-06 ± 3.2E-06	U
	$^{239/240}Pu$	1.4E-06 ± 2.8E-06	U
	^{106}Ru	2.7E-04 ± 6.6E-04	U
	^{125}Sb	1.1E-04 ± 1.6E-04	U
	^{90}Sr	1.8E-04 ± 1.1E-04	
	^{234}U	1.4E-05 ± 8.6E-06	
	^{235}U	4.8E-06 ± 4.4E-06	
	^{238}U	5.2E-06 ± 5.6E-06	U
N969 (200-E)	^{60}Co	-4.6E-05 ± 7.8E-05	U
Composite Period	^{134}Cs	3.4E-05 ± 6.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	-3.5E-06 ± 3.5E-05	U
	^{152}Eu	-1.5E-06 ± 1.5E-05	U
	^{154}Eu	2.2E-05 ± 2.0E-04	U
	^{155}Eu	3.7E-05 ± 1.4E-04	U
	^{238}Pu	3.2E-06 ± 1.1E-05	U
	$^{239/240}Pu$	8.0E-07 ± 4.8E-06	U
	^{106}Ru	1.4E-04 ± 6.2E-04	U
	^{125}Sb	5.5E-05 ± 1.4E-04	U
	^{90}Sr	1.3E-04 ± 9.6E-05	U
	^{234}U	1.1E-05 ± 7.8E-06	
	^{235}U	3.7E-06 ± 4.0E-06	
	^{238}U	1.0E-05 ± 7.0E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N968 (200-E)	^{144}Ce	4.7E-05 ± 4.7E-04	U
Composite Period	^{60}Co	-7.2E-05 ± 1.1E-04	U
12/21/04 to 06/20/05	^{134}Cs	-6.3E-05 ± 1.1E-04	U
	^{137}Cs	1.9E-05 ± 9.1E-05	U
	^{152}Eu	5.5E-05 ± 2.3E-04	U
	^{154}Eu	-3.7E-05 ± 3.7E-04	U
	^{155}Eu	5.7E-06 ± 5.7E-05	U
	^{238}Pu	-5.0E-06 ± 1.3E-05	U
	$^{239/240}Pu$	1.5E-06 ± 2.9E-06	U
	^{103}Ru	-5.3E-05 ± 1.1E-04	U
	^{106}Ru	-3.5E-04 ± 8.5E-04	U
	^{125}Sb	-6.0E-05 ± 2.2E-04	U
	^{113}Sn	3.0E-05 ± 1.1E-04	U
	^{90}Sr	-1.5E-05 ± 1.1E-04	U
	^{234}U	1.0E-05 ± 7.2E-06	
	^{235}U	5.1E-06 ± 4.6E-06	
	^{238}U	9.5E-06 ± 6.9E-06	
	^{65}Zn	-6.2E-05 ± 2.7E-04	U
N969 (200-E)	^{144}Ce	-1.1E-04 ± 5.8E-04	U
Composite Period	^{60}Co	-1.9E-05 ± 7.6E-05	U
12/21/04 to 06/20/05	^{134}Cs	-6.2E-05 ± 6.9E-05	U
	^{137}Cs	-2.5E-05 ± 6.1E-05	U
	^{152}Eu	-3.9E-05 ± 1.4E-04	U
	^{154}Eu	3.7E-05 ± 2.0E-04	U
	^{155}Eu	-5.5E-05 ± 1.5E-04	U
	^{238}Pu	-5.9E-07 ± 4.3E-06	U
	$^{239/240}Pu$	1.5E-05 ± 8.0E-06	
	^{103}Ru	-1.5E-05 ± 6.0E-05	U
	^{106}Ru	3.1E-04 ± 5.5E-04	U
	^{125}Sb	-2.4E-05 ± 1.3E-04	U
	^{113}Sn	4.6E-05 ± 6.6E-05	U
	^{90}Sr	-9.3E-05 ± 9.7E-05	U
	^{234}U	7.9E-06 ± 6.3E-06	
	^{235}U	4.0E-06 ± 3.8E-06	
	^{238}U	1.1E-05 ± 6.9E-06	
	^{65}Zn	-1.2E-04 ± 1.7E-04	U
N970 (200-E)	^{144}Ce	-2.7E-04 ± 8.0E-04	U
Composite Period	^{60}Co	1.2E-04 ± 1.1E-04	U
12/21/04 to 06/20/05	^{134}Cs	-4.3E-05 ± 1.0E-04	U
	^{137}Cs	3.7E-06 ± 3.7E-05	U
	^{152}Eu	-2.2E-04 ± 2.3E-04	U
	^{154}Eu	6.2E-06 ± 6.2E-05	U
	^{155}Eu	7.3E-05 ± 1.8E-04	U
	^{238}Pu	-2.7E-06 ± 1.4E-05	U
	$^{239/240}Pu$	1.3E-06 ± 3.3E-06	U
	^{103}Ru	2.3E-05 ± 1.1E-04	U
	^{106}Ru	-4.2E-04 ± 8.7E-04	U
	^{125}Sb	1.1E-04 ± 2.1E-04	U
	^{113}Sn	-2.5E-05 ± 1.1E-04	U
	^{90}Sr	-2.7E-07 ± 2.7E-06	U
	^{234}U	7.0E-06 ± 4.6E-06	
	^{235}U	1.4E-06 ± 2.0E-06	U
	^{238}U	7.0E-06 ± 4.6E-06	
	^{65}Zn	-3.0E-04 ± 3.2E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N970 (200-E)	^{60}Co	-3.0E-05 ± 7.8E-05	U
Composite Period	^{134}Cs	1.0E-05 ± 6.4E-05	U
06/20/05 to 12/19/05	^{137}Cs	-2.9E-05 ± 6.9E-05	U
	^{152}Eu	6.5E-06 ± 6.5E-05	U
	^{154}Eu	-2.4E-05 ± 2.4E-04	U
	^{155}Eu	-5.7E-05 ± 1.6E-04	U
	^{238}Pu	-4.1E-06 ± 1.2E-05	U
	$^{239/240}$Pu	-6.8E-07 ± 2.4E-06	U
	^{106}Ru	3.8E-04 ± 6.0E-04	U
	^{125}Sb	-1.5E-05 ± 1.4E-04	U
	^{90}Sr	-5.8E-06 ± 5.8E-05	U
	^{234}U	4.7E-06 ± 4.3E-06	U
	^{235}U	-1.5E-06 ± 3.0E-06	U
	^{238}U	6.0E-06 ± 4.6E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N972 (200-E)	^{144}Ce	3.4E-04 ± 6.0E-04	U
Composite Period	^{60}Co	-1.2E-05 ± 7.3E-05	U
12/21/04 to 06/20/05	^{134}Cs	4.1E-05 ± 6.6E-05	U
	^{137}Cs	-1.8E-05 ± 6.0E-05	U
	^{152}Eu	-1.4E-05 ± 1.4E-04	U
	^{154}Eu	2.6E-04 ± 2.2E-04	U
	^{155}Eu	5.0E-05 ± 1.4E-04	U
	^{238}Pu	-1.0E-05 ± 1.6E-05	U
	$^{239/240}$Pu	8.4E-07 ± 3.8E-06	U
	^{103}Ru	-3.7E-05 ± 6.7E-05	U
	^{106}Ru	-1.3E-06 ± 1.3E-05	U
	^{125}Sb	5.9E-05 ± 1.3E-04	U
	^{113}Sn	1.1E-05 ± 6.1E-05	U
	^{90}Sr	-1.4E-05 ± 8.5E-05	U
	^{234}U	6.3E-06 ± 4.6E-06	
	^{235}U	1.5E-06 ± 2.2E-06	U
	^{238}U	6.2E-06 ± 5.2E-06	
	^{65}Zn	-1.2E-04 ± 1.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N972 (200-E)	^{60}Co	-4.9E-05 ± 7.3E-05	U
Composite Period	^{134}Cs	1.2E-05 ± 6.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	6.4E-05 ± 6.6E-05	U
	^{152}Eu	-6.4E-05 ± 1.3E-04	U
	^{154}Eu	2.4E-04 ± 2.3E-04	U
	^{155}Eu	5.6E-05 ± 1.4E-04	U
	^{238}Pu	-4.9E-06 ± 9.5E-06	U
	$^{239/240}$Pu	2.1E-06 ± 2.5E-06	
	^{106}Ru	1.1E-04 ± 5.4E-04	U
	^{125}Sb	8.8E-05 ± 1.3E-04	U
	^{90}Sr	-1.4E-05 ± 6.2E-05	U
	^{234}U	1.1E-05 ± 6.6E-06	
	^{235}U	2.9E-06 ± 3.1E-06	
	^{238}U	6.6E-06 ± 5.2E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N973 (200-E)	^{144}Ce	4.7E-04 ± 6.6E-04	U
Composite Period	^{60}Co	5.9E-06 ± 5.9E-05	U
12/21/04 to 06/20/05	^{134}Cs	5.2E-05 ± 8.7E-05	U
	^{137}Cs	3.8E-05 ± 7.0E-05	U
	^{152}Eu	-1.1E-04 ± 1.7E-04	U
	^{154}Eu	-1.0E-04 ± 2.5E-04	U
	^{155}Eu	-5.0E-05 ± 1.8E-04	U
	^{238}Pu	7.5E-07 ± 7.8E-07	U
	$^{239/240}$Pu	2.3E-06 ± 2.9E-06	
	^{103}Ru	-3.1E-05 ± 7.7E-05	U
	^{106}Ru	2.8E-04 ± 6.5E-04	U
	^{125}Sb	2.7E-04 ± 2.8E-04	U
	^{113}Sn	3.0E-05 ± 7.7E-05	U
	^{90}Sr	-1.5E-04 ± 1.6E-04	U
	^{234}U	1.1E-05 ± 7.2E-06	
	^{235}U	1.6E-06 ± 2.4E-06	U
	^{238}U	1.0E-05 ± 6.3E-06	
	^{65}Zn	-8.9E-05 ± 1.9E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N973 (200-E)	^{60}Co	2.8E-05 ± 1.0E-04	U
Composite Period	^{134}Cs	-2.5E-05 ± 1.1E-04	U
06/20/05 to 12/19/05	^{137}Cs	8.4E-05 ± 1.1E-04	U
	^{152}Eu	-1.8E-05 ± 1.8E-04	U
	^{154}Eu	1.2E-04 ± 3.9E-04	U
	^{155}Eu	-7.0E-05 ± 1.8E-04	U
	^{238}Pu	4.6E-06 ± 7.8E-06	U
	$^{239/240}$Pu	4.0E-06 ± 3.5E-06	
	^{106}Ru	7.9E-04 ± 9.2E-04	U
	^{125}Sb	3.9E-05 ± 2.4E-04	U
	^{90}Sr	1.0E-05 ± 6.9E-05	U
	^{234}U	7.7E-06 ± 5.5E-06	
	^{235}U	3.1E-06 ± 3.3E-06	
	^{238}U	5.6E-06 ± 4.9E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N976 (200-E)	^{144}Ce	4.1E-04 ± 7.1E-04	U
Composite Period	^{60}Co	-1.9E-05 ± 6.9E-05	U
12/21/04 to 06/20/05	^{134}Cs	-4.1E-05 ± 7.4E-05	U
	^{137}Cs	2.4E-05 ± 6.8E-05	U
	^{152}Eu	-1.5E-04 ± 1.7E-04	U
	^{154}Eu	2.1E-05 ± 2.1E-04	U
	^{155}Eu	8.3E-05 ± 1.9E-04	U
	^{238}Pu	-7.7E-07 ± 7.7E-06	U
	$^{239/240}$Pu	2.3E-06 ± 3.5E-06	U
	^{103}Ru	8.1E-05 ± 7.4E-05	U
	^{106}Ru	4.2E-04 ± 5.6E-04	U
	^{125}Sb	-1.2E-04 ± 1.6E-04	U
	^{113}Sn	-3.8E-05 ± 7.1E-05	U
	^{90}Sr	9.1E-05 ± 7.8E-05	U
	^{234}U	2.0E-05 ± 1.1E-05	
	^{235}U	4.3E-06 ± 4.2E-06	
	^{238}U	2.1E-05 ± 1.1E-05	
	^{65}Zn	4.0E-05 ± 1.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N976 (200-E)	^{60}Co	3.6E-05 ± 8.4E-05	U
Composite Period	^{134}Cs	-7.5E-05 ± 1.0E-04	U
06/20/05 to 12/19/05	^{137}Cs	2.1E-04 ± 1.2E-04	
	^{152}Eu	-5.1E-05 ± 1.7E-04	U
	^{154}Eu	8.0E-05 ± 2.1E-04	U
	^{155}Eu	-6.4E-06 ± 6.4E-05	U
	^{238}Pu	5.1E-06 ± 5.4E-06	U
	$^{239/240}$Pu	1.1E-06 ± 1.6E-06	U
	^{106}Ru	-3.0E-04 ± 5.8E-04	U
	^{125}Sb	1.1E-04 ± 1.4E-04	U
	^{90}Sr	4.9E-05 ± 7.0E-05	
	^{234}U	2.4E-05 ± 1.2E-05	
	^{235}U	2.3E-06 ± 2.8E-06	
	^{238}U	1.9E-05 ± 1.0E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N977 (200-E)	^{144}Ce	5.0E-04 ± 7.5E-04	U
Composite Period	^{60}Co	7.5E-05 ± 8.1E-05	U
12/21/04 to 06/20/05	^{134}Cs	-3.1E-06 ± 3.1E-05	U
	^{137}Cs	-2.5E-05 ± 6.5E-05	U
	^{152}Eu	-3.8E-05 ± 1.7E-04	U
	^{154}Eu	-9.8E-05 ± 2.2E-04	U
	^{155}Eu	-2.2E-04 ± 2.3E-04	U
	^{238}Pu	1.5E-06 ± 1.4E-05	U
	$^{239/240}$Pu	3.7E-06 ± 4.1E-06	U
	^{103}Ru	1.9E-05 ± 7.2E-05	U
	^{106}Ru	-2.7E-04 ± 6.1E-04	U
	^{125}Sb	6.7E-05 ± 1.6E-04	U
	^{113}Sn	1.9E-05 ± 7.6E-05	U
	^{90}Sr	-7.4E-06 ± 7.4E-05	U
	^{234}U	1.8E-05 ± 1.0E-05	
	^{235}U	1.6E-06 ± 2.2E-06	U
	^{238}U	1.0E-05 ± 6.8E-06	
	^{65}Zn	-8.6E-05 ± 1.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N977 (200-E)	^{60}Co	-3.3E-06 ± 3.3E-05	U
Composite Period	^{134}Cs	2.7E-05 ± 8.2E-05	U
06/20/05 to 12/19/05	^{137}Cs	-1.4E-05 ± 6.4E-05	U
	^{152}Eu	-2.4E-04 ± 2.4E-03	U
	^{154}Eu	-7.7E-05 ± 2.2E-04	U
	^{155}Eu	-3.3E-05 ± 1.6E-04	U
	^{238}Pu	2.4E-05 ± 2.2E-05	U
	$^{239/240}$Pu	5.4E-05 ± 2.5E-05	
	^{106}Ru	5.1E-04 ± 6.8E-04	U
	^{125}Sb	3.2E-05 ± 1.6E-04	U
	^{90}Sr	1.1E-04 ± 7.7E-05	U
	^{234}U	2.2E-05 ± 1.1E-05	
	^{235}U	4.7E-06 ± 4.3E-06	
	^{238}U	1.4E-05 ± 8.7E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N978 (200-E)	^{144}Ce	-1.7E-04 ± 6.6E-04	U
Composite Period	^{60}Co	4.5E-05 ± 8.5E-05	U
12/21/04 to 06/20/05	^{134}Cs	8.8E-06 ± 7.6E-05	U
	^{137}Cs	4.2E-05 ± 7.0E-05	U
	^{152}Eu	3.6E-05 ± 1.9E-04	U
	^{154}Eu	1.1E-04 ± 2.4E-04	U
	^{155}Eu	7.9E-05 ± 1.7E-04	U
	^{238}Pu	-2.3E-06 ± 1.4E-05	U
	$^{239/240}$Pu	-7.8E-07 ± 4.1E-06	U
	^{103}Ru	-2.8E-05 ± 7.3E-05	U
	^{106}Ru	4.4E-04 ± 7.0E-04	U
	^{125}Sb	1.0E-04 ± 1.6E-04	U
	^{113}Sn	3.6E-05 ± 7.6E-05	U
	^{90}Sr	7.1E-06 ± 6.6E-05	U
	^{234}U	6.8E-06 ± 5.7E-06	
	^{235}U	5.2E-06 ± 4.4E-06	
	^{238}U	6.8E-06 ± 5.0E-06	
	^{65}Zn	1.2E-04 ± 1.9E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N978 (200-E)	^{60}Co	-4.3E-05 ± 7.6E-05	U
Composite Period	^{134}Cs	1.5E-05 ± 7.2E-05	U
06/20/05 to 12/19/05	^{137}Cs	-1.2E-05 ± 5.8E-05	U
	^{152}Eu	6.8E-06 ± 6.8E-05	U
	^{154}Eu	1.5E-04 ± 1.9E-04	U
	^{155}Eu	-9.0E-06 ± 9.0E-05	U
	^{238}Pu	-5.1E-06 ± 1.6E-05	U
	$^{239/240}$Pu	1.5E-06 ± 3.0E-06	U
	^{106}Ru	2.1E-04 ± 5.5E-04	U
	^{125}Sb	-1.6E-05 ± 1.4E-04	U
	^{90}Sr	-5.0E-05 ± 6.6E-05	U
	^{234}U	3.3E-05 ± 1.6E-05	
	^{235}U	1.0E-05 ± 6.8E-06	
	^{238}U	2.9E-05 ± 1.4E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N984 (200-E)	^{144}Ce	-9.0E-04 ± 9.3E-04	U
Composite Period	^{60}Co	6.1E-05 ± 8.6E-05	U
12/21/04 to 06/20/05	^{134}Cs	-5.1E-06 ± 5.1E-05	U
	^{137}Cs	2.1E-04 ± 1.5E-04	
	^{152}Eu	-1.5E-04 ± 1.8E-04	U
	^{154}Eu	6.5E-07 ± 6.5E-06	U
	^{155}Eu	-7.5E-05 ± 2.0E-04	U
	^{238}Pu	-1.6E-05 ± 1.6E-05	U
	$^{239/240}$Pu	3.7E-06 ± 3.6E-06	
	^{103}Ru	-5.7E-05 ± 9.7E-05	U
	^{106}Ru	1.1E-04 ± 6.4E-04	U
	^{125}Sb	-1.1E-04 ± 1.7E-04	U
	^{113}Sn	-1.7E-05 ± 9.1E-05	U
	^{90}Sr	1.8E-04 ± 1.0E-04	
	^{234}U	7.9E-06 ± 5.9E-06	
	^{235}U	3.3E-06 ± 4.1E-06	U
	^{238}U	6.1E-06 ± 6.1E-06	U
	^{65}Zn	-4.6E-05 ± 1.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N984 (200-E)	^{60}Co	1.4E-04 ± 6.7E-05	
Composite Period	^{134}Cs	-3.0E-05 ± 6.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	9.2E-04 ± 3.5E-04	
	^{152}Eu	-3.5E-05 ± 1.5E-04	U
	^{154}Eu	-1.2E-04 ± 2.2E-04	U
	^{155}Eu	-5.0E-06 ± 5.0E-05	U
	^{238}Pu	1.4E-05 ± 1.7E-05	U
	$^{239/240}$Pu	7.2E-05 ± 3.2E-05	
	^{106}Ru	-3.1E-05 ± 3.1E-04	U
	^{125}Sb	1.6E-05 ± 1.5E-04	U
	^{90}Sr	3.5E-04 ± 1.5E-04	
	^{234}U	2.3E-05 ± 1.2E-05	
	^{235}U	5.1E-06 ± 4.8E-06	U
	^{238}U	2.3E-05 ± 1.2E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N985 (200-E)	^{144}Ce	-6.6E-05 ± 6.5E-04	U
Composite Period	^{60}Co	1.2E-05 ± 8.8E-05	U
12/21/04 to 06/20/05	^{134}Cs	4.3E-05 ± 7.7E-05	U
	^{137}Cs	1.2E-04 ± 8.0E-05	U
	^{152}Eu	1.4E-04 ± 1.7E-04	U
	^{154}Eu	7.8E-05 ± 2.3E-04	U
	^{155}Eu	-3.5E-05 ± 1.6E-04	U
	^{238}Pu	1.8E-05 ± 1.9E-05	U
	$^{239/240}$Pu	3.0E-06 ± 4.6E-06	U
	^{103}Ru	2.5E-05 ± 8.5E-05	U
	^{106}Ru	6.1E-04 ± 7.2E-04	U
	^{125}Sb	-1.3E-05 ± 1.3E-04	U
	^{113}Sn	3.0E-05 ± 7.8E-05	U
	^{90}Sr	-4.3E-05 ± 7.2E-05	U
	^{234}U	1.2E-05 ± 8.3E-06	
	^{235}U	7.9E-07 ± 8.2E-07	U
	^{238}U	1.7E-05 ± 9.7E-06	
	^{65}Zn	-1.6E-04 ± 2.0E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N985 (200-E)	^{60}Co	4.1E-05 ± 8.8E-05	U
Composite Period	^{134}Cs	5.2E-05 ± 7.9E-05	U
06/20/05 to 12/19/05	^{137}Cs	6.2E-05 ± 8.0E-05	U
	^{152}Eu	-1.2E-05 ± 1.2E-04	U
	^{154}Eu	1.3E-04 ± 2.4E-04	U
	^{155}Eu	6.6E-05 ± 1.7E-04	U
	^{238}Pu	-9.0E-06 ± 1.7E-05	U
	$^{239/240}$Pu	7.3E-07 ± 7.3E-06	U
	^{106}Ru	-7.1E-04 ± 7.4E-04	U
	^{125}Sb	-5.9E-05 ± 1.6E-04	U
	^{90}Sr	5.0E-04 ± 1.8E-04	
	^{234}U	2.1E-05 ± 1.1E-05	
	^{235}U	5.8E-06 ± 4.9E-06	
	^{238}U	1.7E-05 ± 9.5E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N999 (200-E)	^{144}Ce	3.0E-04 ± 7.0E-04	U
Composite Period	^{60}Co	6.5E-05 ± 7.0E-05	U
12/21/04 to 06/20/05	^{134}Cs	1.3E-05 ± 6.4E-05	U
	^{137}Cs	3.7E-05 ± 6.2E-05	U
	^{152}Eu	1.0E-05 ± 1.0E-04	U
	^{154}Eu	6.3E-06 ± 6.3E-05	U
	^{155}Eu	1.2E-04 ± 1.5E-04	U
	^{238}Pu	8.0E-07 ± 8.3E-07	U
	$^{239/240}$Pu	4.1E-06 ± 4.6E-06	U
	^{103}Ru	-3.9E-05 ± 7.6E-05	U
	^{106}Ru	-1.6E-04 ± 5.3E-04	U
	^{125}Sb	1.4E-04 ± 1.5E-04	U
	^{113}Sn	2.0E-05 ± 6.9E-05	U
	^{90}Sr	-1.5E-05 ± 6.2E-05	U
	^{234}U	7.3E-06 ± 5.8E-06	
	^{235}U	3.1E-06 ± 3.2E-06	
	^{238}U	1.3E-05 ± 7.7E-06	
	^{65}Zn	-8.3E-05 ± 1.6E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N999 (200-E)	^{60}Co	7.0E-06 ± 6.2E-05	U
Composite Period	^{134}Cs	-2.2E-05 ± 7.1E-05	U
06/20/05 to 12/19/05	^{137}Cs	7.2E-05 ± 6.9E-05	U
	^{152}Eu	-1.4E-05 ± 1.3E-04	U
	^{154}Eu	8.2E-05 ± 2.1E-04	U
	^{155}Eu	3.6E-06 ± 3.6E-05	U
	^{238}Pu	2.0E-05 ± 1.6E-05	U
	$^{239/240}$Pu	5.8E-05 ± 2.6E-05	
	^{106}Ru	-5.2E-04 ± 5.9E-04	U
	^{125}Sb	-3.7E-05 ± 1.4E-04	U
	^{90}Sr	1.4E-04 ± 8.6E-05	
	^{234}U	1.9E-05 ± 1.2E-05	
	^{235}U	5.5E-06 ± 5.0E-06	
	^{238}U	1.4E-05 ± 9.4E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N155 (200-W)	^{144}Ce	1.8E-04 ± 5.2E-04	U
Composite Period	^{60}Co	8.9E-05 ± 7.5E-05	U
12/20/04 to 06/20/05	^{134}Cs	6.8E-05 ± 7.0E-05	U
	^{137}Cs	7.0E-05 ± 8.4E-05	U
	^{152}Eu	-5.9E-05 ± 1.5E-04	U
	^{154}Eu	3.3E-06 ± 3.3E-05	U
	^{155}Eu	3.7E-05 ± 1.1E-04	U
	^{238}Pu	-1.8E-06 ± 1.5E-05	U
	$^{239/240}$Pu	4.5E-06 ± 5.1E-06	U
	^{103}Ru	-1.3E-05 ± 5.5E-05	U
	^{106}Ru	-7.0E-06 ± 7.0E-05	U
	^{125}Sb	9.1E-07 ± 9.1E-06	U
	^{113}Sn	-2.8E-05 ± 6.8E-05	U
	^{90}Sr	2.9E-05 ± 8.4E-05	U
	^{234}U	1.4E-05 ± 8.3E-06	
	^{235}U	7.9E-07 ± 2.8E-06	U
	^{238}U	1.4E-05 ± 8.5E-06	
	^{65}Zn	-1.4E-04 ± 1.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N155 (200-W)	^{60}Co	1.8E-05 ± 7.7E-05	U
Composite Period	^{134}Cs	1.5E-05 ± 6.9E-05	U
06/20/05 to 12/19/05	^{137}Cs	1.2E-04 ± 8.2E-05	U
	^{152}Eu	-1.8E-04 ± 2.1E-04	U
	^{154}Eu	-1.3E-04 ± 2.2E-04	U
	^{155}Eu	6.8E-05 ± 1.9E-04	U
	^{238}Pu	6.2E-06 ± 8.9E-06	U
	$^{239/240}$Pu	7.8E-07 ± 3.5E-06	U
	^{106}Ru	1.5E-05 ± 1.5E-04	U
	^{125}Sb	5.5E-05 ± 1.6E-04	U
	^{90}Sr	4.6E-05 ± 9.7E-05	U
	^{234}U	3.0E-06 ± 4.3E-06	U
	^{235}U	7.3E-07 ± 7.3E-06	U
	^{238}U	6.7E-06 ± 5.1E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N161 (200-W)	^{144}Ce	3.9E-04 ± 6.5E-04	U
Composite Period	^{60}Co	3.3E-05 ± 8.9E-05	U
12/20/04 to 06/20/05	^{134}Cs	9.8E-05 ± 8.2E-05	U
	^{137}Cs	7.8E-06 ± 6.8E-05	U
	^{152}Eu	-5.4E-05 ± 1.7E-04	U
	^{154}Eu	-7.4E-05 ± 2.5E-04	U
	^{155}Eu	-2.4E-07 ± 2.4E-06	U
	^{238}Pu	7.9E-07 ± 8.2E-07	U
	$^{239/240}$Pu	3.8E-06 ± 5.4E-06	U
	^{103}Ru	6.2E-05 ± 6.3E-05	U
	^{106}Ru	1.8E-04 ± 5.8E-04	U
	^{125}Sb	4.2E-05 ± 1.5E-04	U
	^{113}Sn	-2.1E-05 ± 6.7E-05	U
	^{90}Sr	1.6E-04 ± 1.0E-04	
	^{234}U	7.1E-06 ± 5.0E-06	
	^{235}U	8.6E-07 ± 1.7E-06	U
	^{238}U	4.7E-06 ± 3.9E-06	
	^{65}Zn	-1.9E-04 ± 2.0E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N161 (200-W)	^{60}Co	-6.6E-05 ± 8.0E-05	U
Composite Period	^{134}Cs	-2.2E-05 ± 7.3E-05	U
06/20/05 to 12/19/05	^{137}Cs	8.0E-05 ± 7.3E-05	U
	^{152}Eu	2.7E-05 ± 1.9E-04	U
	^{154}Eu	-5.9E-06 ± 6.0E-05	U
	^{155}Eu	3.2E-05 ± 2.0E-04	U
	^{238}Pu	7.6E-07 ± 7.6E-06	U
	$^{239/240}$Pu	6.8E-06 ± 5.7E-06	
	^{106}Ru	-7.8E-05 ± 5.9E-04	U
	^{125}Sb	9.7E-05 ± 1.6E-04	U
	^{90}Sr	-1.0E-04 ± 1.0E-03	U
	^{234}U	7.6E-06 ± 5.7E-06	
	^{235}U	7.5E-07 ± 1.5E-06	U
	^{238}U	4.2E-06 ± 4.2E-06	U

Location	Isotope	Result ± Uncertainty	RQ*
N165 (200-W)	^{144}Ce	-1.2E-04 ± 7.8E-04	U
Composite Period	^{60}Co	-2.6E-05 ± 1.1E-04	U
12/20/04 to 06/20/05	^{134}Cs	-5.6E-05 ± 1.1E-04	U
	^{137}Cs	4.2E-06 ± 4.2E-05	U
	^{152}Eu	3.1E-05 ± 2.3E-04	U
	^{154}Eu	-4.7E-05 ± 3.0E-04	U
	^{155}Eu	5.2E-05 ± 1.8E-04	U
	^{238}Pu	6.2E-06 ± 1.2E-05	U
	$^{239/240}$Pu	4.4E-04 ± 1.7E-04	
	^{103}Ru	-2.7E-05 ± 9.5E-05	U
	^{106}Ru	2.8E-04 ± 8.2E-04	U
	^{125}Sb	-4.4E-05 ± 2.4E-04	U
	^{113}Sn	3.9E-05 ± 1.0E-04	U
	^{90}Sr	1.0E-04 ± 1.1E-04	U
	^{234}U	1.3E-05 ± 7.6E-06	
	^{235}U	6.9E-07 ± 7.2E-07	U
	^{238}U	8.0E-06 ± 5.4E-06	
	^{65}Zn	-8.8E-05 ± 2.4E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N165 (200-W)	^{60}Co	1.6E-05 ± 8.5E-05	U
Composite Period	^{134}Cs	3.9E-05 ± 8.1E-05	U
06/20/05 to 12/19/05	^{137}Cs	7.0E-06 ± 7.0E-05	U
	^{152}Eu	6.7E-05 ± 1.8E-04	U
	^{154}Eu	-1.5E-04 ± 2.5E-04	U
	^{155}Eu	8.3E-05 ± 1.7E-04	U
	^{238}Pu	2.0E-05 ± 1.9E-05	U
	$^{239/240}$Pu	3.8E-04 ± 1.5E-04	
	^{106}Ru	-1.0E-04 ± 6.3E-04	U
	^{125}Sb	8.5E-05 ± 1.6E-04	U
	^{90}Sr	1.6E-04 ± 1.1E-04	
	^{234}U	1.5E-05 ± 8.7E-06	
	^{235}U	7.7E-07 ± 1.6E-06	U
	^{238}U	9.1E-06 ± 7.0E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N168 (200-W)	^{144}Ce	1.2E-04 ± 6.3E-04	U
Composite Period	^{60}Co	-2.1E-05 ± 8.2E-05	U
12/21/04 to 06/20/05	^{134}Cs	-1.8E-05 ± 6.8E-05	U
	^{137}Cs	6.5E-05 ± 7.1E-05	U
	^{152}Eu	4.9E-06 ± 4.9E-05	U
	^{154}Eu	-1.7E-04 ± 2.1E-04	U
	^{155}Eu	-1.2E-05 ± 1.2E-04	U
	^{238}Pu	-1.6E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.6E-06 ± 3.9E-06	U
	^{103}Ru	2.8E-06 ± 2.8E-05	U
	^{106}Ru	-6.0E-06 ± 6.0E-05	U
	^{125}Sb	-7.6E-05 ± 1.5E-04	U
	^{113}Sn	-5.0E-05 ± 6.4E-05	U
	^{90}Sr	7.5E-05 ± 9.5E-05	U
	^{234}U	3.0E-05 ± 1.4E-05	
	^{235}U	2.5E-06 ± 3.1E-06	
	^{238}U	2.2E-05 ± 1.1E-05	
	^{65}Zn	-5.8E-05 ± 1.5E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N168 (200-W) Composite Period 06/20/05 to 12/19/05	^{60}Co	-2.9E-05 ± 7.2E-05	U
	^{134}Cs	4.7E-05 ± 7.0E-05	U
	^{137}Cs	5.7E-05 ± 6.7E-05	U
	^{152}Eu	1.9E-05 ± 1.5E-04	U
	^{154}Eu	1.1E-04 ± 2.2E-04	U
	^{155}Eu	-2.4E-05 ± 1.2E-04	U
	^{238}Pu	-7.6E-07 ± 7.7E-06	U
	$^{239/240}$Pu	6.1E-06 ± 4.9E-06	
	^{106}Ru	1.6E-04 ± 5.0E-04	U
	^{125}Sb	-1.2E-04 ± 1.6E-04	U
	^{90}Sr	1.4E-04 ± 1.1E-04	U
	^{234}U	2.6E-05 ± 1.3E-05	
	^{235}U	5.8E-06 ± 4.9E-06	
	^{238}U	3.3E-05 ± 1.6E-05	
N200 (200-W) Composite Period 06/20/05 to 12/20/05	^{60}Co	-1.3E-06 ± 1.3E-05	U
	^{134}Cs	-3.9E-05 ± 7.5E-05	U
	^{137}Cs	3.2E-05 ± 7.3E-05	U
	^{152}Eu	1.1E-07 ± 1.1E-06	U
	^{154}Eu	4.1E-05 ± 2.3E-04	U
	^{155}Eu	-9.5E-05 ± 1.9E-04	U
	^{238}Pu	-8.6E-06 ± 8.6E-05	U
	$^{239/240}$Pu	1.6E-06 ± 3.2E-06	U
	^{106}Ru	-1.3E-05 ± 1.3E-04	U
	^{125}Sb	3.9E-05 ± 1.6E-04	U
	^{90}Sr	-2.6E-05 ± 7.9E-05	U
	^{234}U	8.4E-06 ± 5.9E-06	
	^{235}U	4.2E-06 ± 4.0E-06	
	^{238}U	1.7E-05 ± 9.7E-06	
N304 (200-W) Composite Period 06/20/05 to 12/19/05	^{60}Co	4.1E-06 ± 4.1E-05	U
	^{134}Cs	3.5E-05 ± 6.4E-05	U
	^{137}Cs	5.4E-05 ± 7.9E-05	U
	^{152}Eu	3.5E-05 ± 1.7E-04	U
	^{154}Eu	8.3E-05 ± 2.1E-04	U
	^{155}Eu	-1.1E-04 ± 1.6E-04	U
	^{238}Pu	5.8E-06 ± 8.1E-06	U
	$^{239/240}$Pu	2.9E-06 ± 3.1E-06	
	^{106}Ru	-3.8E-04 ± 5.4E-04	U
	^{125}Sb	-5.5E-05 ± 1.5E-04	U
	^{90}Sr	-1.7E-05 ± 8.1E-05	U
	^{234}U	8.5E-06 ± 6.3E-06	
	^{235}U	1.4E-06 ± 2.1E-06	U
	^{238}U	5.9E-06 ± 5.2E-06	U

Location	Isotope	Result ± Uncertainty	RQ*
N200 (200-W) Composite Period 12/22/04 to 06/20/05	^{144}Ce	8.8E-04 ± 6.7E-04	U
	^{60}Co	-4.4E-05 ± 8.3E-05	U
	^{134}Cs	-4.9E-06 ± 4.9E-05	U
	^{137}Cs	5.6E-05 ± 6.5E-05	U
	^{152}Eu	1.6E-05 ± 1.6E-04	U
	^{154}Eu	1.9E-04 ± 2.2E-04	U
	^{155}Eu	-8.8E-05 ± 1.7E-04	U
	^{238}Pu	7.3E-06 ± 1.4E-05	U
	$^{239/240}$Pu	2.3E-06 ± 6.5E-06	U
	^{103}Ru	-4.9E-05 ± 6.5E-05	U
	^{106}Ru	4.7E-04 ± 6.3E-04	U
	^{125}Sb	8.9E-06 ± 8.9E-05	U
	^{113}Sn	3.6E-05 ± 6.8E-05	U
	^{90}Sr	-5.1E-05 ± 8.0E-05	U
	^{234}U	7.3E-06 ± 5.7E-06	
	^{235}U	8.7E-07 ± 1.8E-06	U
	^{238}U	6.9E-06 ± 5.3E-06	
	^{65}Zn	8.8E-05 ± 1.7E-04	U
N304 (200-W) Composite Period 12/21/04 to 06/20/05	^{144}Ce	2.3E-04 ± 5.0E-04	U
	^{60}Co	-3.7E-05 ± 6.2E-05	U
	^{134}Cs	-6.7E-06 ± 6.4E-05	U
	^{137}Cs	4.2E-05 ± 5.4E-05	U
	^{152}Eu	1.8E-05 ± 1.2E-04	U
	^{154}Eu	3.7E-05 ± 2.1E-04	U
	^{155}Eu	3.7E-06 ± 3.7E-05	U
	^{238}Pu	5.4E-06 ± 1.5E-05	U
	$^{239/240}$Pu	9.4E-06 ± 7.1E-06	
	^{103}Ru	-1.8E-05 ± 5.2E-05	U
	^{106}Ru	-2.4E-04 ± 4.7E-04	U
	^{125}Sb	-6.0E-06 ± 6.0E-05	U
	^{113}Sn	8.4E-06 ± 5.9E-05	U
	^{90}Sr	-1.6E-04 ± 1.6E-04	U
	^{234}U	1.2E-05 ± 7.5E-06	
	^{235}U	2.4E-06 ± 3.6E-06	U
	^{238}U	1.0E-05 ± 6.6E-06	
	^{65}Zn	-3.9E-05 ± 1.3E-04	U
N433 (200-W) Composite Period 12/20/04 to 06/20/05	^{144}Ce	8.9E-05 ± 6.5E-04	U
	^{60}Co	-3.3E-05 ± 8.9E-05	U
	^{134}Cs	6.8E-05 ± 7.7E-05	U
	^{137}Cs	5.2E-05 ± 6.9E-05	U
	^{152}Eu	-7.2E-05 ± 1.8E-04	U
	^{154}Eu	-6.2E-05 ± 2.3E-04	U
	^{155}Eu	5.2E-07 ± 5.2E-06	U
	^{238}Pu	-3.0E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.0E-04 ± 4.1E-05	
	^{103}Ru	1.0E-05 ± 6.1E-05	U
	^{106}Ru	-2.2E-04 ± 6.3E-04	U
	^{125}Sb	-9.9E-05 ± 1.5E-04	U
	^{113}Sn	-2.0E-05 ± 7.0E-05	U
	^{90}Sr	-2.6E-04 ± 2.6E-04	U
	^{234}U	1.1E-05 ± 7.4E-06	
	^{235}U	1.6E-06 ± 3.3E-06	U
	^{238}U	1.2E-05 ± 8.0E-06	
	^{65}Zn	-2.1E-04 ± 2.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N433 (200-W) Composite Period 06/20/05 to 12/19/05	^{60}Co	1.2E-05 ± 9.5E-05	U
	^{134}Cs	-2.2E-05 ± 9.0E-05	U
	^{137}Cs	2.0E-05 ± 7.5E-05	U
	^{152}Eu	1.9E-05 ± 1.8E-04	U
	^{154}Eu	-8.3E-05 ± 2.5E-04	U
	^{155}Eu	-1.5E-04 ± 1.9E-04	U
	^{238}Pu	6.4E-06 ± 8.2E-06	U
	$^{239/240}$Pu	4.0E-06 ± 4.5E-06	U
	^{106}Ru	8.7E-05 ± 7.5E-04	U
	^{125}Sb	-9.6E-05 ± 1.7E-04	U
	^{90}Sr	6.0E-05 ± 1.0E-04	U
	^{234}U	1.5E-05 ± 8.8E-06	
	^{235}U	2.7E-06 ± 3.2E-06	
	^{238}U	9.0E-06 ± 7.1E-06	
N441 (200-W) Composite Period 06/20/05 to 12/19/05	^{60}Co	-3.6E-05 ± 7.7E-05	U
	^{134}Cs	2.6E-05 ± 6.1E-05	U
	^{137}Cs	1.3E-04 ± 9.4E-05	
	^{152}Eu	-4.2E-05 ± 1.3E-04	U
	^{154}Eu	-3.5E-05 ± 2.2E-04	U
	^{155}Eu	-3.6E-06 ± 3.6E-05	U
	^{238}Pu	3.4E-06 ± 4.7E-06	U
	$^{239/240}$Pu	2.7E-06 ± 3.5E-06	U
	^{106}Ru	3.3E-04 ± 5.4E-04	U
	^{125}Sb	4.6E-05 ± 1.3E-04	U
	^{90}Sr	-9.4E-07 ± 9.4E-06	U
	^{234}U	7.1E-06 ± 5.9E-06	
	^{235}U	2.6E-06 ± 3.1E-06	
	^{238}U	4.7E-06 ± 4.8E-06	U
N442 (200-W) Composite Period 06/20/05 to 12/19/05	^{60}Co	6.2E-06 ± 6.2E-05	U
	^{134}Cs	2.9E-05 ± 6.6E-05	U
	^{137}Cs	1.8E-06 ± 1.8E-05	U
	^{152}Eu	-1.4E-04 ± 1.7E-04	U
	^{154}Eu	8.1E-05 ± 2.3E-04	U
	^{155}Eu	-1.1E-05 ± 1.1E-04	U
	^{238}Pu	-4.8E-06 ± 6.2E-06	U
	$^{239/240}$Pu	5.5E-06 ± 4.7E-06	U
	^{106}Ru	3.4E-04 ± 6.2E-04	U
	^{125}Sb	-3.1E-05 ± 1.6E-04	U
	^{90}Sr	1.1E-04 ± 1.0E-04	U
	^{234}U	1.8E-05 ± 1.1E-05	
	^{235}U	4.9E-06 ± 4.7E-06	
	^{238}U	9.9E-06 ± 7.4E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N441 (200-W) Composite Period 12/21/04 to 06/20/05	^{144}Ce	2.4E-05 ± 2.4E-04	U
	^{60}Co	-4.2E-05 ± 7.8E-05	U
	^{134}Cs	-2.6E-05 ± 6.5E-05	U
	^{137}Cs	6.1E-05 ± 7.1E-05	U
	^{152}Eu	-1.0E-04 ± 1.6E-04	U
	^{154}Eu	-2.1E-04 ± 2.2E-04	U
	^{155}Eu	-6.0E-05 ± 1.9E-04	U
	^{238}Pu	1.2E-05 ± 1.5E-05	U
	$^{239/240}$Pu	5.2E-06 ± 6.4E-06	U
	^{103}Ru	-1.9E-05 ± 6.5E-05	U
	^{106}Ru	1.9E-05 ± 1.9E-04	U
	^{125}Sb	-8.2E-05 ± 1.5E-04	U
	^{113}Sn	2.1E-05 ± 7.2E-05	U
	^{90}Sr	7.8E-05 ± 9.6E-05	U
	^{234}U	5.0E-06 ± 6.7E-06	U
	^{235}U	2.3E-06 ± 3.6E-06	U
	^{238}U	5.0E-06 ± 4.8E-06	U
	^{65}Zn	6.4E-05 ± 1.5E-04	U
N442 (200-W) Composite Period 12/21/04 to 06/20/05	^{144}Ce	9.1E-05 ± 6.9E-04	U
	^{60}Co	2.2E-05 ± 8.2E-05	U
	^{134}Cs	-1.8E-05 ± 8.0E-05	U
	^{137}Cs	4.3E-05 ± 7.7E-05	U
	^{152}Eu	-9.5E-05 ± 1.8E-04	U
	^{154}Eu	-6.9E-05 ± 2.5E-04	U
	^{155}Eu	4.1E-05 ± 1.7E-04	U
	^{238}Pu	-2.1E-06 ± 1.3E-05	U
	$^{239/240}$Pu	4.9E-06 ± 5.0E-06	U
	^{103}Ru	-5.6E-05 ± 8.2E-05	U
	^{106}Ru	-1.7E-04 ± 6.6E-04	U
	^{125}Sb	-2.0E-05 ± 1.5E-04	U
	^{113}Sn	1.0E-04 ± 7.9E-05	U
	^{90}Sr	1.2E-04 ± 9.9E-05	U
	^{234}U	1.3E-05 ± 7.9E-06	
	^{235}U	2.3E-06 ± 4.2E-06	U
	^{238}U	7.9E-06 ± 6.0E-06	
	^{65}Zn	2.0E-04 ± 2.1E-04	U
N449 (200-W) Composite Period 12/20/04 to 06/20/05	^{144}Ce	4.0E-04 ± 5.3E-04	U
	^{60}Co	-5.3E-05 ± 7.7E-05	U
	^{134}Cs	-2.2E-05 ± 5.8E-05	U
	^{137}Cs	-3.0E-05 ± 5.7E-05	U
	^{152}Eu	5.2E-05 ± 1.2E-04	U
	^{154}Eu	-1.4E-04 ± 1.9E-04	U
	^{155}Eu	-7.2E-05 ± 1.3E-04	U
	^{238}Pu	7.0E-07 ± 7.0E-06	U
	$^{239/240}$Pu	6.3E-06 ± 4.9E-06	
	^{103}Ru	-2.8E-05 ± 6.3E-05	U
	^{106}Ru	2.7E-04 ± 4.6E-04	U
	^{125}Sb	-2.1E-05 ± 1.3E-04	U
	^{113}Sn	2.8E-06 ± 2.8E-05	U
	^{90}Sr	-5.6E-05 ± 7.4E-05	U
	^{234}U	9.8E-06 ± 7.6E-06	
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	1.0E-05 ± 6.9E-06	
	^{65}Zn	-8.8E-05 ± 1.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N449 (200-W)	^{60}Co	-3.3E-05 ± 7.9E-05	U
Composite Period	^{134}Cs	-2.3E-05 ± 7.0E-05	U
06/20/05 to 12/19/05	^{137}Cs	1.8E-05 ± 6.0E-05	U
	^{152}Eu	2.6E-06 ± 2.6E-05	U
	^{154}Eu	-4.6E-05 ± 1.8E-04	U
	^{155}Eu	3.3E-05 ± 1.5E-04	U
	^{238}Pu	1.2E-06 ± 4.5E-06	U
	$^{239/240}$Pu	1.8E-06 ± 2.8E-06	U
	^{106}Ru	-5.5E-05 ± 5.3E-04	U
	^{125}Sb	-9.2E-05 ± 1.4E-04	U
	^{90}Sr	-9.2E-05 ± 9.2E-04	U
	^{234}U	8.2E-06 ± 6.1E-06	
	^{235}U	8.1E-07 ± 2.8E-06	U
	^{238}U	3.7E-06 ± 4.2E-06	U

Location	Isotope	Result ± Uncertainty	RQ*
N456 (200-W)	^{144}Ce	-3.0E-04 ± 8.2E-04	U
Composite Period	^{60}Co	-4.3E-05 ± 1.1E-04	U
12/20/04 to 06/20/05	^{134}Cs	-5.4E-05 ± 1.3E-04	U
	^{137}Cs	4.3E-05 ± 1.0E-04	U
	^{152}Eu	1.2E-04 ± 2.5E-04	U
	^{154}Eu	1.4E-04 ± 3.5E-04	U
	^{155}Eu	7.1E-07 ± 7.1E-06	U
	^{238}Pu	-1.0E-05 ± 1.5E-05	U
	$^{239/240}$Pu	-7.3E-07 ± 3.3E-06	U
	^{103}Ru	-4.8E-05 ± 1.1E-04	U
	^{106}Ru	-1.3E-04 ± 8.4E-04	U
	^{125}Sb	-9.9E-05 ± 2.5E-04	U
	^{113}Sn	-5.7E-05 ± 1.1E-04	U
	^{90}Sr	-5.1E-05 ± 7.6E-05	U
	^{234}U	1.4E-05 ± 8.7E-06	
	^{235}U	8.8E-07 ± 1.8E-06	U
	^{238}U	1.0E-05 ± 7.5E-06	
	^{65}Zn	2.1E-05 ± 2.1E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N456 (200-W)	^{60}Co	3.7E-05 ± 8.3E-05	U
Composite Period	^{134}Cs	1.2E-05 ± 8.0E-05	U
06/20/05 to 12/19/05	^{137}Cs	-2.7E-05 ± 7.3E-05	U
	^{152}Eu	-2.6E-05 ± 1.7E-04	U
	^{154}Eu	-3.5E-05 ± 3.0E-04	U
	^{155}Eu	1.0E-04 ± 1.7E-04	U
	^{238}Pu	6.1E-06 ± 1.7E-05	U
	$^{239/240}$Pu	-2.3E-06 ± 3.5E-06	U
	^{106}Ru	-4.5E-04 ± 6.5E-04	U
	^{125}Sb	4.0E-05 ± 1.7E-04	U
	^{90}Sr	8.7E-05 ± 2.4E-05	U
	^{234}U	2.6E-05 ± 1.3E-05	
	^{235}U	4.0E-06 ± 4.6E-06	U
	^{238}U	1.9E-05 ± 1.0E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N457 (200-W)	^{144}Ce	2.3E-04 ± 6.3E-04	U
Composite Period	^{60}Co	5.4E-05 ± 8.3E-05	U
12/20/04 to 06/20/05	^{134}Cs	-1.9E-05 ± 7.6E-05	U
	^{137}Cs	2.8E-05 ± 7.0E-05	U
	^{152}Eu	6.3E-05 ± 1.6E-04	U
	^{154}Eu	-6.6E-05 ± 2.7E-04	U
	^{155}Eu	4.1E-06 ± 4.1E-05	U
	^{238}Pu	-3.9E-06 ± 1.4E-05	U
	$^{239/240}$Pu	6.4E-06 ± 4.7E-06	
	^{103}Ru	-1.4E-05 ± 6.9E-05	U
	^{106}Ru	1.8E-04 ± 5.8E-04	U
	^{125}Sb	6.4E-05 ± 1.4E-04	U
	^{113}Sn	1.0E-05 ± 7.2E-05	U
	^{90}Sr	-1.0E-04 ± 1.0E-04	U
	^{234}U	9.3E-06 ± 6.3E-06	
	^{235}U	3.7E-06 ± 3.6E-06	
	^{238}U	8.6E-06 ± 6.3E-06	
	^{65}Zn	-1.1E-05 ± 1.1E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N457 (200-W)	^{60}Co	-4.5E-05 ± 6.9E-05	U
Composite Period	^{134}Cs	-1.6E-05 ± 6.6E-05	U
06/20/05 to 12/19/05	^{137}Cs	-4.7E-05 ± 5.9E-05	U
	^{152}Eu	-6.6E-05 ± 1.3E-04	U
	^{154}Eu	-4.3E-05 ± 1.9E-04	U
	^{155}Eu	1.0E-04 ± 1.4E-04	U
	^{238}Pu	-7.6E-07 ± 7.6E-06	U
	$^{239/240}$Pu	7.6E-07 ± 4.6E-06	U
	^{106}Ru	-3.8E-04 ± 6.5E-04	U
	^{125}Sb	3.0E-05 ± 1.4E-04	U
	^{90}Sr	5.7E-05 ± 9.2E-05	U
	^{234}U	6.3E-06 ± 5.0E-06	
	^{235}U	-1.4E-06 ± 2.0E-06	U
	^{238}U	8.9E-06 ± 5.8E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N550 (200-W)	^{144}Ce	1.9E-04 ± 6.6E-04	U
Composite Period	^{60}Co	-1.9E-05 ± 7.1E-05	U
12/21/04 to 06/20/05	^{134}Cs	3.7E-05 ± 6.6E-05	U
	^{137}Cs	5.3E-05 ± 6.6E-05	U
	^{152}Eu	7.9E-05 ± 1.5E-04	U
	^{154}Eu	3.9E-05 ± 2.1E-04	U
	^{155}Eu	-3.0E-05 ± 1.5E-04	U
	^{238}Pu	-8.0E-07 ± 8.0E-06	U
	$^{239/240}$Pu	2.3E-06 ± 4.2E-06	U
	^{103}Ru	2.9E-05 ± 5.8E-05	U
	^{106}Ru	-2.5E-04 ± 5.3E-04	U
	^{125}Sb	1.1E-04 ± 1.4E-04	U
	^{113}Sn	2.5E-05 ± 6.5E-05	U
	^{90}Sr	-1.3E-04 ± 1.4E-04	U
	^{234}U	3.0E-05 ± 1.4E-05	
	^{235}U	2.5E-06 ± 3.8E-06	U
	^{238}U	2.1E-05 ± 1.0E-05	
	^{65}Zn	3.4E-05 ± 1.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N550 (200-W)	^{60}Co	-1.0E-05 ± 7.2E-05	U
Composite Period	^{134}Cs	-2.9E-05 ± 6.3E-05	U
06/20/05 to 12/19/05	^{137}Cs	5.5E-05 ± 6.1E-05	U
	^{152}Eu	1.1E-05 ± 1.1E-04	U
	^{154}Eu	-6.6E-05 ± 2.0E-04	U
	^{155}Eu	1.3E-04 ± 1.4E-04	U
	^{238}Pu	2.2E-06 ± 9.7E-06	U
	$^{239/240}$Pu	8.0E-06 ± 7.0E-06	U
	^{106}Ru	1.6E-05 ± 1.6E-04	U
	^{125}Sb	2.5E-05 ± 1.4E-04	U
	^{90}Sr	-8.8E-06 ± 7.0E-05	U
	^{234}U	3.0E-05 ± 1.5E-05	
	^{235}U	3.3E-06 ± 4.2E-06	U
	^{238}U	3.0E-05 ± 1.5E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N551 (200-W)	^{144}Ce	-6.7E-05 ± 6.7E-04	U
Composite Period	^{60}Co	-3.6E-05 ± 7.9E-05	U
12/21/04 to 06/20/05	^{134}Cs	6.4E-06 ± 6.4E-05	U
	^{137}Cs	3.5E-05 ± 7.0E-05	U
	^{152}Eu	-1.9E-04 ± 1.8E-04	U
	^{154}Eu	4.6E-05 ± 1.9E-04	U
	^{155}Eu	-6.1E-05 ± 1.9E-04	U
	^{238}Pu	4.4E-06 ± 1.5E-05	U
	$^{239/240}$Pu	6.5E-06 ± 6.1E-06	U
	^{103}Ru	-7.3E-07 ± 7.3E-06	U
	^{106}Ru	-4.8E-04 ± 6.0E-04	U
	^{125}Sb	1.3E-04 ± 1.7E-04	U
	^{113}Sn	2.7E-05 ± 6.7E-05	U
	^{90}Sr	1.4E-05 ± 1.0E-04	U
	^{234}U	2.4E-05 ± 1.1E-05	
	^{235}U	5.0E-06 ± 4.2E-06	
	^{238}U	2.6E-05 ± 1.2E-05	
	^{65}Zn	-5.0E-05 ± 1.6E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N551 (200-W)	^{60}Co	-4.1E-05 ± 1.4E-04	U
Composite Period	^{134}Cs	-5.7E-05 ± 1.4E-04	U
06/20/05 to 10/24/05	^{137}Cs	4.0E-04 ± 2.1E-04	
	^{152}Eu	-1.1E-04 ± 3.2E-04	U
	^{154}Eu	-2.3E-05 ± 2.3E-04	U
	^{155}Eu	1.0E-04 ± 2.5E-04	U
	^{238}Pu	-5.8E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.9E-05 ± 1.1E-05	
	^{106}Ru	-6.1E-04 ± 1.2E-03	U
	^{125}Sb	6.3E-05 ± 3.2E-04	U
	^{90}Sr	6.6E-04 ± 2.6E-04	
	^{234}U	6.3E-05 ± 2.8E-05	
	^{235}U	9.7E-06 ± 7.3E-06	
	^{238}U	4.6E-05 ± 2.2E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N554 (200-W)	^{144}Ce	1.5E-04 ± 1.0E-03	U
Composite Period	^{60}Co	5.0E-05 ± 1.5E-04	U
04/01/05 to 06/20/05	^{134}Cs	-6.2E-05 ± 1.3E-04	U
	^{137}Cs	-1.4E-05 ± 1.2E-04	U
	^{152}Eu	-1.7E-04 ± 3.0E-04	U
	^{154}Eu	-6.2E-04 ± 6.3E-04	U
	^{155}Eu	6.3E-05 ± 2.9E-04	U
	^{238}Pu	2.3E-05 ± 3.0E-05	U
	$^{239/240}$Pu	6.8E-06 ± 1.2E-05	U
	^{103}Ru	-4.0E-05 ± 1.1E-04	U
	^{106}Ru	4.3E-04 ± 1.0E-03	U
	^{125}Sb	1.3E-04 ± 2.8E-04	U
	^{113}Sn	2.6E-06 ± 2.6E-05	U
	^{90}Sr	-4.8E-05 ± 1.4E-04	U
	^{234}U	2.4E-05 ± 1.5E-05	
	^{235}U	6.8E-06 ± 6.9E-06	
	^{238}U	1.8E-05 ± 1.2E-05	
	^{65}Zn	-2.5E-04 ± 3.1E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N554 (200-W)	^{60}Co	4.7E-05 ± 1.1E-04	U
Composite Period	^{134}Cs	-4.8E-05 ± 9.8E-05	U
06/20/05 to 12/19/05	^{137}Cs	2.6E-05 ± 9.2E-05	U
	^{152}Eu	-5.5E-05 ± 2.3E-04	U
	^{154}Eu	-8.1E-06 ± 8.1E-05	U
	^{155}Eu	-4.6E-05 ± 1.7E-04	U
	^{238}Pu	-6.3E-07 ± 4.2E-06	U
	$^{239/240}$Pu	7.0E-06 ± 4.9E-06	
	^{106}Ru	5.1E-05 ± 5.1E-04	U
	^{125}Sb	1.0E-04 ± 2.3E-04	U
	^{90}Sr	3.7E-05 ± 7.5E-05	
	^{234}U	1.4E-05 ± 8.4E-06	
	^{235}U	3.9E-06 ± 3.8E-06	
	^{238}U	1.4E-05 ± 8.3E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N555 (200-W)	^{144}Ce	-7.6E-04 ± 1.7E-03	U
Composite Period	^{60}Co	-8.7E-06 ± 8.7E-05	U
04/01/05 to 06/20/05	^{134}Cs	7.7E-05 ± 1.7E-04	U
	^{137}Cs	-1.1E-04 ± 1.6E-04	U
	^{152}Eu	-4.7E-04 ± 4.8E-04	U
	^{154}Eu	1.1E-04 ± 4.7E-04	U
	^{155}Eu	-5.5E-05 ± 4.4E-04	U
	^{238}Pu	3.8E-05 ± 4.3E-05	U
	$^{239/240}$Pu	2.4E-06 ± 2.4E-06	U
	^{103}Ru	-4.1E-05 ± 1.4E-04	U
	^{106}Ru	2.0E-04 ± 1.3E-03	U
	^{125}Sb	6.0E-05 ± 3.7E-04	U
	^{113}Sn	3.1E-05 ± 1.9E-04	U
	^{90}Sr	1.1E-04 ± 1.5E-04	U
	^{234}U	9.5E-06 ± 1.3E-05	U
	^{235}U	2.4E-06 ± 2.4E-05	U
	^{238}U	7.1E-06 ± 8.6E-06	
	^{65}Zn	2.5E-04 ± 3.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N555 (200-W)	^{60}Co	1.7E-05 ± 8.3E-05	U
Composite Period	^{134}Cs	9.2E-06 ± 6.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	4.4E-05 ± 6.5E-05	U
	^{152}Eu	4.2E-06 ± 4.2E-05	U
	^{154}Eu	1.0E-04 ± 1.9E-04	U
	^{155}Eu	9.3E-05 ± 1.5E-04	U
	^{238}Pu	1.3E-06 ± 4.7E-06	U
	$^{239/240}$Pu	2.0E-05 ± 9.9E-06	
	^{106}Ru	-2.6E-04 ± 5.4E-04	U
	^{125}Sb	4.4E-05 ± 1.4E-04	U
	^{90}Sr	1.9E-04 ± 1.0E-04	
	^{234}U	1.1E-05 ± 7.3E-06	
	^{235}U	1.6E-06 ± 3.3E-06	U
	^{238}U	3.0E-06 ± 4.9E-06	U

Location	Isotope	Result ± Uncertainty	RQ*
N956 (200-W)	^{144}Ce	-9.0E-04 ± 9.4E-04	U
Composite Period	^{60}Co	9.0E-05 ± 8.4E-05	U
12/20/04 to 06/20/05	^{134}Cs	-5.6E-05 ± 8.6E-05	U
	^{137}Cs	2.0E-04 ± 1.5E-04	
	^{152}Eu	-1.0E-04 ± 2.1E-04	U
	^{154}Eu	-8.1E-05 ± 2.2E-04	U
	^{155}Eu	1.8E-04 ± 2.1E-04	U
	^{238}Pu	4.9E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.6E-06 ± 4.1E-06	U
	^{103}Ru	8.4E-07 ± 8.4E-06	U
	^{106}Ru	-3.2E-05 ± 3.2E-04	U
	^{125}Sb	1.9E-05 ± 1.7E-04	U
	^{113}Sn	2.6E-05 ± 7.4E-05	U
	^{90}Sr	-2.7E-06 ± 2.7E-05	U
	^{234}U	8.2E-06 ± 5.6E-06	
	^{235}U	2.5E-06 ± 3.0E-06	
	^{238}U	9.0E-06 ± 5.7E-06	
	^{65}Zn	-1.1E-05 ± 1.1E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N956 (200-W)	^{60}Co	-1.0E-06 ± 1.0E-05	U
Composite Period	^{134}Cs	5.5E-06 ± 5.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	3.2E-04 ± 1.4E-04	
	^{152}Eu	-7.6E-05 ± 1.4E-04	U
	^{154}Eu	1.5E-04 ± 2.1E-04	U
	^{155}Eu	7.4E-05 ± 1.4E-04	U
	^{238}Pu	-2.4E-06 ± 4.9E-06	U
	$^{239/240}$Pu	3.2E-06 ± 3.4E-06	
	^{106}Ru	8.9E-05 ± 5.4E-04	U
	^{125}Sb	-1.2E-04 ± 1.3E-04	U
	^{90}Sr	1.5E-04 ± 9.1E-05	
	^{234}U	5.7E-06 ± 6.4E-06	U
	^{235}U	2.3E-06 ± 2.8E-06	
	^{238}U	1.1E-05 ± 7.4E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N963 (200-W)	^{144}Ce	-2.4E-05 ± 2.4E-04	U
Composite Period	^{60}Co	-4.2E-06 ± 4.2E-05	U
12/21/04 to 06/20/05	^{134}Cs	1.5E-06 ± 1.5E-05	U
	^{137}Cs	1.0E-04 ± 7.3E-05	U
	^{152}Eu	3.4E-05 ± 1.2E-04	U
	^{154}Eu	7.8E-05 ± 1.9E-04	U
	^{155}Eu	-1.6E-06 ± 1.6E-05	U
	^{238}Pu	7.8E-06 ± 1.4E-05	U
	$^{239/240}$Pu	2.2E-06 ± 3.4E-06	U
	^{103}Ru	1.0E-05 ± 5.7E-05	U
	^{106}Ru	-3.9E-04 ± 4.9E-04	U
	^{125}Sb	7.4E-05 ± 1.3E-04	U
	^{113}Sn	1.2E-05 ± 6.2E-05	U
	^{90}Sr	2.9E-05 ± 8.6E-05	U
	^{234}U	1.0E-05 ± 7.1E-06	
	^{235}U	-7.8E-07 ± 2.7E-06	U
	^{238}U	4.4E-06 ± 4.0E-06	
	^{65}Zn	-2.0E-05 ± 1.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N963 (200-W)	^{60}Co	-3.5E-05 ± 7.2E-05	U
Composite Period	^{134}Cs	-1.7E-05 ± 6.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	4.4E-05 ± 6.7E-05	U
	^{152}Eu	7.1E-05 ± 1.5E-04	U
	^{154}Eu	2.0E-04 ± 2.5E-04	U
	^{155}Eu	-1.6E-05 ± 1.6E-04	U
	^{238}Pu	6.8E-07 ± 7.0E-07	U
	$^{239/240}$Pu	4.1E-06 ± 3.7E-06	U
	^{106}Ru	2.7E-04 ± 5.8E-04	U
	^{125}Sb	-5.8E-06 ± 5.8E-05	U
	^{90}Sr	7.3E-05 ± 8.3E-05	
	^{234}U	1.3E-05 ± 8.1E-06	
	^{235}U	3.4E-06 ± 3.6E-06	
	^{238}U	6.2E-06 ± 5.4E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N964 (200-W)	^{144}Ce	2.9E-04 ± 6.0E-04	U
Composite Period	^{60}Co	-6.6E-06 ± 6.6E-05	U
12/20/04 to 06/20/05	^{134}Cs	1.2E-05 ± 6.4E-05	U
	^{137}Cs	1.9E-05 ± 6.0E-05	U
	^{152}Eu	-5.2E-05 ± 1.5E-04	U
	^{154}Eu	-6.3E-05 ± 2.5E-04	U
	^{155}Eu	5.2E-05 ± 1.5E-04	U
	^{238}Pu	7.2E-06 ± 1.4E-05	U
	$^{239/240}$Pu	-7.2E-07 ± 3.8E-06	U
	^{103}Ru	-1.5E-05 ± 5.6E-05	U
	^{106}Ru	-4.8E-05 ± 4.8E-04	U
	^{125}Sb	-1.1E-04 ± 1.4E-04	U
	^{113}Sn	-2.1E-06 ± 2.1E-05	U
	^{90}Sr	1.1E-04 ± 1.1E-04	U
	^{234}U	8.6E-06 ± 6.3E-06	
	^{235}U	-7.2E-07 ± 2.5E-06	U
	^{238}U	4.7E-06 ± 4.5E-06	U
	^{65}Zn	1.3E-04 ± 1.7E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N964 (200-W)	^{60}Co	-3.4E-05 ± 1.0E-04	U
Composite Period	^{134}Cs	-3.9E-05 ± 8.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	-2.6E-05 ± 8.7E-05	U
	^{152}Eu	9.0E-05 ± 2.1E-04	U
	^{154}Eu	-4.0E-04 ± 3.6E-04	U
	^{155}Eu	1.1E-04 ± 1.9E-04	U
	^{238}Pu	-7.3E-07 ± 3.3E-06	U
	$^{239/240}$Pu	3.6E-06 ± 4.0E-06	U
	^{106}Ru	7.6E-05 ± 6.8E-04	U
	^{125}Sb	1.7E-04 ± 1.9E-04	U
	^{90}Sr	8.8E-05 ± 7.6E-05	U
	^{234}U	1.8E-05 ± 1.0E-05	
	^{235}U	3.5E-06 ± 4.5E-06	U
	^{238}U	1.4E-05 ± 9.5E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N965 (200-W)	^{144}Ce	-2.6E-04 ± 6.4E-04	U
Composite Period	^{60}Co	-6.0E-05 ± 8.4E-05	U
12/20/04 to 06/20/05	^{134}Cs	-3.6E-06 ± 3.6E-05	U
	^{137}Cs	-3.6E-05 ± 6.8E-05	U
	^{152}Eu	1.0E-04 ± 1.7E-04	U
	^{154}Eu	3.0E-04 ± 2.9E-04	U
	^{155}Eu	-7.9E-05 ± 1.8E-04	U
	^{238}Pu	-6.6E-07 ± 6.6E-06	U
	$^{239/240}$Pu	2.0E-06 ± 3.1E-06	U
	^{103}Ru	3.8E-06 ± 3.8E-05	U
	^{106}Ru	-2.3E-06 ± 2.3E-05	U
	^{125}Sb	8.7E-05 ± 1.5E-04	U
	^{113}Sn	4.3E-06 ± 4.4E-05	U
	^{90}Sr	2.1E-05 ± 1.2E-04	U
	^{234}U	7.0E-06 ± 5.8E-06	U
	^{235}U	4.3E-06 ± 3.9E-06	
	^{238}U	7.0E-06 ± 5.0E-06	
	^{65}Zn	-1.6E-04 ± 1.8E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N965 (200-W)	^{60}Co	8.7E-06 ± 8.1E-05	U
Composite Period	^{134}Cs	-4.1E-05 ± 6.5E-05	U
06/20/05 to 12/19/05	^{137}Cs	3.7E-05 ± 4.8E-05	U
	^{152}Eu	-1.4E-05 ± 1.4E-04	U
	^{154}Eu	-6.9E-05 ± 2.2E-04	U
	^{155}Eu	-5.0E-05 ± 1.4E-04	U
	^{238}Pu	6.3E-07 ± 2.8E-06	U
	$^{239/240}$Pu	2.5E-06 ± 2.7E-06	
	^{106}Ru	6.8E-04 ± 7.1E-04	U
	^{125}Sb	4.5E-05 ± 1.4E-04	U
	^{90}Sr	1.1E-04 ± 9.2E-05	U
	^{234}U	1.1E-05 ± 7.5E-06	
	^{235}U	3.4E-06 ± 3.6E-06	
	^{238}U	8.6E-06 ± 6.5E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N966 (200-W)	^{144}Ce	-8.7E-05 ± 5.1E-04	U
Composite Period	^{60}Co	2.2E-05 ± 7.3E-05	U
12/21/04 to 06/20/05	^{134}Cs	3.4E-05 ± 6.4E-05	U
	^{137}Cs	4.2E-05 ± 5.9E-05	U
	^{152}Eu	1.7E-06 ± 1.7E-05	U
	^{154}Eu	1.8E-05 ± 1.8E-04	U
	^{155}Eu	-1.9E-05 ± 1.3E-04	U
	^{238}Pu	-2.7E-06 ± 1.1E-05	U
	$^{239/240}$Pu	6.0E-06 ± 5.3E-06	U
	^{103}Ru	2.0E-05 ± 5.8E-05	U
	^{106}Ru	5.3E-04 ± 4.0E-04	U
	^{125}Sb	-5.2E-05 ± 1.3E-04	U
	^{113}Sn	4.1E-06 ± 4.1E-05	U
	^{90}Sr	2.8E-05 ± 9.8E-05	U
	^{234}U	7.7E-06 ± 5.8E-06	
	^{235}U	7.0E-07 ± 7.0E-06	U
	^{238}U	7.7E-06 ± 5.5E-06	
	^{65}Zn	1.8E-04 ± 1.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N966 (200-W)	^{60}Co	-6.0E-05 ± 1.1E-04	U
Composite Period	^{134}Cs	-1.4E-06 ± 1.4E-05	U
06/20/05 to 12/19/05	^{137}Cs	-8.3E-05 ± 1.0E-04	U
	^{152}Eu	-8.6E-05 ± 2.4E-04	U
	^{154}Eu	1.6E-04 ± 2.7E-04	U
	^{155}Eu	1.5E-04 ± 1.9E-04	U
	^{238}Pu	7.6E-06 ± 1.2E-05	U
	$^{239/240}$Pu	8.5E-06 ± 6.7E-06	
	^{106}Ru	-3.4E-04 ± 9.2E-04	U
	^{125}Sb	-1.3E-05 ± 1.3E-04	U
	^{90}Sr	-3.5E-05 ± 6.9E-05	U
	^{234}U	1.0E-05 ± 6.7E-06	
	^{235}U	2.4E-06 ± 2.9E-06	
	^{238}U	1.0E-05 ± 6.7E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N974 (200-W)	^{144}Ce	-5.2E-05 ± 5.2E-04	U
Composite Period	^{60}Co	-1.3E-05 ± 7.8E-05	U
12/20/04 to 06/20/05	^{134}Cs	7.1E-06 ± 6.2E-05	U
	^{137}Cs	7.1E-05 ± 5.9E-05	U
	^{152}Eu	-6.9E-05 ± 1.3E-04	U
	^{154}Eu	-1.6E-04 ± 2.1E-04	U
	^{155}Eu	-7.9E-05 ± 1.3E-04	U
	^{238}Pu	1.2E-05 ± 1.3E-05	U
	$^{239/240}$Pu	8.0E-07 ± 8.3E-07	U
	^{103}Ru	-3.7E-05 ± 6.8E-05	U
	^{106}Ru	-4.5E-04 ± 5.1E-04	U
	^{125}Sb	-8.4E-05 ± 1.3E-04	U
	^{113}Sn	-6.3E-05 ± 6.5E-05	U
	^{90}Sr	-1.5E-04 ± 1.6E-04	U
	^{234}U	2.6E-06 ± 3.1E-06	U
	^{235}U	1.6E-06 ± 2.3E-06	U
	^{238}U	7.0E-06 ± 4.9E-06	
	^{65}Zn	-2.5E-04 ± 2.6E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N974 (200-W)	^{60}Co	2.5E-05 ± 7.8E-05	U
Composite Period	^{134}Cs	-4.4E-07 ± 4.4E-06	U
06/20/05 to 12/19/05	^{137}Cs	1.9E-05 ± 6.5E-05	U
	^{152}Eu	3.0E-05 ± 1.4E-04	U
	^{154}Eu	8.1E-07 ± 8.1E-06	U
	^{155}Eu	-1.8E-05 ± 1.6E-04	U
	^{238}Pu	5.9E-07 ± 6.1E-07	U
	$^{239/240}$Pu	1.8E-06 ± 2.1E-06	
	^{106}Ru	-4.5E-04 ± 6.0E-04	U
	^{125}Sb	-1.3E-04 ± 1.5E-04	U
	^{90}Sr	4.8E-05 ± 1.1E-04	U
	^{234}U	8.2E-06 ± 6.2E-06	
	^{235}U	2.2E-06 ± 3.4E-06	U
	^{238}U	5.4E-06 ± 4.3E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N975 (200-W)	^{144}Ce	1.7E-04 ± 8.7E-04	U
Composite Period	^{60}Co	1.6E-06 ± 1.6E-05	U
12/20/04 to 06/20/05	^{134}Cs	-2.5E-06 ± 2.5E-05	U
	^{137}Cs	4.9E-05 ± 1.1E-04	U
	^{152}Eu	-1.2E-05 ± 1.2E-04	U
	^{154}Eu	-2.4E-04 ± 3.4E-04	U
	^{155}Eu	-6.0E-05 ± 1.9E-04	U
	^{238}Pu	9.4E-06 ± 1.5E-05	U
	$^{239/240}$Pu	2.4E-05 ± 1.3E-05	
	^{103}Ru	-1.2E-04 ± 1.3E-04	U
	^{106}Ru	-1.0E-04 ± 8.9E-04	U
	^{125}Sb	-9.7E-05 ± 2.5E-04	U
	^{113}Sn	4.5E-05 ± 1.2E-04	U
	^{90}Sr	-6.5E-05 ± 8.4E-05	U
	^{234}U	8.7E-06 ± 6.2E-06	
	^{235}U	1.7E-06 ± 2.5E-06	U
	^{238}U	1.1E-05 ± 6.8E-06	
	^{65}Zn	-5.5E-04 ± 5.7E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N975 (200-W)	^{60}Co	4.2E-05 ± 1.2E-04	U
Composite Period	^{134}Cs	8.1E-05 ± 1.1E-04	U
06/20/05 to 12/19/05	^{137}Cs	7.1E-05 ± 1.1E-04	U
	^{152}Eu	-5.7E-05 ± 2.4E-04	U
	^{154}Eu	7.1E-05 ± 3.0E-04	U
	^{155}Eu	-7.4E-05 ± 1.8E-04	U
	^{238}Pu	-1.8E-06 ± 3.7E-06	U
	$^{239/240}$Pu	1.9E-05 ± 9.5E-06	
	^{106}Ru	-3.7E-04 ± 9.6E-04	U
	^{125}Sb	-2.3E-04 ± 2.5E-04	U
	^{90}Sr	5.1E-05 ± 8.7E-05	U
	^{234}U	8.1E-06 ± 5.7E-06	
	^{235}U	4.0E-06 ± 3.9E-06	
	^{238}U	1.2E-05 ± 7.7E-06	

Location	Isotope	Result ± Uncertainty	RQ*
N987 (200-W)	^{60}Co	-1.3E-05 ± 1.2E-04	U
Composite Period	^{134}Cs	-6.3E-06 ± 6.3E-05	U
08/25/05 to 12/19/05	^{137}Cs	1.6E-04 ± 1.1E-04	U
	^{152}Eu	-2.5E-05 ± 1.9E-04	U
	^{154}Eu	-6.0E-05 ± 3.0E-04	U
	^{155}Eu	1.9E-04 ± 2.2E-04	U
	^{238}Pu	1.2E-05 ± 1.9E-05	U
	$^{239/240}$Pu	4.3E-05 ± 2.1E-05	
	^{106}Ru	3.1E-04 ± 8.3E-04	U
	^{125}Sb	-6.2E-05 ± 1.9E-04	U
	^{90}Sr	6.4E-05 ± 1.2E-04	U
	^{234}U	3.0E-05 ± 1.6E-05	
	^{235}U	1.9E-05 ± 1.2E-05	
	^{238}U	1.6E-05 ± 1.1E-05	

Location	Isotope	Result ± Uncertainty	RQ*
N994 (200-W)	^{144}Ce	-1.9E-04 ± 5.4E-04	U
Composite Period	^{60}Co	1.3E-05 ± 7.4E-05	U
12/20/04 to 06/20/05	^{134}Cs	-1.5E-05 ± 6.8E-05	U
	^{137}Cs	1.5E-05 ± 5.7E-05	U
	^{152}Eu	-6.1E-05 ± 1.5E-04	U
	^{154}Eu	1.7E-04 ± 2.2E-04	U
	^{155}Eu	-9.2E-05 ± 1.4E-04	U
	^{238}Pu	-3.7E-06 ± 1.3E-05	U
	$^{239/240}$Pu	3.0E-06 ± 3.7E-06	U
	^{103}Ru	-4.2E-05 ± 7.9E-05	U
	^{106}Ru	1.0E-03 ± 7.8E-04	
	^{125}Sb	5.6E-05 ± 1.4E-04	U
	^{113}Sn	-3.8E-05 ± 7.6E-05	U
	^{90}Sr	-6.7E-05 ± 8.3E-05	U
	^{234}U	1.1E-05 ± 7.5E-06	
	^{235}U	4.1E-06 ± 4.0E-06	
	^{238}U	8.2E-06 ± 5.8E-06	
	^{65}Zn	-2.9E-04 ± 3.0E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N994 (200-W)	^{60}Co	2.3E-05 ± 1.1E-04	U
Composite Period	^{134}Cs	8.4E-05 ± 1.2E-04	U
06/20/05 to 12/19/05	^{137}Cs	3.6E-05 ± 1.1E-04	U
	^{152}Eu	4.3E-05 ± 2.5E-04	U
	^{154}Eu	-3.2E-05 ± 3.1E-04	U
	^{155}Eu	4.4E-05 ± 1.9E-04	U
	^{238}Pu	-2.2E-06 ± 1.3E-05	U
	$^{239/240}$Pu	1.5E-06 ± 3.0E-06	U
	^{106}Ru	-1.7E-05 ± 1.7E-04	U
	^{125}Sb	-8.6E-05 ± 2.6E-04	U
	^{90}Sr	-3.6E-05 ± 6.6E-05	U
	^{234}U	1.3E-05 ± 8.8E-06	
	^{235}U	3.4E-06 ± 5.0E-06	U
	^{238}U	1.1E-05 ± 7.1E-06	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N527 (300 Area)	^{144}Ce	-1.9E-04 ± 7.4E-04	U
Composite Period	^{60}Co	-4.0E-06 ± 4.0E-05	U
12/22/04 to 06/21/05	^{134}Cs	3.8E-05 ± 1.1E-04	U
	^{137}Cs	-3.8E-06 ± 3.8E-05	U
	^{152}Eu	1.3E-04 ± 2.3E-04	U
	^{154}Eu	-1.8E-05 ± 1.8E-04	U
	^{155}Eu	2.0E-04 ± 2.1E-04	U
	^{238}Pu	1.0E-05 ± 1.3E-05	U
	$^{239/240}Pu$	5.9E-06 ± 5.9E-05	
	^{103}Ru	3.3E-05 ± 1.0E-04	U
	^{106}Ru	1.4E-04 ± 7.7E-04	U
	^{125}Sb	2.5E-05 ± 2.2E-04	U
	^{113}Sn	2.4E-06 ± 2.4E-05	U
	^{234}U	1.1E-05 ± 7.4E-06	
	^{235}U	1.5E-06 ± 2.9E-06	U
	^{238}U	6.8E-06 ± 5.3E-06	
	^{65}Zn	-2.7E-04 ± 2.8E-04	U
Composite Period	^{60}Co	-1.9E-04 ± 9.2E-04	U
12/22/04 to 03/04/05	^{134}Cs	2.2E-04 ± 9.0E-04	U
	^{137}Cs	-1.4E-04 ± 7.4E-04	U
	^{152}Eu	9.0E-04 ± 1.8E-03	U
	^{154}Eu	2.9E-04 ± 2.7E-03	U
	^{155}Eu	1.2E-03 ± 1.8E-03	U
	^{103}Ru	-3.8E-04 ± 8.1E-04	U
	^{106}Ru	-2.3E-03 ± 7.1E-03	U
	^{125}Sb	-1.8E-04 ± 1.7E-03	U
	^{113}Sn	1.7E-04 ± 8.2E-04	U
	^{234}U	8.0E-05 ± 5.8E-05	
	^{235}U	9.1E-06 ± 9.1E-06	U
	^{238}U	6.2E-05 ± 5.0E-05	
	^{65}Zn	-3.5E-04 ± 1.9E-03	U
N548 (300 Area)	^{144}Ce	3.1E-03 ± 4.8E-03	U
Composite Period	^{60}Co	-6.7E-05 ± 6.3E-04	U
05/04/05 to 06/10/05	^{134}Cs	-7.5E-05 ± 6.3E-04	U
	^{137}Cs	2.0E-04 ± 5.0E-04	U
	^{152}Eu	-7.0E-04 ± 1.1E-03	U
	^{154}Eu	9.7E-04 ± 1.9E-03	U
	^{155}Eu	6.7E-04 ± 1.2E-03	U
	^{238}Pu	-2.9E-05 ± 1.4E-04	U
	$^{239/240}Pu$	7.0E-06 ± 3.7E-05	U
	^{103}Ru	-9.9E-05 ± 4.8E-04	U
	^{106}Ru	4.4E-04 ± 4.4E-03	U
	^{125}Sb	-1.1E-04 ± 1.1E-03	U
	^{113}Sn	1.0E-04 ± 5.6E-04	U
	^{234}U	4.6E-05 ± 4.1E-05	U
	^{235}U	2.1E-05 ± 2.5E-05	
	^{238}U	1.0E-04 ± 6.0E-05	
	^{65}Zn	-1.6E-03 ± 1.6E-03	U

Location	Isotope	Result ± Uncertainty	RQ*
N527 (300 Area)	^{60}Co	2.5E-05 ± 6.4E-05	U
Composite Period	^{134}Cs	-1.2E-05 ± 6.3E-05	U
06/21/05 to 12/22/05	^{137}Cs	8.0E-06 ± 5.3E-05	U
	^{152}Eu	-7.2E-05 ± 1.3E-04	U
	^{154}Eu	-1.9E-06 ± 1.9E-05	U
	^{155}Eu	1.2E-04 ± 1.3E-04	U
	^{238}Pu	-7.2E-07 ± 7.2E-06	U
	$^{239/240}Pu$	3.6E-06 ± 4.5E-06	U
	^{106}Ru	9.3E-05 ± 4.6E-04	U
	^{125}Sb	-9.3E-05 ± 1.3E-04	U
	^{234}U	2.1E-05 ± 1.1E-05	
	^{235}U	8.8E-06 ± 5.9E-06	
	^{238}U	1.3E-05 ± 7.6E-06	
Composite Period	^{60}Co	-3.8E-04 ± 9.2E-04	U
12/22/04 to 03/04/05	^{134}Cs	8.6E-05 ± 7.5E-04	U
	^{137}Cs	1.0E-05 ± 1.0E-04	U
	^{152}Eu	8.3E-04 ± 1.7E-03	U
	^{154}Eu	2.0E-03 ± 2.4E-03	U
	^{155}Eu	3.6E-04 ± 1.9E-03	U
	^{103}Ru	-9.4E-05 ± 6.4E-04	U
	^{106}Ru	7.8E-04 ± 6.7E-03	U
	^{125}Sb	-2.5E-04 ± 1.7E-03	U
	^{113}Sn	8.7E-04 ± 7.7E-04	U
	^{234}U	3.4E-05 ± 4.8E-05	U
	^{235}U	3.7E-05 ± 4.5E-05	U
	^{238}U	3.4E-05 ± 4.1E-05	U
	^{65}Zn	9.8E-04 ± 1.8E-03	U
N548 (300 Area)	^{60}Co	-4.8E-04 ± 1.2E-03	U
Composite Period	^{134}Cs	-2.7E-05 ± 2.7E-04	U
07/18/05 to 08/03/05	^{137}Cs	-5.9E-04 ± 9.6E-04	U
	^{152}Eu	-2.7E-04 ± 2.1E-03	U
	^{154}Eu	-6.6E-04 ± 3.5E-03	U
	^{155}Eu	4.4E-04 ± 2.3E-03	U
	^{238}Pu	1.4E-04 ± 1.6E-04	U
	$^{239/240}Pu$	6.2E-04 ± 2.5E-04	
	^{106}Ru	3.9E-03 ± 9.0E-03	U
	^{125}Sb	9.1E-04 ± 2.3E-03	U
	^{234}U	1.7E-04 ± 1.2E-04	
	^{235}U	1.3E-04 ± 8.9E-05	
	^{238}U	1.5E-04 ± 1.0E-04	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N549 (300 Area)	^{144}Ce	6.2E-03 ± 7.7E-03	U
Composite Period	^{60}Co	-6.7E-04 ± 7.1E-04	U
05/04/05 to 06/10/05	^{134}Cs	-2.3E-04 ± 6.8E-04	U
	^{137}Cs	1.2E-04 ± 6.2E-04	U
	^{152}Eu	-1.2E-03 ± 1.6E-03	U
	^{154}Eu	4.1E-04 ± 2.1E-03	U
	^{155}Eu	-7.1E-04 ± 2.1E-03	U
	^{238}Pu	-6.8E-05 ± 1.2E-04	U
	$^{239/240}$Pu	1.5E-05 ± 3.8E-05	U
	^{103}Ru	4.5E-04 ± 6.9E-04	U
	^{106}Ru	-2.2E-03 ± 5.6E-03	U
	^{125}Sb	-3.0E-04 ± 1.5E-03	U
	^{113}Sn	1.4E-07 ± 1.4E-06	U
	^{234}U	3.4E-05 ± 3.8E-05	U
	^{235}U	3.7E-05 ± 3.5E-05	
	^{238}U	6.8E-06 ± 2.4E-05	U
	^{65}Zn	-1.3E-03 ± 1.6E-03	U
N130 (300 Area)	^{144}Ce	-4.5E-04 ± 6.0E-04	U
Composite Period	^{60}Co	-5.7E-06 ± 5.7E-05	U
12/22/04 to 06/21/05	^{134}Cs	1.4E-05 ± 6.1E-05	U
	^{137}Cs	8.5E-06 ± 5.7E-05	U
	^{152}Eu	5.0E-05 ± 1.3E-04	U
	^{154}Eu	4.6E-05 ± 2.0E-04	U
	^{155}Eu	-5.6E-05 ± 1.5E-04	U
	^{238}Pu	-4.2E-06 ± 1.3E-05	U
	$^{239/240}$Pu	6.9E-07 ± 3.1E-06	U
	^{103}Ru	-1.3E-05 ± 4.9E-05	U
	^{106}Ru	8.8E-05 ± 5.3E-04	U
	^{125}Sb	4.2E-05 ± 1.2E-04	U
	^{113}Sn	-5.6E-06 ± 5.6E-05	U
	^{90}Sr	-3.5E-05 ± 8.0E-05	U
	^{234}U	4.6E-06 ± 5.3E-06	U
	^{235}U	1.5E-06 ± 2.1E-06	U
	^{238}U	4.6E-06 ± 3.9E-06	
	^{65}Zn	-1.7E-04 ± 1.8E-04	U
N557 (300 Area)	^{144}Ce	-2.2E-03 ± 3.6E-03	U
Composite Period	^{60}Co	-3.7E-04 ± 4.0E-04	U
02/24/05 to 03/29/05	^{134}Cs	8.1E-06 ± 8.1E-05	U
	^{137}Cs	1.2E-04 ± 3.1E-04	U
	^{152}Eu	-1.3E-03 ± 1.4E-03	U
	^{154}Eu	-5.8E-05 ± 5.8E-04	U
	^{155}Eu	-3.4E-05 ± 3.4E-04	U
	^{238}Pu	-3.5E-05 ± 7.1E-05	U
	$^{239/240}$Pu	3.9E-05 ± 2.8E-05	
	^{103}Ru	-2.5E-05 ± 2.5E-04	U
	^{106}Ru	-9.7E-04 ± 3.2E-03	U
	^{125}Sb	-1.7E-04 ± 7.8E-04	U
	^{113}Sn	-2.7E-04 ± 4.0E-04	U
	^{90}Sr	-1.9E-04 ± 2.0E-04	U
	^{234}U	1.1E-04 ± 5.3E-05	
	^{235}U	4.3E-06 ± 8.6E-06	U
	^{238}U	7.7E-06 ± 1.6E-05	U
	^{65}Zn	-1.9E-04 ± 7.9E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N549 (300 Area)	^{60}Co	1.1E-03 ± 1.3E-03	U
Composite Period	^{134}Cs	-6.0E-04 ± 1.2E-03	U
07/18/05 to 08/03/05	^{137}Cs	1.2E-04 ± 1.0E-03	U
	^{152}Eu	2.8E-03 ± 2.5E-03	U
	^{154}Eu	3.0E-03 ± 3.6E-03	U
	^{155}Eu	5.1E-04 ± 2.5E-03	U
	^{238}Pu	7.8E-05 ± 1.5E-04	U
	$^{239/240}$Pu	1.1E-05 ± 2.3E-05	U
	^{106}Ru	7.2E-03 ± 9.4E-03	U
	^{125}Sb	-1.2E-03 ± 2.3E-03	U
	^{234}U	1.4E-04 ± 9.6E-05	
	^{235}U	3.7E-05 ± 5.5E-05	U
	^{238}U	5.6E-05 ± 5.3E-05	
N130 (300 Area)	^{60}Co	4.4E-05 ± 6.9E-05	U
Composite Period	^{134}Cs	8.5E-06 ± 6.8E-05	U
06/21/05 to 12/22/05	^{137}Cs	-3.9E-06 ± 3.9E-05	U
	^{152}Eu	-2.2E-04 ± 2.3E-04	U
	^{154}Eu	-6.6E-05 ± 1.8E-04	U
	^{155}Eu	5.6E-06 ± 5.6E-05	U
	^{238}Pu	-1.4E-06 ± 7.6E-06	U
	$^{239/240}$Pu	7.2E-07 ± 1.5E-06	U
	^{106}Ru	-3.5E-04 ± 5.3E-04	U
	^{125}Sb	3.4E-05 ± 1.5E-04	U
	^{90}Sr	4.6E-06 ± 4.6E-05	U
	^{234}U	1.5E-05 ± 9.5E-06	
	^{235}U	9.3E-07 ± 3.2E-06	U
	^{238}U	2.1E-05 ± 1.2E-05	
N557 (300 Area)	^{144}Ce	6.5E-05 ± 6.5E-04	U
Composite Period	^{60}Co	6.5E-05 ± 1.4E-04	U
03/29/05 to 06/21/05	^{134}Cs	6.6E-05 ± 1.5E-04	U
	^{137}Cs	8.1E-06 ± 8.1E-05	U
	^{152}Eu	-1.9E-04 ± 3.3E-04	U
	^{154}Eu	2.7E-04 ± 4.2E-04	U
	^{155}Eu	2.0E-04 ± 3.9E-04	U
	^{238}Pu	1.1E-05 ± 4.4E-05	U
	$^{239/240}$Pu	6.6E-06 ± 8.1E-06	
	^{103}Ru	-1.2E-05 ± 1.2E-04	U
	^{106}Ru	-1.5E-04 ± 1.2E-03	U
	^{125}Sb	1.6E-05 ± 1.6E-04	U
	^{113}Sn	-7.0E-05 ± 1.5E-04	U
	^{90}Sr	-1.5E-04 ± 1.6E-04	U
	^{234}U	4.5E-05 ± 2.1E-05	
	^{235}U	-1.8E-06 ± 3.6E-06	U
	^{238}U	2.3E-05 ± 1.4E-05	
	^{65}Zn	-5.8E-05 ± 3.1E-04	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 2-4. Near-Facility Air Sampling Results, 2005 (pCi/m^3 ± total analytical uncertainty). (29 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*
N557 (300 Area)	^{60}Co	3.9E-05 ± 1.5E-04	U
Composite Period	^{134}Cs	1.9E-05 ± 1.3E-04	U
06/21/05 to 09/27/05	^{137}Cs	-2.3E-05 ± 1.2E-04	U
	^{152}Eu	-3.8E-04 ± 4.2E-04	U
	^{154}Eu	-4.9E-04 ± 4.9E-03	U
	^{155}Eu	3.4E-06 ± 3.4E-05	U
	^{238}Pu	7.8E-06 ± 2.1E-05	U
	$^{239/240}Pu$	3.9E-06 ± 6.0E-06	U
	^{106}Ru	-5.8E-04 ± 1.2E-03	U
	^{125}Sb	-1.2E-04 ± 3.2E-04	U
	^{90}Sr	-5.3E-05 ± 1.7E-04	U
	^{234}U	3.6E-05 ± 1.9E-05	
	^{235}U	4.4E-06 ± 7.9E-06	U
	^{238}U	2.7E-05 ± 1.5E-05	
N981 (600 Area)	^{144}Ce	1.1E-04 ± 7.9E-04	U
Composite Period	^{60}Co	6.8E-05 ± 1.1E-04	U
12/22/04 to 06/21/05	^{134}Cs	2.6E-05 ± 9.6E-05	U
	^{137}Cs	3.3E-05 ± 9.6E-05	U
	^{152}Eu	-5.2E-05 ± 2.4E-04	U
	^{154}Eu	6.4E-05 ± 2.8E-04	U
	^{155}Eu	-7.5E-05 ± 1.7E-04	U
	^{238}Pu	-5.0E-06 ± 1.5E-05	U
	$^{239/240}Pu$	-8.3E-07 ± 2.9E-06	U
	^{103}Ru	-6.3E-05 ± 1.1E-04	U
	^{106}Ru	3.9E-04 ± 8.0E-04	U
	^{125}Sb	2.6E-05 ± 2.3E-04	U
	^{113}Sn	-1.6E-05 ± 1.1E-04	U
	^{90}Sr	-2.1E-05 ± 8.3E-05	U
	^{234}U	1.7E-05 ± 1.3E-05	
	^{235}U	4.8E-06 ± 5.9E-06	
	^{238}U	2.1E-05 ± 1.4E-05	
	^{65}Zn	-3.9E-04 ± 4.0E-04	U

Location	Isotope	Result ± Uncertainty	RQ*
N557 (300 Area)	^{60}Co	8.2E-05 ± 1.6E-04	U
Composite Period	^{134}Cs	1.6E-05 ± 1.5E-04	U
09/27/05 to 12/22/05	^{137}Cs	-7.3E-05 ± 1.4E-04	U
	^{152}Eu	1.8E-04 ± 3.8E-04	U
	^{154}Eu	-2.9E-04 ± 4.7E-04	U
	^{155}Eu	-2.5E-04 ± 4.5E-04	U
	^{238}Pu	1.5E-05 ± 3.4E-05	U
	$^{239/240}Pu$	-3.8E-06 ± 7.8E-06	U
	^{106}Ru	-2.4E-05 ± 2.4E-04	U
	^{125}Sb	5.4E-05 ± 3.3E-04	U
	^{90}Sr	3.8E-04 ± 4.7E-04	
	^{234}U	1.3E-05 ± 1.1E-05	
	^{235}U	6.0E-06 ± 7.2E-06	
	^{238}U	3.6E-06 ± 7.4E-06	U
N981 (600 Area)	^{60}Co	-8.3E-05 ± 1.0E-04	U
Composite Period	^{134}Cs	1.0E-05 ± 1.0E-04	U
06/21/05 to 12/20/05	^{137}Cs	-1.6E-05 ± 1.0E-04	U
	^{152}Eu	-5.1E-05 ± 2.2E-04	U
	^{154}Eu	6.2E-05 ± 3.1E-04	U
	^{155}Eu	-9.6E-05 ± 1.7E-04	U
	^{238}Pu	-9.1E-07 ± 9.1E-06	U
	$^{239/240}Pu$	1.2E-05 ± 9.1E-06	
	^{106}Ru	4.1E-04 ± 8.8E-04	U
	^{125}Sb	1.5E-04 ± 2.3E-04	U
	^{90}Sr	1.6E-05 ± 7.9E-05	U
	^{234}U	1.2E-05 ± 7.6E-06	
	^{235}U	1.1E-05 ± 7.7E-06	
	^{238}U	8.8E-06 ± 6.1E-06	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

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3.0 SOIL MONITORING

The radionuclide content of soil was measured to evaluate long-term trends in environmental accumulation of radioactivity in the 100, 200/600, and 300/400 Areas. Soil samples were collected on or near facilities that store, handle, or dispose of radioactive waste. The number of soil samples collected in 2005 and their locations are shown in Table 3-1.

Table 3-1. Soil Samples Collected During 2005.

	Operational Area										
Number of Sample Locations	**100 B/C**	**100 F**	**100 H**	**100 K**	**100 N**	**200 W**	**200 E**	**600**	**300**	**400**	**ERDF[a]**
87	5	5	2	4	5	26	14	15	9	1	1

[a]Environmental Restoration Disposal Facility in the 200-West Area.

Soil sampling locations are illustrated in Figures 3-1 through 3-10. Radionuclide analyses indicated that strontium-90, cesium-137, plutonium-239/240, and uranium were detectable in soil samples in 2005. Generally, the predominant radionuclides observed were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area.

A summary of near-facility soil sampling results for selected radionuclides collected during 2005 is presented in Table 3-2. Historical soil sampling results for the 100, 200/600, and 300/400 Areas are displayed in Table 3-3. The 2005 soil sampling results for all areas are provided in Table 3-4.

Strontium-90 results for soil samples for this report period showed a frequent occurrence of negative (i.e., less than zero) concentrations. This was primarily due to changes in laboratory background correction calculations that were implemented during 2003. Both historical and current values are within accepted statistical ranges as evidenced by laboratory quality assurance (QA) and performance evaluation programs.

Additional discussion of the 2005 soil sampling results can be found in Section 10.9.1 of PNNL-15892.

Figure 3-1. 2005 Soil Sampling Locations, 100-B/C Area.

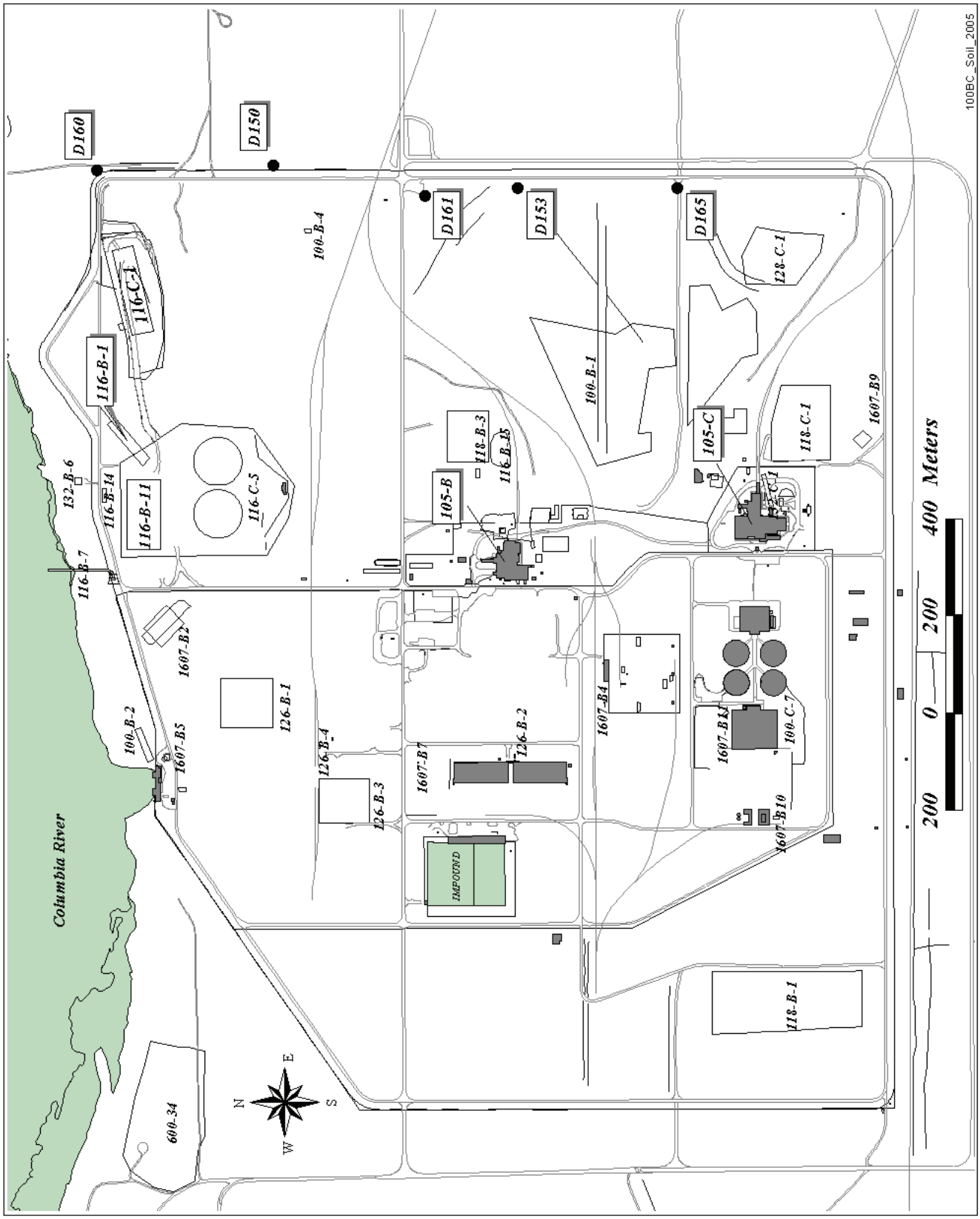

Figure 3-2. 2005 Soil Sampling Locations, 100-F Area.

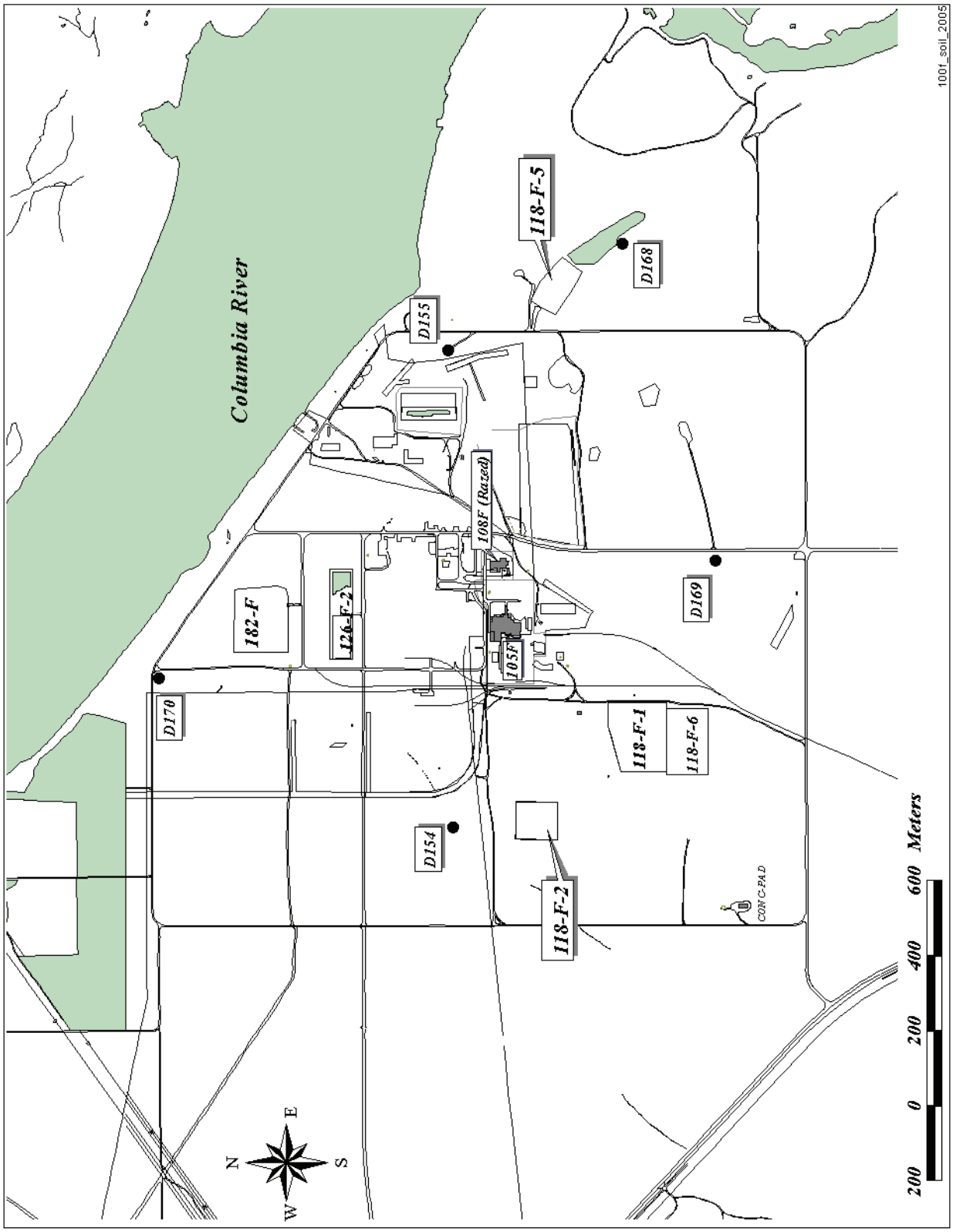

Figure 3-3. 2005 Soil Sampling Locations, 100-H Area.

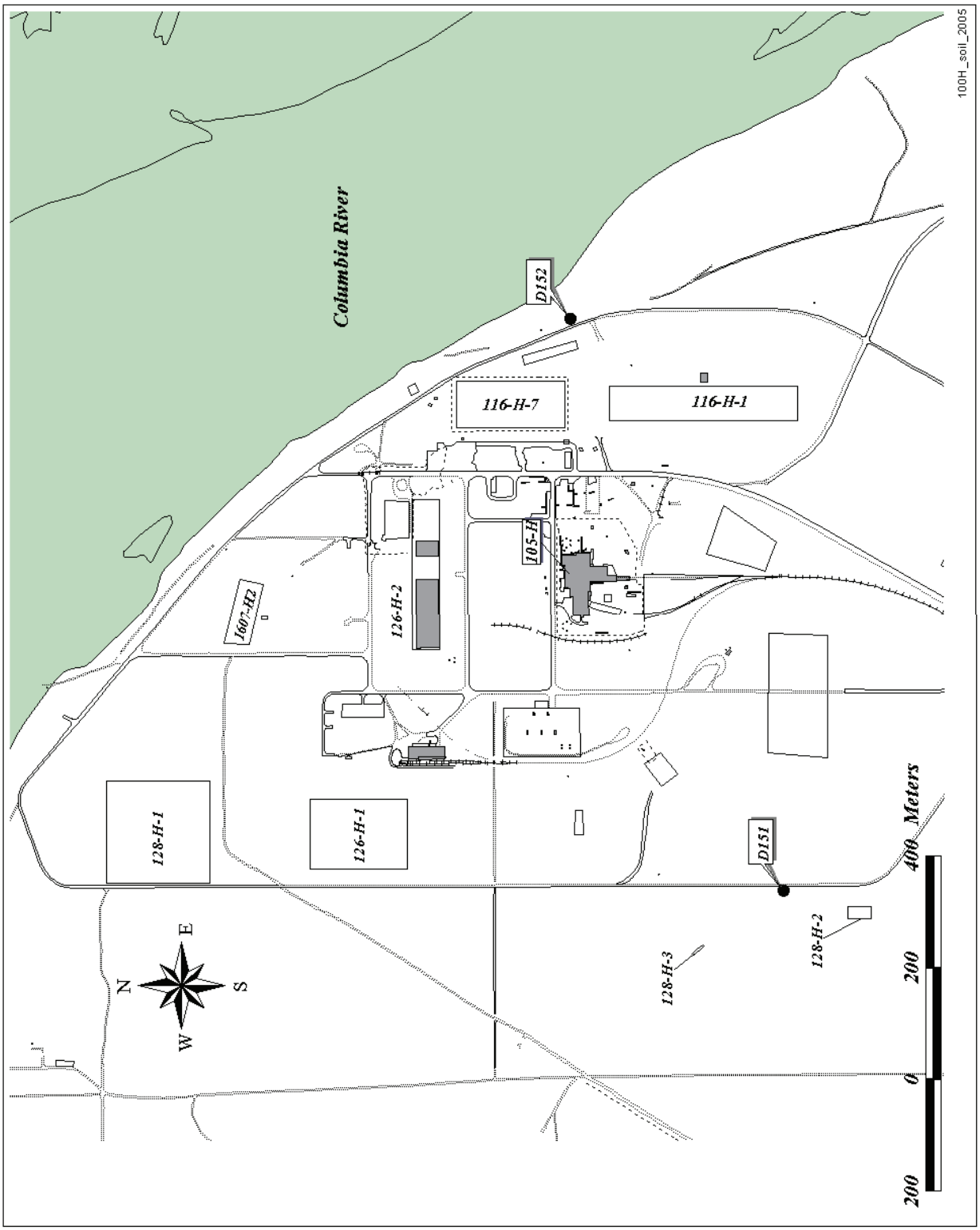

Figure 3-4a. 2005 Soil Sampling Locations, 100-K Area.

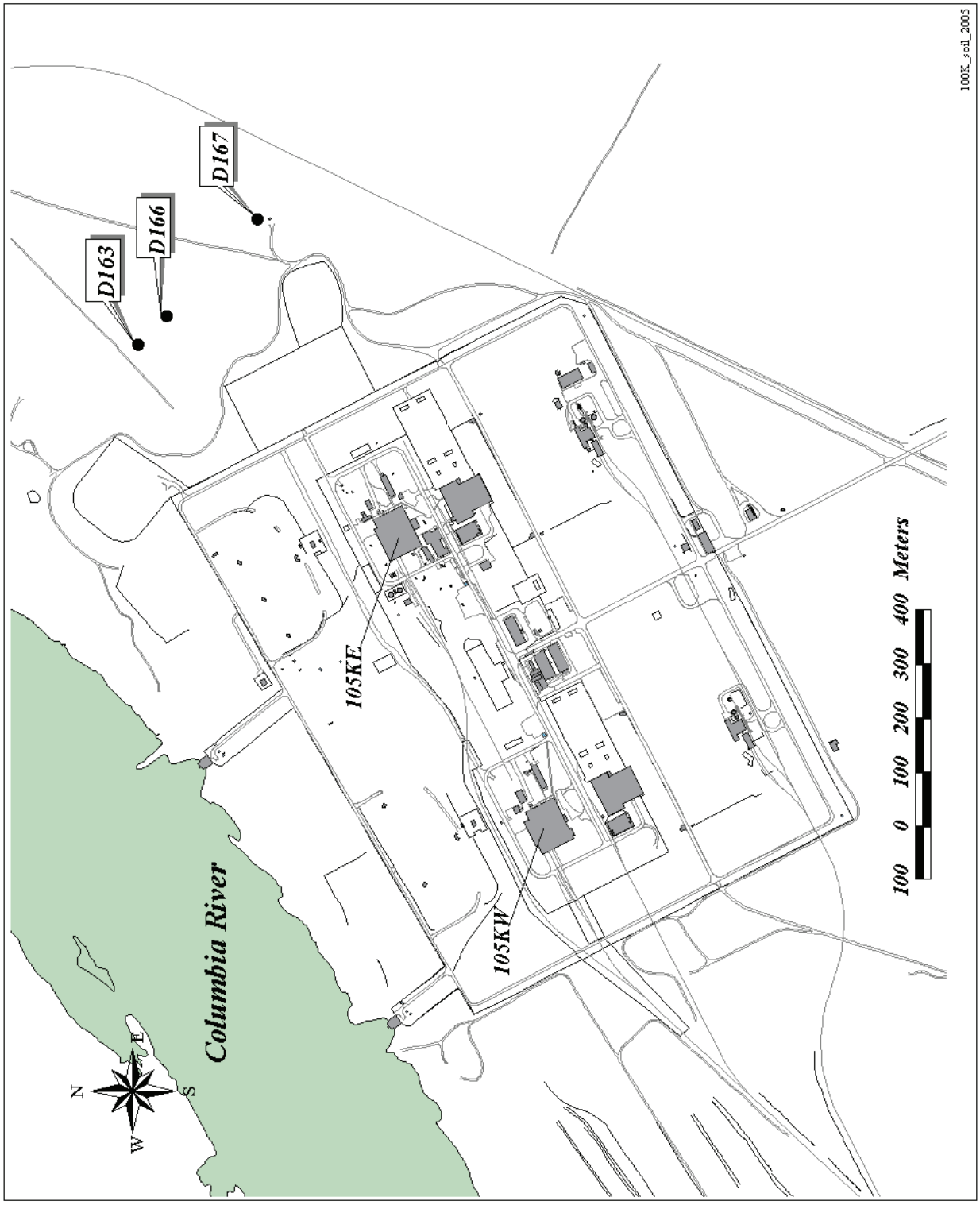

Figure 3-4b. 2005 Soil Sampling Locations, 100-K Area Yakima Barricade.

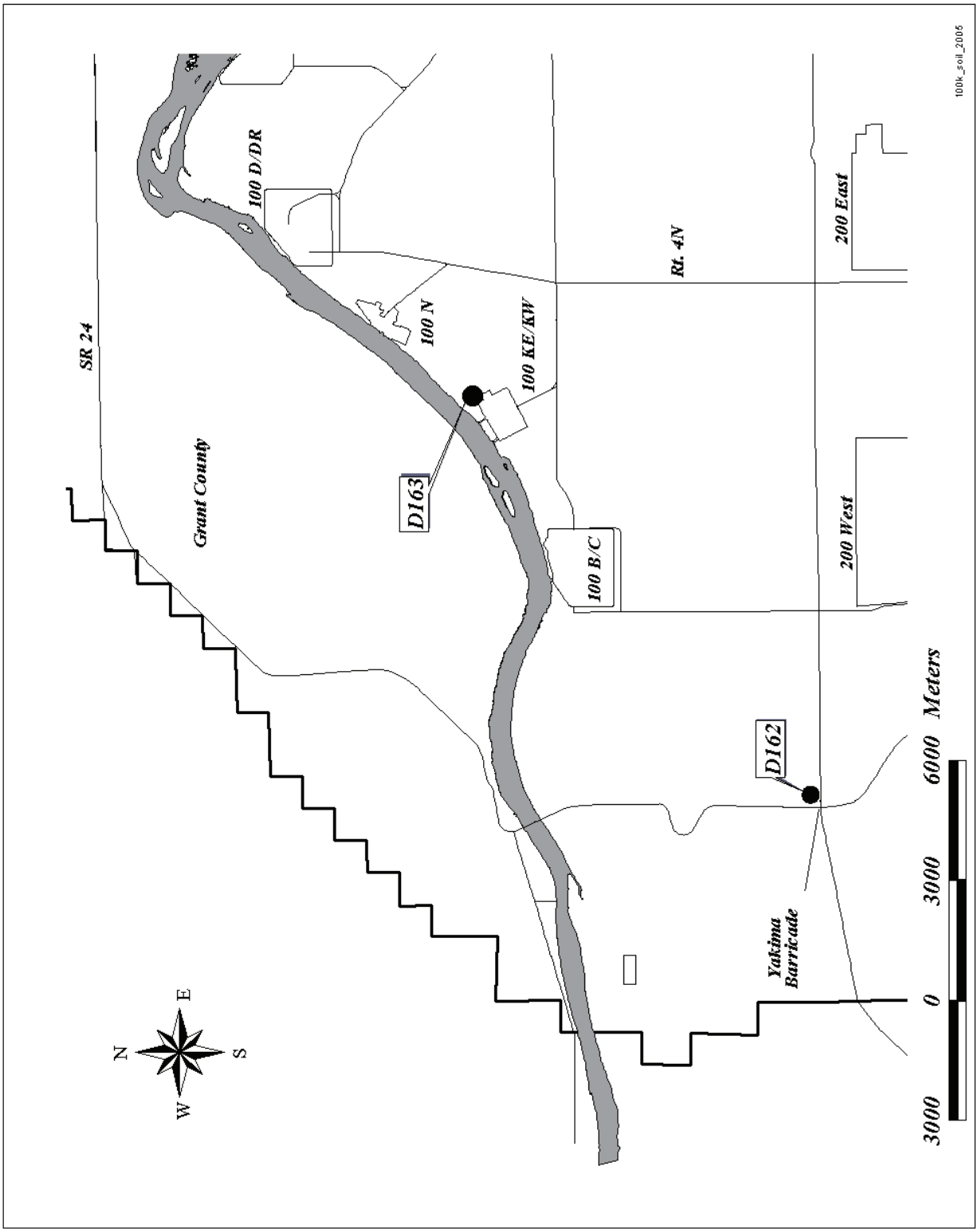

Figure 3-5. 2005 Soil Sampling Locations, 100-N Area.

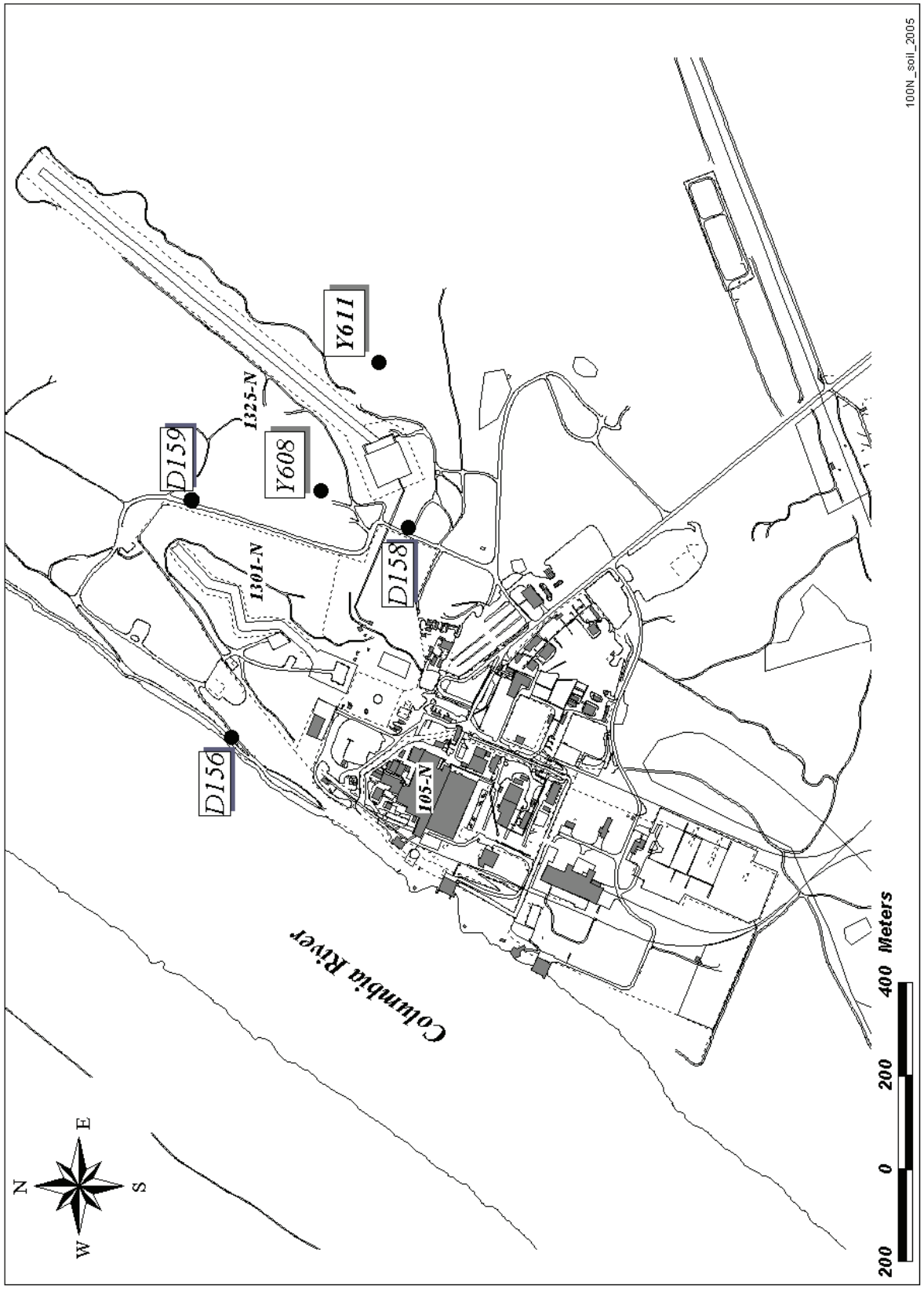

Figure 3-6. 2005 Soil Sampling Locations, 200 East Area.

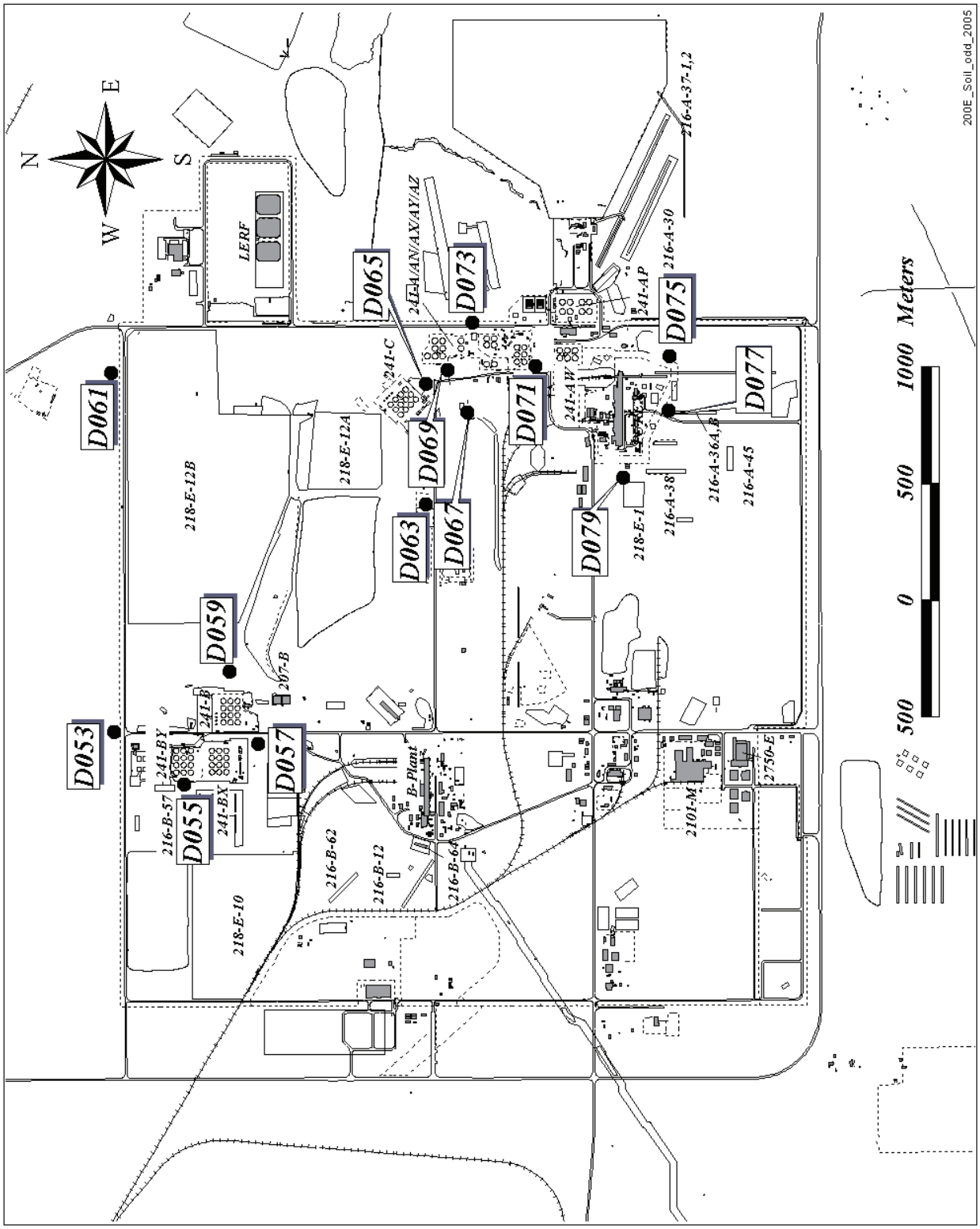

Figure 3-7. 2005 Soil Sampling Locations, 200 West Area.

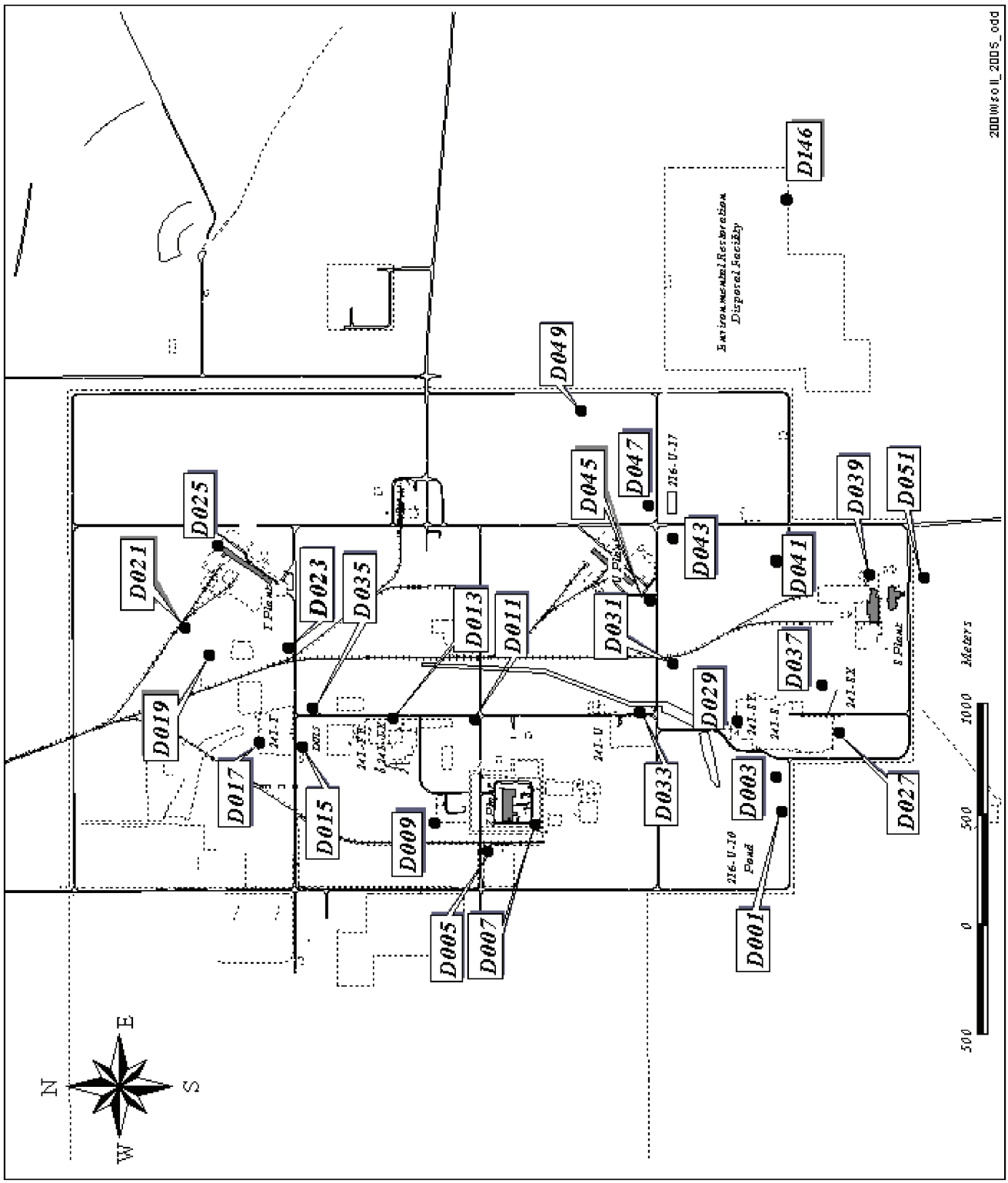

Figure 3-8. 2005 Soil Sampling Locations, 300 Area.

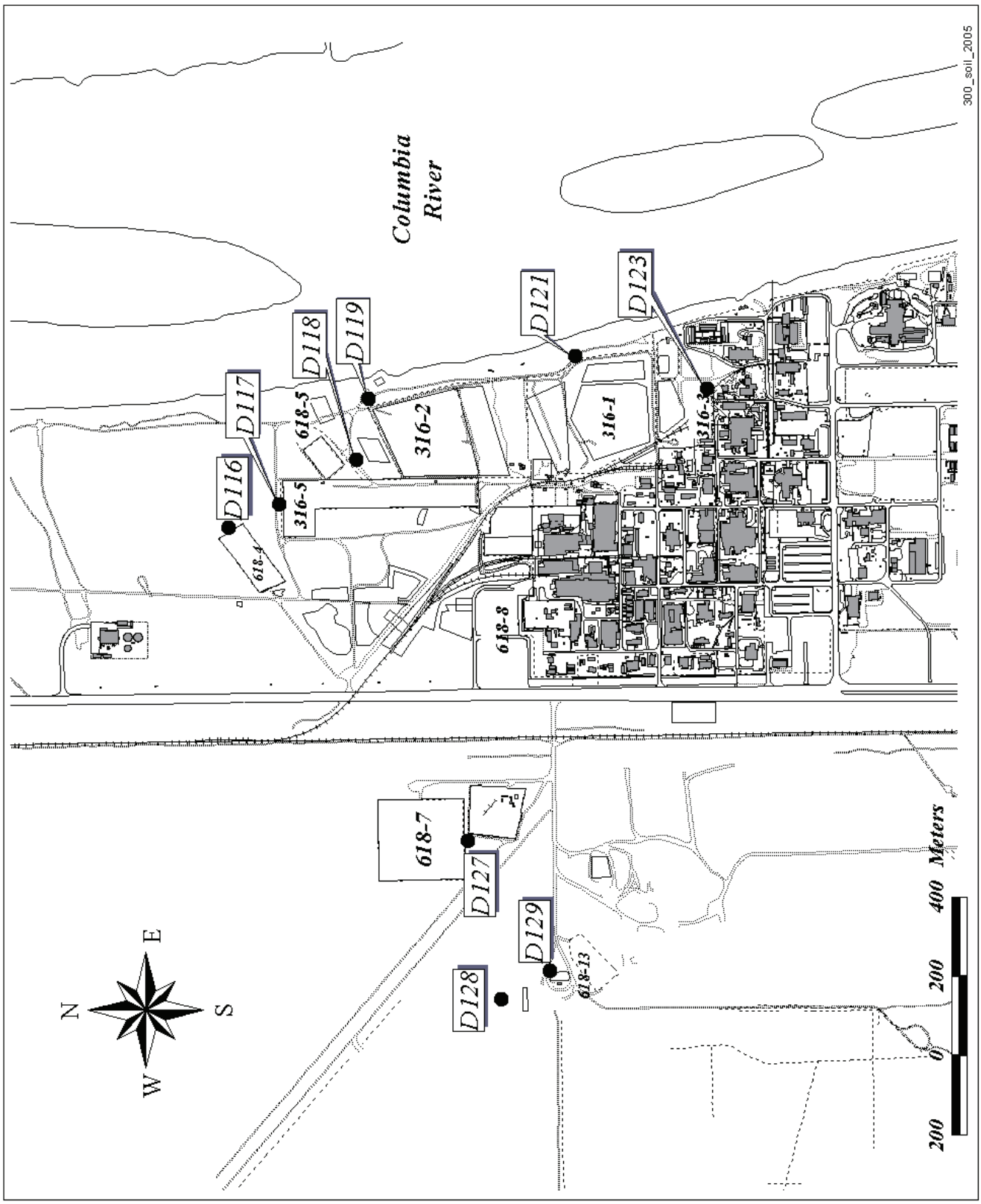

Figure 3-9. 2005 Soil Sampling Locations, 400 Area.

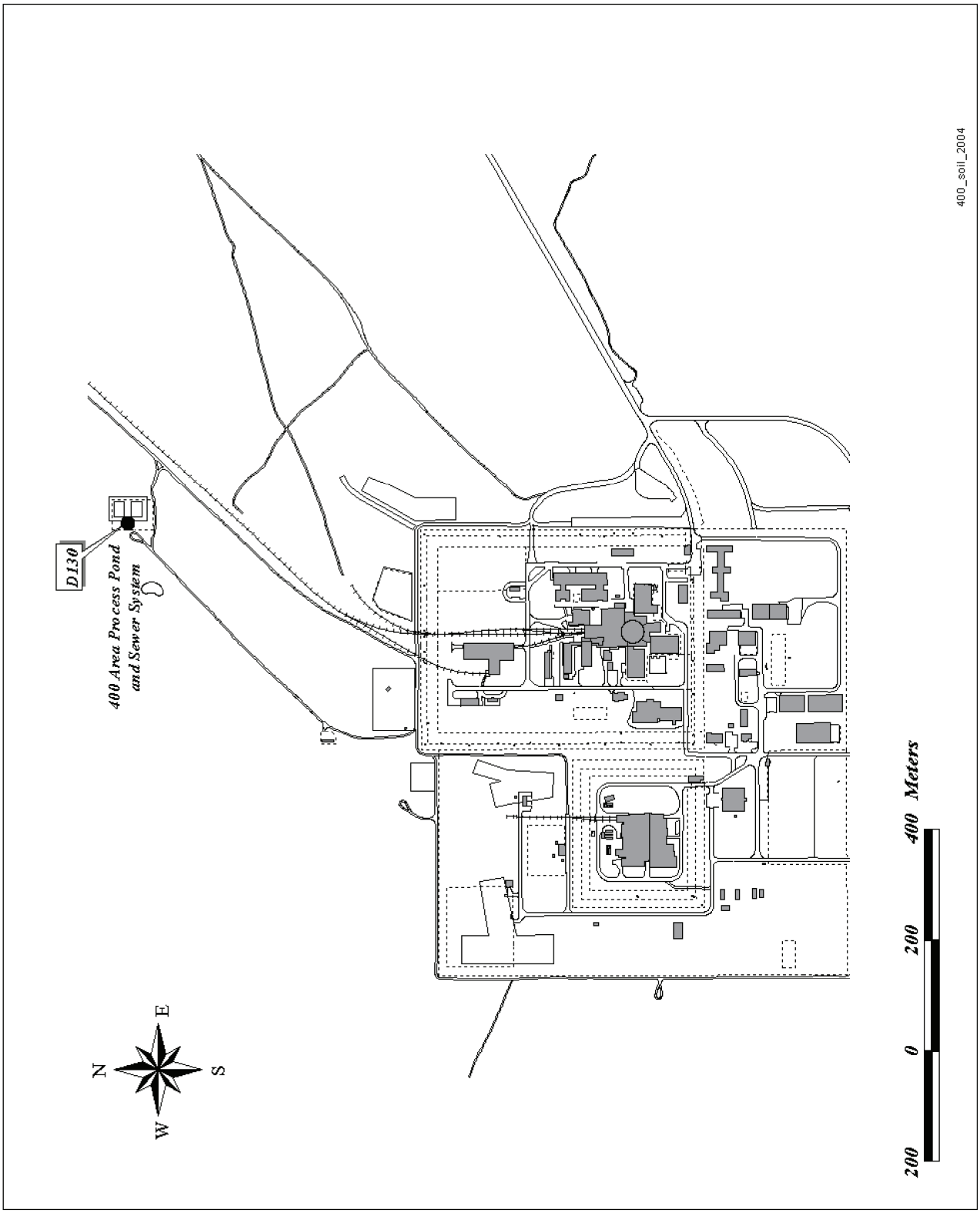

Figure 3-10. 2005 Soil Sampling Locations, 600 Area.

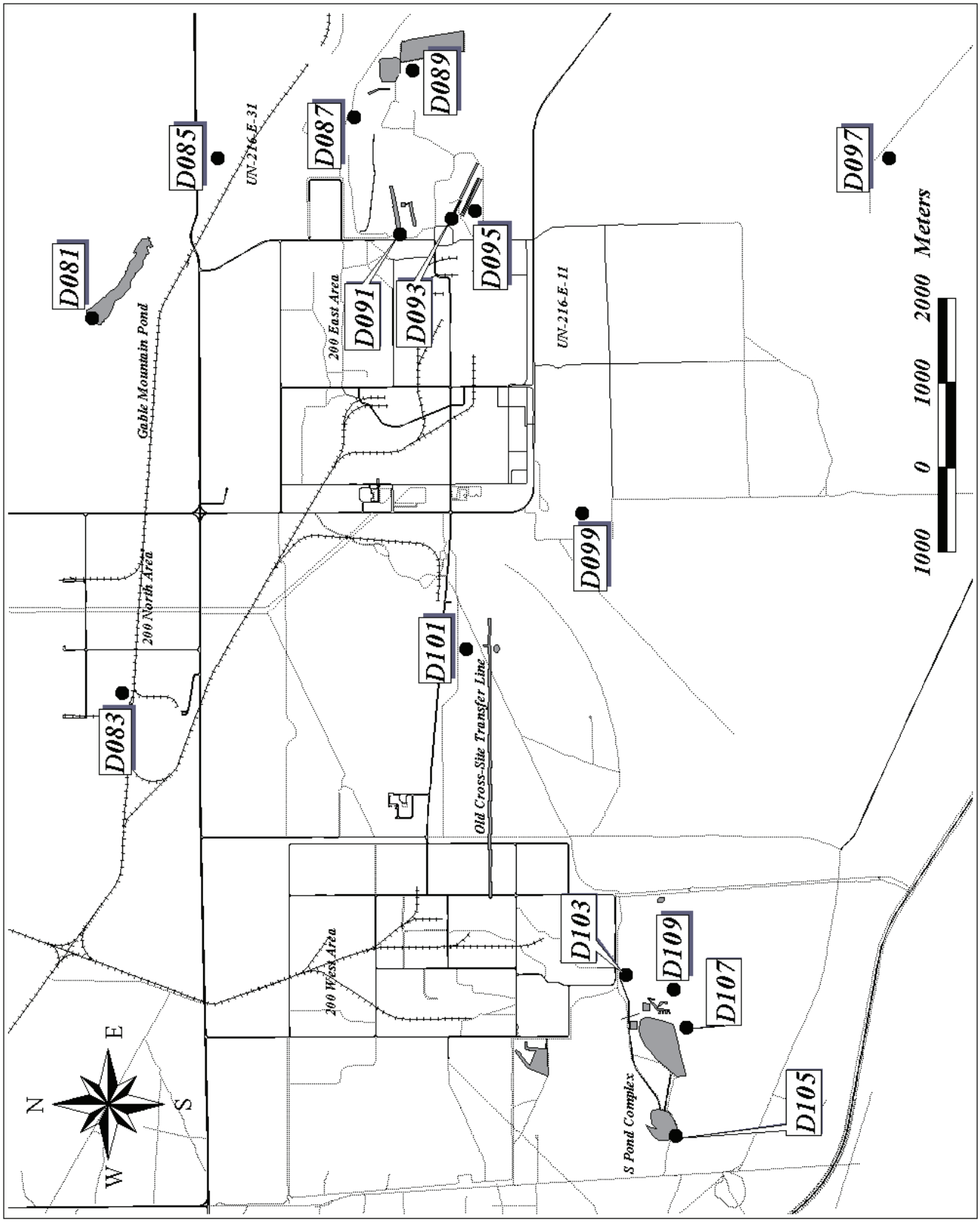

Table 3-2. Summary of Near-Facility Soil Sampling Results (pCi/g)[a] for Selected Radionuclides, 2005.

	Number of				Location	
Isotope	**Samples[b]**	**Detects**	**Average[c]**	**Maximum[d]**	**Area**	**Site**
^{144}Ce	97	0	-2.0E-02 ± 1.7E-01	2.7E-01 ± 2.6E-01	600 Area	D095
^{60}Co	97	7	9.7E-03 ± 9.8E-02	3.5E-01 ± 3.8E-02	100 N	D159
^{134}Cs	97	96	3.4E-02 ± 1.6E-02	5.8E-02 ± 1.9E-02	100 K	D163
^{137}Cs	97	93	9.7E-01 ± 4.2E+00	1.3E+01 ± 2.4E+00	200 West	D033
^{152}Eu	97	10	7.0E-03 ± 8.6E-02	1.9E-01 ± 2.4E-02	100 F	D169
^{154}Eu	97	0	-9.4E-03 ± 3.6E-02	4.1E-02 ± 2.1E-02	100 N	D159
^{155}Eu	97	24	3.8E-02 ± 4.1E-02	1.0E-01 ± 5.7E-02	600 Area	D091
^{238}Pu	97	4	6.1E-03 ± 5.0E-02	1.6E-01 ± 6.1E-02	300 Area	D129
$^{239/240}$Pu	97	41	5.3E-02 ± 3.7E-01	1.6E+00 ± 4.2E-01	200 West	D039
^{103}Ru	97	0	-1.2E-03 ± 8.9E-03	1.3E-02 ± 1.7E-02	200 West	D019
^{106}Ru	97	2	-2.2E-03 ± 8.1E-02	1.7E-01 ± 1.3E-01	100 N	D159
^{125}Sb	97	0	1.5E-03 ± 2.0E-02	3.1E-02 ± 3.3E-02	300 Area	D131
^{113}Sn	97	0	-3.2E-03 ± 1.2E-02	1.0E-02 ± 1.7E-02	200 West	D013
^{90}Sr	97	10	-1.0E-02 ± 5.4E-01	1.3E+00 ± 2.9E-01	200 West	D041
^{234}U	97	97	2.0E-01 ± 6.5E-01	2.5E+00 ± 6.5E-01	300 Area	D131
^{235}U	97	61	1.6E-02 ± 4.0E-02	1.6E-01 ± 5.4E-02	300 Area	D119
^{238}U	97	97	2.0E-01 ± 6.6E-01	2.6E+00 ± 6.8E-01	300 Area	D131
^{65}Zn	97	20	1.0E-02 ± 5.2E-02	8.2E-02 ± 2.5E-02	200 East	D079

[a] 1 pCi = 0.037 Bq

[b] Includes replicate samples and/or multiple samples collected at some locations

[c] Average ± two standard deviations

[d] Maximum ± analytical uncertainty

Table 3-3. Average Radionuclide Concentrations (pCi/g)[a] in Hanford Soils, 1995 through 2005.

100 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	9.4E-01 ± 9.9E+01	1.3E-01 ± 6.9E-02	5.1E-01 ± 2.4E-01	9.1E-02 ± 1.0E-02	9.7E-02 ± 2.7E-02	1.4E-02 ± 9.3E-03
1996	1.5E+00 ± 1.1E+00	2.0E-01 ± 7.6E-02	7.7E-01 ± 4.1E-01	5.7E-02 ± 8.0E-03	5.7E-01 ± 1.2E-01	4.3E-02 ± 1.6E-02
1997	2.5E+00 ± 3.0E-01	3.9E-01 ± 6.5E-01	8.9E-01 ± 8.9E-01	2.1E-01 ± 3.8E-02	2.1E-01 ± 3.4E-02	9.1E-01 ± 1.6E+00
1998	4.9E+00 ± 7.7E+00	1.2E+00 ± 1.1E+00	3.1E+00 ± 4.1E+00	2.1E-01 ± 6.0E-02	1.7E-01 ± 3.0E-02	1.5E-01 ± 1.3E-01
1999	1.6E+00 ± 2.1E+00	2.0E+00 ± 2.0E+00	8.4E-01 ± 8.1E-01	2.2E-01 ± 3.0E-02	2.0E-01 ± 3.0E-02	2.9E-02 ± 2.3E-02
2000	3.1E+00 ± 3.0E+00	8.4E-01 ± 4.5E-01	2.5E+00 ± 2.3E+00	2.2E-01 ± 8.7E-02	2.2E-01 ± 3.2E-02	5.8E-02 ± 3.3E-02
2001	4.0E-01 ± 3.4E-01	4.8E-01 ± 3.0E-01	3.9E-01 ± 1.6E-01	2.4E-01 ± 3.6E-02	2.5E-01 ± 2.7E-02	3.1E-02 ± 2.0E-02
2002	3.0E-01 ± 1.1E+00	1.5E-01 ± 4.7E-01	2.6E-01 ± 5.1E-01	1.3E-01 ± 4.7E-02	1.1E-01 ± 3.9E-02	6.1E-03 ± 6.1E-03
2003	1.8E-01 ± 2.1E-02	-8.2E-02 ± 2.4E-01	2.1E-01 ± 3.6E-02	1.4E-01 ± 4.8E-02	1.5E-01 ± 5.1E-02	1.8E-03 ± 6.3E-03
2004	3.9E-01 ± 2.0E+00	-1.3E-01 ± 5.7E-01	3.8E-01 ± 1.1E+00	1.3E-01 ± 5.9E-02	1.4E-01 ± 6.4E-02	1.1E-01 ± 6.0E-01
2005	3.5E-02 ± 1.8E-01	-4.3E-02 ± 6.1E-01	3.2E-01 ± 1.2E+00	1.3E-01 ± 6.5E-02	1.3E-01 ± 5.8E-02	1.1E-02 ± 4.3E-02

200/600 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	4.0E-03 ± 4.0E-03	4.9E-01 ± 1.8E-01	2.7E+00 ± 1.1E+00	1.2E-01 ± 1.7E-02	1.2E-01 ± 1.6E-02	7.0E-02 ± 3.0E-02
1996	3.0E-03 ± 3.0E-03	3.5E-01 ± 2.0E-01	2.0E+00 ± 7.0E-01	1.0E-01 ± 1.2E-02	1.1E-01 ± 1.2E-02	1.6E-01 ± 1.0E-01
1997	3.0E-02 ± 2.0E-02	6.7E-01 ± 2.3E-01	1.8E+00 ± 4.0E-01	2.0E-01 ± 1.4E-02	2.0E-01 ± 1.4E-02	1.0E-01 ± 7.0E-02
1998	1.9E-02 ± 6.0E-03	5.0E-01 ± 1.4E-01	1.1E+00 ± 4.0E-01	1.9E-01 ± 1.0E-02	1.9E-01 ± 1.0E-02	1.3E-01 ± 1.0E-02
1999	Not Detected	1.1E+00 ± 5.0E-01	1.4E+00 ± 5.0E-01	2.3E-01 ± 2.0E-02	2.2E-01 ± 2.0E-02	1.0E-01 ± 5.0E-02
2000	6.0E-03 ± 6.0E-03	1.1E+00 ± 2.0E-01	1.4E+00 ± 5.0E-01	2.3E-01 ± 3.0E-02	2.3E-01 ± 3.0E-02	4.1E-01 ± 4.2E-01
2001	Not Detected	5.5E-01 ± 2.3E-01	1.5E+00 ± 5.4E-01	2.2E-01 ± 1.4E-02	2.2E-01 ± 1.4E-02	1.3E-01 ± 6.2E-02
2002	Not Detected	2.7E-01 ± 6.6E-01	1.4E+00 ± 4.3E+00	1.7E-01 ± 1.0E-01	1.7E-01 ± 1.1E-01	1.2E-01 ± 7.2E-01
2003	2.4E-03 ± 1.3E-02	8.4E-02 ± 6.3E-01	1.8E+00 ± 6.3E-01	1.6E-01 ± 9.6E-02	1.7E-01 ± 1.0E-01	9.3E-02 ± 5.0E-01
2004	8.1E-04 ± 1.1E-02	1.3E-01 ± 7.8E-01	2.8E+00 ± 1.7E+01	1.7E-01 ± 1.9E-01	1.7E-01 ± 1.5E-01	3.5E-01 ± 3.2E+00
2005	Not Detected	2.7E-02 ± 5.4E-01	1.5E+00 ± 5.1E+00	1.6E-01 ± 9.6E-02	1.5E-01 ± 8.8E-02	8.0E-02 ± 4.6E-01

300/400 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	2.0E-03 ± 1.0E-03	5.0E-02 ± 2.0E-02	2.4E-01 ± 1.1E-01	2.1E+00 ± 2.0E+00	2.1E+00 ± 2.1E+00	2.6E-02 ± 2.4E-02
1996	2.0E-03 ± 6.0E-03	4.0E-02 ± 1.0E-02	1.5E-01 ± 7.0E-02	1.3E+00 ± 1.0E+00	1.2E+00 ± 1.0E+00	2.5E-02 ± 3.3E-02
1997	Not Detected	4.5E-01 ± 1.9E-01	7.0E-02 ± 3.0E-02	9.0E-01 ± 1.0E-01	9.0E-01 ± 9.0E-01	3.8E-02 ± 4.9E-02
1998	Not Detected	2.4E-01 ± 1.2E-01	9.0E-02 ± 8.0E-02	8.5E-01 ± 9.8E-01	8.2E-01 ± 9.8E-01	4.5E-02 ± 5.7E-02
1999	Not Detected	8.7E-01 ± 1.9E-01	9.0E-02 ± 3.0E-02	7.5E-01 ± 5.4E-01	7.1E-01 ± 5.3E-01	4.0E-02 ± 2.0E-02
2000	Not Detected	5.9E-01 ± 1.8E-01	1.4E-01 ± 6.0E-02	5.4E+00 ± 5.6E+00	5.4E+00 ± 5.7E+00	1.7E-01 ± 8.0E-02
2001	Not Detected	Not Detected	5.0E-02 ± 2.1E-02	9.4E-01 ± 7.1E-01	9.5E-01 ± 7.3E-01	4.1E-02 ± 2.6E-02
2002	Not Detected	2.8E-02 ± 2.9E-02	7.4E-02 ± 1.3E-01	1.5E+00 ± 6.4E+00	1.5E+00 ± 6.4E+00	2.4E-02 ± 9.9E-02
2003	Not Detected	5.6E-02 ± 7.3E-02	8.1E-02 ± 1.4E-01	1.3E+00 ± 5.1E+00	1.3E+00 ± 5.2E+00	7.5E-02 ± 3.8E-01
2004	Not Detected	Not Detected	9.2E-02 ± 1.4E-01	9.6E-01 ± 2.9E+00	9.7E-01 ± 3.0E+00	2.8E-02 ± 6.7E-02
2005	Not Detected	Not Detected	5.0E-02 ± 1.1E-01	5.6E-01 ± 1.6E+00	5.6E-01 ± 1.6E+00	1.4E-02 ± 3.5E-02

(a) ± 2 standard deviations

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D150 (100 B/C)	^{144}Ce	-1.5E-01 ± 1.9E-01	U
	^{60}Co	1.8E-03 ± 7.2E-03	U
	^{134}Cs	3.6E-02 ± 1.2E-02	
	^{137}Cs	2.6E-02 ± 1.4E-02	
	^{152}Eu	6.1E-02 ± 2.4E-02	
	^{154}Eu	-2.9E-02 ± 2.9E-02	U
	^{155}Eu	-4.2E-03 ± 4.2E-02	U
	^{238}Pu	1.9E-03 ± 1.9E-03	U
	$^{239/240}$Pu	3.9E-03 ± 7.8E-03	U
	^{103}Ru	4.4E-03 ± 1.1E-02	U
	^{106}Ru	-4.1E-02 ± 6.8E-02	U
	^{125}Sb	2.9E-03 ± 2.2E-02	U
	^{113}Sn	-2.3E-02 ± 2.3E-02	U
	^{90}Sr	-2.9E-01 ± 2.9E-01	U
	^{234}U	1.5E-01 ± 5.1E-02	
	^{235}U	9.6E-03 ± 8.9E-03	
	^{238}U	1.3E-01 ± 4.4E-02	
	^{65}Zn	2.9E-02 ± 2.2E-02	U
D153 (100 B/C, 06/14/05)	^{144}Ce	-5.4E-02 ± 1.8E-01	U
	^{60}Co	5.1E-03 ± 1.0E-02	U
	^{134}Cs	2.4E-02 ± 1.6E-02	
	^{137}Cs	2.4E-01 ± 4.2E-02	
	^{152}Eu	1.6E-02 ± 4.5E-02	U
	^{154}Eu	-2.6E-02 ± 3.5E-02	U
	^{155}Eu	3.2E-02 ± 3.8E-02	U
	^{238}Pu	-7.8E-03 ± 3.6E-02	U
	$^{239/240}$Pu	1.1E-01 ± 4.1E-02	
	^{103}Ru	4.5E-03 ± 1.5E-02	U
	^{106}Ru	-5.3E-02 ± 9.9E-02	U
	^{125}Sb	-9.5E-03 ± 3.0E-02	U
	^{113}Sn	-1.5E-02 ± 1.5E-02	U
	^{90}Sr	-8.3E-02 ± 2.6E-01	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	1.4E-02 ± 1.2E-02	
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	-1.8E-02 ± 3.2E-02	U

Location	Isotope	Result ± Error	RQ*
D153 (100 B/C, 01/27/05)	^{144}Ce	7.0E-03 ± 7.0E-02	U
	^{60}Co	1.8E-03 ± 7.0E-03	U
	^{134}Cs	2.5E-02 ± 1.3E-02	
	^{137}Cs	2.5E-01 ± 4.8E-02	
	^{152}Eu	7.4E-03 ± 4.7E-02	U
	^{154}Eu	-1.0E-03 ± 1.0E-02	U
	^{155}Eu	-1.0E-02 ± 4.5E-02	U
	^{238}Pu	3.6E-02 ± 3.6E-02	U
	$^{239/240}$Pu	6.3E-03 ± 1.3E-02	U
	^{103}Ru	-1.4E-03 ± 7.7E-03	U
	^{106}Ru	7.0E-03 ± 6.7E-02	U
	^{125}Sb	4.3E-03 ± 2.2E-02	U
	^{113}Sn	6.9E-03 ± 1.0E-02	U
	^{90}Sr	-1.6E-01 ± 3.6E-01	U
	^{234}U	1.4E-01 ± 5.3E-02	
	^{235}U	8.5E-03 ± 1.0E-02	
	^{238}U	1.5E-01 ± 5.6E-02	
	^{65}Zn	3.2E-02 ± 2.0E-02	
D160 (100 B/C)	^{144}Ce	2.6E-02 ± 1.3E-01	U
	^{60}Co	2.0E-03 ± 6.4E-03	U
	^{134}Cs	4.9E-02 ± 1.6E-02	
	^{137}Cs	4.1E-01 ± 6.8E-02	
	^{152}Eu	1.6E-01 ± 2.5E-02	
	^{154}Eu	3.3E-02 ± 2.3E-02	U
	^{155}Eu	3.4E-02 ± 3.1E-02	U
	^{238}Pu	-3.7E-03 ± 3.0E-02	U
	$^{239/240}$Pu	1.5E-02 ± 1.5E-02	U
	^{103}Ru	-3.2E-03 ± 9.2E-03	U
	^{106}Ru	-1.9E-02 ± 5.9E-02	U
	^{125}Sb	7.1E-03 ± 2.0E-02	U
	^{113}Sn	2.0E-03 ± 1.0E-02	U
	^{90}Sr	5.6E-02 ± 2.3E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	1.6E-02 ± 1.4E-02	U
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	1.2E-02 ± 3.0E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D161 (100 B/C, 01/27/05)	^{144}Ce	8.6E-03 ± 8.6E-02	U
	^{60}Co	-8.0E-03 ± 8.0E-03	U
	^{134}Cs	4.4E-02 ± 1.4E-02	
	^{137}Cs	1.3E-01 ± 2.3E-02	
	^{152}Eu	8.2E-02 ± 2.0E-02	
	^{154}Eu	-7.2E-03 ± 2.0E-02	U
	^{155}Eu	6.5E-02 ± 4.3E-02	
	^{238}Pu	2.4E-02 ± 3.8E-02	U
	$^{239/240}$Pu	4.0E-03 ± 1.4E-02	U
	^{103}Ru	1.2E-03 ± 6.2E-03	U
	^{106}Ru	-6.3E-03 ± 5.3E-02	U
	^{125}Sb	7.4E-03 ± 1.7E-02	U
	^{113}Sn	-9.1E-03 ± 9.1E-03	U
	^{90}Sr	2.3E-01 ± 3.7E-01	U
	^{234}U	1.3E-01 ± 5.1E-02	
	^{235}U	-3.0E-03 ± 6.0E-03	U
	^{238}U	1.1E-01 ± 4.4E-02	
	^{65}Zn	-1.7E-02 ± 1.8E-02	U
D165 (100 B/C)	^{144}Ce	-5.2E-02 ± 1.0E-01	U
	^{60}Co	-4.8E-03 ± 5.7E-03	U
	^{134}Cs	2.3E-02 ± 9.2E-03	
	^{137}Cs	1.2E-01 ± 2.2E-02	
	^{152}Eu	8.9E-03 ± 1.9E-02	U
	^{154}Eu	-8.0E-03 ± 2.2E-02	U
	^{155}Eu	3.6E-02 ± 3.6E-02	U
	^{238}Pu	1.5E-02 ± 3.9E-02	U
	$^{239/240}$Pu	1.1E-02 ± 1.2E-02	U
	^{103}Ru	-3.3E-03 ± 5.5E-03	U
	^{106}Ru	-3.4E-02 ± 4.9E-02	U
	^{125}Sb	-9.3E-03 ± 1.6E-02	U
	^{113}Sn	3.0E-03 ± 7.5E-03	U
	^{90}Sr	3.7E-03 ± 3.7E-02	U
	^{234}U	9.2E-02 ± 3.7E-02	
	^{235}U	1.3E-02 ± 1.1E-02	
	^{238}U	8.6E-02 ± 3.4E-02	
	^{65}Zn	-9.2E-03 ± 1.7E-02	U

Location	Isotope	Result ± Error	RQ*
D161 (100 B/C, 06/14/05)	^{144}Ce	-3.5E-02 ± 1.1E-01	U
	^{60}Co	6.8E-05 ± 6.8E-04	U
	^{134}Cs	3.2E-02 ± 1.0E-02	
	^{137}Cs	3.6E-01 ± 5.9E-02	
	^{152}Eu	1.7E-02 ± 2.0E-02	U
	^{154}Eu	1.7E-02 ± 2.0E-02	U
	^{155}Eu	1.3E-02 ± 2.5E-02	U
	^{238}Pu	-1.2E-02 ± 4.4E-02	U
	$^{239/240}$Pu	1.6E-02 ± 1.3E-02	
	^{103}Ru	-3.3E-03 ± 7.7E-03	U
	^{106}Ru	-3.8E-02 ± 4.8E-02	U
	^{125}Sb	2.4E-03 ± 1.6E-02	U
	^{113}Sn	-2.2E-03 ± 8.1E-03	U
	^{90}Sr	-1.8E-01 ± 2.5E-01	U
	^{234}U	1.1E-01 ± 4.3E-02	
	^{235}U	2.5E-02 ± 1.7E-02	
	^{238}U	1.2E-01 ± 4.6E-02	
	^{65}Zn	1.9E-03 ± 1.5E-02	U
D154 (100 F)	^{144}Ce	-5.1E-02 ± 1.5E-01	U
	^{60}Co	2.6E-03 ± 7.2E-03	U
	^{134}Cs	2.3E-02 ± 1.7E-02	
	^{137}Cs	1.1E-01 ± 2.4E-02	
	^{152}Eu	-6.0E-04 ± 6.0E-03	U
	^{154}Eu	2.8E-02 ± 3.0E-02	U
	^{155}Eu	1.2E-02 ± 3.3E-02	U
	^{238}Pu	-8.0E-03 ± 4.2E-02	U
	$^{239/240}$Pu	2.7E-03 ± 5.4E-03	U
	^{103}Ru	5.6E-05 ± 5.6E-04	U
	^{106}Ru	3.2E-02 ± 6.4E-02	U
	^{125}Sb	-1.6E-02 ± 1.9E-02	U
	^{113}Sn	-9.6E-03 ± 1.1E-02	U
	^{90}Sr	-2.4E-01 ± 2.4E-01	U
	^{234}U	8.5E-02 ± 3.6E-02	
	^{235}U	4.5E-03 ± 9.0E-03	U
	^{238}U	9.1E-02 ± 3.6E-02	
	^{65}Zn	-1.2E-02 ± 2.1E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D155	^{144}Ce	-1.0E-01 ± 1.2E-01	U
(100 F)	^{60}Co	4.8E-03 ± 6.4E-03	U
	^{134}Cs	2.9E-02 ± 1.4E-02	
	^{137}Cs	1.9E-01 ± 3.3E-02	
	^{152}Eu	1.2E-01 ± 2.2E-02	
	^{154}Eu	7.2E-03 ± 2.4E-02	U
	^{155}Eu	3.7E-02 ± 3.7E-02	U
	^{238}Pu	-1.6E-02 ± 2.2E-02	U
	$^{239/240}$Pu	2.0E-03 ± 2.0E-02	U
	^{103}Ru	-1.9E-03 ± 9.2E-03	U
	^{106}Ru	-4.8E-03 ± 4.8E-02	U
	^{125}Sb	2.8E-03 ± 1.8E-02	U
	^{113}Sn	-4.2E-03 ± 9.7E-03	U
	^{90}Sr	2.7E-01 ± 2.6E-01	U
	^{234}U	9.7E-02 ± 3.9E-02	
	^{235}U	4.8E-03 ± 1.2E-02	U
	^{238}U	1.2E-01 ± 4.6E-02	
	^{65}Zn	1.3E-04 ± 1.3E-03	U
D168	^{144}Ce	-5.5E-02 ± 1.7E-01	U
(100 F)	^{60}Co	-3.8E-03 ± 1.1E-02	U
	^{134}Cs	3.4E-02 ± 1.6E-02	
	^{137}Cs	2.0E-01 ± 3.5E-02	
	^{152}Eu	2.3E-02 ± 4.3E-02	U
	^{154}Eu	-5.6E-03 ± 3.2E-02	U
	^{155}Eu	2.4E-02 ± 3.5E-02	U
	^{238}Pu	-7.9E-03 ± 3.2E-02	U
	$^{239/240}$Pu	3.9E-03 ± 9.7E-03	U
	^{103}Ru	-8.8E-04 ± 8.8E-03	U
	^{106}Ru	2.2E-02 ± 9.2E-02	U
	^{125}Sb	1.4E-02 ± 2.8E-02	U
	^{113}Sn	-9.7E-03 ± 1.4E-02	U
	^{90}Sr	3.2E-01 ± 2.9E-01	
	^{234}U	9.5E-02 ± 3.6E-02	
	^{235}U	-6.5E-03 ± 7.8E-03	U
	^{238}U	9.1E-02 ± 3.5E-02	
	^{65}Zn	-1.2E-02 ± 2.9E-02	U
D169	^{144}Ce	-2.0E-02 ± 1.3E-01	U
(100 F)	^{60}Co	1.5E-02 ± 8.0E-03	
	^{134}Cs	2.8E-02 ± 1.3E-02	
	^{137}Cs	2.5E-01 ± 4.6E-02	
	^{152}Eu	1.9E-01 ± 2.4E-02	
	^{154}Eu	2.2E-02 ± 2.6E-02	U
	^{155}Eu	3.4E-02 ± 3.0E-02	U
	^{238}Pu	-2.0E-02 ± 3.8E-02	U
	$^{239/240}$Pu	2.2E-03 ± 4.4E-03	U
	^{103}Ru	-3.3E-03 ± 8.5E-03	U
	^{106}Ru	-2.8E-02 ± 5.9E-02	U
	^{125}Sb	4.9E-03 ± 1.7E-02	U
	^{113}Sn	1.9E-03 ± 8.9E-03	U
	^{90}Sr	6.6E-02 ± 2.6E-01	U
	^{234}U	8.6E-02 ± 3.4E-02	
	^{235}U	8.8E-03 ± 8.8E-03	
	^{238}U	1.0E-01 ± 3.8E-02	
	^{65}Zn	7.6E-03 ± 3.1E-02	U
D170	^{144}Ce	-7.7E-02 ± 1.2E-01	U
(100 F)	^{60}Co	6.0E-03 ± 6.3E-03	U
	^{134}Cs	4.1E-02 ± 1.5E-02	
	^{137}Cs	5.3E-02 ± 1.3E-02	
	^{152}Eu	7.4E-03 ± 2.2E-02	U
	^{154}Eu	2.4E-03 ± 2.4E-02	U
	^{155}Eu	4.7E-02 ± 2.9E-02	U
	^{238}Pu	-4.4E-02 ± 4.4E-02	U
	$^{239/240}$Pu	9.2E-03 ± 1.0E-02	U
	^{103}Ru	-3.4E-04 ± 3.4E-03	U
	^{106}Ru	-7.9E-03 ± 5.7E-02	U
	^{125}Sb	3.4E-03 ± 1.8E-02	U
	^{113}Sn	1.3E-03 ± 9.4E-03	U
	^{90}Sr	-2.8E-01 ± 2.8E-01	U
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	-6.2E-03 ± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D151 (100 H)	^{144}Ce	-8.0E-02 ± 1.3E-01	U
	^{60}Co	5.7E-04 ± 5.7E-03	U
	^{134}Cs	2.7E-02 ± 1.6E-02	
	^{137}Cs	4.3E-01 ± 7.0E-02	
	^{152}Eu	-1.6E-02 ± 2.2E-02	U
	^{154}Eu	-3.0E-03 ± 2.1E-02	U
	^{155}Eu	4.4E-02 ± 4.2E-02	U
	^{238}Pu	-1.1E-02 ± 2.4E-02	U
	$^{239/240}$Pu	1.3E-02 ± 1.3E-02	U
	^{103}Ru	-1.4E-03 ± 9.4E-03	U
	^{106}Ru	1.2E-03 ± 1.2E-02	U
	^{125}Sb	-5.8E-03 ± 1.9E-02	U
	^{113}Sn	2.7E-03 ± 9.7E-03	U
	^{90}Sr	-2.4E-01 ± 2.4E-01	U
	^{234}U	7.5E-02 ± 3.1E-02	
	^{235}U	4.1E-03 ± 8.2E-03	U
	^{238}U	1.4E-01 ± 4.8E-02	
	^{65}Zn	-4.7E-03 ± 1.9E-02	U
D152 (100 H)	^{144}Ce	7.5E-03 ± 7.5E-02	U
	^{60}Co	1.3E-03 ± 6.1E-03	U
	^{134}Cs	4.7E-02 ± 1.3E-02	
	^{137}Cs	2.2E-01 ± 3.8E-02	
	^{152}Eu	7.5E-02 ± 2.2E-02	
	^{154}Eu	1.7E-02 ± 2.3E-02	U
	^{155}Eu	5.6E-02 ± 4.3E-02	
	^{238}Pu	1.9E-03 ± 1.7E-02	U
	$^{239/240}$Pu	5.7E-03 ± 8.6E-03	U
	^{103}Ru	-7.5E-04 ± 7.5E-03	U
	^{106}Ru	3.6E-02 ± 5.5E-02	U
	^{125}Sb	2.2E-02 ± 1.9E-02	U
	^{113}Sn	-4.7E-04 ± 4.7E-03	U
	^{90}Sr	-3.0E-01 ± 3.0E-01	U
	^{234}U	1.6E-01 ± 4.6E-02	
	^{235}U	1.2E-02 ± 1.0E-02	
	^{238}U	1.3E-01 ± 4.0E-02	
	^{65}Zn	-2.4E-02 ± 2.4E-02	U
D162 (100-KR-1, 06/14/05)	^{144}Ce	7.9E-02 ± 1.9E-01	U
	^{60}Co	-4.5E-03 ± 7.4E-03	U
	^{134}Cs	3.8E-02 ± 1.2E-02	
	^{137}Cs	3.2E-01 ± 5.9E-02	
	^{152}Eu	-3.7E-02 ± 5.2E-02	U
	^{154}Eu	-6.9E-03 ± 2.4E-02	U
	^{155}Eu	3.4E-02 ± 4.5E-02	U
	^{238}Pu	1.0E-02 ± 3.5E-02	U
	$^{239/240}$Pu	8.0E-03 ± 9.6E-03	U
	^{103}Ru	-3.3E-03 ± 1.1E-02	U
	^{106}Ru	-1.6E-02 ± 7.3E-02	U
	^{125}Sb	-1.5E-02 ± 2.4E-02	U
	^{113}Sn	-4.7E-03 ± 1.3E-02	U
	^{90}Sr	-2.5E-01 ± 2.5E-01	U
	^{234}U	1.8E-01 ± 5.9E-02	
	^{235}U	1.1E-02 ± 1.2E-02	U
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	4.0E-02 ± 3.6E-02	
D162 (100-KR-1, 10/28/05)	^{144}Ce	-8.1E-02 ± 1.3E-01	U
	^{60}Co	-3.6E-03 ± 7.5E-03	U
	^{134}Cs	4.0E-02 ± 1.1E-02	
	^{137}Cs	-3.7E-04 ± 3.7E-03	U
	^{152}Eu	-1.8E-02 ± 2.4E-02	U
	^{154}Eu	8.2E-03 ± 2.6E-02	U
	^{155}Eu	6.1E-02 ± 4.7E-02	
	^{238}Pu	2.4E-02 ± 4.8E-02	U
	$^{239/240}$Pu	-2.4E-03 ± 1.1E-02	U
	^{103}Ru	4.6E-03 ± 7.2E-03	U
	^{106}Ru	-3.0E-03 ± 3.0E-02	U
	^{125}Sb	1.4E-02 ± 2.1E-02	U
	^{113}Sn	-4.4E-03 ± 9.6E-03	U
	^{90}Sr	-3.2E-01 ± 4.5E-01	U
	^{234}U	1.7E-01 ± 5.9E-02	
	^{235}U	1.9E-02 ± 1.6E-02	
	^{238}U	1.7E-01 ± 5.8E-02	
	^{65}Zn	2.1E-03 ± 2.0E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D163 (100-KR-1, 06/14/05)	^{144}Ce	-2.8E-02 ± 1.5E-01	U
	^{60}Co	1.2E-02 ± 8.8E-03	U
	^{134}Cs	5.8E-02 ± 1.9E-02	
	^{137}Cs	3.2E-01 ± 5.5E-02	
	^{152}Eu	1.9E-01 ± 3.2E-02	
	^{154}Eu	6.9E-03 ± 2.9E-02	U
	^{155}Eu	4.7E-02 ± 4.3E-02	U
	^{238}Pu	-1.8E-03 ± 1.8E-02	U
	$^{239/240}$Pu	1.1E-02 ± 9.5E-03	
	^{103}Ru	2.7E-04 ± 2.7E-03	U
	^{106}Ru	5.2E-02 ± 8.2E-02	U
	^{125}Sb	9.2E-04 ± 9.2E-03	U
	^{113}Sn	-8.0E-03 ± 1.2E-02	U
	^{90}Sr	-1.8E-02 ± 1.8E-01	U
	^{234}U	1.6E-01 ± 5.6E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	6.7E-02 ± 4.0E-02	
D166 (118-K-1)	^{144}Ce	4.7E-02 ± 1.2E-01	U
	^{60}Co	3.6E-03 ± 6.9E-03	U
	^{134}Cs	3.7E-02 ± 1.4E-02	
	^{137}Cs	1.0E-01 ± 2.2E-02	
	^{152}Eu	6.1E-02 ± 2.2E-02	
	^{154}Eu	1.4E-02 ± 2.5E-02	U
	^{155}Eu	3.1E-02 ± 3.9E-02	U
	^{238}Pu	-3.7E-02 ± 3.7E-02	U
	$^{239/240}$Pu	9.2E-03 ± 1.0E-02	U
	^{103}Ru	-5.3E-04 ± 5.3E-03	U
	^{106}Ru	-2.3E-02 ± 5.9E-02	U
	^{125}Sb	7.1E-03 ± 1.9E-02	U
	^{113}Sn	-1.7E-03 ± 9.4E-03	U
	^{90}Sr	-8.1E-02 ± 5.3E-01	U
	^{234}U	1.8E-01 ± 5.9E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	1.6E-01 ± 5.3E-02	
	^{65}Zn	-2.9E-02 ± 2.9E-02	U

Location	Isotope	Result ± Error	RQ*
D163 (100-KR-1, 10/28/05)	^{144}Ce	2.7E-02 ± 1.6E-01	U
	^{60}Co	2.0E-02 ± 1.1E-02	
	^{134}Cs	5.4E-02 ± 2.0E-02	
	^{137}Cs	1.6E-01 ± 3.2E-02	
	^{152}Eu	8.6E-02 ± 2.9E-02	
	^{154}Eu	1.9E-02 ± 3.3E-02	U
	^{155}Eu	3.1E-02 ± 3.7E-02	U
	^{238}Pu	3.9E-03 ± 2.3E-02	U
	$^{239/240}$Pu	1.2E-02 ± 1.2E-02	U
	^{103}Ru	2.2E-03 ± 8.4E-03	U
	^{106}Ru	-5.2E-02 ± 7.6E-02	U
	^{125}Sb	6.4E-03 ± 2.4E-02	U
	^{113}Sn	-9.7E-03 ± 1.2E-02	U
	^{90}Sr	6.7E-01 ± 4.8E-01	
	^{234}U	1.1E-01 ± 4.2E-02	
	^{235}U	4.2E-03 ± 1.0E-02	U
	^{238}U	1.1E-01 ± 4.0E-02	
	^{65}Zn	-2.3E-02 ± 2.4E-02	U
D167 (118-K-1)	^{144}Ce	-2.2E-02 ± 1.5E-01	U
	^{60}Co	7.9E-03 ± 1.1E-02	U
	^{134}Cs	4.0E-02 ± 1.4E-02	
	^{137}Cs	1.9E-01 ± 3.5E-02	
	^{152}Eu	8.4E-02 ± 2.2E-02	
	^{154}Eu	1.7E-03 ± 1.7E-02	U
	^{155}Eu	5.3E-02 ± 5.6E-02	U
	^{238}Pu	-7.7E-03 ± 3.4E-02	U
	$^{239/240}$Pu	1.7E-02 ± 1.5E-02	U
	^{103}Ru	-2.1E-03 ± 9.1E-03	U
	^{106}Ru	-2.7E-02 ± 7.8E-02	U
	^{125}Sb	-2.5E-03 ± 2.4E-02	U
	^{113}Sn	7.8E-03 ± 1.1E-02	U
	^{90}Sr	-5.0E-02 ± 5.0E-01	U
	^{234}U	1.9E-01 ± 5.5E-02	
	^{235}U	1.2E-02 ± 1.0E-02	
	^{238}U	2.1E-01 ± 5.9E-02	
	^{65}Zn	-6.0E-03 ± 2.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
Y608	^{144}Ce	5.7E-02 ± 1.8E-01	U
(100 N)	^{60}Co	3.2E-01 ± 3.4E-02	
	^{134}Cs	3.0E-02 ± 1.2E-02	
	^{137}Cs	3.2E-01 ± 5.9E-02	
	^{152}Eu	-7.3E-03 ± 4.9E-02	U
	^{154}Eu	-3.3E-03 ± 2.7E-02	U
	^{155}Eu	4.4E-02 ± 4.7E-02	U
	^{238}Pu	2.3E-02 ± 3.4E-02	U
	$^{239/240}$Pu	1.3E-02 ± 1.2E-02	U
	^{103}Ru	-5.0E-03 ± 1.1E-02	U
	^{106}Ru	-9.3E-02 ± 9.3E-02	U
	^{125}Sb	1.1E-02 ± 2.3E-02	U
	^{113}Sn	-7.5E-03 ± 1.2E-02	U
	^{90}Sr	-3.9E-01 ± 3.9E-01	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	-2.0E-03 ± 2.0E-02	U
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	7.2E-02 ± 3.5E-02	
D156	^{144}Ce	8.7E-03 ± 8.7E-02	U
(100-NR-1)	^{60}Co	1.4E-02 ± 5.9E-03	
	^{134}Cs	2.5E-02 ± 1.0E-02	
	^{137}Cs	9.2E-02 ± 1.8E-02	
	^{152}Eu	-7.6E-03 ± 1.6E-02	U
	^{154}Eu	1.2E-02 ± 1.9E-02	U
	^{155}Eu	2.0E-02 ± 2.3E-02	U
	^{238}Pu	4.6E-03 ± 4.6E-02	U
	$^{239/240}$Pu	-1.4E-02 ± 1.4E-02	U
	^{103}Ru	2.4E-03 ± 6.9E-03	U
	^{106}Ru	-6.8E-03 ± 4.5E-02	U
	^{125}Sb	-5.1E-03 ± 1.4E-02	U
	^{113}Sn	6.8E-04 ± 6.8E-03	U
	^{90}Sr	-2.2E-01 ± 2.2E-01	U
	^{234}U	8.8E-02 ± 3.6E-02	
	^{235}U	8.2E-03 ± 9.8E-03	U
	^{238}U	9.6E-02 ± 3.8E-02	
	^{65}Zn	8.3E-03 ± 1.4E-02	U

Location	Isotope	Result ± Error	RQ*
Y611	^{144}Ce	-7.8E-02 ± 1.3E-01	U
(100 N)	^{60}Co	4.9E-02 ± 9.9E-03	
	^{134}Cs	3.1E-02 ± 1.0E-02	
	^{137}Cs	9.7E-02 ± 1.9E-02	
	^{152}Eu	-3.5E-03 ± 2.1E-02	U
	^{154}Eu	-1.8E-02 ± 2.3E-02	U
	^{155}Eu	6.0E-02 ± 4.1E-02	
	^{238}Pu	-9.0E-03 ± 3.6E-02	U
	$^{239/240}$Pu	-7.2E-03 ± 1.0E-02	U
	^{103}Ru	3.8E-03 ± 8.4E-03	U
	^{106}Ru	-1.2E-03 ± 1.2E-02	U
	^{125}Sb	9.8E-03 ± 1.8E-02	U
	^{113}Sn	-8.5E-04 ± 8.5E-03	U
	^{90}Sr	9.0E-03 ± 9.0E-02	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	5.1E-03 ± 1.8E-02	U
D158	^{144}Ce	-1.3E-01 ± 1.3E-01	U
(100-NR-1)	^{60}Co	7.9E-02 ± 1.2E-02	
	^{134}Cs	3.6E-02 ± 1.4E-02	
	^{137}Cs	1.3E-01 ± 2.6E-02	
	^{152}Eu	-1.1E-02 ± 2.2E-02	U
	^{154}Eu	1.8E-03 ± 1.8E-02	U
	^{155}Eu	5.2E-02 ± 3.4E-02	
	^{238}Pu	-8.7E-03 ± 3.5E-02	U
	$^{239/240}$Pu	1.1E-02 ± 1.2E-02	U
	^{103}Ru	-4.2E-03 ± 8.0E-03	U
	^{106}Ru	-2.5E-03 ± 2.5E-02	U
	^{125}Sb	-3.3E-03 ± 1.6E-02	U
	^{113}Sn	-5.5E-03 ± 8.7E-03	U
	^{90}Sr	-4.2E-01 ± 4.2E-01	U
	^{234}U	1.5E-01 ± 5.7E-02	
	^{235}U	1.7E-02 ± 1.5E-02	
	^{238}U	1.8E-01 ± 6.3E-02	
	^{65}Zn	2.9E-03 ± 1.6E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D159	^{144}Ce	-2.2E-02 ± 2.2E-01	U
(100-NR-1)	^{60}Co	3.5E-01 ± 3.8E-02	
	^{134}Cs	4.3E-02 ± 1.5E-02	
	^{137}Cs	3.2E+00 ± 5.5E-01	
	^{152}Eu	5.9E-02 ± 6.9E-02	U
	^{154}Eu	4.1E-02 ± 2.1E-02	U
	^{155}Eu	6.3E-02 ± 6.3E-02	U
	^{238}Pu	-2.3E-03 ± 2.3E-02	U
	$^{239/240}$Pu	1.9E-02 ± 1.4E-02	
	^{103}Ru	-1.4E-02 ± 1.7E-02	U
	^{106}Ru	1.7E-01 ± 1.3E-01	
	^{125}Sb	-7.0E-03 ± 3.7E-02	U
	^{113}Sn	-9.7E-04 ± 9.7E-03	U
	^{90}Sr	8.3E-01 ± 2.9E-01	
	^{234}U	1.2E-01 ± 4.9E-02	
	^{235}U	1.5E-02 ± 1.4E-02	
	^{238}U	1.1E-01 ± 4.6E-02	
	^{65}Zn	3.7E-02 ± 2.8E-02	U

Location	Isotope	Result ± Error	RQ*
D001	^{144}Ce	4.6E-02 ± 1.9E-01	U
(200 West)	^{60}Co	-1.9E-04 ± 1.9E-03	U
	^{134}Cs	4.3E-02 ± 1.6E-02	
	^{137}Cs	5.7E-01 ± 1.0E-01	
	^{152}Eu	-1.1E-02 ± 4.8E-02	U
	^{154}Eu	-7.2E-03 ± 2.4E-02	U
	^{155}Eu	1.4E-02 ± 4.6E-02	U
	^{238}Pu	2.4E-02 ± 2.9E-02	U
	$^{239/240}$Pu	4.9E-02 ± 2.4E-02	
	^{103}Ru	-1.6E-03 ± 1.2E-02	U
	^{106}Ru	2.4E-02 ± 7.1E-02	U
	^{125}Sb	-4.4E-03 ± 2.4E-02	U
	^{113}Sn	-8.0E-03 ± 1.3E-02	U
	^{90}Sr	2.2E-01 ± 2.2E-01	
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	8.2E-03 ± 8.2E-03	
	^{238}U	1.5E-01 ± 5.1E-02	
	^{65}Zn	3.8E-02 ± 2.2E-02	

Location	Isotope	Result ± Error	RQ*
D003	^{144}Ce	4.9E-02 ± 1.5E-01	U
(200 West)	^{60}Co	-2.3E-03 ± 7.1E-03	U
	^{134}Cs	3.6E-02 ± 1.2E-02	
	^{137}Cs	8.1E-01 ± 1.5E-01	
	^{152}Eu	-5.9E-04 ± 5.9E-03	U
	^{154}Eu	-1.7E-02 ± 2.7E-02	U
	^{155}Eu	3.4E-02 ± 3.3E-02	U
	^{238}Pu	-3.4E-03 ± 2.1E-02	U
	$^{239/240}$Pu	3.6E-02 ± 1.9E-02	
	^{103}Ru	8.0E-03 ± 1.0E-02	U
	^{106}Ru	3.7E-02 ± 6.7E-02	U
	^{125}Sb	1.4E-03 ± 1.4E-02	U
	^{113}Sn	7.9E-03 ± 1.1E-02	U
	^{90}Sr	5.6E-01 ± 2.5E-01	
	^{234}U	1.5E-01 ± 4.9E-02	
	^{235}U	3.5E-03 ± 7.0E-03	U
	^{238}U	1.6E-01 ± 5.1E-02	
	^{65}Zn	-2.7E-02 ± 2.7E-02	U

Location	Isotope	Result ± Error	RQ*
D005	^{144}Ce	-5.1E-02 ± 1.1E-01	U
(200 West)	^{60}Co	-2.0E-03 ± 5.4E-03	U
	^{134}Cs	3.0E-02 ± 1.1E-02	
	^{137}Cs	2.5E-02 ± 8.6E-03	
	^{152}Eu	-5.1E-03 ± 1.7E-02	U
	^{154}Eu	2.0E-03 ± 1.7E-02	U
	^{155}Eu	3.2E-02 ± 2.5E-02	U
	^{238}Pu	6.3E-03 ± 1.8E-02	U
	$^{239/240}$Pu	2.1E-03 ± 2.1E-03	U
	^{103}Ru	-1.5E-03 ± 7.7E-03	U
	^{106}Ru	-9.9E-03 ± 4.8E-02	U
	^{125}Sb	7.1E-03 ± 1.6E-02	U
	^{113}Sn	-2.5E-03 ± 7.9E-03	U
	^{90}Sr	-2.8E-02 ± 2.0E-01	U
	^{234}U	1.5E-01 ± 5.1E-02	
	^{235}U	1.7E-02 ± 1.4E-02	
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	-3.0E-03 ± 1.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D007	^{144}Ce	1.1E-02 ± 1.1E-01	U
(200 West)	^{60}Co	1.5E-03 ± 7.0E-03	U
	^{134}Cs	3.4E-02 ± 1.3E-02	
	^{137}Cs	1.3E-01 ± 2.4E-02	
	^{152}Eu	-2.8E-03 ± 2.4E-02	U
	^{154}Eu	-1.9E-02 ± 2.4E-02	U
	^{155}Eu	4.7E-02 ± 2.7E-02	
	^{238}Pu	-2.0E-03 ± 1.2E-02	U
	$^{239/240}$Pu	1.4E-02 ± 1.2E-02	U
	^{103}Ru	-1.9E-03 ± 8.8E-03	U
	^{106}Ru	-7.8E-03 ± 6.0E-02	U
	^{125}Sb	8.1E-03 ± 1.8E-02	U
	^{113}Sn	-4.5E-03 ± 9.3E-03	U
	^{90}Sr	1.0E-01 ± 2.6E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	8.6E-03 ± 8.6E-03	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	8.2E-02 ± 3.5E-02	
D009	^{144}Ce	7.8E-02 ± 1.9E-01	U
(200 West)	^{60}Co	5.6E-03 ± 1.1E-02	U
	^{134}Cs	4.8E-02 ± 1.9E-02	
	^{137}Cs	3.9E-01 ± 6.4E-02	
	^{152}Eu	4.2E-02 ± 4.3E-02	U
	^{154}Eu	-5.4E-02 ± 5.4E-02	U
	^{155}Eu	5.1E-02 ± 4.0E-02	U
	^{238}Pu	1.5E-02 ± 1.2E-02	
	$^{239/240}$Pu	4.7E-02 ± 2.1E-02	
	^{103}Ru	-5.5E-03 ± 1.6E-02	U
	^{106}Ru	-4.1E-02 ± 1.0E-01	U
	^{125}Sb	-1.7E-02 ± 3.2E-02	U
	^{113}Sn	3.7E-03 ± 1.6E-02	U
	^{90}Sr	-1.2E-01 ± 2.4E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	2.8E-02 ± 1.8E-02	
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	2.0E-02 ± 3.2E-02	U
D011	^{144}Ce	1.2E-01 ± 1.2E-01	U
(200 West)	^{60}Co	-2.7E-03 ± 7.6E-03	U
	^{134}Cs	3.2E-02 ± 1.3E-02	
	^{137}Cs	3.8E-01 ± 6.4E-02	
	^{152}Eu	-3.2E-03 ± 3.2E-02	U
	^{154}Eu	-1.7E-02 ± 2.4E-02	U
	^{155}Eu	4.2E-02 ± 4.1E-02	U
	^{238}Pu	-5.6E-03 ± 6.7E-03	U
	$^{239/240}$Pu	3.0E-02 ± 1.7E-02	
	^{103}Ru	-2.0E-03 ± 1.0E-02	U
	^{106}Ru	-5.7E-02 ± 6.8E-02	U
	^{125}Sb	-3.2E-03 ± 2.1E-02	U
	^{113}Sn	-2.5E-03 ± 1.1E-02	U
	^{90}Sr	-1.6E-01 ± 2.4E-01	U
	^{234}U	1.1E-01 ± 4.1E-02	
	^{235}U	2.2E-02 ± 1.5E-02	
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	3.6E-02 ± 2.4E-02	
D013	^{144}Ce	-6.4E-02 ± 1.6E-01	U
(200 West)	^{60}Co	-2.8E-04 ± 2.8E-03	U
	^{134}Cs	3.7E-02 ± 1.5E-02	
	^{137}Cs	7.5E+00 ± 1.2E+00	
	^{152}Eu	7.5E-03 ± 4.3E-02	U
	^{154}Eu	-2.8E-02 ± 2.8E-02	U
	^{155}Eu	6.6E-02 ± 3.9E-02	
	^{238}Pu	7.2E-03 ± 8.6E-03	U
	$^{239/240}$Pu	1.4E-02 ± 1.0E-02	
	^{103}Ru	-3.6E-03 ± 1.6E-02	U
	^{106}Ru	4.5E-02 ± 9.4E-02	U
	^{125}Sb	1.6E-04 ± 1.6E-03	U
	^{113}Sn	1.0E-02 ± 1.7E-02	U
	^{90}Sr	3.2E-01 ± 2.6E-01	
	^{234}U	9.7E-02 ± 3.6E-02	
	^{235}U	2.5E-02 ± 1.5E-02	
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	3.0E-02 ± 2.2E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D015 (200 West)	^{144}Ce	-7.7E-02 ± 1.7E-01	U
	^{60}Co	7.1E-04 ± 7.1E-03	U
	^{134}Cs	5.0E-02 ± 1.8E-02	
	^{137}Cs	1.3E+00 ± 2.3E-01	
	^{152}Eu	-2.6E-02 ± 3.2E-02	U
	^{154}Eu	-6.6E-03 ± 2.9E-02	U
	^{155}Eu	3.8E-02 ± 3.7E-02	U
	^{238}Pu	2.6E-02 ± 4.2E-02	U
	$^{239/240}$Pu	3.8E-02 ± 2.4E-02	
	^{103}Ru	9.7E-04 ± 9.7E-03	U
	^{106}Ru	5.8E-02 ± 7.3E-02	U
	^{125}Sb	-1.4E-02 ± 2.5E-02	U
	^{113}Sn	-6.0E-03 ± 1.4E-02	U
	^{90}Sr	1.5E-01 ± 2.8E-01	U
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	4.4E-03 ± 6.2E-03	U
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	9.0E-03 ± 2.1E-02	U

Location	Isotope	Result ± Error	RQ*
D017 (200 West)	^{144}Ce	-2.5E-02 ± 1.3E-01	U
	^{60}Co	5.9E-03 ± 5.2E-03	U
	^{134}Cs	3.5E-02 ± 1.2E-02	
	^{137}Cs	6.6E-01 ± 1.1E-01	
	^{152}Eu	-2.4E-02 ± 2.4E-02	U
	^{154}Eu	2.4E-03 ± 1.9E-02	U
	^{155}Eu	5.5E-02 ± 3.8E-02	
	^{238}Pu	5.3E-03 ± 1.1E-02	U
	$^{239/240}$Pu	3.0E-02 ± 1.6E-02	
	^{103}Ru	2.5E-03 ± 8.0E-03	U
	^{106}Ru	-8.7E-03 ± 5.1E-02	U
	^{125}Sb	1.0E-02 ± 1.7E-02	U
	^{113}Sn	2.2E-03 ± 8.7E-03	U
	^{90}Sr	-4.8E-02 ± 2.6E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	1.8E-02 ± 1.3E-02	
	^{238}U	1.2E-01 ± 4.4E-02	
	^{65}Zn	7.3E-03 ± 2.2E-02	U

Location	Isotope	Result ± Error	RQ*
D019 (200 West)	^{144}Ce	1.0E-01 ± 2.0E-01	U
	^{60}Co	5.3E-03 ± 1.1E-02	U
	^{134}Cs	5.0E-02 ± 2.0E-02	
	^{137}Cs	1.8E+00 ± 2.7E-01	
	^{152}Eu	-5.9E-02 ± 5.9E-02	U
	^{154}Eu	-4.9E-02 ± 4.9E-02	U
	^{155}Eu	1.5E-02 ± 4.1E-02	U
	^{238}Pu	3.6E-03 ± 1.9E-02	U
	$^{239/240}$Pu	1.6E-02 ± 1.2E-02	
	^{103}Ru	1.3E-02 ± 1.7E-02	U
	^{106}Ru	-8.7E-04 ± 8.7E-03	U
	^{125}Sb	9.7E-03 ± 3.7E-02	U
	^{113}Sn	-7.6E-03 ± 1.8E-02	U
	^{90}Sr	2.7E-01 ± 2.6E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	9.8E-03 ± 1.2E-02	U
	^{238}U	1.2E-01 ± 4.2E-02	
	^{65}Zn	-1.7E-02 ± 5.1E-02	U

Location	Isotope	Result ± Error	RQ*
D021 (200 West)	^{144}Ce	4.8E-02 ± 1.4E-01	U
	^{60}Co	2.1E-03 ± 7.7E-03	U
	^{134}Cs	3.9E-02 ± 1.2E-02	
	^{137}Cs	1.2E+00 ± 2.0E-01	
	^{152}Eu	1.5E-02 ± 3.8E-02	U
	^{154}Eu	-3.2E-02 ± 3.2E-02	U
	^{155}Eu	3.0E-02 ± 3.1E-02	U
	^{238}Pu	3.6E-02 ± 2.4E-02	
	$^{239/240}$Pu	6.4E-02 ± 2.7E-02	
	^{103}Ru	-6.2E-04 ± 6.2E-03	U
	^{106}Ru	-3.5E-02 ± 7.3E-02	U
	^{125}Sb	1.4E-03 ± 1.4E-02	U
	^{113}Sn	-7.5E-03 ± 1.1E-02	U
	^{90}Sr	-7.1E-02 ± 1.7E-01	U
	^{234}U	8.6E-02 ± 3.4E-02	
	^{235}U	2.1E-02 ± 1.4E-02	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	2.0E-02 ± 2.1E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D023	^{144}Ce	-3.0E-02 ± 1.3E-01	U
(200 West)	^{60}Co	5.0E-03 ± 6.1E-03	U
	^{134}Cs	3.2E-02 ± 1.1E-02	
	^{137}Cs	2.1E+00 ± 3.3E-01	
	^{152}Eu	-2.3E-02 ± 2.6E-02	U
	^{154}Eu	-9.9E-03 ± 2.5E-02	U
	^{155}Eu	3.6E-02 ± 3.8E-02	U
	^{238}Pu	-2.6E-03 ± 2.1E-02	U
	$^{239/240}$Pu	3.7E-02 ± 2.3E-02	
	^{103}Ru	-2.7E-03 ± 9.8E-03	U
	^{106}Ru	-1.4E-02 ± 6.1E-02	U
	^{125}Sb	-6.0E-03 ± 2.3E-02	U
	^{113}Sn	-3.4E-03 ± 1.1E-02	U
	^{90}Sr	-2.6E-01 ± 2.6E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	1.3E-02 ± 1.1E-02	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-4.3E-03 ± 1.7E-02	U
D025	^{144}Ce	1.2E-01 ± 1.9E-01	U
(200 West)	^{60}Co	2.8E-03 ± 7.6E-03	U
	^{134}Cs	3.3E-02 ± 1.1E-02	
	^{137}Cs	5.9E+00 ± 1.1E+00	
	^{152}Eu	-4.0E-02 ± 4.2E-02	U
	^{154}Eu	2.6E-03 ± 2.5E-02	U
	^{155}Eu	5.6E-02 ± 5.9E-02	U
	^{238}Pu	1.9E-02 ± 2.3E-02	U
	$^{239/240}$Pu	3.1E-01 ± 9.3E-02	
	^{103}Ru	-5.5E-03 ± 1.5E-02	U
	^{106}Ru	-1.6E-02 ± 9.1E-02	U
	^{125}Sb	-1.5E-02 ± 3.5E-02	U
	^{113}Sn	6.6E-04 ± 6.6E-03	U
	^{90}Sr	4.0E-02 ± 2.0E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	1.2E-02 ± 1.0E-02	
	^{238}U	1.3E-01 ± 4.5E-02	
	^{65}Zn	1.2E-02 ± 2.1E-02	U
D027	^{144}Ce	3.9E-02 ± 1.8E-01	U
(200 West)	^{60}Co	-4.9E-03 ± 6.1E-03	U
	^{134}Cs	3.2E-02 ± 9.9E-03	
	^{137}Cs	3.3E+00 ± 5.6E-01	
	^{152}Eu	1.9E-02 ± 5.2E-02	U
	^{154}Eu	-2.3E-02 ± 2.3E-02	U
	^{155}Eu	6.3E-03 ± 4.2E-02	U
	^{238}Pu	1.7E-03 ± 1.2E-02	U
	$^{239/240}$Pu	2.8E-02 ± 1.7E-02	
	^{103}Ru	-4.5E-03 ± 1.2E-02	U
	^{106}Ru	2.1E-02 ± 7.2E-02	U
	^{125}Sb	-1.7E-02 ± 2.8E-02	U
	^{113}Sn	-5.6E-03 ± 1.4E-02	U
	^{90}Sr	-3.8E-02 ± 2.1E-01	U
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	1.2E-02 ± 1.0E-02	
	^{238}U	1.2E-01 ± 4.2E-02	
	^{65}Zn	1.3E-02 ± 1.7E-02	U
D029	^{144}Ce	2.6E-02 ± 1.2E-01	U
(200 West)	^{60}Co	-3.2E-03 ± 7.1E-03	U
	^{134}Cs	4.0E-02 ± 1.2E-02	
	^{137}Cs	1.6E+00 ± 2.7E-01	
	^{152}Eu	2.2E-04 ± 2.2E-03	U
	^{154}Eu	-2.6E-02 ± 2.6E-02	U
	^{155}Eu	4.9E-02 ± 3.2E-02	
	^{238}Pu	9.1E-03 ± 2.1E-02	U
	$^{239/240}$Pu	6.9E-02 ± 2.9E-02	
	^{103}Ru	-3.8E-03 ± 1.0E-02	U
	^{106}Ru	-2.5E-02 ± 6.9E-02	U
	^{125}Sb	6.8E-03 ± 2.3E-02	U
	^{113}Sn	3.0E-03 ± 1.1E-02	U
	^{90}Sr	9.5E-03 ± 9.5E-02	U
	^{234}U	1.1E-01 ± 4.0E-02	
	^{235}U	6.0E-03 ± 9.0E-03	U
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	3.6E-02 ± 2.2E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D031	^{144}Ce	-5.1E-02 ± 1.8E-01	U
(200 West)	^{60}Co	9.0E-03 ± 9.7E-03	U
	^{134}Cs	3.8E-02 ± 2.0E-02	
	^{137}Cs	2.3E+00 ± 3.4E-01	
	^{152}Eu	4.2E-02 ± 4.4E-02	U
	^{154}Eu	-2.1E-02 ± 3.2E-02	U
	^{155}Eu	1.9E-02 ± 3.8E-02	U
	^{238}Pu	1.4E-02 ± 3.6E-02	U
	$^{239/240}$Pu	1.0E-01 ± 3.8E-02	
	^{103}Ru	-8.7E-03 ± 1.6E-02	U
	^{106}Ru	-5.2E-02 ± 9.6E-02	U
	^{125}Sb	6.6E-03 ± 3.5E-02	U
	^{113}Sn	-3.7E-03 ± 1.7E-02	U
	^{90}Sr	1.9E-02 ± 1.8E-01	U
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	4.3E-03 ± 6.0E-03	U
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-2.6E-02 ± 2.8E-02	U
D033	^{144}Ce	7.2E-02 ± 2.2E-01	U
(200 West)	^{60}Co	3.2E-03 ± 5.9E-03	U
	^{134}Cs	2.4E-02 ± 9.9E-03	
	^{137}Cs	1.3E+01 ± 2.4E+00	
	^{152}Eu	-2.1E-02 ± 4.2E-02	U
	^{154}Eu	6.1E-03 ± 1.9E-02	U
	^{155}Eu	4.7E-02 ± 4.7E-02	U
	^{238}Pu	7.3E-03 ± 2.0E-02	U
	$^{239/240}$Pu	1.8E-01 ± 5.9E-02	
	^{103}Ru	4.7E-03 ± 1.7E-02	U
	^{106}Ru	-1.2E-02 ± 9.7E-02	U
	^{125}Sb	5.3E-03 ± 4.1E-02	U
	^{113}Sn	-6.0E-03 ± 1.9E-02	U
	^{90}Sr	9.2E-01 ± 3.2E-01	
	^{234}U	1.5E-01 ± 5.1E-02	
	^{235}U	1.0E-02 ± 9.3E-03	
	^{238}U	1.3E-01 ± 4.5E-02	
	^{65}Zn	-8.2E-03 ± 1.6E-02	U
D035	^{144}Ce	-1.3E-01 ± 1.3E-01	U
(200 West)	^{60}Co	4.4E-03 ± 8.1E-03	U
	^{134}Cs	2.4E-02 ± 1.1E-02	
	^{137}Cs	2.5E+00 ± 4.1E-01	
	^{152}Eu	-2.8E-02 ± 3.6E-02	U
	^{154}Eu	-2.0E-02 ± 2.7E-02	U
	^{155}Eu	3.2E-02 ± 3.3E-02	U
	^{238}Pu	2.2E-02 ± 3.1E-02	U
	$^{239/240}$Pu	1.3E-02 ± 1.2E-02	U
	^{103}Ru	-8.8E-03 ± 1.2E-02	U
	^{106}Ru	1.4E-02 ± 8.1E-02	U
	^{125}Sb	-3.8E-03 ± 2.8E-02	U
	^{113}Sn	-1.4E-03 ± 1.3E-02	U
	^{90}Sr	-2.1E-01 ± 2.1E-01	U
	^{234}U	1.1E-01 ± 4.1E-02	
	^{235}U	1.4E-02 ± 1.2E-02	U
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	5.4E-02 ± 2.5E-02	
D037	^{144}Ce	-3.3E-02 ± 1.4E-01	U
(200 West)	^{60}Co	5.0E-03 ± 6.8E-03	U
	^{134}Cs	4.0E-02 ± 1.5E-02	
	^{137}Cs	2.1E+00 ± 3.5E-01	
	^{152}Eu	-1.1E-02 ± 2.7E-02	U
	^{154}Eu	-1.2E-02 ± 2.3E-02	U
	^{155}Eu	3.7E-02 ± 3.6E-02	U
	^{238}Pu	1.2E-02 ± 3.4E-02	U
	$^{239/240}$Pu	2.7E-02 ± 2.0E-02	
	^{103}Ru	-3.2E-04 ± 3.2E-03	U
	^{106}Ru	4.1E-02 ± 7.0E-02	U
	^{125}Sb	4.2E-03 ± 2.3E-02	U
	^{113}Sn	3.6E-03 ± 1.2E-02	U
	^{90}Sr	2.8E-01 ± 2.2E-01	
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.7E-01 ± 5.8E-02	
	^{65}Zn	1.9E-02 ± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D039	^{144}Ce	8.7E-03 ± 8.7E-02	U
(200 West)	^{60}Co	2.8E-03 ± 6.6E-03	U
	^{134}Cs	2.9E-02 ± 1.2E-02	
	^{137}Cs	8.4E-01 ± 1.4E-01	
	^{152}Eu	3.8E-03 ± 2.8E-02	U
	^{154}Eu	5.4E-04 ± 5.4E-03	U
	^{155}Eu	1.4E-02 ± 2.6E-02	U
	^{238}Pu	3.6E-02 ± 4.0E-02	U
	$^{239/240}$Pu	1.6E+00 ± 4.2E-01	
	^{103}Ru	-5.2E-03 ± 8.1E-03	U
	^{106}Ru	-1.8E-02 ± 5.9E-02	U
	^{125}Sb	2.8E-03 ± 1.9E-02	U
	^{113}Sn	3.0E-03 ± 9.3E-03	U
	^{90}Sr	-4.9E-03 ± 4.9E-02	U
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	1.1E-02 ± 1.2E-02	U
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	4.5E-02 ± 2.0E-02	
D041	^{144}Ce	-3.0E-04 ± 2.9E-03	U
(200 West)	^{60}Co	3.3E-03 ± 6.4E-03	U
	^{134}Cs	2.8E-02 ± 1.0E-02	
	^{137}Cs	9.6E-01 ± 1.7E-01	
	^{152}Eu	-4.2E-02 ± 4.8E-02	U
	^{154}Eu	-1.3E-02 ± 2.2E-02	U
	^{155}Eu	2.6E-02 ± 3.9E-02	U
	^{238}Pu	3.8E-02 ± 3.8E-02	U
	$^{239/240}$Pu	5.5E-02 ± 2.9E-02	
	^{103}Ru	-2.8E-03 ± 1.0E-02	U
	^{106}Ru	-4.3E-02 ± 6.5E-02	U
	^{125}Sb	9.7E-03 ± 2.3E-02	U
	^{113}Sn	-5.2E-03 ± 1.1E-02	U
	^{90}Sr	1.3E+00 ± 2.9E-01	
	^{234}U	2.0E-01 ± 6.8E-02	
	^{235}U	1.0E-02 ± 1.0E-02	
	^{238}U	1.7E-01 ± 5.9E-02	
	^{65}Zn	5.2E-02 ± 2.0E-02	
D043	^{144}Ce	-1.9E-01 ± 1.9E-01	U
(200 West)	^{60}Co	4.1E-03 ± 6.7E-03	U
	^{134}Cs	3.2E-02 ± 1.1E-02	
	^{137}Cs	2.4E-01 ± 4.4E-02	
	^{152}Eu	-5.2E-02 ± 5.2E-02	U
	^{154}Eu	-3.4E-02 ± 3.4E-02	U
	^{155}Eu	7.2E-03 ± 4.0E-02	U
	^{238}Pu	-5.9E-02 ± 5.9E-02	U
	$^{239/240}$Pu	4.9E-03 ± 1.2E-02	U
	^{103}Ru	-1.3E-03 ± 9.8E-03	U
	^{106}Ru	2.7E-02 ± 6.8E-02	U
	^{125}Sb	-1.2E-02 ± 2.2E-02	U
	^{113}Sn	-4.7E-03 ± 1.1E-02	U
	^{90}Sr	5.9E-02 ± 1.7E-01	U
	^{234}U	2.9E-01 ± 8.7E-02	
	^{235}U	3.3E-02 ± 1.9E-02	
	^{238}U	3.2E-01 ± 9.6E-02	
	^{65}Zn	4.7E-02 ± 2.2E-02	
D045	^{144}Ce	3.5E-02 ± 1.9E-01	U
(200 West)	^{60}Co	3.6E-03 ± 9.7E-03	U
	^{134}Cs	4.2E-02 ± 2.1E-02	
	^{137}Cs	5.0E+00 ± 7.4E-01	
	^{152}Eu	-1.0E-02 ± 4.6E-02	U
	^{154}Eu	-1.0E-02 ± 3.1E-02	U
	^{155}Eu	2.4E-02 ± 4.2E-02	U
	^{238}Pu	-3.2E-02 ± 4.2E-02	U
	$^{239/240}$Pu	1.3E-01 ± 4.9E-02	
	^{103}Ru	-1.5E-02 ± 1.8E-02	U
	^{106}Ru	-6.5E-02 ± 1.1E-01	U
	^{125}Sb	-1.8E-03 ± 1.8E-02	U
	^{113}Sn	-2.1E-03 ± 2.0E-02	U
	^{90}Sr	1.5E-01 ± 2.0E-01	U
	^{234}U	2.0E-01 ± 6.6E-02	
	^{235}U	1.7E-02 ± 1.4E-02	
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	1.8E-02 ± 2.7E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D047	^{144}Ce	-6.0E-02 ± 1.4E-01	U
(200 West)	^{60}Co	2.3E-03 ± 6.5E-03	U
	^{134}Cs	3.3E-02 ± 1.3E-02	
	^{137}Cs	5.4E-01 ± 1.0E-01	
	^{152}Eu	-1.3E-02 ± 2.4E-02	U
	^{154}Eu	3.9E-03 ± 2.5E-02	U
	^{155}Eu	3.6E-02 ± 3.0E-02	U
	^{238}Pu	2.1E-03 ± 2.1E-02	U
	$^{239/240}$Pu	2.5E-02 ± 1.8E-02	
	^{103}Ru	9.6E-03 ± 8.5E-03	U
	^{106}Ru	2.3E-02 ± 5.9E-02	U
	^{125}Sb	5.2E-03 ± 1.9E-02	U
	^{113}Sn	2.1E-03 ± 9.3E-03	U
	^{90}Sr	2.5E-01 ± 1.9E-01	
	^{234}U	2.5E-01 ± 8.0E-02	
	^{235}U	1.4E-02 ± 1.4E-02	U
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-8.2E-04 ± 8.2E-03	U
D049	^{144}Ce	-5.9E-02 ± 1.8E-01	U
(200 West)	^{60}Co	-5.1E-03 ± 1.0E-02	U
	^{134}Cs	4.5E-02 ± 1.4E-02	
	^{137}Cs	9.7E-01 ± 1.5E-01	
	^{152}Eu	-1.4E-03 ± 1.4E-02	U
	^{154}Eu	-4.7E-02 ± 4.7E-02	U
	^{155}Eu	4.5E-02 ± 4.2E-02	U
	^{238}Pu	9.5E-03 ± 3.0E-02	U
	$^{239/240}$Pu	4.4E-02 ± 2.2E-02	
	^{103}Ru	-4.2E-03 ± 1.4E-02	U
	^{106}Ru	-3.8E-02 ± 1.0E-01	U
	^{125}Sb	-9.7E-03 ± 3.2E-02	U
	^{113}Sn	-5.3E-03 ± 1.5E-02	U
	^{90}Sr	1.1E-01 ± 2.3E-01	U
	^{234}U	3.0E-01 ± 9.0E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	2.8E-01 ± 8.7E-02	
	^{65}Zn	-2.4E-02 ± 3.1E-02	U
D051	^{144}Ce	1.3E-01 ± 1.4E-01	U
(200 West)	^{60}Co	-1.7E-03 ± 6.8E-03	U
	^{134}Cs	4.0E-02 ± 1.4E-02	
	^{137}Cs	2.8E-02 ± 1.0E-02	
	^{152}Eu	-2.5E-03 ± 2.5E-02	U
	^{154}Eu	-2.1E-02 ± 2.7E-02	U
	^{155}Eu	2.4E-02 ± 3.1E-02	U
	^{238}Pu	-2.3E-03 ± 2.3E-02	U
	$^{239/240}$Pu	-2.3E-03 ± 4.6E-03	U
	^{103}Ru	-7.4E-03 ± 8.1E-03	U
	^{106}Ru	-1.6E-02 ± 6.1E-02	U
	^{125}Sb	1.2E-02 ± 1.8E-02	U
	^{113}Sn	-1.4E-03 ± 9.3E-03	U
	^{90}Sr	-3.5E-01 ± 3.5E-01	U
	^{234}U	1.9E-01 ± 6.3E-02	
	^{235}U	1.6E-02 ± 1.3E-02	
	^{238}U	1.5E-01 ± 5.3E-02	
	^{65}Zn	-1.2E-02 ± 1.9E-02	U
D053	^{144}Ce	-2.8E-01 ± 2.8E-01	U
(200 East)	^{60}Co	3.9E-03 ± 8.7E-03	U
	^{134}Cs	3.4E-02 ± 1.3E-02	
	^{137}Cs	1.2E+01 ± 2.0E+00	
	^{152}Eu	3.9E-02 ± 9.5E-02	U
	^{154}Eu	-2.3E-02 ± 2.7E-02	U
	^{155}Eu	3.6E-02 ± 6.7E-02	U
	^{238}Pu	-1.7E-02 ± 3.2E-02	U
	$^{239/240}$Pu	4.6E-02 ± 2.3E-02	
	^{103}Ru	-1.3E-02 ± 2.2E-02	U
	^{106}Ru	4.8E-02 ± 1.2E-01	U
	^{125}Sb	-1.6E-02 ± 5.5E-02	U
	^{113}Sn	2.5E-03 ± 2.4E-02	U
	^{90}Sr	1.3E-02 ± 1.3E-01	U
	^{234}U	1.1E-01 ± 4.1E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	5.3E-02 ± 2.7E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D055 (200 East)	^{144}Ce	-1.4E-01 ± 1.4E-01	U
	^{60}Co	2.1E-03 ± 6.1E-03	U
	^{134}Cs	2.4E-02 ± 1.0E-02	
	^{137}Cs	3.1E-01 ± 5.2E-02	
	^{152}Eu	-1.1E-02 ± 1.9E-02	U
	^{154}Eu	2.4E-03 ± 2.0E-02	U
	^{155}Eu	2.9E-02 ± 2.6E-02	U
	^{238}Pu	3.4E-02 ± 4.4E-02	U
	$^{239/240}$Pu	2.3E-03 ± 8.1E-03	U
	^{103}Ru	-5.1E-03 ± 6.8E-03	U
	^{106}Ru	-2.6E-02 ± 4.9E-02	U
	^{125}Sb	8.7E-03 ± 1.6E-02	U
	^{113}Sn	-4.5E-06 ± 4.5E-05	U
	^{90}Sr	-6.9E-02 ± 2.2E-01	U
	^{234}U	1.8E-01 ± 6.1E-02	
	^{235}U	1.8E-02 ± 1.3E-02	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-4.8E-03 ± 1.6E-02	U
D057 (200 East)	^{144}Ce	-9.8E-03 ± 9.8E-02	U
	^{60}Co	6.0E-03 ± 8.8E-03	U
	^{134}Cs	4.3E-02 ± 1.6E-02	
	^{137}Cs	2.5E+00 ± 4.1E-01	
	^{152}Eu	-2.0E-02 ± 3.5E-02	U
	^{154}Eu	-1.8E-02 ± 2.7E-02	U
	^{155}Eu	1.0E-02 ± 3.9E-02	U
	^{238}Pu	7.0E-03 ± 4.3E-02	U
	$^{239/240}$Pu	1.2E-02 ± 1.1E-02	
	^{103}Ru	-1.4E-03 ± 1.2E-02	U
	^{106}Ru	1.9E-02 ± 8.7E-02	U
	^{125}Sb	-6.7E-03 ± 2.9E-02	U
	^{113}Sn	-1.4E-02 ± 1.4E-02	U
	^{90}Sr	1.8E-01 ± 2.2E-01	U
	^{234}U	2.0E-01 ± 6.8E-02	
	^{235}U	2.2E-02 ± 1.6E-02	
	^{238}U	2.3E-01 ± 7.4E-02	
	^{65}Zn	2.7E-02 ± 2.3E-02	U
D059 (200 East)	^{144}Ce	2.8E-02 ± 1.4E-01	U
	^{60}Co	6.1E-03 ± 7.9E-03	U
	^{134}Cs	3.2E-02 ± 1.5E-02	
	^{137}Cs	3.1E+00 ± 5.1E-01	
	^{152}Eu	2.8E-02 ± 3.9E-02	U
	^{154}Eu	-1.6E-02 ± 2.6E-02	U
	^{155}Eu	3.8E-02 ± 3.4E-02	U
	^{238}Pu	2.5E-02 ± 3.5E-02	U
	$^{239/240}$Pu	3.5E-02 ± 2.1E-02	
	^{103}Ru	-5.1E-03 ± 1.2E-02	U
	^{106}Ru	4.0E-03 ± 4.0E-02	U
	^{125}Sb	-1.7E-03 ± 1.7E-02	U
	^{113}Sn	-2.4E-02 ± 2.4E-02	U
	^{90}Sr	1.3E-01 ± 2.1E-01	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	1.8E-02 ± 1.4E-02	
	^{238}U	1.3E-01 ± 4.8E-02	
	^{65}Zn	3.1E-02 ± 2.4E-02	U
D061 (200 East)	^{144}Ce	-5.7E-02 ± 1.4E-01	U
	^{60}Co	6.0E-04 ± 6.0E-03	U
	^{134}Cs	3.4E-02 ± 1.3E-02	
	^{137}Cs	1.2E+00 ± 2.0E-01	
	^{152}Eu	8.8E-03 ± 2.5E-02	U
	^{154}Eu	-2.0E-02 ± 2.5E-02	U
	^{155}Eu	5.4E-02 ± 4.5E-02	
	^{238}Pu	4.6E-02 ± 3.6E-02	U
	$^{239/240}$Pu	8.4E-03 ± 1.0E-02	U
	^{103}Ru	-2.2E-04 ± 2.2E-03	U
	^{106}Ru	-6.3E-02 ± 6.3E-02	U
	^{125}Sb	2.2E-03 ± 2.2E-02	U
	^{113}Sn	-3.2E-03 ± 1.1E-02	U
	^{90}Sr	-3.4E-01 ± 3.4E-01	U
	^{234}U	9.1E-02 ± 3.5E-02	
	^{235}U	2.0E-02 ± 1.4E-02	
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	-1.5E-02 ± 1.9E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D063 (200 East)	^{144}Ce	-1.4E-01 ± 1.4E-01	U
	^{60}Co	-5.1E-03 ± 6.2E-03	U
	^{134}Cs	2.7E-02 ± 1.1E-02	
	^{137}Cs	3.0E-01 ± 5.0E-02	
	^{152}Eu	-6.0E-03 ± 2.2E-02	U
	^{154}Eu	-1.7E-02 ± 2.3E-02	U
	^{155}Eu	3.6E-02 ± 2.9E-02	U
	^{238}Pu	-1.8E-02 ± 4.0E-02	U
	$^{239/240}$Pu	8.8E-03 ± 1.6E-02	U
	^{103}Ru	-2.7E-03 ± 7.3E-03	U
	^{106}Ru	1.6E-02 ± 5.5E-02	U
	^{125}Sb	7.6E-03 ± 1.9E-02	U
	^{113}Sn	-5.2E-03 ± 8.9E-03	U
	^{90}Sr	1.7E-02 ± 1.7E-01	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	6.7E-03 ± 8.0E-03	
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	5.4E-03 ± 1.7E-02	U
D065 (200 East)	^{144}Ce	1.6E-01 ± 1.9E-01	U
	^{60}Co	6.2E-03 ± 1.1E-02	U
	^{134}Cs	2.4E-02 ± 2.1E-02	
	^{137}Cs	1.5E+00 ± 2.3E-01	
	^{152}Eu	-9.1E-03 ± 4.1E-02	U
	^{154}Eu	-1.4E-02 ± 3.2E-02	U
	^{155}Eu	7.9E-02 ± 5.3E-02	
	^{238}Pu	2.2E-03 ± 2.2E-02	U
	$^{239/240}$Pu	6.5E-03 ± 9.8E-03	U
	^{103}Ru	5.4E-03 ± 1.5E-02	U
	^{106}Ru	-1.9E-02 ± 1.0E-01	U
	^{125}Sb	3.7E-03 ± 3.5E-02	U
	^{113}Sn	-1.2E-02 ± 1.6E-02	U
	^{90}Sr	7.5E-02 ± 2.1E-01	U
	^{234}U	1.1E-01 ± 4.2E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-2.1E-02 ± 3.0E-02	U
D067 (200 East)	^{144}Ce	-3.2E-02 ± 1.2E-01	U
	^{60}Co	5.7E-03 ± 7.9E-03	U
	^{134}Cs	2.6E-02 ± 1.1E-02	
	^{137}Cs	1.6E-01 ± 2.8E-02	
	^{152}Eu	-1.8E-02 ± 3.1E-02	U
	^{154}Eu	-2.7E-02 ± 2.7E-02	U
	^{155}Eu	4.1E-02 ± 3.9E-02	U
	^{238}Pu	-2.7E-02 ± 7.3E-02	U
	$^{239/240}$Pu	7.6E-03 ± 1.5E-02	U
	^{103}Ru	-9.4E-04 ± 7.9E-03	U
	^{106}Ru	-3.5E-02 ± 6.9E-02	U
	^{125}Sb	-3.1E-04 ± 3.1E-03	U
	^{113}Sn	-4.2E-03 ± 9.5E-03	U
	^{90}Sr	1.6E-01 ± 1.9E-01	U
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	1.0E-02 ± 9.3E-03	
	^{238}U	1.3E-01 ± 4.5E-02	
	^{65}Zn	6.4E-02 ± 2.5E-02	
D069 (200 East)	^{144}Ce	1.5E-02 ± 1.5E-01	U
	^{60}Co	-6.6E-03 ± 9.3E-03	U
	^{134}Cs	4.2E-02 ± 1.5E-02	
	^{137}Cs	4.5E-02 ± 2.1E-02	
	^{152}Eu	2.1E-02 ± 3.7E-02	U
	^{154}Eu	-3.5E-02 ± 3.5E-02	U
	^{155}Eu	2.4E-02 ± 3.4E-02	U
	^{238}Pu	2.7E-02 ± 3.2E-02	U
	$^{239/240}$Pu	2.0E-03 ± 7.0E-03	U
	^{103}Ru	-3.6E-03 ± 1.2E-02	U
	^{106}Ru	-1.4E-02 ± 8.7E-02	U
	^{125}Sb	-7.5E-03 ± 2.7E-02	U
	^{113}Sn	-1.5E-02 ± 1.5E-02	U
	^{90}Sr	-1.1E-01 ± 1.9E-01	U
	^{234}U	1.4E-01 ± 5.0E-02	
	^{235}U	2.3E-03 ± 1.0E-02	U
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	-4.6E-03 ± 2.8E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D071	^{144}Ce	8.6E-02 ± 1.1E-01	U
(200 East)	^{60}Co	-3.4E-03 ± 5.3E-03	U
	^{134}Cs	3.0E-02 ± 9.1E-03	
	^{137}Cs	1.4E-01 ± 2.5E-02	
	^{152}Eu	-1.8E-02 ± 1.9E-02	U
	^{154}Eu	7.7E-03 ± 2.1E-02	U
	^{155}Eu	4.9E-02 ± 3.7E-02	
	^{238}Pu	-2.0E-03 ± 2.0E-02	U
	$^{239/240}$Pu	4.1E-03 ± 5.7E-03	U
	^{103}Ru	3.0E-04 ± 3.0E-03	U
	^{106}Ru	7.2E-04 ± 7.2E-03	U
	^{125}Sb	-9.4E-04 ± 9.4E-03	U
	^{113}Sn	5.4E-03 ± 7.9E-03	U
	^{90}Sr	-1.7E-01 ± 1.7E-01	U
	^{234}U	1.8E-01 ± 6.1E-02	
	^{235}U	2.8E-02 ± 1.8E-02	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-9.5E-03 ± 1.6E-02	U
D073	^{144}Ce	-2.1E-01 ± 2.1E-01	U
(200 East)	^{60}Co	2.2E-03 ± 6.2E-03	U
	^{134}Cs	2.3E-02 ± 9.4E-03	
	^{137}Cs	1.9E-01 ± 3.3E-02	
	^{152}Eu	-1.3E-02 ± 3.6E-02	U
	^{154}Eu	8.8E-04 ± 8.8E-03	U
	^{155}Eu	2.1E-02 ± 3.2E-02	U
	^{238}Pu	-6.1E-03 ± 3.8E-02	U
	$^{239/240}$Pu	1.4E-02 ± 1.4E-02	U
	^{103}Ru	-4.0E-03 ± 7.6E-03	U
	^{106}Ru	-4.5E-02 ± 6.1E-02	U
	^{125}Sb	2.7E-03 ± 2.0E-02	U
	^{113}Sn	4.5E-04 ± 4.5E-03	U
	^{90}Sr	-1.1E-01 ± 2.4E-01	U
	^{234}U	1.4E-01 ± 4.8E-02	
	^{235}U	2.9E-02 ± 1.7E-02	
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	1.6E-02 ± 1.8E-02	U
D075	^{144}Ce	-8.1E-02 ± 1.1E-01	U
(200 East)	^{60}Co	3.4E-03 ± 6.6E-03	U
	^{134}Cs	2.9E-02 ± 9.0E-03	
	^{137}Cs	1.2E-01 ± 2.2E-02	
	^{152}Eu	-1.0E-02 ± 2.0E-02	U
	^{154}Eu	-1.3E-02 ± 1.8E-02	U
	^{155}Eu	1.9E-02 ± 2.6E-02	U
	^{238}Pu	-2.3E-03 ± 2.3E-02	U
	$^{239/240}$Pu	2.3E-03 ± 1.2E-02	U
	^{103}Ru	-2.6E-05 ± 2.6E-04	U
	^{106}Ru	1.8E-04 ± 1.8E-03	U
	^{125}Sb	-8.4E-03 ± 1.6E-02	U
	^{113}Sn	-8.3E-04 ± 7.7E-03	U
	^{90}Sr	2.0E-01 ± 2.0E-01	U
	^{234}U	1.8E-01 ± 5.9E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	1.8E-01 ± 5.9E-02	
	^{65}Zn	-1.4E-02 ± 1.6E-02	U
D077	^{144}Ce	3.1E-02 ± 9.6E-02	U
(200 East)	^{60}Co	-2.8E-04 ± 2.8E-03	U
	^{134}Cs	2.7E-02 ± 1.0E-02	
	^{137}Cs	1.6E-01 ± 2.7E-02	
	^{152}Eu	-2.9E-03 ± 1.8E-02	U
	^{154}Eu	5.4E-03 ± 2.1E-02	U
	^{155}Eu	5.7E-02 ± 3.3E-02	
	^{238}Pu	2.2E-03 ± 2.2E-02	U
	$^{239/240}$Pu	6.5E-03 ± 9.8E-03	U
	^{103}Ru	-2.8E-03 ± 6.2E-03	U
	^{106}Ru	5.4E-03 ± 4.8E-02	U
	^{125}Sb	5.9E-03 ± 1.6E-02	U
	^{113}Sn	-4.6E-03 ± 7.6E-03	U
	^{90}Sr	-1.4E-01 ± 1.7E-01	U
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	2.0E-02 ± 1.5E-02	
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	3.7E-03 ± 1.5E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D079	^{144}Ce	-7.6E-02 ± 1.2E-01	U
(200 East)	^{60}Co	-3.5E-03 ± 8.0E-03	U
	^{134}Cs	1.9E-02 ± 1.1E-02	
	^{137}Cs	4.8E-01 ± 8.1E-02	
	^{152}Eu	-1.7E-02 ± 3.4E-02	U
	^{154}Eu	-3.8E-02 ± 3.8E-02	U
	^{155}Eu	3.7E-02 ± 3.0E-02	U
	^{238}Pu	3.2E-02 ± 3.2E-02	U
	$^{239/240}$Pu	1.5E-02 ± 1.3E-02	U
	^{103}Ru	2.9E-03 ± 7.7E-03	U
	^{106}Ru	-4.4E-03 ± 4.4E-02	U
	^{125}Sb	-8.9E-04 ± 8.9E-03	U
	^{113}Sn	1.8E-03 ± 9.9E-03	U
	^{90}Sr	-6.1E-03 ± 6.1E-02	U
	^{234}U	1.5E-01 ± 5.3E-02	
	^{235}U	1.3E-02 ± 1.1E-02	
	^{238}U	2.0E-01 ± 6.6E-02	
	^{65}Zn	8.2E-02 ± 2.5E-02	
D081	^{144}Ce	1.5E-01 ± 1.2E-01	U
(600 Area)	^{60}Co	4.3E-03 ± 7.3E-03	U
	^{134}Cs	3.0E-02 ± 1.2E-02	
	^{137}Cs	1.4E-02 ± 8.3E-03	U
	^{152}Eu	1.5E-02 ± 4.7E-02	U
	^{154}Eu	-2.1E-02 ± 2.9E-02	U
	^{155}Eu	8.1E-02 ± 5.2E-02	
	^{238}Pu	8.1E-03 ± 3.3E-02	U
	$^{239/240}$Pu	6.1E-03 ± 7.3E-03	
	^{103}Ru	4.2E-03 ± 8.4E-03	U
	^{106}Ru	9.1E-03 ± 7.0E-02	U
	^{125}Sb	-2.1E-03 ± 2.1E-02	U
	^{113}Sn	-3.4E-03 ± 1.1E-02	U
	^{90}Sr	-8.3E-02 ± 2.1E-01	U
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	2.1E-03 ± 4.2E-03	U
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	3.0E-02 ± 2.2E-02	U
D083	^{144}Ce	5.8E-02 ± 1.2E-01	U
(600 Area)	^{60}Co	2.3E-05 ± 2.3E-04	U
	^{134}Cs	3.3E-02 ± 1.0E-02	
	^{137}Cs	4.2E-01 ± 6.9E-02	
	^{152}Eu	-1.5E-02 ± 2.2E-02	U
	^{154}Eu	-1.6E-02 ± 2.1E-02	U
	^{155}Eu	7.8E-02 ± 4.6E-02	
	^{238}Pu	1.4E-02 ± 2.9E-02	U
	$^{239/240}$Pu	2.0E-02 ± 1.5E-02	
	^{103}Ru	-2.0E-04 ± 2.0E-03	U
	^{106}Ru	1.3E-02 ± 5.6E-02	U
	^{125}Sb	1.6E-02 ± 1.9E-02	U
	^{113}Sn	-8.6E-03 ± 9.1E-03	U
	^{90}Sr	-1.3E-01 ± 2.1E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	-3.2E-03 ± 1.7E-02	U
D085	^{144}Ce	3.8E-02 ± 1.2E-01	U
(600 Area)	^{60}Co	-3.1E-03 ± 7.2E-03	U
	^{134}Cs	3.8E-02 ± 1.4E-02	
	^{137}Cs	4.6E-01 ± 7.5E-02	
	^{152}Eu	-2.0E-02 ± 2.4E-02	U
	^{154}Eu	-2.8E-03 ± 2.1E-02	U
	^{155}Eu	5.9E-02 ± 4.2E-02	
	^{238}Pu	1.3E-02 ± 4.3E-02	U
	$^{239/240}$Pu	-2.1E-03 ± 9.4E-03	U
	^{103}Ru	4.6E-04 ± 4.6E-03	U
	^{106}Ru	3.7E-02 ± 5.7E-02	U
	^{125}Sb	7.5E-03 ± 1.9E-02	U
	^{113}Sn	-2.5E-03 ± 9.1E-03	U
	^{90}Sr	2.8E-01 ± 2.0E-01	
	^{234}U	1.6E-01 ± 5.4E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	1.2E-01 ± 4.4E-02	
	^{65}Zn	-6.6E-03 ± 1.7E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D087	^{144}Ce	-2.8E-02 ± 1.1E-01	U
(600 Area)	^{60}Co	-1.2E-03 ± 5.8E-03	U
	^{134}Cs	4.1E-02 ± 1.2E-02	
	^{137}Cs	4.5E-02 ± 1.1E-02	
	^{152}Eu	1.2E-02 ± 2.5E-02	U
	^{154}Eu	-1.5E-02 ± 2.0E-02	U
	^{155}Eu	5.0E-02 ± 4.0E-02	
	^{238}Pu	1.0E-02 ± 4.2E-02	U
	$^{239/240}$Pu	8.2E-03 ± 9.8E-03	U
	^{103}Ru	-1.4E-03 ± 6.4E-03	U
	^{106}Ru	-2.1E-02 ± 5.1E-02	U
	^{125}Sb	6.1E-03 ± 1.7E-02	U
	^{113}Sn	-5.2E-03 ± 8.2E-03	U
	^{90}Sr	-2.5E-01 ± 2.5E-01	U
	^{234}U	3.2E-01 ± 9.6E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	2.8E-01 ± 8.4E-02	
	^{65}Zn	-6.0E-03 ± 1.7E-02	U
D089	^{144}Ce	-5.3E-02 ± 1.4E-01	U
(600 Area)	^{60}Co	2.8E-03 ± 7.5E-03	U
	^{134}Cs	3.2E-02 ± 1.3E-02	
	^{137}Cs	3.0E-01 ± 5.3E-02	
	^{152}Eu	-2.4E-02 ± 2.6E-02	U
	^{154}Eu	-2.2E-03 ± 2.2E-02	U
	^{155}Eu	4.6E-02 ± 4.0E-02	U
	^{238}Pu	-2.0E-03 ± 2.0E-02	U
	$^{239/240}$Pu	6.0E-03 ± 9.0E-03	U
	^{103}Ru	-5.5E-03 ± 7.8E-03	U
	^{106}Ru	1.4E-01 ± 1.1E-01	
	^{125}Sb	1.0E-02 ± 2.1E-02	U
	^{113}Sn	-5.6E-04 ± 5.6E-03	U
	^{90}Sr	-8.1E-02 ± 1.8E-01	U
	^{234}U	1.7E-01 ± 5.6E-02	
	^{235}U	1.6E-02 ± 1.2E-02	
	^{238}U	1.7E-01 ± 5.6E-02	
	^{65}Zn	3.3E-02 ± 2.1E-02	
D091	^{144}Ce	9.9E-02 ± 1.6E-01	U
(600 Area)	^{60}Co	1.1E-03 ± 7.8E-03	U
	^{134}Cs	4.2E-02 ± 1.6E-02	
	^{137}Cs	3.2E+00 ± 5.2E-01	
	^{152}Eu	-2.8E-02 ± 3.3E-02	U
	^{154}Eu	-3.8E-02 ± 3.8E-02	U
	^{155}Eu	1.0E-01 ± 5.7E-02	
	^{238}Pu	2.1E-03 ± 2.1E-03	U
	$^{239/240}$Pu	1.0E-02 ± 9.3E-03	
	^{103}Ru	-6.5E-03 ± 9.9E-03	U
	^{106}Ru	-1.7E-02 ± 9.4E-02	U
	^{125}Sb	-2.0E-02 ± 2.8E-02	U
	^{113}Sn	-1.5E-03 ± 1.3E-02	U
	^{90}Sr	-4.0E-02 ± 2.0E-01	U
	^{234}U	1.4E-01 ± 4.8E-02	
	^{235}U	1.2E-02 ± 1.2E-02	U
	^{238}U	1.2E-01 ± 4.2E-02	
	^{65}Zn	1.4E-02 ± 2.2E-02	U
D093	^{144}Ce	5.1E-02 ± 1.1E-01	U
(600 Area)	^{60}Co	3.6E-03 ± 8.2E-03	U
	^{134}Cs	3.5E-02 ± 1.2E-02	
	^{137}Cs	1.3E-01 ± 2.6E-02	
	^{152}Eu	-1.5E-02 ± 2.8E-02	U
	^{154}Eu	-2.0E-02 ± 2.6E-02	U
	^{155}Eu	1.5E-02 ± 2.9E-02	U
	^{238}Pu	2.5E-02 ± 3.5E-02	U
	$^{239/240}$Pu	2.7E-02 ± 1.8E-02	
	^{103}Ru	-2.1E-03 ± 7.1E-03	U
	^{106}Ru	3.9E-02 ± 6.8E-02	U
	^{125}Sb	-4.8E-03 ± 2.1E-02	U
	^{113}Sn	-1.0E-03 ± 9.3E-03	U
	^{90}Sr	-3.1E-01 ± 3.1E-01	U
	^{234}U	2.5E-01 ± 7.8E-02	
	^{235}U	1.1E-02 ± 1.0E-02	
	^{238}U	2.7E-01 ± 8.4E-02	
	^{65}Zn	5.7E-02 ± 2.4E-02	

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D095 (600 Area)	^{144}Ce	2.7E-01 ± 2.6E-01	U
	^{60}Co	-7.4E-03 ± 1.2E-02	U
	^{134}Cs	2.2E-02 ± 1.8E-02	U
	^{137}Cs	3.7E-01 ± 6.1E-02	
	^{152}Eu	-4.4E-03 ± 3.9E-02	U
	^{154}Eu	2.5E-02 ± 3.8E-02	U
	^{155}Eu	1.5E-02 ± 4.1E-02	U
	^{238}Pu	2.1E-03 ± 2.1E-03	U
	$^{239/240}$Pu	1.9E-02 ± 1.5E-02	
	^{103}Ru	-6.2E-03 ± 1.3E-02	U
	^{106}Ru	-2.6E-02 ± 1.1E-01	U
	^{125}Sb	2.0E-02 ± 3.3E-02	U
	^{113}Sn	-8.4E-03 ± 1.5E-02	U
	^{90}Sr	-1.9E-01 ± 2.4E-01	U
	^{234}U	1.0E-01 ± 3.7E-02	
	^{235}U	1.4E-02 ± 1.1E-02	
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	-1.8E-03 ± 1.8E-02	U
D097 (600 Area)	^{144}Ce	-5.6E-02 ± 1.2E-01	U
	^{60}Co	-1.1E-03 ± 6.8E-03	U
	^{134}Cs	3.5E-02 ± 1.4E-02	
	^{137}Cs	4.0E-01 ± 6.7E-02	
	^{152}Eu	3.0E-03 ± 2.2E-02	U
	^{154}Eu	1.8E-02 ± 1.7E-02	U
	^{155}Eu	3.1E-02 ± 3.3E-02	U
	^{238}Pu	-2.5E-02 ± 4.5E-02	U
	$^{239/240}$Pu	1.4E-02 ± 1.7E-02	U
	^{103}Ru	-2.6E-03 ± 6.8E-03	U
	^{106}Ru	-1.9E-02 ± 5.8E-02	U
	^{125}Sb	-1.5E-02 ± 1.9E-02	U
	^{113}Sn	-4.3E-03 ± 9.0E-03	U
	^{90}Sr	5.4E-02 ± 2.2E-01	U
	^{234}U	1.8E-01 ± 6.1E-02	
	^{235}U	7.3E-03 ± 8.8E-03	
	^{238}U	1.6E-01 ± 5.6E-02	
	^{65}Zn	-1.2E-02 ± 1.9E-02	U
D099 (600 Area)	^{144}Ce	-5.8E-02 ± 1.1E-01	U
	^{60}Co	2.6E-04 ± 2.6E-03	U
	^{134}Cs	3.3E-02 ± 1.1E-02	
	^{137}Cs	3.1E-02 ± 9.2E-03	
	^{152}Eu	-1.6E-02 ± 2.1E-02	U
	^{154}Eu	-1.1E-02 ± 2.0E-02	U
	^{155}Eu	6.5E-02 ± 4.2E-02	
	^{238}Pu	-9.5E-03 ± 3.9E-02	U
	$^{239/240}$Pu	-4.8E-03 ± 9.6E-03	U
	^{103}Ru	-2.0E-03 ± 5.6E-03	U
	^{106}Ru	-3.6E-03 ± 3.6E-02	U
	^{125}Sb	9.1E-04 ± 9.1E-03	U
	^{113}Sn	2.2E-04 ± 2.2E-03	U
	^{90}Sr	-2.2E-01 ± 2.2E-01	U
	^{234}U	1.3E-01 ± 4.8E-02	
	^{235}U	1.6E-02 ± 1.4E-02	U
	^{238}U	1.4E-01 ± 4.9E-02	
	^{65}Zn	3.0E-04 ± 3.0E-03	U
D101 (600 Area)	^{144}Ce	-9.0E-02 ± 1.6E-01	U
	^{60}Co	1.5E-03 ± 6.9E-03	U
	^{134}Cs	2.3E-02 ± 1.0E-02	
	^{137}Cs	7.3E-02 ± 1.9E-02	
	^{152}Eu	6.5E-03 ± 4.3E-02	U
	^{154}Eu	1.1E-02 ± 2.2E-02	U
	^{155}Eu	4.3E-02 ± 4.4E-02	U
	^{238}Pu	-1.3E-02 ± 3.6E-02	U
	$^{239/240}$Pu	4.2E-03 ± 1.2E-02	U
	^{103}Ru	-3.2E-03 ± 7.4E-03	U
	^{106}Ru	-1.0E-02 ± 6.3E-02	U
	^{125}Sb	4.6E-03 ± 2.1E-02	U
	^{113}Sn	-4.4E-04 ± 4.4E-03	U
	^{90}Sr	-1.2E-01 ± 1.9E-01	U
	^{234}U	1.5E-01 ± 5.8E-02	
	^{235}U	2.2E-02 ± 1.9E-02	
	^{238}U	1.4E-01 ± 5.6E-02	
	^{65}Zn	2.0E-02 ± 2.0E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D103	^{144}Ce	1.2E-02 ± 1.1E-01	U
(600 Area)	^{60}Co	-1.6E-03 ± 6.9E-03	U
	^{134}Cs	4.1E-02 ± 1.3E-02	
	^{137}Cs	5.8E-01 ± 9.7E-02	
	^{152}Eu	-1.6E-03 ± 1.6E-02	U
	^{154}Eu	-1.1E-02 ± 2.3E-02	U
	^{155}Eu	5.0E-02 ± 3.9E-02	
	^{238}Pu	1.5E-02 ± 4.0E-02	U
	$^{239/240}$Pu	6.1E-02 ± 2.8E-02	
	^{103}Ru	-1.5E-03 ± 6.8E-03	U
	^{106}Ru	-4.6E-02 ± 6.2E-02	U
	^{125}Sb	-1.2E-02 ± 1.9E-02	U
	^{113}Sn	-1.8E-03 ± 8.8E-03	U
	^{90}Sr	-1.1E-01 ± 1.9E-01	U
	^{234}U	1.3E-01 ± 4.5E-02	
	^{235}U	9.9E-03 ± 9.2E-03	
	^{238}U	1.6E-01 ± 5.3E-02	
	^{65}Zn	4.0E-02 ± 2.1E-02	
D105	^{144}Ce	-2.6E-01 ± 2.6E-01	U
(600 Area)	^{60}Co	-9.9E-04 ± 6.4E-03	U
	^{134}Cs	3.9E-02 ± 1.7E-02	
	^{137}Cs	2.7E-01 ± 4.9E-02	
	^{152}Eu	-2.6E-02 ± 3.7E-02	U
	^{154}Eu	-3.0E-02 ± 3.0E-02	U
	^{155}Eu	5.2E-02 ± 3.7E-02	U
	^{238}Pu	7.6E-02 ± 3.9E-02	
	$^{239/240}$Pu	7.0E-01 ± 2.0E-01	
	^{103}Ru	3.7E-07 ± 3.7E-06	U
	^{106}Ru	1.3E-02 ± 6.1E-02	U
	^{125}Sb	-4.9E-03 ± 2.0E-02	U
	^{113}Sn	8.2E-04 ± 8.2E-03	U
	^{90}Sr	-5.1E-02 ± 2.3E-01	U
	^{234}U	1.3E-01 ± 4.7E-02	
	^{235}U	1.1E-02 ± 1.2E-02	U
	^{238}U	1.2E-01 ± 4.4E-02	
	^{65}Zn	4.1E-02 ± 1.8E-02	
D107	^{144}Ce	-7.4E-02 ± 1.6E-01	U
(600 Area)	^{60}Co	-1.7E-03 ± 9.2E-03	U
	^{134}Cs	3.7E-02 ± 1.6E-02	
	^{137}Cs	6.2E-01 ± 9.5E-02	
	^{152}Eu	-1.4E-03 ± 1.4E-02	U
	^{154}Eu	-4.5E-03 ± 2.9E-02	U
	^{155}Eu	5.9E-02 ± 4.1E-02	
	^{238}Pu	1.9E-02 ± 4.0E-02	U
	$^{239/240}$Pu	5.0E-01 ± 1.4E-01	
	^{103}Ru	-7.3E-03 ± 1.1E-02	U
	^{106}Ru	3.4E-02 ± 8.5E-02	U
	^{125}Sb	2.3E-02 ± 2.9E-02	U
	^{113}Sn	-1.2E-02 ± 1.3E-02	U
	^{90}Sr	9.6E-02 ± 2.3E-01	U
	^{234}U	1.1E-01 ± 4.1E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	1.2E-01 ± 4.3E-02	
	^{65}Zn	-1.0E-02 ± 2.5E-02	U
D109	^{144}Ce	-6.5E-02 ± 9.4E-02	U
(600 Area)	^{60}Co	1.7E-03 ± 5.0E-03	U
	^{134}Cs	2.9E-02 ± 8.2E-03	
	^{137}Cs	2.1E-01 ± 3.6E-02	
	^{152}Eu	-2.4E-02 ± 2.4E-02	U
	^{154}Eu	-2.4E-02 ± 2.4E-02	U
	^{155}Eu	2.6E-02 ± 2.6E-02	U
	^{238}Pu	5.4E-03 ± 3.6E-02	U
	$^{239/240}$Pu	1.8E-01 ± 5.8E-02	
	^{103}Ru	-2.7E-05 ± 2.7E-04	U
	^{106}Ru	1.3E-04 ± 1.3E-03	U
	^{125}Sb	3.7E-03 ± 1.4E-02	U
	^{113}Sn	-1.6E-03 ± 6.8E-03	U
	^{90}Sr	-1.4E-01 ± 2.1E-01	U
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	1.0E-02 ± 9.3E-03	
	^{238}U	1.1E-01 ± 4.0E-02	
	^{65}Zn	-6.1E-03 ± 2.1E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D111 (Replicate of D051, 200 West)	^{144}Ce	-1.1E-01 ± 1.1E-01	U
	^{60}Co	-4.0E-04 ± 4.0E-03	U
	^{134}Cs	3.8E-02 ± 1.2E-02	
	^{137}Cs	4.3E-02 ± 1.1E-02	
	^{152}Eu	5.1E-03 ± 1.9E-02	U
	^{154}Eu	-3.2E-04 ± 3.2E-03	U
	^{155}Eu	5.1E-02 ± 3.4E-02	
	^{238}Pu	-1.4E-02 ± 3.2E-02	U
	$^{239/240}$Pu	2.0E-03 ± 2.0E-02	U
	^{103}Ru	-4.4E-04 ± 4.4E-03	U
	^{106}Ru	3.7E-02 ± 4.8E-02	U
	^{125}Sb	-5.0E-04 ± 5.0E-03	U
	^{113}Sn	-8.8E-03 ± 8.8E-03	U
	^{90}Sr	-1.8E-01 ± 2.3E-01	U
	^{234}U	1.8E-01 ± 5.9E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	1.6E-01 ± 5.3E-02	
	^{65}Zn	-1.8E-02 ± 1.8E-02	U
D113 (Replicate of D081, 600 Area)	^{144}Ce	-2.8E-02 ± 1.4E-01	U
	^{60}Co	1.2E-02 ± 1.3E-02	U
	^{134}Cs	4.2E-02 ± 1.4E-02	
	^{137}Cs	2.3E-02 ± 1.2E-02	
	^{152}Eu	-1.3E-02 ± 2.7E-02	U
	^{154}Eu	-1.9E-02 ± 3.1E-02	U
	^{155}Eu	4.9E-02 ± 4.0E-02	U
	^{238}Pu	-6.0E-03 ± 3.0E-02	U
	$^{239/240}$Pu	1.0E-02 ± 9.3E-03	
	^{103}Ru	-5.8E-03 ± 7.3E-03	U
	^{106}Ru	-5.0E-02 ± 7.0E-02	U
	^{125}Sb	5.4E-03 ± 2.0E-02	U
	^{113}Sn	-6.8E-03 ± 9.6E-03	U
	^{90}Sr	-2.5E-01 ± 2.5E-01	U
	^{234}U	1.5E-01 ± 5.1E-02	
	^{235}U	1.3E-02 ± 1.3E-02	U
	^{238}U	1.5E-01 ± 5.1E-02	
	^{65}Zn	1.3E-02 ± 2.2E-02	U
D115 (Replicate of D093, 600 Area)	^{144}Ce	1.7E-02 ± 1.1E-01	U
	^{60}Co	1.9E-03 ± 5.6E-03	U
	^{134}Cs	3.0E-02 ± 1.1E-02	
	^{137}Cs	1.1E-01 ± 2.0E-02	
	^{152}Eu	-1.6E-02 ± 2.0E-02	U
	^{154}Eu	-7.2E-03 ± 2.1E-02	U
	^{155}Eu	4.7E-02 ± 3.7E-02	
	^{238}Pu	1.7E-02 ± 3.7E-02	U
	$^{239/240}$Pu	-5.8E-03 ± 1.0E-02	U
	^{103}Ru	-1.5E-04 ± 1.5E-03	U
	^{106}Ru	-2.2E-03 ± 2.2E-02	U
	^{125}Sb	4.7E-03 ± 1.6E-02	U
	^{113}Sn	-9.0E-03 ± 9.0E-03	U
	^{90}Sr	-9.4E-02 ± 1.8E-01	U
	^{234}U	1.8E-01 ± 5.9E-02	
	^{235}U	6.1E-03 ± 7.3E-03	
	^{238}U	1.6E-01 ± 5.4E-02	
	^{65}Zn	-7.8E-03 ± 2.4E-02	U
D116 (300 Area)	^{144}Ce	-2.2E-01 ± 2.2E-01	U
	^{60}Co	-3.1E-03 ± 6.9E-03	U
	^{134}Cs	4.1E-02 ± 1.6E-02	
	^{137}Cs	1.3E-02 ± 1.1E-02	U
	^{152}Eu	1.4E-02 ± 4.1E-02	U
	^{154}Eu	-2.3E-02 ± 2.3E-02	U
	^{155}Eu	-3.4E-02 ± 3.6E-02	U
	^{238}Pu	2.5E-02 ± 4.0E-02	U
	$^{239/240}$Pu	1.4E-02 ± 1.5E-02	U
	^{103}Ru	-8.3E-04 ± 7.4E-03	U
	^{106}Ru	-1.8E-02 ± 6.3E-02	U
	^{125}Sb	1.8E-02 ± 2.1E-02	U
	^{113}Sn	-7.1E-03 ± 9.9E-03	U
	^{90}Sr	-1.8E-01 ± 2.1E-01	U
	^{234}U	9.6E-02 ± 3.7E-02	
	^{235}U	1.6E-02 ± 1.4E-02	U
	^{238}U	1.1E-01 ± 4.1E-02	
	^{65}Zn	1.6E-02 ± 2.0E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D117	^{144}Ce	-6.5E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	1.2E-03 ± 6.0E-03	U
	^{134}Cs	2.6E-02 ± 8.8E-03	
	^{137}Cs	5.3E-02 ± 1.3E-02	
	^{152}Eu	5.7E-05 ± 5.7E-04	U
	^{154}Eu	-6.6E-03 ± 2.2E-02	U
	^{155}Eu	4.1E-02 ± 3.2E-02	U
	^{238}Pu	4.9E-03 ± 7.4E-03	U
	$^{239/240}$Pu	6.6E-03 ± 6.6E-03	
	^{103}Ru	6.2E-03 ± 5.9E-03	U
	^{106}Ru	3.5E-02 ± 5.0E-02	U
	^{125}Sb	-5.2E-04 ± 5.2E-03	U
	^{113}Sn	3.1E-03 ± 7.5E-03	U
	^{90}Sr	2.7E-04 ± 2.7E-03	U
	^{234}U	3.0E-01 ± 9.0E-02	
	^{235}U	3.3E-02 ± 1.8E-02	
	^{238}U	2.4E-01 ± 7.4E-02	
	^{65}Zn	-5.0E-03 ± 1.7E-02	U
D118	^{144}Ce	2.3E-02 ± 9.7E-02	U
(300 Area)	^{60}Co	-5.2E-04 ± 5.2E-03	U
	^{134}Cs	2.5E-02 ± 1.0E-02	
	^{137}Cs	4.7E-02 ± 1.1E-02	
	^{152}Eu	-7.5E-03 ± 1.7E-02	U
	^{154}Eu	4.7E-03 ± 1.9E-02	U
	^{155}Eu	2.8E-02 ± 2.3E-02	U
	^{238}Pu	-2.0E-02 ± 3.2E-02	U
	$^{239/240}$Pu	2.0E-03 ± 2.0E-02	U
	^{103}Ru	3.3E-03 ± 5.4E-03	U
	^{106}Ru	5.1E-02 ± 4.6E-02	U
	^{125}Sb	-2.5E-03 ± 1.5E-02	U
	^{113}Sn	-4.3E-04 ± 4.2E-03	U
	^{90}Sr	-1.6E-01 ± 1.9E-01	U
	^{234}U	3.7E-01 ± 1.1E-01	
	^{235}U	3.2E-02 ± 1.9E-02	
	^{238}U	3.8E-01 ± 1.1E-01	
	^{65}Zn	-1.9E-03 ± 1.5E-02	U
D119	^{144}Ce	9.8E-03 ± 9.8E-02	U
(300 Area)	^{60}Co	-1.7E-03 ± 1.1E-02	U
	^{134}Cs	3.5E-02 ± 1.8E-02	
	^{137}Cs	5.5E-02 ± 1.8E-02	
	^{152}Eu	3.4E-02 ± 4.1E-02	U
	^{154}Eu	-1.4E-03 ± 1.4E-02	U
	^{155}Eu	4.8E-02 ± 4.2E-02	U
	^{238}Pu	2.4E-03 ± 1.3E-02	U
	$^{239/240}$Pu	5.0E-02 ± 2.4E-02	
	^{103}Ru	6.4E-03 ± 1.1E-02	U
	^{106}Ru	-2.3E-02 ± 9.7E-02	U
	^{125}Sb	1.1E-02 ± 3.1E-02	U
	^{113}Sn	3.0E-03 ± 1.4E-02	U
	^{90}Sr	3.2E-03 ± 3.2E-02	U
	^{234}U	2.3E+00 ± 6.0E-01	
	^{235}U	1.6E-01 ± 5.4E-02	
	^{238}U	2.3E+00 ± 6.0E-01	
	^{65}Zn	-2.3E-02 ± 3.2E-02	U
D121	^{144}Ce	-4.9E-02 ± 1.7E-01	U
(300 Area)	^{60}Co	1.5E-03 ± 7.7E-03	U
	^{134}Cs	3.4E-02 ± 1.6E-02	
	^{137}Cs	1.5E-02 ± 1.1E-02	
	^{152}Eu	-3.7E-02 ± 4.8E-02	U
	^{154}Eu	-2.4E-02 ± 2.5E-02	U
	^{155}Eu	-2.1E-02 ± 4.0E-02	U
	^{238}Pu	1.7E-02 ± 3.7E-02	U
	$^{239/240}$Pu	1.8E-03 ± 1.8E-03	U
	^{103}Ru	-2.1E-03 ± 7.8E-03	U
	^{106}Ru	-4.2E-02 ± 6.8E-02	U
	^{125}Sb	5.6E-03 ± 2.2E-02	U
	^{113}Sn	-5.0E-03 ± 1.0E-02	U
	^{90}Sr	-9.9E-03 ± 9.9E-02	U
	^{234}U	2.7E-01 ± 8.1E-02	
	^{235}U	2.0E-02 ± 1.4E-02	
	^{238}U	2.9E-01 ± 8.7E-02	
	^{65}Zn	1.8E-02 ± 2.0E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D123	^{144}Ce	-7.8E-02 ± 1.1E-01	U
(300 Area)	^{60}Co	8.3E-03 ± 6.3E-03	U
	^{134}Cs	2.3E-02 ± 8.9E-03	
	^{137}Cs	2.5E-02 ± 1.2E-02	
	^{152}Eu	2.9E-03 ± 1.9E-02	U
	^{154}Eu	-1.6E-02 ± 1.9E-02	U
	^{155}Eu	4.0E-02 ± 2.7E-02	U
	^{238}Pu	-1.7E-03 ± 1.7E-02	U
	$^{239/240}$Pu	1.0E-02 ± 1.1E-02	U
	^{103}Ru	1.4E-03 ± 5.8E-03	U
	^{106}Ru	2.6E-02 ± 5.5E-02	U
	^{125}Sb	3.6E-04 ± 3.6E-03	U
	^{113}Sn	-4.8E-03 ± 7.6E-03	U
	^{90}Sr	-1.6E-01 ± 2.1E-01	U
	^{234}U	3.1E-01 ± 9.6E-02	
	^{235}U	6.8E-03 ± 1.0E-02	U
	^{238}U	2.6E-01 ± 8.1E-02	
	^{65}Zn	3.6E-03 ± 1.6E-02	U
D127	^{144}Ce	1.8E-02 ± 1.7E-01	U
(300 Area)	^{60}Co	-4.2E-03 ± 1.1E-02	U
	^{134}Cs	5.4E-02 ± 2.2E-02	
	^{137}Cs	2.2E-01 ± 4.4E-02	
	^{152}Eu	1.0E-02 ± 4.9E-02	U
	^{154}Eu	-6.0E-02 ± 6.0E-02	U
	^{155}Eu	4.6E-02 ± 5.1E-02	U
	^{238}Pu	1.5E-02 ± 3.1E-02	U
	$^{239/240}$Pu	9.2E-03 ± 1.0E-02	U
	^{103}Ru	-2.2E-03 ± 9.9E-03	U
	^{106}Ru	-1.1E-01 ± 1.1E-01	U
	^{125}Sb	-1.2E-02 ± 2.9E-02	U
	^{113}Sn	2.6E-03 ± 1.3E-02	U
	^{90}Sr	-1.3E-01 ± 2.1E-01	U
	^{234}U	3.1E-01 ± 9.3E-02	
	^{235}U	1.8E-02 ± 1.4E-02	
	^{238}U	3.0E-01 ± 9.0E-02	
	^{65}Zn	5.2E-02 ± 3.3E-02	
D128	^{144}Ce	4.2E-02 ± 1.7E-01	U
(300 Area)	^{60}Co	-1.3E-03 ± 7.2E-03	U
	^{134}Cs	3.1E-02 ± 1.1E-02	
	^{137}Cs	9.6E-02 ± 2.3E-02	
	^{152}Eu	-7.7E-03 ± 4.6E-02	U
	^{154}Eu	-2.3E-02 ± 2.4E-02	U
	^{155}Eu	5.6E-02 ± 4.7E-02	U
	^{238}Pu	7.2E-03 ± 3.0E-02	U
	$^{239/240}$Pu	3.6E-03 ± 7.2E-03	U
	^{103}Ru	5.6E-03 ± 7.6E-03	U
	^{106}Ru	-3.6E-02 ± 6.5E-02	U
	^{125}Sb	2.6E-02 ± 2.2E-02	U
	^{113}Sn	-2.1E-03 ± 1.0E-02	U
	^{90}Sr	-1.3E-01 ± 1.8E-01	U
	^{234}U	1.4E-01 ± 4.9E-02	
	^{235}U	1.3E-02 ± 1.3E-02	U
	^{238}U	1.3E-01 ± 4.7E-02	
	^{65}Zn	9.8E-03 ± 2.1E-02	U
D129	^{144}Ce	4.5E-02 ± 1.0E-01	U
(300 Area)	^{60}Co	-5.8E-03 ± 6.1E-03	U
	^{134}Cs	2.9E-02 ± 1.1E-02	
	^{137}Cs	1.8E-02 ± 8.8E-03	
	^{152}Eu	-2.6E-03 ± 1.9E-02	U
	^{154}Eu	-6.0E-03 ± 2.0E-02	U
	^{155}Eu	3.6E-02 ± 2.7E-02	U
	^{238}Pu	1.6E-01 ± 6.1E-02	
	$^{239/240}$Pu	1.7E-02 ± 1.2E-02	
	^{103}Ru	3.6E-04 ± 3.6E-03	U
	^{106}Ru	4.8E-02 ± 5.2E-02	U
	^{125}Sb	1.7E-03 ± 1.6E-02	U
	^{113}Sn	-4.4E-03 ± 7.9E-03	U
	^{90}Sr	1.5E-01 ± 2.4E-01	U
	^{234}U	1.1E-01 ± 4.0E-02	
	^{235}U	2.0E-02 ± 1.3E-02	
	^{238}U	1.2E-01 ± 4.2E-02	
	^{65}Zn	-1.3E-02 ± 1.8E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*
D130 (400 Area)	^{144}Ce	-1.4E-02 ± 1.2E-01	U
	^{60}Co	-1.1E-03 ± 6.7E-03	U
	^{134}Cs	3.3E-02 ± 9.9E-03	
	^{137}Cs	1.9E-02 ± 9.8E-03	
	^{152}Eu	6.3E-03 ± 2.1E-02	U
	^{154}Eu	-1.8E-02 ± 2.1E-02	U
	^{155}Eu	1.7E-02 ± 2.9E-02	U
	^{238}Pu	3.8E-03 ± 3.5E-02	U
	$^{239/240}$Pu	1.9E-03 ± 6.6E-03	U
	^{103}Ru	1.4E-03 ± 6.3E-03	U
	^{106}Ru	3.9E-02 ± 5.5E-02	U
	^{125}Sb	2.7E-04 ± 2.7E-03	U
	^{113}Sn	-1.3E-03 ± 8.2E-03	U
	^{90}Sr	-5.1E-02 ± 5.1E-01	U
	^{234}U	1.2E-01 ± 4.3E-02	
	^{235}U	8.2E-03 ± 8.2E-03	
	^{238}U	1.3E-01 ± 4.5E-02	
	^{65}Zn	-1.5E-03 ± 1.5E-02	U
D131 (Replicate of D119, 300 Area)	^{144}Ce	-8.0E-02 ± 1.1E-01	U
	^{60}Co	3.2E-03 ± 6.3E-03	U
	^{134}Cs	2.5E-02 ± 1.1E-02	
	^{137}Cs	7.3E-02 ± 1.9E-02	
	^{152}Eu	2.2E-04 ± 2.2E-03	U
	^{154}Eu	-6.3E-03 ± 2.4E-02	U
	^{155}Eu	4.3E-02 ± 3.6E-02	U
	^{238}Pu	2.2E-03 ± 2.2E-02	U
	$^{239/240}$Pu	5.5E-02 ± 2.6E-02	
	^{103}Ru	3.1E-03 ± 6.1E-03	U
	^{106}Ru	2.8E-03 ± 2.8E-02	U
	^{125}Sb	3.1E-02 ± 3.3E-02	
	^{113}Sn	-6.1E-03 ± 8.2E-03	U
	^{90}Sr	-2.6E-01 ± 5.2E-01	U
	^{234}U	2.5E+00 ± 6.5E-01	
	^{235}U	1.3E-01 ± 4.7E-02	
	^{238}U	2.6E+00 ± 6.8E-01	
	^{65}Zn	2.9E-03 ± 1.8E-02	U
D139 (Replicate of D118, 300 Area)	^{144}Ce	-2.5E-02 ± 1.3E-01	U
	^{60}Co	-1.2E-03 ± 7.6E-03	U
	^{134}Cs	2.2E-02 ± 1.0E-02	
	^{137}Cs	8.8E-03 ± 9.4E-03	U
	^{152}Eu	-1.2E-02 ± 2.7E-02	U
	^{154}Eu	-3.0E-02 ± 3.0E-02	U
	^{155}Eu	3.6E-02 ± 3.2E-02	U
	^{238}Pu	1.7E-02 ± 3.2E-02	U
	$^{239/240}$Pu	3.8E-03 ± 5.3E-03	U
	^{103}Ru	2.3E-03 ± 6.6E-03	U
	^{106}Ru	2.4E-02 ± 6.3E-02	U
	^{125}Sb	9.2E-04 ± 9.2E-03	U
	^{113}Sn	5.2E-03 ± 8.8E-03	U
	^{90}Sr	-3.4E-01 ± 4.8E-01	U
	^{234}U	1.9E-01 ± 6.3E-02	
	^{235}U	2.8E-02 ± 1.8E-02	
	^{238}U	1.9E-01 ± 6.3E-02	
	^{65}Zn	1.2E-04 ± 1.2E-03	U
D140 (Replicate of D123, 300 Area)	^{144}Ce	3.1E-03 ± 3.1E-02	U
	^{60}Co	2.2E-03 ± 5.6E-03	U
	^{134}Cs	2.9E-02 ± 1.0E-02	
	^{137}Cs	1.3E-02 ± 8.5E-03	
	^{152}Eu	1.0E-04 ± 1.0E-03	U
	^{154}Eu	-4.5E-03 ± 1.9E-02	U
	^{155}Eu	1.6E-02 ± 2.6E-02	U
	^{238}Pu	-1.6E-02 ± 4.0E-02	U
	$^{239/240}$Pu	2.0E-03 ± 9.0E-03	U
	^{103}Ru	-2.5E-03 ± 5.7E-03	U
	^{106}Ru	1.8E-02 ± 4.9E-02	U
	^{125}Sb	8.1E-03 ± 1.6E-02	U
	^{113}Sn	-6.2E-03 ± 7.5E-03	U
	^{90}Sr	-2.3E-01 ± 4.6E-01	U
	^{234}U	2.8E-01 ± 8.4E-02	
	^{235}U	1.5E-02 ± 1.2E-02	
	^{238}U	2.5E-01 ± 7.5E-02	
	^{65}Zn	-1.5E-02 ± 1.6E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 3-4. 2005 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result	±	Error	RQ*
D146	^{144}Ce	-5.2E-02	±	1.0E-01	U
(ERDF)	^{60}Co	-4.2E-03	±	5.6E-03	U
	^{134}Cs	2.7E-02	±	1.2E-02	
	^{137}Cs	1.4E-01	±	2.4E-02	
	^{152}Eu	-3.2E-02	±	3.2E-02	U
	^{154}Eu	4.1E-03	±	2.0E-02	U
	^{155}Eu	4.9E-02	±	3.7E-02	
	^{238}Pu	1.9E-03	±	1.9E-02	U
	$^{239/240}$Pu	9.6E-03	±	8.9E-03	
	^{103}Ru	1.0E-03	±	5.6E-03	U
	^{106}Ru	5.9E-02	±	6.2E-02	U
	^{125}Sb	-1.0E-02	±	1.6E-02	U
	^{113}Sn	-3.2E-03	±	7.6E-03	U
	^{90}Sr	1.0E-01	±	1.9E-01	U
	^{234}U	1.6E-01	±	5.6E-02	
	^{235}U	1.1E-02	±	1.0E-02	
	^{238}U	1.5E-01	±	5.3E-02	
	^{65}Zn	-9.1E-03	±	1.6E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

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4.0 VEGETATION MONITORING

The radionuclide content of vegetation was measured to evaluate long-term trends in environmental accumulation of radioactivity in the 100, 200/600, and 300/400 Areas. Vegetation samples were collected on or near facilities that store, handle, or dispose of radioactive waste. The number of vegetation samples collected in 2005 and their locations are shown in Table 4-1.

Table 4-1. Number and Locations of Vegetation Samples Collected Near Hanford Facilities and Operations in 2005.

	Operational Area					
Number of Sample Locations	**100 N**	**200 W**	**200 E**	**600**	**300**	**400**
58	4	21	9	15	8	1

Vegetation sampling locations are illustrated in Figures 4-1 through 4-6. Radionuclide analyses indicated that strontium-90, cesium-137, plutonium-238, and plutonium-239/240, and uranium were detectable vegetation samples in 2005. Historically, the predominant radionuclides observed in vegetation samples were activation and fission products in the 100 Areas, fission products in the 200 Areas, and uranium in the 300 Area.

A summary of near-facility vegetation sampling results for selected radionuclides collected during 2005 is presented in Table 4-2. Historical vegetation sampling results for the 100-N, 200/600, and 300/400 Areas are displayed in Table 4-3. The 2005 vegetation sampling results for all areas are provided in Table 4-4.

Strontium-90 results vegetation samples for this report period showed a frequent occurrence of negative (i.e., less than zero) concentrations. This was primarily due to changes in laboratory background correction calculations that were implemented during 2003. Both historical and current values are within accepted statistical ranges as evidenced by laboratory quality assurance (QA) and performance evaluation programs.

Additional discussion of the 2005 vegetation results can be found in Section 10.10.2 of PNNL-15892.

Figure 4-1. 2005 Vegetation Sampling Locations, 100 N Area.

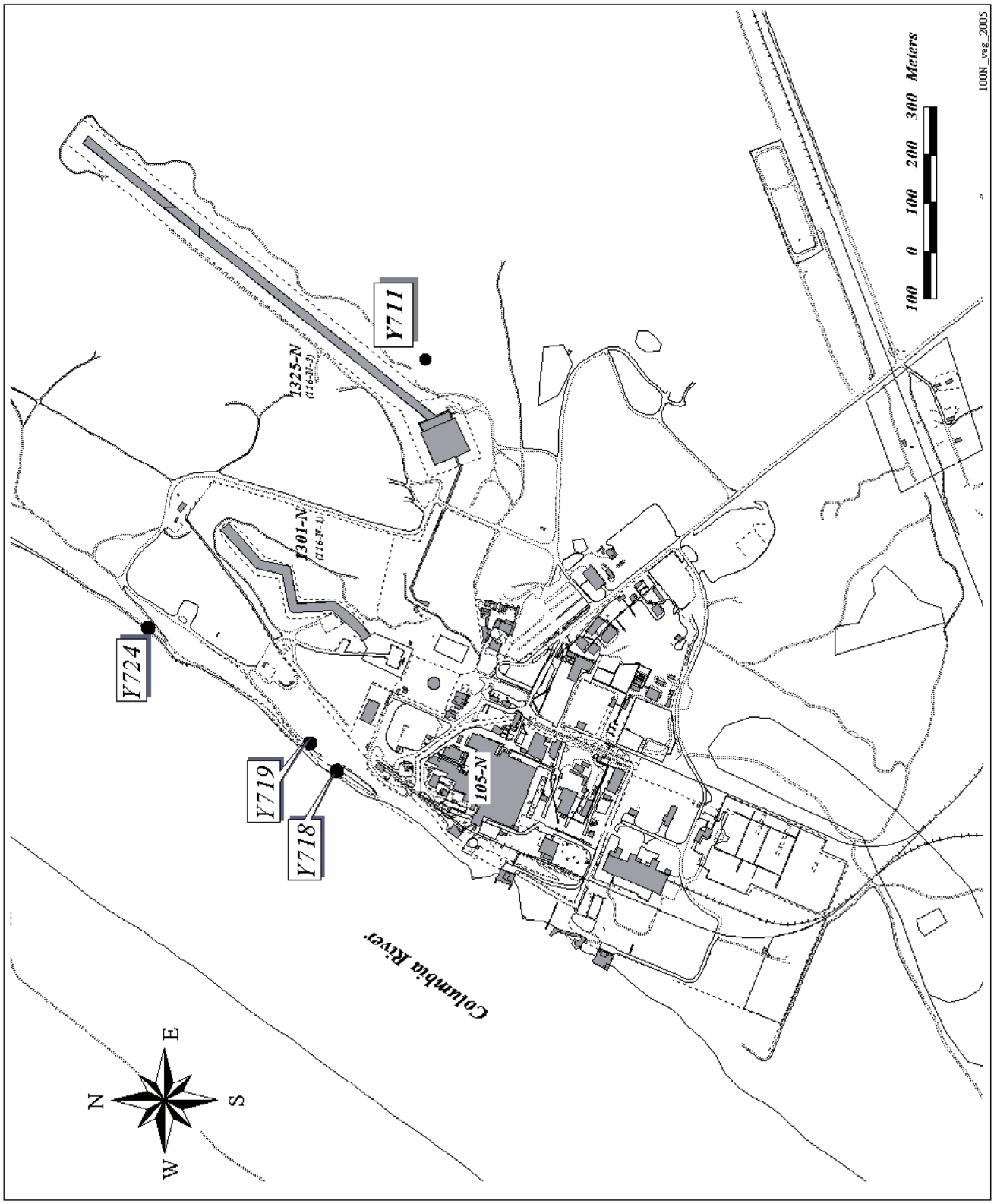

Figure 4-2. 2005 Vegetation Sampling Locations, 200 East Area.

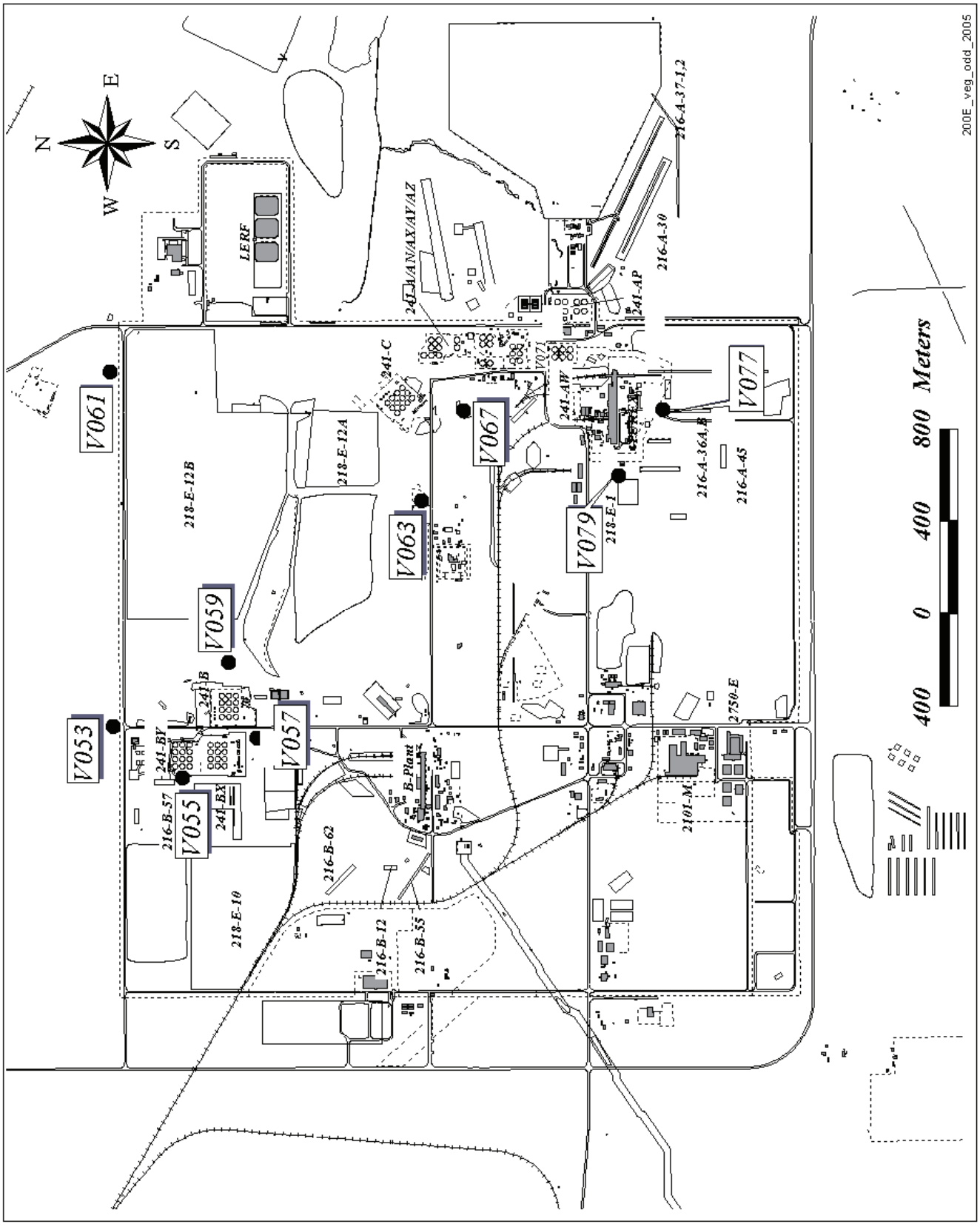

Figure 4-3. 2005 Vegetation Sampling Locations, 200 West Area.

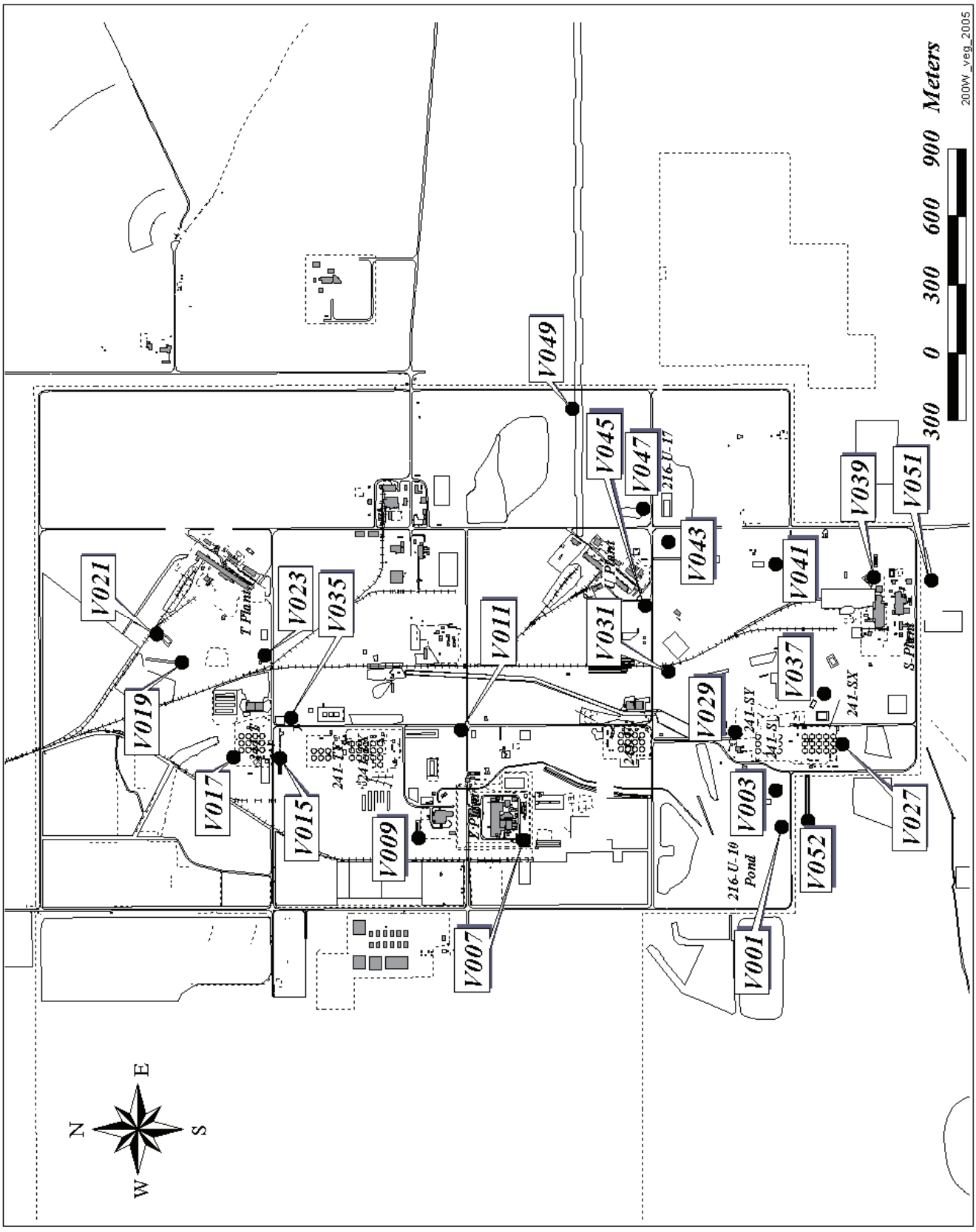

Figure 4-4. 2005 Vegetation Sampling Locations, 300 Area.

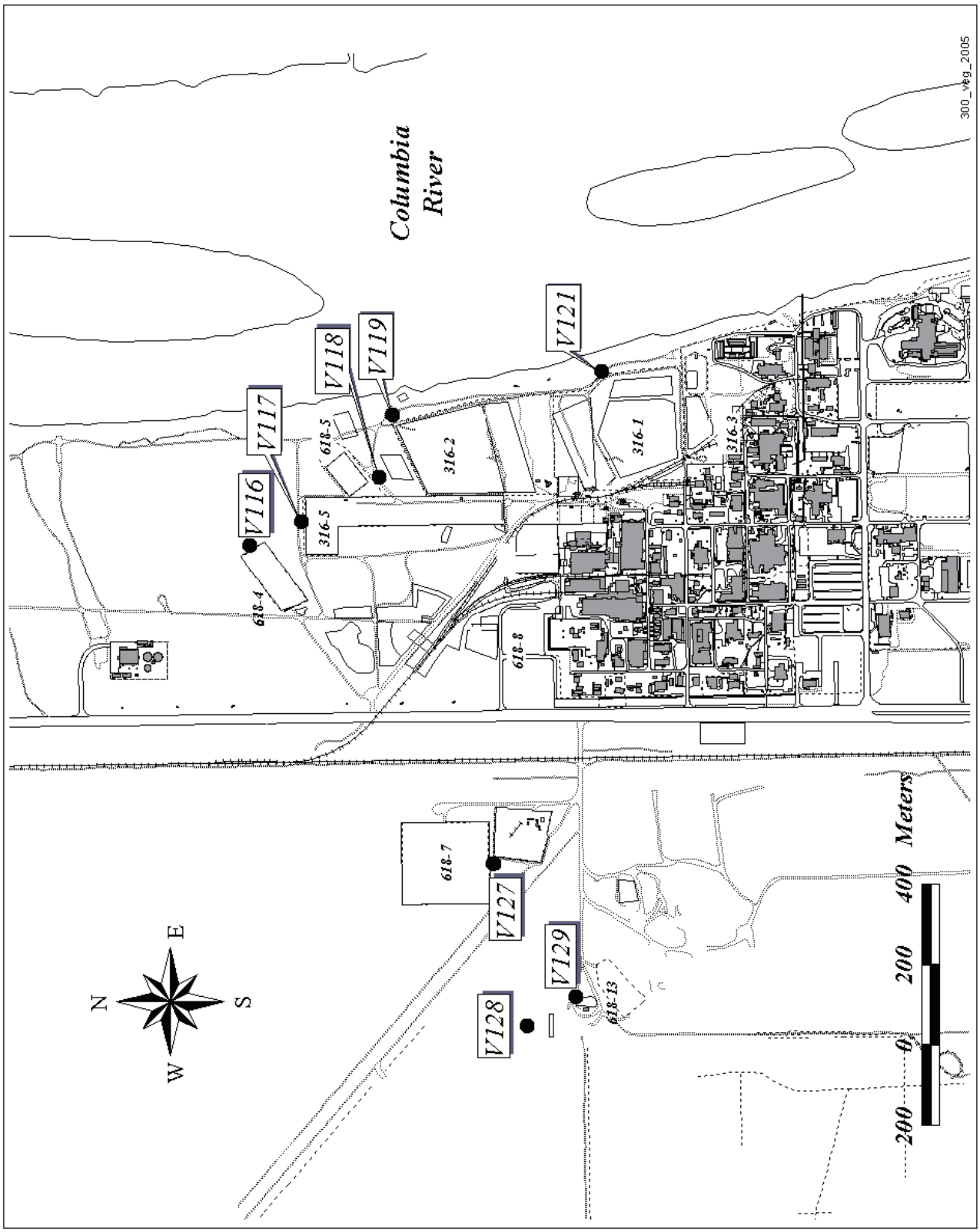

Figure 4-5. 2005 Vegetation Sampling Locations, 400 Area.

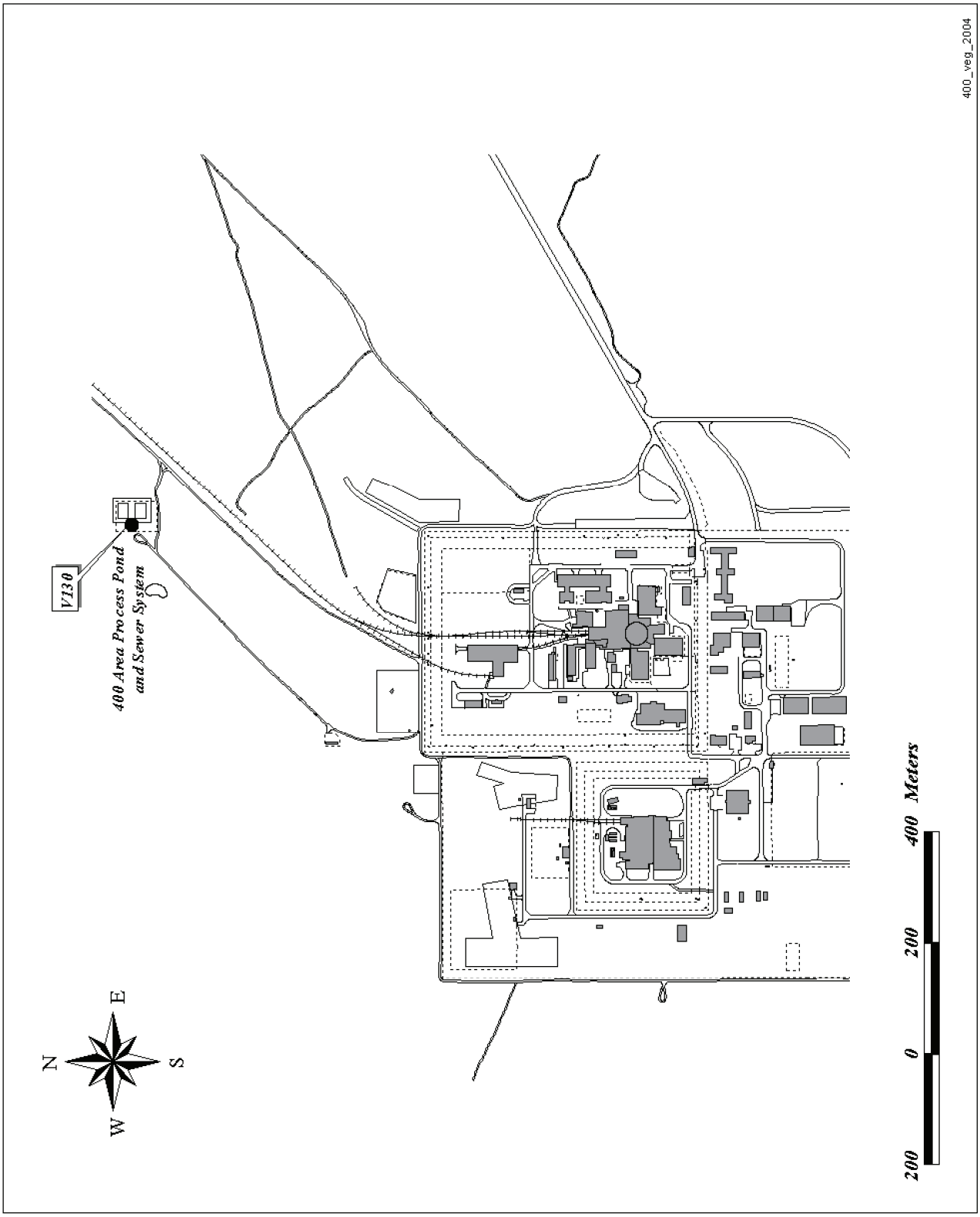

Figure 4-6. 2005 Vegetation Sampling Locations, 600 Area.

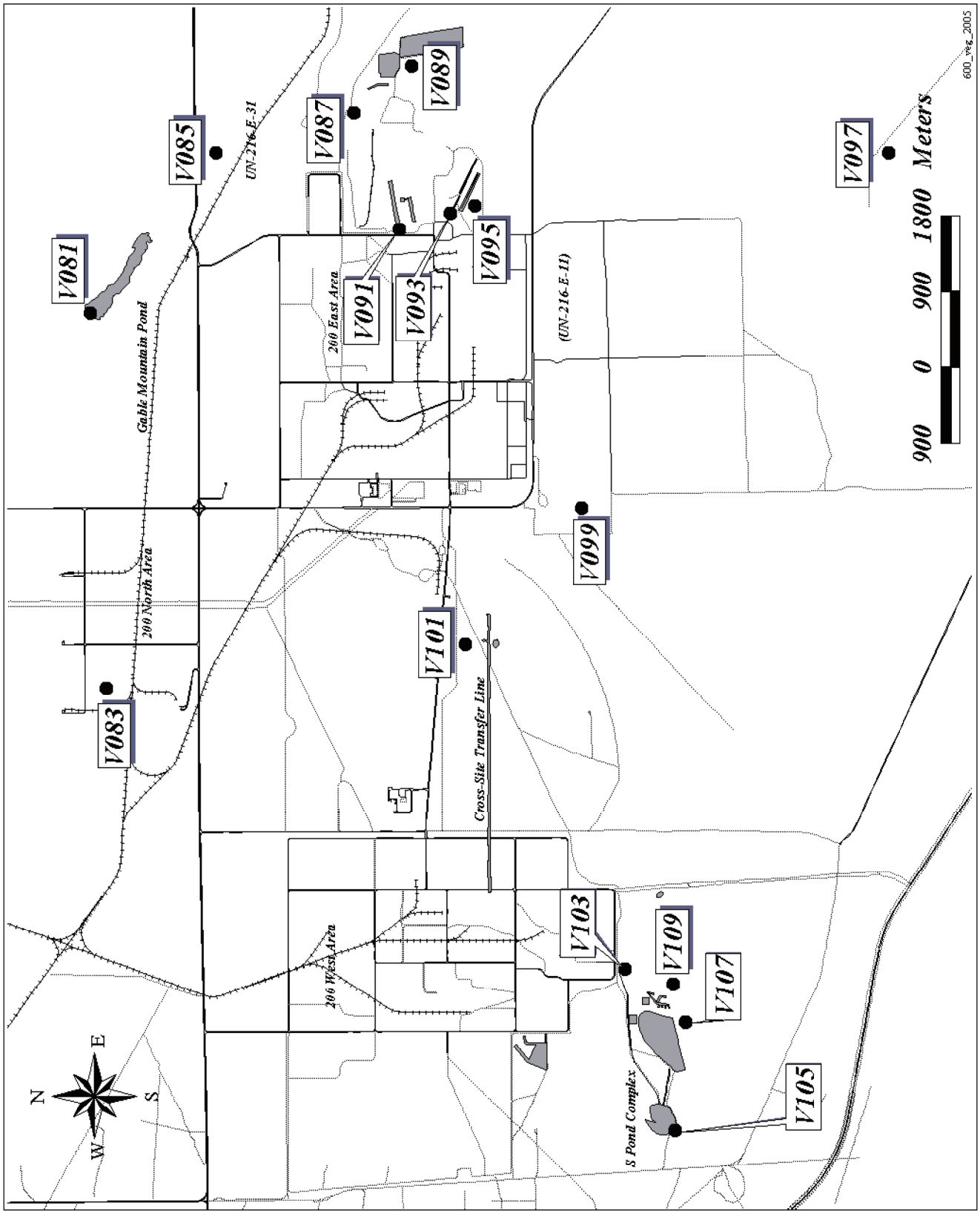

Table 4-2. Summary of Near-Facility Vegetation Sampling Results (pCi/g)[a] for Selected Radionuclides, 2005.

Isotope	Number of Samples[b]	Detects	Average[c]	Maximum[d]	Location Area	Site
^{144}Ce	62	0	-8.6E-02 ± 9.2E-01	1.6E+00 ± 1.8E+00	600 Area	V095
^{60}Co	62	0	4.8E-03 ± 6.6E-02	9.6E-02 ± 9.9E-02	200 West	V001
^{134}Cs	62	0	1.6E-03 ± 9.7E-02	1.7E-01 ± 1.4E-01	100 N	Y718
^{137}Cs	62	4	2.0E-02 ± 1.2E-01	2.5E-01 ± 2.9E-01	200 East	V059
^{152}Eu	62	0	-2.1E-02 ± 2.6E-01	6.7E-01 ± 7.1E-01	200 East	V059
^{154}Eu	62	1	-1.5E-02 ± 2.2E-01	5.2E-01 ± 2.9E-01	200 West	V015
^{155}Eu	62	0	-2.0E-02 ± 2.8E-01	4.2E-01 ± 4.0E-01	600 Area	V105
^{238}Pu	62	2	1.7E-03 ± 1.5E-02	2.4E-02 ± 2.1E-02	600 Area	V103
$^{239/240}$Pu	62	11	2.6E-03 ± 7.1E-03	1.6E-02 ± 1.0E-02	300 Area	V127
^{103}Ru	62	0	7.7E-03 ± 1.0E-01	2.6E-01 ± 2.8E-01	200 East	V059
^{106}Ru	62	0	-4.8E-02 ± 4.6E-01	5.5E-01 ± 5.0E-01	200 West	V011
^{125}Sb	62	0	2.2E-03 ± 2.1E-01	4.3E-01 ± 6.6E-01	200 East	V059
^{113}Sn	62	0	-5.9E-03 ± 1.4E-01	4.5E-01 ± 4.9E-01	200 East	V059
^{90}Sr	62	8	4.6E-01 ± 5.6E+00	2.2E+01 ± 3.3E+00	100 N	Y719
^{234}U	62	47	1.4E-02 ± 3.3E-02	1.3E-01 ± 3.5E-02	300 Area	V119
^{235}U	62	11	3.6E-03 ± 4.9E-03	1.3E-02 ± 8.4E-03	600 Area	V081
^{238}U	62	47	1.1E-02 ± 2.9E-02	1.1E-01 ± 3.1E-02	300 Area	V119
^{65}Zn	62	1	-1.2E-01 ± 5.3E-01	3.6E-01 ± 2.1E-01	200 West	V019

[a]1 pCi = 0.037 Bq.

[b]Includes replicate samples

[c]Average ± two standard deviations

[d]Maximum ± analytical uncertainty

Table 4-3. Average Radionuclide Concentrations (pCi/g)[a] in Hanford Vegetation, 1995 through 2005.

100-N Area

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	3.0E-02 ± 5.1E-02	5.4E+00 ± 4.8E+00	8.1E-02 ± 4.4E-02	1.1E-02 ± 6.6E-03	9.2E-03 ± 4.8E-03	3.3E-03 ± 1.6E-03
1996	2.4E+00 ± 4.5E+00	2.3E+02 ± 4.4E+02	2.3E+02 ± 2.0E+02	2.6E-02 ± 3.2E-02	2.2E-02 ± 1.7E-01	-5.1E-03 ± 0.0E+00
1997	4.2E-01 ± 5.0E-02	3.6E+00 ± 5.3E+00	1.6E-01 ± 7.7E-02	1.3E-02 ± 2.9E-03	9.7E-03 ± 4.7E-03	Not Detected
1998	6.2E-01 ± 6.5E-01	1.2E+01 ± 6.0E+00	3.8E+01 ± 6.5E+01	1.4E-02 ± 6.0E-03	8.7E-03 ± 4.4E-03	4.2E-03 ± 2.3E-03
1999	6.1E-01 ± 5.9E-01	9.1E+01 ± 1.0E+02	2.5E+02 ± 2.5E+02	2.8E-02 ± 1.0E-03	2.1E-02 ± 7.0E-03	2.2E-02 ± 1.0E-02
2000	4.8E-02 ± 3.2E-02	5.7E+00 ± 8.7E+00	2.0E-01 ± 1.2E-01	3.3E-02 ± 2.7E-02	2.4E-02 ± 1.8E-02	9.1E-03 ± 8.3E-03
2001	8.9E-01 ± 1.3E+00	3.5E+00 ± 3.4E+00	3.8E-01 ± 2.2E-01	9.8E-03 ± 2.4E-03	9.2E-03 ± 2.9E-03	2.4E-02 ± 2.5E-02
2002	3.7E-03 ± 3.7E-02	5.4E+00 ± 1.8E+01	2.4E-03 ± 8.4E-03	9.8E-03 ± 4.5E-03	5.1E-03 ± 2.9E-03	1.9E-03 ± 5.3E-03
2003	6.6E-02 ± 6.8E-02	1.4E+01 ± 4.5E+01	1.5E-01 ± 1.5E-01	6.8E-03 ± 2.1E-03	4.6E-03 ± 2.9E-03	-2.8E-04 ± 7.0E-03
2004	1.5E-02 ± 1.8E-01	1.1E+01 ± 5.1E+01	4.5E-02 ± 8.7E-02	9.3E-03 ± 7.8E-03	4.8E-03 ± 2.7E-03	Not Detected
2005	Not Detected	5.4E+00 ± 1.9E+01	Not Detected	5.0E-03 ± 2.3E-03	5.8E-03 ± 3.6E-03	Not Detected

200/600 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	1.4E-02 ± 2.1E-02	1.4E-02 ± 2.1E-02	1.6E-01 ± 1.4E-01	1.1E-02 ± 6.3E-03	7.9E-03 ± 4.4E-03	4.9E-03 ± 2.9E-03
1996	2.6E-02 ± 2.4E-02	3.7E-01 ± 1.8E-01	6.9E-02 ± 3.0E-02	5.0E-03 ± 1.0E-03	5.0E-03 ± 1.0E-03	4.1E-03 ± 3.1E-03
1997	Not Detected	2.9E+00 ± 2.5E+00	1.3E-01 ± 6.0E-02	1.5E-02 ± 2.4E-03	1.1E-02 ± 2.1E-03	6.6E-03 ± 1.0E-04
1998	Not Detected	3.3E-01 ± 1.3E-01	2.1E-01 ± 9.0E-02	1.6E-02 ± 3.0E-03	9.7E-03 ± 1.3E-03	1.8E-02 ± 8.0E-03
1999	Not Detected	7.9E-01 ± 3.8E-01	1.3E-01 ± 4.0E-02	3.3E-02 ± 6.0E-03	2.3E-02 ± 4.0E-03	1.4E-02 ± 4.0E-03
2000	Not Detected	1.3E+00 ± 8.0E-01	1.6E-01 ± 6.0E-02	2.0E-02 ± 3.0E-02	1.4E-02 ± 2.0E-03	3.3E-02 ± 2.8E-02
2001	Not Detected	1.0E+00 ± 6.2E-01	1.7E-01 ± 6.5E-02	1.9E-02 ± 2.8E-03	1.8E-02 ± 2.6E-03	2.1E-02 ± 7.1E-03
2002	3.2E-04 ± 1.8E-03	3.2E-01 ± 1.1E+00	8.9E-02 ± 4.2E-01	1.6E-02 ± 1.6E-02	1.4E-02 ± 1.5E-02	8.8E-03 ± 2.4E-02
2003	1.6E-02 ± 2.1E-01	1.5E+00 ± 1.0E+01	2.7E-01 ± 2.0E+00	1.0E-02 ± 9.7E-03	8.4E-03 ± 9.0E-03	2.7E-03 ± 7.9E-03
2004	Not Detected	2.2E-01 ± 8.8E+00	4.2E-02 ± 1.4E-01	9.7E-03 ± 1.0E-02	8.2E-03 ± 9.3E-03	2.9E-03 ± 1.0E-02
2005	Not Detected	1.4E-01 ± 1.1E+00	3.0E-02 ± 1.3E-01	1.1E-02 ± 9.5E-03	8.9E-03 ± 9.7E-03	2.6E-03 ± 6.6E-03

300/400 Areas

Year	^{60}Co	^{90}Sr	^{137}Cs	^{234}U	^{238}U	^{239,240}Pu
1995	4.0E-02 ± 3.0E-02	5.1E-02 ± 2.4E-02	Not Detected	5.6E-02 ± 4.1E-02	5.6E-02 ± 4.1E-02	3.5E-04 ± 1.9E-04
1996	7.1E-03 ± 2.0E-02	6.3E-02 ± 2.5E-02	1.6E-02 ± 1.6E-02	4.9E-02 ± 3.9E-02	4.7E-02 ± 3.8E-02	3.8E-04 ± 1.9E-04
1997	Not Detected	6.6E-01 ± 3.9E-01	Not Detected	6.9E-02 ± 4.8E-02	6.2E-02 ± 4.5E-02	4.4E-04 ± 2.9E-04
1998	Not Detected	1.0E-01 ± 6.0E-02	Not Detected	4.6E-02 ± 3.3E-02	4.4E-02 ± 3.6E-02	8.4E-03 ± 4.5E-03
1999	Not Detected	4.5E-01 ± 7.0E-02	Not Detected	9.4E-02 ± 5.3E-02	8.9E-01 ± 5.9E-02	7.1E-03 ± 3.2E-03
2000	Not Detected	2.1E-01 ± 3.0E-02	Not Detected	1.8E-02 ± 1.9E-02	1.7E-02 ± 1.9E-02	9.1E-03 ± 2.4E-03
2001	Not Detected	2.6E-01 ± 1.1E-01	Not Detected	9.8E-02 ± 8.0E-02	1.1E-01 ± 8.8E-02	5.8E-03 ± 1.5E-03
2002	Not Detected	2.1E-01 ± 4.7E-01	1.1E-02 ± 7.9E-02	3.2E-02 ± 5.5E-02	2.9E-02 ± 5.8E-02	-3.6E-04 ± 7.2E-04
2003	5.0E-03 ± 3.8E-02	-8.2E-02 ± 2.0E-01	-9.4E-03 ± 4.4E-02	4.3E-02 ± 1.1E-01	3.6E-02 ± 1.9E-01	1.7E-03 ± 1.7E-02
2004	Not Detected	Not Detected	Not Detected	3.3E-01 ± 8.8E-02	2.5E-02 ± 7.3E-02	Not Detected
2005	Not Detected	Not Detected	Not Detected	3.0E-02 ± 6.7E-02	2.4E-02 ± 5.9E-02	3.8E-03 ± 8.9E-03

[a] ± 2 standard deviations

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(16 sheets total)

Location	Isotope	Result ± Error	RQ*
Y711	^{144}Ce	-1.0E-01 ± 5.1E-01	U
(100 N)	^{60}Co	-9.2E-03 ± 3.8E-02	U
	^{134}Cs	8.4E-03 ± 3.9E-02	U
	^{137}Cs	-3.4E-03 ± 3.4E-02	U
	^{152}Eu	-1.1E-01 ± 1.1E-01	U
	^{154}Eu	-7.2E-02 ± 1.2E-01	U
	^{155}Eu	1.2E-01 ± 1.2E-01	U
	^{238}Pu	4.1E-03 ± 4.9E-03	U
	$^{239/240}$Pu	1.0E-03 ± 1.0E-02	U
	^{103}Ru	-8.0E-03 ± 4.5E-02	U
	^{106}Ru	2.7E-01 ± 3.5E-01	U
	^{125}Sb	8.3E-02 ± 1.1E-01	U
	^{113}Sn	3.4E-03 ± 3.4E-02	U
	^{90}Sr	-2.2E-01 ± 2.2E-01	U
	^{234}U	3.1E-03 ± 3.1E-03	
	^{235}U	7.8E-04 ± 7.8E-03	U
	^{238}U	3.9E-03 ± 3.6E-03	
	^{65}Zn	4.9E-02 ± 9.8E-02	U
Y719	^{144}Ce	-8.1E-02 ± 1.3E-01	U
(N Springs	^{60}Co	-3.5E-03 ± 1.4E-02	U
Shoreline)	^{134}Cs	-7.5E-03 ± 1.3E-02	U
	^{137}Cs	-5.1E-04 ± 5.1E-03	U
	^{152}Eu	2.9E-03 ± 2.9E-02	U
	^{154}Eu	-5.4E-05 ± 5.4E-04	U
	^{155}Eu	9.8E-03 ± 3.5E-02	U
	^{238}Pu	-1.4E-03 ± 1.4E-02	U
	$^{239/240}$Pu	1.4E-03 ± 2.8E-03	U
	^{103}Ru	5.0E-03 ± 1.4E-02	U
	^{106}Ru	-8.2E-02 ± 1.1E-01	U
	^{125}Sb	-6.5E-03 ± 2.8E-02	U
	^{113}Sn	-5.6E-03 ± 1.4E-02	U
	^{90}Sr	2.2E+01 ± 3.3E+00	
	^{234}U	5.2E-03 ± 4.1E-03	
	^{235}U	4.6E-03 ± 5.1E-03	U
	^{238}U	5.1E-03 ± 4.0E-03	
	^{65}Zn	-1.1E-02 ± 3.0E-02	U

Location	Isotope	Result ± Error	RQ*
Y718	^{144}Ce	-9.7E-01 ± 1.1E+00	U
(N Springs	^{60}Co	7.9E-02 ± 8.9E-02	U
Shoreline)	^{134}Cs	1.7E-01 ± 1.4E-01	U
	^{137}Cs	-3.3E-02 ± 9.1E-02	U
	^{152}Eu	4.2E-02 ± 2.6E-01	U
	^{154}Eu	-1.5E-01 ± 2.4E-01	U
	^{155}Eu	-9.4E-02 ± 2.5E-01	U
	^{238}Pu	-3.8E-03 ± 4.6E-03	U
	$^{239/240}$Pu	-9.6E-04 ± 1.9E-03	U
	^{103}Ru	9.9E-02 ± 1.1E-01	U
	^{106}Ru	2.1E-01 ± 7.8E-01	U
	^{125}Sb	-4.7E-02 ± 2.3E-01	U
	^{113}Sn	6.9E-02 ± 1.1E-01	U
	^{90}Sr	1.0E-02 ± 9.8E-02	U
	^{234}U	5.6E-03 ± 4.9E-03	U
	^{235}U	9.9E-04 ± 2.0E-03	U
	^{238}U	8.8E-03 ± 5.6E-03	
	^{65}Zn	6.1E-02 ± 2.1E-01	U
Y724	^{144}Ce	-6.1E-01 ± 6.9E-01	U
(N Springs	^{60}Co	2.7E-02 ± 4.5E-02	U
Shoreline)	^{134}Cs	-2.1E-03 ± 2.1E-02	U
	^{137}Cs	6.2E-02 ± 4.7E-02	U
	^{152}Eu	-1.7E-01 ± 1.7E-01	U
	^{154}Eu	2.3E-02 ± 1.3E-01	U
	^{155}Eu	7.0E-02 ± 2.2E-01	U
	^{238}Pu	8.8E-04 ± 8.8E-03	U
	$^{239/240}$Pu	-8.8E-04 ± 1.8E-03	U
	^{103}Ru	6.0E-03 ± 5.5E-02	U
	^{106}Ru	-3.6E-01 ± 4.4E-01	U
	^{125}Sb	-2.2E-02 ± 1.3E-01	U
	^{113}Sn	-6.0E-02 ± 7.0E-02	U
	^{90}Sr	-1.4E-01 ± 1.4E-01	U
	^{234}U	6.2E-03 ± 5.5E-03	U
	^{235}U	3.9E-03 ± 3.9E-03	
	^{238}U	5.4E-03 ± 4.6E-03	
	^{65}Zn	-1.4E-02 ± 1.1E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V001	^{144}Ce	1.3E-01 ± 1.2E+00	U
(200 West)	^{60}Co	9.6E-02 ± 9.9E-02	U
	^{134}Cs	3.0E-02 ± 1.0E-01	U
	^{137}Cs	-2.7E-02 ± 9.7E-02	U
	^{152}Eu	2.5E-02 ± 2.5E-01	U
	^{154}Eu	3.8E-02 ± 2.8E-01	U
	^{155}Eu	-3.4E-01 ± 3.4E-01	U
	^{238}Pu	1.6E-03 ± 5.1E-03	U
	$^{239/240}$Pu	4.0E-03 ± 3.7E-03	
	^{103}Ru	8.1E-02 ± 1.1E-01	U
	^{106}Ru	3.6E-01 ± 9.7E-01	U
	^{125}Sb	-1.1E-01 ± 2.5E-01	U
	^{113}Sn	-4.9E-02 ± 1.2E-01	U
	^{90}Sr	8.6E-02 ± 1.1E-01	
	^{234}U	7.7E-03 ± 6.0E-03	
	^{235}U	3.7E-03 ± 3.7E-03	
	^{238}U	6.0E-03 ± 4.8E-03	
	^{65}Zn	-1.5E-01 ± 2.2E-01	U

Location	Isotope	Result ± Error	RQ*
V007	^{144}Ce	-2.9E-01 ± 5.8E-01	U
(200 West)	^{60}Co	5.1E-02 ± 4.5E-02	U
	^{134}Cs	1.6E-02 ± 5.0E-02	U
	^{137}Cs	6.2E-03 ± 4.3E-02	U
	^{152}Eu	-9.1E-02 ± 1.3E-01	U
	^{154}Eu	-5.2E-02 ± 1.2E-01	U
	^{155}Eu	2.4E-01 ± 1.4E-01	U
	^{238}Pu	-1.6E-03 ± 4.0E-03	U
	$^{239/240}$Pu	2.4E-03 ± 3.6E-03	U
	^{103}Ru	1.3E-03 ± 1.3E-02	U
	^{106}Ru	1.0E-03 ± 1.0E-02	U
	^{125}Sb	1.3E-01 ± 1.2E-01	U
	^{113}Sn	-2.2E-02 ± 5.9E-02	U
	^{90}Sr	3.8E-02 ± 1.1E-01	U
	^{234}U	7.6E-03 ± 5.9E-03	
	^{235}U	4.6E-03 ± 5.1E-03	U
	^{238}U	7.6E-03 ± 5.9E-03	
	^{65}Zn	2.0E-02 ± 1.1E-01	U

Location	Isotope	Result ± Error	RQ*
V009	^{144}Ce	-1.1E+00 ± 1.1E+00	U
(200 West)	^{60}Co	-1.0E-02 ± 5.4E-02	U
	^{134}Cs	-2.0E-02 ± 6.4E-02	U
	^{137}Cs	3.1E-02 ± 6.1E-02	U
	^{152}Eu	-1.5E-01 ± 1.9E-01	U
	^{154}Eu	-1.2E-01 ± 1.9E-01	U
	^{155}Eu	-1.7E-01 ± 2.8E-01	U
	^{238}Pu	-4.5E-03 ± 7.2E-03	U
	$^{239/240}$Pu	5.4E-03 ± 4.5E-03	
	^{103}Ru	2.0E-02 ± 7.5E-02	U
	^{106}Ru	5.2E-02 ± 5.2E-01	U
	^{125}Sb	-1.2E-02 ± 1.2E-01	U
	^{113}Sn	-5.0E-02 ± 9.3E-02	U
	^{90}Sr	1.6E+00 ± 1.1E+00	
	^{234}U	1.7E-02 ± 9.2E-03	
	^{235}U	3.9E-03 ± 3.9E-03	
	^{238}U	6.3E-03 ± 5.0E-03	
	^{65}Zn	-1.2E-01 ± 1.4E-01	U

Location	Isotope	Result ± Error	RQ*
V011	^{144}Ce	-5.9E-01 ± 6.9E-01	U
(200 West)	^{60}Co	-8.8E-03 ± 5.0E-02	U
	^{134}Cs	1.1E-02 ± 5.2E-02	U
	^{137}Cs	6.5E-02 ± 5.6E-02	U
	^{152}Eu	-5.3E-03 ± 5.3E-02	U
	^{154}Eu	-1.7E-01 ± 1.7E-01	U
	^{155}Eu	-1.1E-01 ± 1.6E-01	U
	^{238}Pu	5.1E-03 ± 5.6E-03	U
	$^{239/240}$Pu	5.9E-03 ± 4.7E-03	
	^{103}Ru	2.3E-02 ± 6.4E-02	U
	^{106}Ru	5.5E-01 ± 5.0E-01	U
	^{125}Sb	3.3E-02 ± 1.3E-01	U
	^{113}Sn	4.2E-02 ± 6.9E-02	U
	^{90}Sr	7.5E-02 ± 1.1E-01	U
	^{234}U	1.7E-02 ± 1.0E-02	
	^{235}U	2.8E-03 ± 4.2E-03	U
	^{238}U	1.9E-02 ± 9.7E-03	
	^{65}Zn	-6.1E-02 ± 1.4E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V015	^{144}Ce	2.6E-01 ± 9.3E-01	U
(200 West)	^{60}Co	3.7E-02 ± 7.2E-02	U
	^{134}Cs	-2.6E-02 ± 7.5E-02	U
	^{137}Cs	2.6E-02 ± 7.1E-02	U
	^{152}Eu	2.7E-02 ± 2.1E-01	U
	^{154}Eu	5.2E-01 ± 2.9E-01	
	^{155}Eu	6.9E-02 ± 2.4E-01	U
	^{238}Pu	9.6E-04 ± 5.8E-03	U
	$^{239/240}$Pu	9.6E-04 ± 9.6E-03	U
	^{103}Ru	-3.0E-02 ± 8.6E-02	U
	^{106}Ru	-1.8E-03 ± 1.8E-02	U
	^{125}Sb	5.5E-02 ± 2.0E-01	U
	^{113}Sn	-9.6E-02 ± 9.6E-02	U
	^{90}Sr	1.0E-02 ± 9.8E-02	U
	^{234}U	1.4E-02 ± 7.8E-03	
	^{235}U	5.7E-03 ± 4.9E-03	
	^{238}U	1.2E-02 ± 7.1E-03	
	^{65}Zn	-3.1E-01 ± 3.1E-01	U

Location	Isotope	Result ± Error	RQ*
V017	^{144}Ce	1.1E-02 ± 1.1E-01	U
(200 West)	^{60}Co	6.7E-03 ± 1.5E-02	U
	^{134}Cs	2.1E-02 ± 1.5E-02	U
	^{137}Cs	-4.7E-03 ± 1.4E-02	U
	^{152}Eu	-1.2E-03 ± 1.2E-02	U
	^{154}Eu	-2.1E-02 ± 4.9E-02	U
	^{155}Eu	-2.3E-02 ± 3.5E-02	U
	^{238}Pu	2.6E-03 ± 3.9E-03	U
	$^{239/240}$Pu	1.8E-03 ± 2.5E-03	U
	^{103}Ru	-5.9E-03 ± 1.5E-02	U
	^{106}Ru	-4.3E-02 ± 1.2E-01	U
	^{125}Sb	2.2E-02 ± 3.2E-02	U
	^{113}Sn	-1.7E-03 ± 1.5E-02	U
	^{90}Sr	-1.7E-01 ± 1.7E-01	U
	^{234}U	1.1E-02 ± 6.2E-03	
	^{235}U	2.8E-03 ± 3.4E-03	
	^{238}U	8.2E-03 ± 5.2E-03	
	^{65}Zn	3.5E-02 ± 4.7E-02	U

Location	Isotope	Result ± Error	RQ*
V019	^{144}Ce	1.1E+00 ± 1.3E+00	U
(200 West)	^{60}Co	5.4E-02 ± 7.1E-02	U
	^{134}Cs	-1.0E-01 ± 1.0E-01	U
	^{137}Cs	2.4E-01 ± 1.6E-01	
	^{152}Eu	-6.4E-02 ± 2.9E-01	U
	^{154}Eu	-5.6E-02 ± 2.3E-01	U
	^{155}Eu	-3.5E-01 ± 3.8E-01	U
	^{238}Pu	3.1E-03 ± 1.2E-02	U
	$^{239/240}$Pu	2.1E-03 ± 5.2E-03	U
	^{103}Ru	-6.1E-02 ± 1.0E-01	U
	^{106}Ru	-4.6E-01 ± 7.6E-01	U
	^{125}Sb	1.7E-01 ± 2.2E-01	U
	^{113}Sn	-4.5E-02 ± 1.2E-01	U
	^{90}Sr	3.9E-02 ± 1.2E-01	U
	^{234}U	1.2E-02 ± 7.1E-03	
	^{235}U	5.8E-03 ± 7.0E-03	U
	^{238}U	8.0E-03 ± 6.2E-03	
	^{65}Zn	3.6E-01 ± 2.1E-01	

Location	Isotope	Result ± Error	RQ*
V021	^{144}Ce	1.9E-01 ± 9.4E-01	U
(200 West)	^{60}Co	1.2E-02 ± 6.4E-02	U
	^{134}Cs	1.2E-02 ± 6.8E-02	U
	^{137}Cs	6.5E-02 ± 6.9E-02	U
	^{152}Eu	-2.7E-01 ± 2.7E-01	U
	^{154}Eu	-4.4E-02 ± 1.9E-01	U
	^{155}Eu	-2.8E-01 ± 3.1E-01	U
	^{238}Pu	-7.2E-03 ± 7.2E-03	U
	$^{239/240}$Pu	4.5E-03 ± 4.1E-03	
	^{103}Ru	4.8E-02 ± 8.4E-02	U
	^{106}Ru	1.6E-01 ± 6.4E-01	U
	^{125}Sb	1.2E-01 ± 1.8E-01	U
	^{113}Sn	-8.2E-02 ± 9.9E-02	U
	^{90}Sr	-1.5E-02 ± 1.0E-01	U
	^{234}U	1.1E-02 ± 8.7E-03	U
	^{235}U	5.0E-03 ± 5.5E-03	U
	^{238}U	3.7E-03 ± 6.7E-03	U
	^{65}Zn	-3.1E-02 ± 1.7E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(16 sheets total)

Location	Isotope	Result ± Error	RQ*
V023	^{144}Ce	2.8E-01 ± 1.2E+00	U
(200 West)	^{60}Co	-4.7E-02 ± 9.7E-02	U
	^{134}Cs	8.9E-02 ± 1.1E-01	U
	^{137}Cs	1.0E-01 ± 1.1E-01	U
	^{152}Eu	-6.0E-02 ± 2.8E-01	U
	^{154}Eu	5.9E-02 ± 2.9E-01	U
	^{155}Eu	-2.3E-02 ± 2.3E-01	U
	^{238}Pu	9.3E-04 ± 9.3E-04	U
	$^{239/240}$Pu	4.6E-03 ± 4.2E-03	
	^{103}Ru	-9.2E-02 ± 1.2E-01	U
	^{106}Ru	-1.2E-01 ± 8.8E-01	U
	^{125}Sb	-3.9E-01 ± 3.9E-01	U
	^{113}Sn	-6.4E-02 ± 1.3E-01	U
	^{90}Sr	1.6E-02 ± 1.2E-01	U
	^{234}U	7.8E-03 ± 6.5E-03	
	^{235}U	1.1E-03 ± 3.8E-03	U
	^{238}U	6.8E-03 ± 6.1E-03	U
	^{65}Zn	-2.7E-01 ± 2.7E-01	U

Location	Isotope	Result ± Error	RQ*
V027	^{144}Ce	-3.0E-01 ± 9.8E-01	U
(200 West)	^{60}Co	2.8E-02 ± 5.4E-02	U
	^{134}Cs	-7.1E-02 ± 7.1E-02	U
	^{137}Cs	1.1E-01 ± 8.1E-02	
	^{152}Eu	-1.0E-01 ± 1.7E-01	U
	^{154}Eu	-8.6E-02 ± 1.6E-01	U
	^{155}Eu	-3.5E-01 ± 3.5E-01	U
	^{238}Pu	-1.0E-03 ± 5.3E-03	U
	$^{239/240}$Pu	4.0E-03 ± 4.0E-03	
	^{103}Ru	3.4E-02 ± 7.2E-02	U
	^{106}Ru	1.3E-01 ± 5.5E-01	U
	^{125}Sb	-6.8E-02 ± 1.6E-01	U
	^{113}Sn	8.4E-03 ± 8.4E-02	U
	^{90}Sr	1.3E+00 ± 2.6E-01	
	^{234}U	9.4E-03 ± 7.9E-03	U
	^{235}U	3.4E-03 ± 4.1E-03	
	^{238}U	6.3E-03 ± 5.4E-03	
	^{65}Zn	3.2E-02 ± 1.2E-01	U

Location	Isotope	Result ± Error	RQ*
V029	^{144}Ce	-1.1E+00 ± 1.1E+00	U
(200 West)	^{60}Co	1.2E-02 ± 7.5E-02	U
	^{134}Cs	-2.2E-03 ± 2.2E-02	U
	^{137}Cs	3.1E-02 ± 7.9E-02	U
	^{152}Eu	4.4E-02 ± 2.2E-01	U
	^{154}Eu	-1.0E-01 ± 2.0E-01	U
	^{155}Eu	-1.5E-01 ± 2.2E-01	U
	^{238}Pu	1.0E-02 ± 6.1E-03	
	$^{239/240}$Pu	1.0E-02 ± 5.8E-03	
	^{103}Ru	1.1E-01 ± 9.9E-02	U
	^{106}Ru	-1.9E-01 ± 6.5E-01	U
	^{125}Sb	-3.4E-02 ± 2.1E-01	U
	^{113}Sn	2.4E-02 ± 1.0E-01	U
	^{90}Sr	-8.2E-04 ± 8.2E-03	U
	^{234}U	9.4E-03 ± 5.5E-03	
	^{235}U	7.2E-04 ± 7.2E-03	U
	^{238}U	9.4E-03 ± 5.5E-03	
	^{65}Zn	-5.0E-01 ± 5.0E-01	U

Location	Isotope	Result ± Error	RQ*
V031	^{144}Ce	5.9E-02 ± 5.9E-01	U
(200 West)	^{60}Co	-7.3E-03 ± 6.5E-02	U
	^{134}Cs	-1.9E-02 ± 6.6E-02	U
	^{137}Cs	6.9E-02 ± 7.1E-02	U
	^{152}Eu	2.1E-01 ± 1.8E-01	U
	^{154}Eu	7.2E-03 ± 7.2E-02	U
	^{155}Eu	1.2E-01 ± 2.3E-01	U
	^{238}Pu	-2.2E-03 ± 2.2E-02	U
	$^{239/240}$Pu	8.7E-03 ± 1.2E-02	U
	^{103}Ru	-1.0E-02 ± 7.2E-02	U
	^{106}Ru	-6.2E-02 ± 5.9E-01	U
	^{125}Sb	7.0E-02 ± 1.6E-01	U
	^{113}Sn	-6.5E-03 ± 6.5E-02	U
	^{90}Sr	-8.2E-02 ± 1.1E-01	U
	^{234}U	1.8E-02 ± 9.9E-03	
	^{235}U	5.7E-03 ± 4.9E-03	
	^{238}U	1.1E-02 ± 6.7E-03	
	^{65}Zn	2.0E-02 ± 1.7E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V035	^{144}Ce	-9.0E-02 ± 7.4E-01	U
(200 West)	^{60}Co	-3.4E-02 ± 6.4E-02	U
	^{134}Cs	2.7E-02 ± 6.8E-02	U
	^{137}Cs	9.7E-02 ± 1.0E-01	U
	^{152}Eu	6.1E-02 ± 1.6E-01	U
	^{154}Eu	3.7E-03 ± 3.7E-02	U
	^{155}Eu	-1.3E-01 ± 2.0E-01	U
	^{238}Pu	-8.6E-04 ± 4.6E-03	U
	$^{239/240}$Pu	3.4E-03 ± 4.1E-03	U
	^{103}Ru	1.8E-02 ± 6.7E-02	U
	^{106}Ru	-8.3E-02 ± 5.7E-01	U
	^{125}Sb	-7.5E-02 ± 1.4E-01	U
	^{113}Sn	-2.4E-02 ± 7.0E-02	U
	^{90}Sr	3.3E+00 ± 6.6E-01	
	^{234}U	1.3E-02 ± 7.9E-03	
	^{235}U	4.3E-03 ± 5.2E-03	U
	^{238}U	3.0E-03 ± 4.5E-03	U
	^{65}Zn	-9.6E-02 ± 1.6E-01	U

Location	Isotope	Result ± Error	RQ*
V037	^{144}Ce	-7.2E-04 ± 7.2E-03	U
(200 West)	^{60}Co	1.3E-02 ± 2.1E-02	U
	^{134}Cs	-1.1E-02 ± 2.0E-02	U
	^{137}Cs	3.3E-02 ± 2.9E-02	
	^{152}Eu	1.9E-02 ± 7.6E-02	U
	^{154}Eu	-4.2E-02 ± 5.0E-02	U
	^{155}Eu	-1.8E-02 ± 4.7E-02	U
	^{238}Pu	3.7E-03 ± 4.4E-03	U
	$^{239/240}$Pu	4.4E-03 ± 4.3E-03	U
	^{103}Ru	4.5E-03 ± 1.6E-02	U
	^{106}Ru	-1.1E-01 ± 1.4E-01	U
	^{125}Sb	4.5E-03 ± 3.9E-02	U
	^{113}Sn	2.2E-02 ± 1.8E-02	U
	^{90}Sr	2.3E-02 ± 1.2E-01	U
	^{234}U	8.2E-03 ± 5.2E-03	
	^{235}U	9.2E-04 ± 1.8E-03	U
	^{238}U	8.9E-03 ± 5.5E-03	
	^{65}Zn	-1.4E-02 ± 4.4E-02	U

Location	Isotope	Result ± Error	RQ*
V039	^{144}Ce	-1.7E-01 ± 1.4E+00	U
(200 West)	^{60}Co	-4.0E-02 ± 1.0E-01	U
	^{134}Cs	1.4E-01 ± 1.2E-01	U
	^{137}Cs	3.4E-03 ± 3.4E-02	U
	^{152}Eu	-1.2E-01 ± 3.6E-01	U
	^{154}Eu	-1.4E-01 ± 3.2E-01	U
	^{155}Eu	-1.2E-01 ± 3.3E-01	U
	^{238}Pu	5.4E-03 ± 5.2E-03	U
	$^{239/240}$Pu	4.6E-03 ± 3.9E-03	
	^{103}Ru	6.0E-02 ± 1.3E-01	U
	^{106}Ru	-4.8E-01 ± 1.0E+00	U
	^{125}Sb	-2.4E-01 ± 3.2E-01	U
	^{113}Sn	1.4E-02 ± 1.4E-01	U
	^{90}Sr	1.6E-01 ± 1.1E-01	
	^{234}U	1.2E-02 ± 6.5E-03	
	^{235}U	1.8E-03 ± 2.5E-03	U
	^{238}U	5.9E-03 ± 4.4E-03	
	^{65}Zn	2.4E-03 ± 2.4E-02	U

Location	Isotope	Result ± Error	RQ*
V041	^{144}Ce	3.0E-01 ± 1.0E+00	U
(200 West)	^{60}Co	1.2E-02 ± 8.1E-02	U
	^{134}Cs	5.7E-02 ± 8.3E-02	U
	^{137}Cs	-1.4E-02 ± 8.0E-02	U
	^{152}Eu	9.4E-02 ± 2.1E-01	U
	^{154}Eu	-1.4E-01 ± 2.3E-01	U
	^{155}Eu	-4.7E-02 ± 2.6E-01	U
	^{238}Pu	6.9E-03 ± 5.3E-03	
	$^{239/240}$Pu	3.1E-03 ± 3.7E-03	U
	^{103}Ru	1.1E-01 ± 8.5E-02	U
	^{106}Ru	4.2E-01 ± 7.2E-01	U
	^{125}Sb	-8.3E-02 ± 1.9E-01	U
	^{113}Sn	-6.3E-03 ± 6.3E-02	U
	^{90}Sr	-8.5E-02 ± 1.0E-01	U
	^{234}U	1.2E-02 ± 6.5E-03	
	^{235}U	1.8E-03 ± 2.5E-03	U
	^{238}U	1.3E-02 ± 6.8E-03	
	^{65}Zn	-3.6E-01 ± 3.6E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V043	^{144}Ce	2.4E-01 ± 7.7E-01	U
(200 West)	^{60}Co	2.3E-02 ± 7.1E-02	U
	^{134}Cs	4.6E-02 ± 7.2E-02	U
	^{137}Cs	-4.0E-02 ± 6.9E-02	U
	^{152}Eu	-1.1E-02 ± 1.1E-01	U
	^{154}Eu	-2.1E-01 ± 2.1E-01	U
	^{155}Eu	-7.3E-02 ± 1.8E-01	U
	^{238}Pu	9.2E-04 ± 9.2E-03	U
	$^{239/240}$Pu	2.8E-03 ± 3.4E-03	
	^{103}Ru	-2.7E-02 ± 7.4E-02	U
	^{106}Ru	2.8E-01 ± 5.6E-01	U
	^{125}Sb	9.1E-02 ± 1.8E-01	U
	^{113}Sn	4.1E-02 ± 8.2E-02	U
	^{90}Sr	-5.7E-02 ± 9.2E-02	U
	^{234}U	2.7E-02 ± 1.2E-02	
	^{235}U	6.9E-03 ± 5.5E-03	
	^{238}U	2.5E-02 ± 1.2E-02	
	^{65}Zn	-2.7E-01 ± 2.7E-01	U
V045	^{144}Ce	3.8E-01 ± 6.9E-01	U
(200 West)	^{60}Co	2.4E-02 ± 4.8E-02	U
	^{134}Cs	3.1E-02 ± 5.5E-02	U
	^{137}Cs	4.2E-02 ± 5.7E-02	U
	^{152}Eu	-2.4E-02 ± 1.3E-01	U
	^{154}Eu	5.3E-02 ± 1.4E-01	U
	^{155}Eu	1.5E-01 ± 1.7E-01	U
	^{238}Pu	-6.3E-03 ± 9.4E-03	U
	$^{239/240}$Pu	4.5E-03 ± 4.9E-03	U
	^{103}Ru	-1.6E-03 ± 1.6E-02	U
	^{106}Ru	-5.7E-02 ± 5.1E-01	U
	^{125}Sb	-2.9E-02 ± 1.2E-01	U
	^{113}Sn	5.1E-03 ± 5.1E-02	U
	^{90}Sr	-1.0E-01 ± 1.0E-01	U
	^{234}U	1.3E-02 ± 7.7E-03	
	^{235}U	3.9E-03 ± 3.9E-03	
	^{238}U	1.2E-02 ± 7.3E-03	
	^{65}Zn	5.0E-02 ± 1.2E-01	U
V047	^{144}Ce	-5.0E-01 ± 8.5E-01	U
(200 West)	^{60}Co	-2.1E-02 ± 6.3E-02	U
	^{134}Cs	1.4E-02 ± 6.3E-02	U
	^{137}Cs	-1.1E-02 ± 6.4E-02	U
	^{152}Eu	2.0E-02 ± 2.0E-01	U
	^{154}Eu	-1.9E-01 ± 1.9E-01	U
	^{155}Eu	-1.5E-01 ± 2.0E-01	U
	^{238}Pu	2.6E-03 ± 7.5E-03	U
	$^{239/240}$Pu	8.8E-04 ± 8.8E-03	U
	^{103}Ru	-3.0E-02 ± 6.8E-02	U
	^{106}Ru	-1.5E-01 ± 5.4E-01	U
	^{125}Sb	4.6E-02 ± 1.7E-01	U
	^{113}Sn	-4.1E-02 ± 8.3E-02	U
	^{90}Sr	-1.2E-02 ± 1.1E-01	U
	^{234}U	1.4E-02 ± 7.8E-03	
	^{235}U	2.9E-03 ± 5.2E-03	U
	^{238}U	1.0E-02 ± 6.3E-03	
	^{65}Zn	6.1E-02 ± 1.5E-01	U
V049	^{144}Ce	5.8E-01 ± 8.0E-01	U
(200 West)	^{60}Co	9.2E-02 ± 7.0E-02	U
	^{134}Cs	1.8E-03 ± 1.8E-02	U
	^{137}Cs	-2.2E-02 ± 6.5E-02	U
	^{152}Eu	-1.4E-01 ± 1.7E-01	U
	^{154}Eu	-5.9E-02 ± 1.9E-01	U
	^{155}Eu	1.4E-01 ± 2.2E-01	U
	^{238}Pu	-4.8E-03 ± 1.6E-02	U
	$^{239/240}$Pu	3.9E-03 ± 4.7E-03	U
	^{103}Ru	-2.2E-02 ± 6.4E-02	U
	^{106}Ru	-2.4E-01 ± 6.0E-01	U
	^{125}Sb	6.6E-02 ± 1.6E-01	U
	^{113}Sn	-3.5E-02 ± 7.6E-02	U
	^{90}Sr	-1.1E-01 ± 1.1E-01	U
	^{234}U	1.0E-02 ± 6.3E-03	
	^{235}U	5.6E-03 ± 4.8E-03	
	^{238}U	5.2E-03 ± 4.5E-03	
	^{65}Zn	-2.1E-01 ± 2.1E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V051 (200 West)	^{144}Ce	-1.3E-01 ± 7.4E-01	U
	^{60}Co	-1.0E-02 ± 5.9E-02	U
	^{134}Cs	8.3E-03 ± 6.5E-02	U
	^{137}Cs	-4.1E-02 ± 5.7E-02	U
	^{152}Eu	2.2E-02 ± 1.7E-01	U
	^{154}Eu	-6.0E-02 ± 1.9E-01	U
	^{155}Eu	9.9E-03 ± 9.9E-02	U
	^{238}Pu	9.1E-03 ± 2.2E-02	U
	$^{239/240}$Pu	4.5E-03 ± 4.5E-03	
	^{103}Ru	-2.9E-02 ± 6.3E-02	U
	^{106}Ru	-3.2E-01 ± 5.7E-01	U
	^{125}Sb	1.1E-01 ± 1.5E-01	U
	^{113}Sn	-2.6E-03 ± 2.5E-02	U
	^{90}Sr	-1.6E-01 ± 1.6E-01	U
	^{234}U	9.6E-03 ± 7.2E-03	
	^{235}U	1.9E-03 ± 3.8E-03	U
	^{238}U	7.9E-03 ± 5.7E-03	
	^{65}Zn	3.1E-03 ± 3.1E-02	U
V053 (200 East)	^{144}Ce	-2.9E-01 ± 8.4E-01	U
	^{60}Co	-2.6E-02 ± 5.7E-02	U
	^{134}Cs	4.7E-02 ± 6.2E-02	U
	^{137}Cs	5.5E-02 ± 7.3E-02	U
	^{152}Eu	-1.7E-01 ± 1.8E-01	U
	^{154}Eu	-5.1E-02 ± 1.6E-01	U
	^{155}Eu	-6.6E-02 ± 2.4E-01	U
	^{238}Pu	7.3E-03 ± 1.8E-02	U
	$^{239/240}$Pu	1.0E-03 ± 1.0E-03	U
	^{103}Ru	1.9E-02 ± 6.6E-02	U
	^{106}Ru	-2.7E-01 ± 5.6E-01	U
	^{125}Sb	8.3E-02 ± 1.7E-01	U
	^{113}Sn	3.7E-02 ± 7.5E-02	U
	^{90}Sr	2.8E-02 ± 9.2E-02	U
	^{234}U	1.8E-02 ± 9.7E-03	
	^{235}U	1.1E-03 ± 3.8E-03	U
	^{238}U	1.3E-02 ± 7.9E-03	
	^{65}Zn	-1.8E-01 ± 1.8E-01	U
V055 (200 East)	^{144}Ce	-7.9E-01 ± 9.6E-01	U
	^{60}Co	4.0E-03 ± 4.0E-02	U
	^{134}Cs	-1.1E-02 ± 6.7E-02	U
	^{137}Cs	1.4E-02 ± 7.5E-02	U
	^{152}Eu	3.8E-02 ± 1.9E-01	U
	^{154}Eu	-6.7E-02 ± 1.8E-01	U
	^{155}Eu	3.4E-02 ± 2.5E-01	U
	^{238}Pu	6.2E-03 ± 1.9E-02	U
	$^{239/240}$Pu	1.0E-03 ± 3.5E-03	U
	^{103}Ru	8.3E-05 ± 8.2E-04	U
	^{106}Ru	-3.4E-01 ± 6.2E-01	U
	^{125}Sb	-8.3E-02 ± 1.8E-01	U
	^{113}Sn	1.6E-02 ± 8.9E-02	U
	^{90}Sr	-1.7E-01 ± 1.7E-01	U
	^{234}U	9.2E-03 ± 8.6E-03	U
	^{235}U	5.0E-03 ± 5.5E-03	U
	^{238}U	6.4E-03 ± 7.0E-03	U
	^{65}Zn	-7.8E-02 ± 1.7E-01	U
V057 (200 East)	^{144}Ce	-3.8E-01 ± 5.7E-01	U
	^{60}Co	-7.0E-03 ± 3.5E-02	U
	^{134}Cs	5.7E-03 ± 4.0E-02	U
	^{137}Cs	6.4E-04 ± 6.4E-03	U
	^{152}Eu	-4.8E-02 ± 1.1E-01	U
	^{154}Eu	-2.4E-02 ± 1.1E-01	U
	^{155}Eu	-1.0E-01 ± 1.2E-01	U
	^{238}Pu	-1.5E-02 ± 2.1E-02	U
	$^{239/240}$Pu	-5.3E-03 ± 5.8E-03	U
	^{103}Ru	-9.1E-04 ± 9.1E-03	U
	^{106}Ru	-4.8E-02 ± 3.3E-01	U
	^{125}Sb	-2.8E-02 ± 1.0E-01	U
	^{113}Sn	-2.9E-02 ± 5.2E-02	U
	^{90}Sr	-1.4E-02 ± 9.9E-02	U
	^{234}U	5.4E-03 ± 5.9E-03	U
	^{235}U	-9.8E-04 ± 7.8E-04	U
	^{238}U	3.6E-03 ± 2.8E-03	U
	^{65}Zn	-2.7E-01 ± 2.7E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V059 (200 East)	^{144}Ce	2.2E-01 ± 2.2E+00	U
	^{60}Co	3.6E-02 ± 2.2E-01	U
	^{134}Cs	-1.7E-01 ± 2.6E-01	U
	^{137}Cs	2.5E-01 ± 2.9E-01	U
	^{152}Eu	6.7E-01 ± 7.1E-01	U
	^{154}Eu	3.7E-01 ± 6.6E-01	U
	^{155}Eu	2.4E-02 ± 2.4E-01	U
	^{238}Pu	-1.0E-03 ± 1.0E-02	U
	$^{239/240}$Pu	5.1E-03 ± 4.7E-03	
	^{103}Ru	2.6E-01 ± 2.8E-01	U
	^{106}Ru	-6.2E-01 ± 2.2E+00	U
	^{125}Sb	4.3E-01 ± 6.6E-01	U
	^{113}Sn	4.5E-01 ± 4.9E-01	U
	^{90}Sr	-4.3E-02 ± 8.6E-02	U
	^{234}U	1.4E-02 ± 8.5E-03	
	^{235}U	5.6E-03 ± 4.8E-03	
	^{238}U	1.4E-02 ± 7.8E-03	
	^{65}Zn	-1.2E+00 ± 1.2E+00	U
V063 (200 East)	^{144}Ce	-4.4E-01 ± 1.1E+00	U
	^{60}Co	2.5E-02 ± 7.8E-02	U
	^{134}Cs	7.2E-02 ± 9.7E-02	U
	^{137}Cs	-3.0E-02 ± 9.3E-02	U
	^{152}Eu	-1.1E-02 ± 1.1E-01	U
	^{154}Eu	-6.9E-02 ± 2.4E-01	U
	^{155}Eu	2.4E-01 ± 2.4E-01	U
	^{238}Pu	4.0E-03 ± 1.7E-02	U
	$^{239/240}$Pu	-3.0E-03 ± 3.6E-03	U
	^{103}Ru	-9.7E-02 ± 1.2E-01	U
	^{106}Ru	-5.8E-02 ± 5.8E-01	U
	^{125}Sb	-1.7E-01 ± 2.4E-01	U
	^{113}Sn	3.1E-02 ± 1.2E-01	U
	^{90}Sr	4.2E-01 ± 1.5E-01	
	^{234}U	9.9E-03 ± 6.6E-03	
	^{235}U	3.6E-03 ± 3.6E-03	
	^{238}U	7.4E-03 ± 6.2E-03	U
	^{65}Zn	3.8E-02 ± 2.1E-01	U

Location	Isotope	Result ± Error	RQ*
V061 (200 East)	^{144}Ce	-2.4E-01 ± 6.1E-01	U
	^{60}Co	-3.0E-02 ± 4.8E-02	U
	^{134}Cs	-1.5E-02 ± 4.5E-02	U
	^{137}Cs	1.4E-01 ± 7.1E-02	
	^{152}Eu	-1.8E-02 ± 1.4E-01	U
	^{154}Eu	-5.2E-02 ± 1.5E-01	U
	^{155}Eu	-1.5E-01 ± 1.6E-01	U
	^{238}Pu	3.1E-03 ± 1.9E-02	U
	$^{239/240}$Pu	4.1E-03 ± 4.1E-03	
	^{103}Ru	-5.1E-02 ± 5.5E-02	U
	^{106}Ru	3.8E-01 ± 4.1E-01	U
	^{125}Sb	-6.2E-02 ± 1.2E-01	U
	^{113}Sn	-4.8E-03 ± 4.8E-02	U
	^{90}Sr	2.1E-01 ± 1.3E-01	
	^{234}U	2.2E-02 ± 1.1E-02	
	^{235}U	4.9E-03 ± 5.4E-03	U
	^{238}U	6.3E-03 ± 6.9E-03	U
	^{65}Zn	-2.9E-01 ± 2.9E-01	U
V067 (200 East)	^{144}Ce	-1.8E-01 ± 7.6E-01	U
	^{60}Co	-3.6E-02 ± 4.7E-02	U
	^{134}Cs	-4.2E-02 ± 5.8E-02	U
	^{137}Cs	4.0E-04 ± 3.9E-03	U
	^{152}Eu	-3.9E-02 ± 1.9E-01	U
	^{154}Eu	-7.1E-02 ± 1.4E-01	U
	^{155}Eu	-2.0E-01 ± 2.5E-01	U
	^{238}Pu	-1.8E-02 ± 2.5E-02	U
	$^{239/240}$Pu	4.4E-03 ± 5.3E-03	U
	^{103}Ru	-4.1E-03 ± 4.1E-02	U
	^{106}Ru	-2.1E-03 ± 2.1E-02	U
	^{125}Sb	-2.6E-02 ± 1.5E-01	U
	^{113}Sn	-2.7E-02 ± 7.7E-02	U
	^{90}Sr	-6.2E-02 ± 8.8E-02	U
	^{234}U	6.4E-03 ± 6.3E-03	U
	^{235}U	4.0E-03 ± 4.0E-03	
	^{238}U	8.2E-03 ± 6.4E-03	
	^{65}Zn	-1.4E-01 ± 1.4E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V077 (200 East)	^{144}Ce	1.5E-01 ± 5.2E-01	U
	^{60}Co	-2.8E-02 ± 4.1E-02	U
	^{134}Cs	-3.4E-02 ± 4.0E-02	U
	^{137}Cs	-6.7E-03 ± 4.2E-02	U
	^{152}Eu	2.3E-02 ± 1.1E-01	U
	^{154}Eu	-3.0E-02 ± 1.3E-01	U
	^{155}Eu	1.8E-01 ± 1.4E-01	U
	^{238}Pu	-6.9E-03 ± 1.7E-02	U
	$^{239/240}$Pu	-4.3E-03 ± 4.7E-03	U
	^{103}Ru	3.5E-03 ± 3.5E-02	U
	^{106}Ru	-4.3E-01 ± 4.3E-01	U
	^{125}Sb	1.1E-02 ± 1.0E-01	U
	^{113}Sn	-4.5E-03 ± 4.5E-02	U
	^{90}Sr	4.0E-01 ± 1.6E-01	
	^{234}U	9.3E-03 ± 6.9E-03	
	^{235}U	1.0E-03 ± 2.0E-03	U
	^{238}U	1.0E-02 ± 7.5E-03	
	^{65}Zn	-2.0E-01 ± 2.0E-01	U

Location	Isotope	Result ± Error	RQ*
V079 (200 East)	^{144}Ce	-5.6E-02 ± 5.3E-01	U
	^{60}Co	1.2E-02 ± 4.2E-02	U
	^{134}Cs	1.6E-02 ± 4.2E-02	U
	^{137}Cs	-1.1E-03 ± 1.1E-02	U
	^{152}Eu	-9.0E-02 ± 1.2E-01	U
	^{154}Eu	-1.6E-02 ± 1.2E-01	U
	^{155}Eu	-8.7E-02 ± 1.4E-01	U
	^{238}Pu	8.9E-04 ± 8.9E-03	U
	$^{239/240}$Pu	2.7E-03 ± 3.2E-03	
	^{103}Ru	-3.6E-02 ± 5.2E-02	U
	^{106}Ru	1.5E-01 ± 3.9E-01	U
	^{125}Sb	8.6E-02 ± 1.0E-01	U
	^{113}Sn	1.9E-03 ± 1.9E-02	U
	^{90}Sr	-1.4E-01 ± 1.4E-01	U
	^{234}U	3.5E-03 ± 6.3E-03	U
	^{235}U	5.7E-03 ± 4.9E-03	
	^{238}U	6.1E-03 ± 5.4E-03	U
	^{65}Zn	6.3E-02 ± 1.1E-01	U

Location	Isotope	Result ± Error	RQ*
V081 (600 Area)	^{144}Ce	-3.8E-01 ± 1.1E+00	U
	^{60}Co	9.5E-02 ± 7.7E-02	U
	^{134}Cs	-6.7E-02 ± 8.0E-02	U
	^{137}Cs	-1.2E-02 ± 7.9E-02	U
	^{152}Eu	-1.4E-02 ± 1.4E-01	U
	^{154}Eu	-1.2E-01 ± 2.2E-01	U
	^{155}Eu	4.3E-02 ± 2.6E-01	U
	^{238}Pu	2.0E-03 ± 1.7E-02	U
	$^{239/240}$Pu	5.9E-03 ± 5.8E-03	U
	^{103}Ru	-5.1E-02 ± 1.0E-01	U
	^{106}Ru	1.2E-01 ± 7.1E-01	U
	^{125}Sb	-1.4E-03 ± 1.4E-02	U
	^{113}Sn	-3.8E-02 ± 1.1E-01	U
	^{90}Sr	-4.2E-02 ± 9.4E-02	U
	^{234}U	9.8E-03 ± 6.9E-03	
	^{235}U	1.3E-02 ± 8.4E-03	
	^{238}U	5.4E-03 ± 5.3E-03	U
	^{65}Zn	-9.0E-01 ± 9.0E-01	U

Location	Isotope	Result ± Error	RQ*
V083 (600 Area)	^{144}Ce	3.1E-01 ± 5.1E-01	U
	^{60}Co	1.4E-02 ± 3.4E-02	U
	^{134}Cs	-9.2E-03 ± 3.9E-02	U
	^{137}Cs	-1.5E-02 ± 3.4E-02	U
	^{152}Eu	-1.2E-02 ± 1.0E-01	U
	^{154}Eu	3.9E-02 ± 1.0E-01	U
	^{155}Eu	-7.0E-02 ± 1.1E-01	U
	^{238}Pu	-6.0E-03 ± 1.9E-02	U
	$^{239/240}$Pu	2.0E-03 ± 4.0E-03	U
	^{103}Ru	1.8E-03 ± 1.8E-02	U
	^{106}Ru	8.0E-02 ± 3.2E-01	U
	^{125}Sb	4.4E-02 ± 9.3E-02	U
	^{113}Sn	-2.3E-02 ± 4.9E-02	U
	^{90}Sr	1.0E-01 ± 1.2E-01	U
	^{234}U	5.1E-03 ± 7.1E-03	U
	^{235}U	3.3E-03 ± 4.9E-03	U
	^{238}U	4.1E-03 ± 5.7E-03	U
	^{65}Zn	-1.4E-01 ± 1.4E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V085	^{144}Ce	-8.2E-02 ± 5.3E-01	U
(600 Area)	^{60}Co	2.2E-02 ± 3.7E-02	U
	^{134}Cs	-1.4E-02 ± 4.0E-02	U
	^{137}Cs	-1.2E-02 ± 3.8E-02	U
	^{152}Eu	-4.3E-02 ± 1.1E-01	U
	^{154}Eu	-4.2E-02 ± 1.2E-01	U
	^{155}Eu	1.5E-02 ± 1.4E-01	U
	^{238}Pu	5.4E-03 ± 2.1E-02	U
	$^{239/240}$Pu	1.8E-03 ± 3.6E-03	U
	^{103}Ru	-1.8E-02 ± 4.8E-02	U
	^{106}Ru	-1.4E-01 ± 3.5E-01	U
	^{125}Sb	-8.8E-02 ± 1.0E-01	U
	^{113}Sn	1.3E-02 ± 5.0E-02	U
	^{90}Sr	3.6E-02 ± 1.0E-01	U
	^{234}U	1.5E-02 ± 8.5E-03	
	^{235}U	8.9E-03 ± 7.5E-03	U
	^{238}U	1.1E-02 ± 6.9E-03	
	^{65}Zn	-6.5E-02 ± 9.2E-02	U
V089	^{144}Ce	4.0E-01 ± 7.3E-01	U
(600 Area)	^{60}Co	-2.1E-02 ± 6.1E-02	U
	^{134}Cs	2.6E-02 ± 6.6E-02	U
	^{137}Cs	4.3E-02 ± 6.1E-02	U
	^{152}Eu	1.2E-01 ± 1.8E-01	U
	^{154}Eu	1.7E-01 ± 1.8E-01	U
	^{155}Eu	-5.1E-02 ± 1.8E-01	U
	^{238}Pu	-8.8E-03 ± 1.5E-02	U
	$^{239/240}$Pu	-2.0E-03 ± 2.8E-03	U
	^{103}Ru	6.5E-02 ± 7.7E-02	U
	^{106}Ru	-1.7E-02 ± 1.7E-01	U
	^{125}Sb	-2.4E-02 ± 1.7E-01	U
	^{113}Sn	-4.9E-02 ± 8.0E-02	U
	^{90}Sr	5.2E-02 ± 1.3E-01	U
	^{234}U	9.1E-03 ± 7.2E-03	
	^{235}U	4.0E-03 ± 4.0E-03	
	^{238}U	7.3E-03 ± 5.5E-03	
	^{65}Zn	-3.2E-01 ± 3.2E-01	U

Location	Isotope	Result ± Error	RQ*
V087	^{144}Ce	7.2E-02 ± 4.9E-01	U
(600 Area)	^{60}Co	1.0E-04 ± 1.0E-03	U
	^{134}Cs	-6.5E-03 ± 3.8E-02	U
	^{137}Cs	-1.7E-02 ± 3.5E-02	U
	^{152}Eu	6.7E-04 ± 6.6E-03	U
	^{154}Eu	-1.4E-02 ± 1.1E-01	U
	^{155}Eu	3.2E-02 ± 1.1E-01	U
	^{238}Pu	2.2E-02 ± 1.9E-02	U
	$^{239/240}$Pu	1.9E-03 ± 3.8E-03	U
	^{103}Ru	-3.3E-03 ± 3.3E-02	U
	^{106}Ru	-7.5E-02 ± 3.2E-01	U
	^{125}Sb	-7.1E-02 ± 9.4E-02	U
	^{113}Sn	-4.6E-02 ± 4.9E-02	U
	^{90}Sr	-1.4E-01 ± 1.4E-01	U
	^{234}U	1.2E-02 ± 8.2E-03	
	^{235}U	4.2E-03 ± 5.0E-03	U
	^{238}U	5.8E-03 ± 5.7E-03	U
	^{65}Zn	-3.3E-01 ± 3.3E-01	U
V091	^{144}Ce	-3.6E-01 ± 4.3E-01	U
(600 Area)	^{60}Co	-4.5E-03 ± 3.3E-02	U
	^{134}Cs	1.8E-02 ± 3.1E-02	U
	^{137}Cs	5.8E-02 ± 3.7E-02	U
	^{152}Eu	-4.2E-02 ± 8.7E-02	U
	^{154}Eu	-1.3E-02 ± 9.9E-02	U
	^{155}Eu	-4.4E-03 ± 4.4E-02	U
	^{238}Pu	4.7E-03 ± 1.7E-02	U
	$^{239/240}$Pu	4.7E-03 ± 4.4E-03	
	^{103}Ru	7.8E-05 ± 7.8E-04	U
	^{106}Ru	1.7E-01 ± 3.1E-01	U
	^{125}Sb	-8.1E-03 ± 8.0E-02	U
	^{113}Sn	1.8E-02 ± 3.9E-02	U
	^{90}Sr	5.8E-03 ± 5.8E-02	U
	^{234}U	5.9E-03 ± 4.7E-03	
	^{235}U	1.8E-03 ± 2.5E-03	U
	^{238}U	6.8E-03 ± 5.1E-03	
	^{65}Zn	1.0E-01 ± 9.1E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V093	^{144}Ce	-5.8E-01 ± 7.7E-01	U
(600 Area)	^{60}Co	1.5E-02 ± 4.8E-02	U
	^{134}Cs	3.7E-03 ± 3.7E-02	U
	^{137}Cs	3.1E-03 ± 3.1E-02	U
	^{152}Eu	-4.0E-02 ± 1.8E-01	U
	^{154}Eu	-2.2E-02 ± 1.5E-01	U
	^{155}Eu	1.7E-01 ± 2.1E-01	U
	^{238}Pu	-5.9E-03 ± 1.8E-02	U
	$^{239/240}$Pu	2.0E-03 ± 4.0E-03	U
	^{103}Ru	-1.9E-02 ± 6.7E-02	U
	^{106}Ru	-1.1E-01 ± 4.9E-01	U
	^{125}Sb	-1.1E-02 ± 1.1E-01	U
	^{113}Sn	-2.8E-02 ± 7.0E-02	U
	^{90}Sr	3.4E-02 ± 1.1E-01	U
	^{234}U	1.1E-02 ± 8.2E-03	
	^{235}U	7.8E-03 ± 6.2E-03	
	^{238}U	7.1E-03 ± 6.3E-03	U
	^{65}Zn	-2.5E-01 ± 2.5E-01	U
V095	^{144}Ce	1.6E+00 ± 1.8E+00	U
(600 Area)	^{60}Co	-4.2E-02 ± 1.3E-01	U
	^{134}Cs	2.7E-02 ± 1.4E-01	U
	^{137}Cs	-2.4E-02 ± 1.3E-01	U
	^{152}Eu	9.4E-03 ± 9.4E-02	U
	^{154}Eu	-6.4E-02 ± 3.5E-01	U
	^{155}Eu	-3.1E-02 ± 3.1E-01	U
	^{238}Pu	-1.0E-02 ± 2.0E-02	U
	$^{239/240}$Pu	-9.1E-04 ± 1.8E-03	U
	^{103}Ru	-3.6E-02 ± 1.6E-01	U
	^{106}Ru	3.4E-02 ± 3.4E-01	U
	^{125}Sb	-1.8E-02 ± 1.8E-01	U
	^{113}Sn	-1.2E-01 ± 1.6E-01	U
	^{90}Sr	1.5E-01 ± 1.4E-01	U
	^{234}U	5.5E-03 ± 6.0E-03	U
	^{235}U	9.0E-03 ± 6.4E-03	
	^{238}U	1.8E-03 ± 2.5E-03	U
	^{65}Zn	-1.1E+00 ± 1.1E+00	U
V097	^{144}Ce	-2.2E-01 ± 5.7E-01	U
(600 Area)	^{60}Co	4.3E-03 ± 4.3E-02	U
	^{134}Cs	7.0E-04 ± 7.0E-03	U
	^{137}Cs	-1.6E-02 ± 4.6E-02	U
	^{152}Eu	1.7E-01 ± 1.4E-01	U
	^{154}Eu	2.5E-02 ± 1.4E-01	U
	^{155}Eu	6.0E-02 ± 1.5E-01	U
	^{238}Pu	4.8E-03 ± 1.7E-02	U
	$^{239/240}$Pu	2.9E-03 ± 4.4E-03	U
	^{103}Ru	1.4E-02 ± 5.3E-02	U
	^{106}Ru	-5.2E-02 ± 4.4E-01	U
	^{125}Sb	7.6E-02 ± 1.3E-01	U
	^{113}Sn	-2.6E-02 ± 6.1E-02	U
	^{90}Sr	-4.0E-02 ± 1.1E-01	U
	^{234}U	1.4E-02 ± 7.8E-03	
	^{235}U	2.0E-03 ± 4.0E-03	U
	^{238}U	1.1E-02 ± 7.4E-03	
	^{65}Zn	4.8E-02 ± 1.0E-01	U
V099	^{144}Ce	1.4E-01 ± 4.6E-01	U
(600 Area)	^{60}Co	1.2E-02 ± 3.6E-02	U
	^{134}Cs	1.8E-02 ± 3.5E-02	U
	^{137}Cs	8.0E-03 ± 3.5E-02	U
	^{152}Eu	-9.1E-02 ± 1.1E-01	U
	^{154}Eu	-7.7E-02 ± 1.0E-01	U
	^{155}Eu	-3.0E-02 ± 1.1E-01	U
	^{238}Pu	5.4E-03 ± 1.9E-02	U
	$^{239/240}$Pu	-4.5E-03 ± 4.9E-03	U
	^{103}Ru	-1.3E-02 ± 4.5E-02	U
	^{106}Ru	9.7E-02 ± 3.2E-01	U
	^{125}Sb	8.3E-02 ± 1.0E-01	U
	^{113}Sn	-2.2E-02 ± 4.9E-02	U
	^{90}Sr	7.0E-02 ± 1.2E-01	U
	^{234}U	7.4E-03 ± 8.1E-03	U
	^{235}U	2.0E-03 ± 4.0E-03	U
	^{238}U	6.5E-03 ± 7.1E-03	U
	^{65}Zn	-2.4E-01 ± 2.4E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V101	^{144}Ce	-1.5E-01 ± 5.2E-01	U
(600 Area)	^{60}Co	3.5E-02 ± 5.0E-02	U
	^{134}Cs	6.6E-03 ± 4.9E-02	U
	^{137}Cs	-9.7E-03 ± 4.7E-02	U
	^{152}Eu	1.3E-01 ± 1.0E-01	U
	^{154}Eu	5.8E-03 ± 5.8E-02	U
	^{155}Eu	3.4E-02 ± 1.3E-01	U
	^{238}Pu	1.3E-02 ± 2.0E-02	U
	$^{239/240}$Pu	3.0E-03 ± 3.6E-03	
	^{103}Ru	-2.2E-03 ± 2.2E-02	U
	^{106}Ru	-3.2E-01 ± 4.2E-01	U
	^{125}Sb	7.5E-02 ± 1.2E-01	U
	^{113}Sn	-5.5E-02 ± 5.6E-02	U
	^{90}Sr	-6.5E-02 ± 1.0E-01	U
	^{234}U	1.7E-02 ± 9.5E-03	
	^{235}U	2.0E-03 ± 4.0E-03	U
	^{238}U	2.5E-02 ± 1.2E-02	
	^{65}Zn	6.2E-02 ± 1.4E-01	U

Location	Isotope	Result ± Error	RQ*
V103	^{144}Ce	-2.2E-01 ± 6.6E-01	U
(600 Area)	^{60}Co	4.0E-02 ± 4.3E-02	U
	^{134}Cs	-5.7E-02 ± 5.9E-02	U
	^{137}Cs	2.5E-02 ± 4.6E-02	U
	^{152}Eu	6.8E-02 ± 1.6E-01	U
	^{154}Eu	-7.6E-02 ± 1.3E-01	U
	^{155}Eu	-1.8E-01 ± 1.8E-01	U
	^{238}Pu	2.4E-02 ± 2.1E-02	U
	$^{239/240}$Pu	4.2E-03 ± 6.7E-03	U
	^{103}Ru	5.3E-02 ± 5.5E-02	U
	^{106}Ru	5.0E-02 ± 4.1E-01	U
	^{125}Sb	-4.5E-02 ± 1.3E-01	U
	^{113}Sn	3.6E-02 ± 6.1E-02	U
	^{90}Sr	-8.6E-02 ± 1.1E-01	U
	^{234}U	1.2E-02 ± 8.0E-03	
	^{235}U	1.1E-03 ± 3.8E-03	U
	^{238}U	7.2E-03 ± 6.4E-03	U
	^{65}Zn	9.9E-02 ± 1.1E-01	U

Location	Isotope	Result ± Error	RQ*
V105	^{144}Ce	-5.5E-01 ± 1.6E+00	U
(600 Area)	^{60}Co	-3.4E-02 ± 1.5E-01	U
	^{134}Cs	-7.2E-02 ± 1.5E-01	U
	^{137}Cs	1.4E-01 ± 1.4E-01	U
	^{152}Eu	-2.7E-01 ± 3.7E-01	U
	^{154}Eu	-1.5E-02 ± 1.5E-01	U
	^{155}Eu	4.2E-01 ± 4.0E-01	U
	^{238}Pu	3.3E-03 ± 2.2E-02	U
	$^{239/240}$Pu	4.4E-03 ± 5.3E-03	U
	^{103}Ru	6.4E-02 ± 1.9E-01	U
	^{106}Ru	-7.7E-02 ± 7.7E-01	U
	^{125}Sb	-1.2E-01 ± 3.4E-01	U
	^{113}Sn	6.7E-02 ± 1.9E-01	U
	^{90}Sr	-7.4E-02 ± 1.3E-01	U
	^{234}U	2.8E-03 ± 4.2E-03	U
	^{235}U	2.1E-03 ± 5.2E-03	U
	^{238}U	5.7E-03 ± 4.9E-03	
	^{65}Zn	5.0E-02 ± 3.3E-01	U

Location	Isotope	Result ± Error	RQ*
V107	^{144}Ce	-3.9E-01 ± 6.8E-01	U
(600 Area)	^{60}Co	-4.8E-02 ± 4.8E-02	U
	^{134}Cs	-4.8E-03 ± 4.7E-02	U
	^{137}Cs	-1.1E-02 ± 4.3E-02	U
	^{152}Eu	-2.3E-01 ± 2.3E-01	U
	^{154}Eu	-3.1E-02 ± 1.2E-01	U
	^{155}Eu	1.6E-01 ± 1.7E-01	U
	^{238}Pu	1.4E-02 ± 2.4E-02	U
	$^{239/240}$Pu	2.6E-03 ± 5.2E-03	U
	^{103}Ru	-2.5E-02 ± 5.2E-02	U
	^{106}Ru	-2.8E-01 ± 4.1E-01	U
	^{125}Sb	-6.5E-02 ± 1.2E-01	U
	^{113}Sn	-2.2E-02 ± 5.7E-02	U
	^{90}Sr	-3.5E-02 ± 9.8E-02	U
	^{234}U	6.2E-03 ± 5.5E-03	U
	^{235}U	1.1E-03 ± 2.2E-03	U
	^{238}U	1.7E-02 ± 8.7E-03	
	^{65}Zn	1.9E-02 ± 1.1E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V109 (600 Area)	^{144}Ce	-1.4E-02 ± 1.4E-01	U
	^{60}Co	-9.0E-03 ± 1.7E-02	U
	^{134}Cs	1.2E-02 ± 1.9E-02	U
	^{137}Cs	-9.2E-03 ± 1.6E-02	U
	^{152}Eu	1.6E-02 ± 3.9E-02	U
	^{154}Eu	-2.7E-02 ± 4.8E-02	U
	^{155}Eu	2.0E-02 ± 3.3E-02	U
	^{238}Pu	-2.7E-03 ± 2.7E-02	U
	$^{239/240}$Pu	-6.8E-03 ± 7.5E-03	U
	^{103}Ru	5.0E-03 ± 1.7E-02	U
	^{106}Ru	1.7E-01 ± 1.6E-01	U
	^{125}Sb	-1.0E-02 ± 4.0E-02	U
	^{113}Sn	-1.3E-03 ± 1.3E-02	U
	^{90}Sr	-3.2E-02 ± 1.1E-01	U
	^{234}U	9.9E-03 ± 7.3E-03	
	^{235}U	9.0E-04 ± 9.0E-04	U
	^{238}U	7.2E-03 ± 5.3E-03	
	^{65}Zn	-7.2E-02 ± 7.2E-02	U
V111 (Replicate of V007, 200 West)	^{144}Ce	1.8E-01 ± 5.8E-01	U
	^{60}Co	-2.5E-03 ± 2.5E-02	U
	^{134}Cs	2.5E-02 ± 4.3E-02	U
	^{137}Cs	3.6E-02 ± 4.6E-02	U
	^{152}Eu	-7.3E-02 ± 1.2E-01	U
	^{154}Eu	2.8E-02 ± 1.3E-01	U
	^{155}Eu	-4.2E-02 ± 1.5E-01	U
	^{238}Pu	-4.2E-03 ± 1.7E-02	U
	$^{239/240}$Pu	6.3E-03 ± 6.2E-03	U
	^{103}Ru	4.5E-03 ± 4.5E-02	U
	^{106}Ru	-1.6E-01 ± 4.1E-01	U
	^{125}Sb	3.8E-02 ± 1.1E-01	U
	^{113}Sn	1.3E-02 ± 5.0E-02	U
	^{90}Sr	-2.4E-02 ± 1.0E-01	U
	^{234}U	1.0E-02 ± 7.0E-03	
	^{235}U	4.2E-03 ± 4.2E-03	
	^{238}U	1.3E-02 ± 7.4E-03	
	^{65}Zn	-8.4E-03 ± 8.4E-02	U
V113 (Replicate of V083, 600 Area)	^{144}Ce	3.2E-01 ± 6.1E-01	U
	^{60}Co	-1.4E-02 ± 5.9E-02	U
	^{134}Cs	-3.0E-02 ± 6.2E-02	U
	^{137}Cs	1.4E-02 ± 5.5E-02	U
	^{152}Eu	1.9E-02 ± 1.4E-01	U
	^{154}Eu	6.9E-02 ± 1.7E-01	U
	^{155}Eu	1.6E-01 ± 1.5E-01	U
	^{238}Pu	-1.0E-02 ± 2.4E-02	U
	$^{239/240}$Pu	1.2E-03 ± 2.4E-03	U
	^{103}Ru	-7.5E-03 ± 5.7E-02	U
	^{106}Ru	1.3E-02 ± 1.3E-01	U
	^{125}Sb	3.4E-02 ± 1.4E-01	U
	^{113}Sn	-3.5E-03 ± 3.5E-02	U
	^{90}Sr	1.3E-01 ± 1.3E-01	U
	^{234}U	4.1E-03 ± 3.8E-03	
	^{235}U	1.0E-03 ± 2.0E-03	U
	^{238}U	4.1E-03 ± 3.8E-03	
	^{65}Zn	-3.9E-02 ± 1.5E-01	U
V116 (300 Area)	^{144}Ce	-1.2E-01 ± 5.0E-01	U
	^{60}Co	7.3E-03 ± 3.6E-02	U
	^{134}Cs	-9.8E-03 ± 3.8E-02	U
	^{137}Cs	-1.1E-02 ± 3.7E-02	U
	^{152}Eu	6.2E-02 ± 1.2E-01	U
	^{154}Eu	5.1E-02 ± 1.2E-01	U
	^{155}Eu	6.8E-02 ± 1.2E-01	U
	^{238}Pu	3.4E-03 ± 1.3E-02	U
	$^{239/240}$Pu	3.4E-03 ± 5.1E-03	U
	^{103}Ru	2.3E-02 ± 3.8E-02	U
	^{106}Ru	-1.0E-01 ± 3.4E-01	U
	^{125}Sb	8.2E-02 ± 1.0E-01	U
	^{113}Sn	1.2E-02 ± 5.3E-02	U
	^{90}Sr	1.0E-01 ± 1.3E-01	U
	^{234}U	1.3E-02 ± 6.9E-03	
	^{235}U	3.8E-03 ± 3.8E-03	
	^{238}U	9.2E-03 ± 5.7E-03	
	^{65}Zn	-9.8E-02 ± 9.8E-02	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).
(16 sheets total)

Location	Isotope	Result ± Error	RQ*
V117	^{144}Ce	2.1E-01 ± 4.2E-01	U
(300 Area)	^{60}Co	-1.1E-03 ± 1.1E-02	U
	^{134}Cs	2.2E-03 ± 2.2E-02	U
	^{137}Cs	-2.5E-03 ± 2.5E-02	U
	^{152}Eu	-8.3E-02 ± 9.0E-02	U
	^{154}Eu	5.2E-02 ± 8.8E-02	U
	^{155}Eu	-8.0E-02 ± 1.0E-01	U
	^{238}Pu	6.2E-03 ± 1.4E-02	U
	$^{239/240}$Pu	1.0E-03 ± 3.5E-03	U
	^{103}Ru	-1.1E-02 ± 3.1E-02	U
	^{106}Ru	9.2E-02 ± 2.7E-01	U
	^{125}Sb	3.2E-02 ± 8.4E-02	U
	^{113}Sn	-1.1E-02 ± 4.0E-02	U
	^{90}Sr	1.5E-01 ± 1.4E-01	U
	^{234}U	1.7E-02 ± 8.3E-03	
	^{235}U	2.0E-03 ± 2.8E-03	U
	^{238}U	1.0E-02 ± 6.3E-03	
	^{65}Zn	-8.6E-02 ± 8.6E-02	U
V119	^{144}Ce	1.3E-01 ± 8.8E-01	U
(300 Area)	^{60}Co	8.0E-03 ± 6.5E-02	U
	^{134}Cs	-2.5E-03 ± 2.5E-02	U
	^{137}Cs	7.7E-04 ± 7.7E-03	U
	^{152}Eu	-5.8E-02 ± 1.8E-01	U
	^{154}Eu	1.9E-01 ± 2.0E-01	U
	^{155}Eu	-1.4E-02 ± 1.4E-01	U
	^{238}Pu	1.1E-03 ± 1.1E-03	U
	$^{239/240}$Pu	7.7E-03 ± 6.9E-03	U
	^{103}Ru	4.1E-02 ± 6.0E-02	U
	^{106}Ru	-1.6E-01 ± 6.1E-01	U
	^{125}Sb	-9.2E-02 ± 1.7E-01	U
	^{113}Sn	-1.9E-02 ± 7.1E-02	U
	^{90}Sr	9.0E-02 ± 1.2E-01	U
	^{234}U	1.3E-01 ± 3.5E-02	
	^{235}U	3.4E-03 ± 4.1E-03	
	^{238}U	1.1E-01 ± 3.1E-02	
	^{65}Zn	1.9E-02 ± 1.6E-01	U

Location	Isotope	Result ± Error	RQ*
V118	^{144}Ce	-2.5E-01 ± 5.2E-01	U
(300 Area)	^{60}Co	-5.2E-02 ± 5.2E-02	U
	^{134}Cs	-3.0E-02 ± 4.1E-02	U
	^{137}Cs	-1.4E-02 ± 4.3E-02	U
	^{152}Eu	-7.8E-02 ± 1.2E-01	U
	^{154}Eu	-2.0E-02 ± 1.2E-01	U
	^{155}Eu	1.0E-01 ± 1.3E-01	U
	^{238}Pu	1.1E-02 ± 1.9E-02	U
	$^{239/240}$Pu	-1.1E-03 ± 4.9E-03	U
	^{103}Ru	-7.6E-03 ± 3.7E-02	U
	^{106}Ru	2.6E-01 ± 3.4E-01	U
	^{125}Sb	-1.4E-02 ± 1.2E-01	U
	^{113}Sn	-7.7E-03 ± 5.3E-02	U
	^{90}Sr	5.0E-02 ± 1.2E-01	U
	^{234}U	2.9E-02 ± 1.3E-02	
	^{235}U	6.5E-03 ± 5.8E-03	U
	^{238}U	2.0E-02 ± 1.1E-02	
	^{65}Zn	-2.8E-02 ± 1.0E-01	U
V121	^{144}Ce	-9.5E-02 ± 4.8E-01	U
(300 Area)	^{60}Co	1.0E-02 ± 4.9E-02	U
	^{134}Cs	-3.2E-02 ± 4.7E-02	U
	^{137}Cs	6.8E-03 ± 4.4E-02	U
	^{152}Eu	5.9E-02 ± 1.2E-01	U
	^{154}Eu	-3.7E-02 ± 1.5E-01	U
	^{155}Eu	-6.4E-02 ± 1.3E-01	U
	^{238}Pu	3.8E-03 ± 1.6E-02	U
	$^{239/240}$Pu	3.8E-03 ± 5.3E-03	U
	^{103}Ru	-8.5E-04 ± 8.5E-03	U
	^{106}Ru	-7.2E-02 ± 4.1E-01	U
	^{125}Sb	1.8E-01 ± 1.7E-01	U
	^{113}Sn	-4.3E-02 ± 5.2E-02	U
	^{90}Sr	1.2E-01 ± 1.3E-01	U
	^{234}U	2.1E-02 ± 9.4E-03	
	^{235}U	9.9E-04 ± 2.0E-03	U
	^{238}U	1.6E-02 ± 8.0E-03	
	^{65}Zn	-1.4E-01 ± 1.4E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result ± Error	RQ*
V127	^{144}Ce	-1.2E-02 ± 1.2E-01	U
(300 Area)	^{60}Co	-2.3E-02 ± 4.7E-02	U
	^{134}Cs	3.5E-02 ± 4.9E-02	U
	^{137}Cs	-1.4E-02 ± 5.0E-02	U
	^{152}Eu	-9.8E-02 ± 1.4E-01	U
	^{154}Eu	2.1E-02 ± 1.5E-01	U
	^{155}Eu	-3.1E-02 ± 1.6E-01	U
	^{238}Pu	1.9E-03 ± 1.6E-02	U
	$^{239/240}$Pu	1.6E-02 ± 1.0E-02	
	^{103}Ru	3.8E-03 ± 3.8E-02	U
	^{106}Ru	-4.3E-01 ± 4.5E-01	U
	^{125}Sb	-5.4E-02 ± 1.3E-01	U
	^{113}Sn	-3.4E-02 ± 5.9E-02	U
	^{90}Sr	-9.7E-02 ± 1.2E-01	U
	^{234}U	1.2E-02 ± 7.1E-03	
	^{235}U	1.9E-03 ± 3.8E-03	U
	^{238}U	6.0E-03 ± 4.8E-03	
	^{65}Zn	1.8E-01 ± 1.3E-01	U
V129	^{144}Ce	-2.5E-02 ± 2.5E-01	U
(300 Area)	^{60}Co	1.5E-02 ± 4.0E-02	U
	^{134}Cs	-3.6E-02 ± 4.3E-02	U
	^{137}Cs	-3.6E-03 ± 3.6E-02	U
	^{152}Eu	-9.5E-02 ± 1.0E-01	U
	^{154}Eu	6.1E-02 ± 1.2E-01	U
	^{155}Eu	5.1E-02 ± 1.0E-01	U
	^{238}Pu	7.0E-03 ± 1.7E-02	U
	$^{239/240}$Pu	4.4E-03 ± 4.1E-03	
	^{103}Ru	-7.6E-03 ± 3.5E-02	U
	^{106}Ru	-2.1E-01 ± 3.4E-01	U
	^{125}Sb	1.6E-02 ± 9.4E-02	U
	^{113}Sn	-1.6E-02 ± 4.3E-02	U
	^{90}Sr	4.2E-02 ± 1.2E-01	U
	^{234}U	1.5E-02 ± 8.1E-03	
	^{235}U	8.8E-04 ± 3.1E-03	U
	^{238}U	7.3E-03 ± 5.2E-03	
	^{65}Zn	7.9E-02 ± 9.8E-02	U

Location	Isotope	Result ± Error	RQ*
V128	^{144}Ce	-1.8E-01 ± 5.0E-01	U
(300 Area)	^{60}Co	-2.3E-02 ± 3.8E-02	U
	^{134}Cs	1.9E-02 ± 4.0E-02	U
	^{137}Cs	-1.7E-02 ± 3.9E-02	U
	^{152}Eu	-4.0E-02 ± 1.2E-01	U
	^{154}Eu	-3.6E-02 ± 1.1E-01	U
	^{155}Eu	-5.2E-02 ± 1.2E-01	U
	^{238}Pu	1.2E-03 ± 1.2E-02	U
	$^{239/240}$Pu	1.2E-03 ± 4.2E-03	U
	^{103}Ru	2.7E-02 ± 3.7E-02	U
	^{106}Ru	-2.7E-01 ± 3.3E-01	U
	^{125}Sb	2.9E-02 ± 1.0E-01	U
	^{113}Sn	-3.5E-02 ± 4.8E-02	U
	^{90}Sr	-1.4E-01 ± 1.4E-01	U
	^{234}U	8.8E-03 ± 7.0E-03	
	^{235}U	4.8E-03 ± 4.5E-03	
	^{238}U	8.0E-03 ± 5.7E-03	
	^{65}Zn	1.3E-01 ± 9.3E-02	U
V130	^{144}Ce	6.1E-01 ± 5.1E-01	U
(400 Area)	^{60}Co	-8.4E-03 ± 3.6E-02	U
	^{134}Cs	9.7E-03 ± 3.5E-02	U
	^{137}Cs	-1.7E-02 ± 3.9E-02	U
	^{152}Eu	-4.3E-02 ± 1.2E-01	U
	^{154}Eu	2.3E-02 ± 1.1E-01	U
	^{155}Eu	-1.3E-01 ± 1.3E-01	U
	^{238}Pu	4.8E-03 ± 2.0E-02	U
	$^{239/240}$Pu	1.2E-03 ± 2.4E-03	U
	^{103}Ru	2.7E-02 ± 3.9E-02	U
	^{106}Ru	-2.4E-01 ± 3.5E-01	U
	^{125}Sb	3.3E-02 ± 1.1E-01	U
	^{113}Sn	-1.2E-02 ± 4.9E-02	U
	^{90}Sr	1.7E-01 ± 1.4E-01	U
	^{234}U	6.6E-03 ± 6.4E-03	U
	^{235}U	3.6E-03 ± 4.3E-03	U
	^{238}U	4.1E-03 ± 3.8E-03	
	^{65}Zn	-2.8E-01 ± 2.8E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

Table 4-4. 2005 Vegetation Sampling Results (pCi/g ± total analytical uncertainty). (16 sheets total)

Location	Isotope	Result	±	Error	RQ*
V132 (Replicate of V123, 300 Area)	^{144}Ce	-2.6E-01	±	9.4E-01	U
	^{60}Co	-2.7E-02	±	6.3E-02	U
	^{134}Cs	1.8E-02	±	6.7E-02	U
	^{137}Cs	-3.2E-02	±	6.7E-02	U
	^{152}Eu	-1.5E-01	±	2.1E-01	U
	^{154}Eu	-9.9E-02	±	1.9E-01	U
	^{155}Eu	-5.2E-02	±	2.6E-01	U
	^{238}Pu	8.2E-03	±	1.4E-02	U
	$^{239/240}$Pu	9.4E-04	±	9.4E-03	U
	^{103}Ru	-5.9E-02	±	6.4E-02	U
	^{106}Ru	2.1E-01	±	5.8E-01	U
	^{125}Sb	-9.0E-02	±	1.8E-01	U
	^{113}Sn	-3.7E-03	±	3.7E-02	U
	^{90}Sr	-1.6E-01	±	1.6E-01	U
	^{234}U	3.8E-02	±	1.5E-02	
	^{235}U	2.8E-03	±	3.4E-03	
	^{238}U	3.7E-02	±	1.4E-02	
	^{65}Zn	1.3E-01	±	1.5E-01	U

Location	Isotope	Result	±	Error	RQ*
V138 (Replicate of V118, 300 Area)	^{144}Ce	-9.1E-01	±	9.1E-01	U
	^{60}Co	2.7E-03	±	2.7E-02	U
	^{134}Cs	-3.2E-02	±	6.8E-02	U
	^{137}Cs	-6.0E-02	±	6.7E-02	U
	^{152}Eu	-1.4E-01	±	1.5E-01	U
	^{154}Eu	4.3E-02	±	1.7E-01	U
	^{155}Eu	-8.0E-02	±	1.8E-01	U
	^{238}Pu	-9.5E-04	±	9.5E-03	U
	$^{239/240}$Pu	2.8E-03	±	6.2E-03	U
	^{103}Ru	1.2E-02	±	5.0E-02	U
	^{106}Ru	1.2E-02	±	1.1E-01	U
	^{125}Sb	3.7E-03	±	3.7E-02	U
	^{113}Sn	-1.0E-02	±	6.3E-02	U
	^{90}Sr	-1.1E-01	±	1.2E-01	U
	^{234}U	4.4E-02	±	1.6E-02	
	^{235}U	6.8E-03	±	5.1E-03	
	^{238}U	4.0E-02	±	1.5E-02	
	^{65}Zn	-2.0E-01	±	2.0E-01	U

RQ = Result Qualifier. U = The analyte was analyzed for but not detected.

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5.0 EXTERNAL RADIATION

External radiation fields were monitored near facilities and waste handling, storage, and disposal sites to measure and assess the impacts of operations. Thermoluminescent dosimeter (TLD) results were used at numerous fixed locations to gather dose rate information over extended periods of time, typically three months.

In 2005, there were 136 TLD locations collecting external radiation information. The number of TLD locations in each operational area and a summary table comparing the 2004 and 2005 TLD results are provided in Table 5-1. Additional discussion of external radiation monitoring conducted near facilities and operations during 2005 can be found in Section 10.13 of PNNL-15892.

Table 5-1. TLD Results (mrem/year) for 2004 and 2005.

Operational Area	Number of Dosimeters	2004		2005		
		Maximum[a]	Mean[b]	Maximum[a]	Mean[b]	% Change[c]
100 BC	4	88 ± 7	86 ± 5	94 ± 10	88 ± 10	3%
100 K	11	1,352 ± 3,329	229 ± 748	3,600	3,800	453%
100-KR-1	5	104 ± 10	97 ± 15	159 ± 55	113 ± 52	17%
100 N	14	475 ± 76	210 ± 257	229 ± 38	139 ± 96	-33%
200 East Area	42	12,000	1,202	312 ± 151	114 ± 95	-42%
200 West Area	24	10,000	1,196	182 ± 13	105 ± 46	-52%
200 North (212-R)	1	3,000 ± 472	3,000 ± 295	3,100 ± 487	2,708 ± 710	-5%
300 Area	8	112 ± 12	92 ± 25	113 ± 8	93 ± 23	1%
300 TEDF[d]	6	87 ± 5	85 ± 4	91 ± 10	88 ± 4	3%
300-FF-2	6	91 ± 40	87 ± 5	101 ± 44	88 ± 13	<1%
400 Area	7	85 ± 6	83 ± 2	87 ± 5	84 ± 4	1%
CVDF[e]	4	258 ± 445	177 ± 175	1,100 ± 916	560 ± 834	216%
ERDF[f]	3	100 ± 22	95 ± 8	105 ± 51	100 ± 8	5%
IDF[g]	1	Not Applicable: new in 2005		90 ± 14	89 ± 2	Not Applicable

[a] ± analytical uncertainty
[b] ± 2 standard deviations
[c] Numbers indicate a decrease (-) or increase from the 2004 mean
[d] TEDF = 300 Area Treated Effluent Disposal Facility
[e] CVDF = Cold Vacuum Drying Facility (100 K Area)
[f] ERDF = Environmental Restoration Disposal Facility (200 West Area)
[g] IDF = Integrated Disposal Facility (200 East Area)

Observations in dose rate monitoring during 2005 included the following:

- The external radiation levels measured at several operational areas during 2005 were ± 5% compared to 2004 levels. These areas were: the 100-B/C Field Remediation project; the 200-North site (212-R); each of the 300 Area operational areas; and the 400 Area; and the Environmental Restoration Disposal Facility (ERDF).

- In the 100-K Area, there was an overall increase of approximately 450% in the 2005 annual average dose rate compared to 2004 levels. These levels were attributable to spent fuel removal/processing/storage activities that were part of the K Basins Closure Project. Dose rates were highest at three monitoring sites on the north and west sides of the 105-K West Fuel Storage Basin and at one location near the Cold Vacuum Drying Facility (CVDF). Compared to 2004, the most significantly elevated dose rates measured in 2005 were at the two sites on the west side of the 105-K West Fuel Storage Basin. Other 100-K Area TLD monitoring locations that showed notably higher dose rate levels in 2005 than in 2004 were the remaining three locations near the105 K-West Fuel Basin, the remaining three locations near the Cold Vacuum Drying Facility, and two locations near the 105-KE Fuel Basin. One of the TLD locations at the nearby 100-KR-1 Field Remediation project showed slightly higher dose rates in 2005 than in years previous likely due to its proximity to the 105-K West Fuel Storage Basin. Quarterly dose rate levels for each of the facilities/projects at 100-K Area are presented in graph form in Figure 5-1.

- In the 100-N Area, the overall annual average dose rate measured during 2005 was approximately 33% lower than in 2004. While direct radiation levels were highest at monitoring locations near the 116-N-1 (1301-N) liquid waste disposal facility, even these averaged approximately 4% lower in 2005 than in 2004. The 2005 annual average dose rate levels at the monitoring locations at the 116-N-3 Facility (1325-N), although historically higher than all other locations in the 100-N Area, showed a marked decrease of approximately 75% from 2004 levels. These notable reductions in dose rates were directly attributable to continued source material removal activities at both sites during the year. Dose rates observed at the N-Springs shoreline TLD location were consistent with levels measured during the past three years. Figure 5-2 provides historical trend plots of quarterly dose rates from the 116-N-1, 116-N-3, 100-N Area and N-Springs monitoring locations.

- Dose rates observed in the 200 East and 200 West Areas, which had increased notably during 2004, showed a significant decrease during 2005. While dose rates were highest near waste handling facilities, they were much lower than the levels measured during peak waste-retrieval activities at the A Tank Farm (200-East Area) and at the S Tank Farm (200-West Area) during the second quarter of 2004. The overall effect was that average dose rates measured in the 200-East and 200-West Areas in 2005 were 42% and 52% lower, respectively, than the 2004 average dose rates. Dose rates at the 212-R facility while again in 2005 one of the highest on site, were slightly lower than those measured during 2004. Dose rates measured at the ERDF site in 2005 were consistent

previous years. Figure 5-3 provides historical trend plots of quarterly dose rate levels for each of these operational areas.

- Dose rates measured at the 300 Area, 300 TEDF, 300-FF-2 Field Remediation project and in the 400 Area were consistent with previous years' measurements. Figure 5-4 provides historical trend plots of quarterly dose rate levels for each of these operational areas.

Maps illustrating TLD locations in 2005 are provided in Figures 5-5 through 5-13 and individual TLD results for 2005 are provided in Table 5-2.

Figure 5-1. Average Quarterly Dose Rates, 100-K Area.

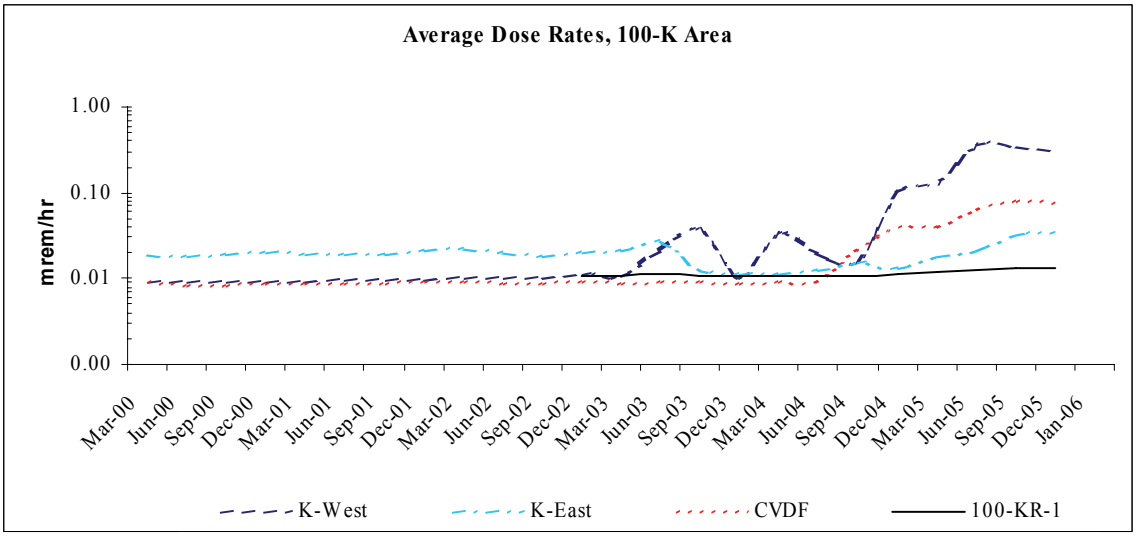

Figure 5-2. Average Quarterly Dose Rates, 100-N Area.

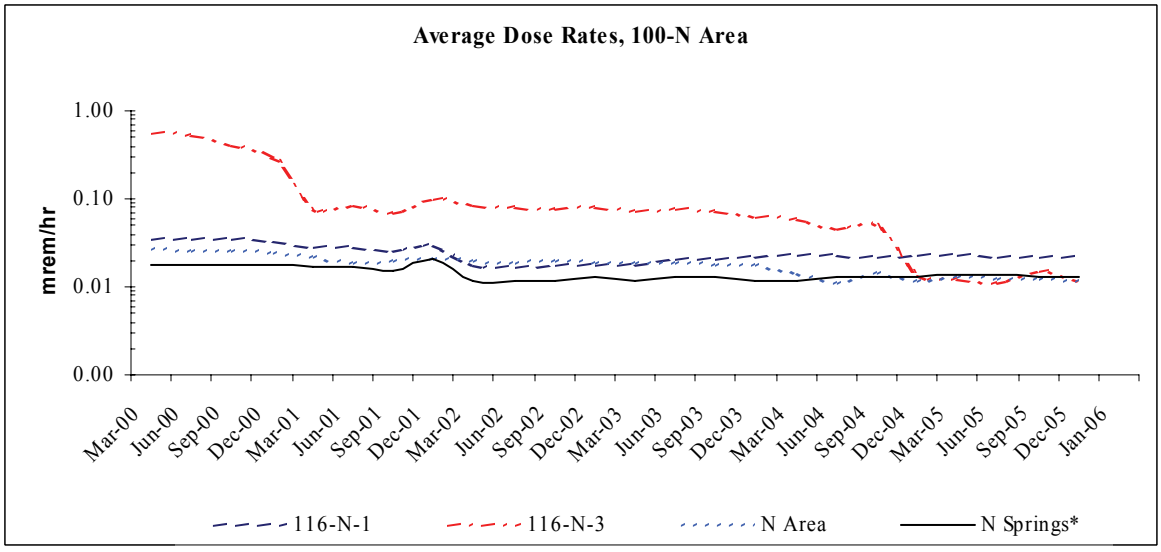

Figure 5-3. Average Quarterly Dose Rates, 200 Areas.

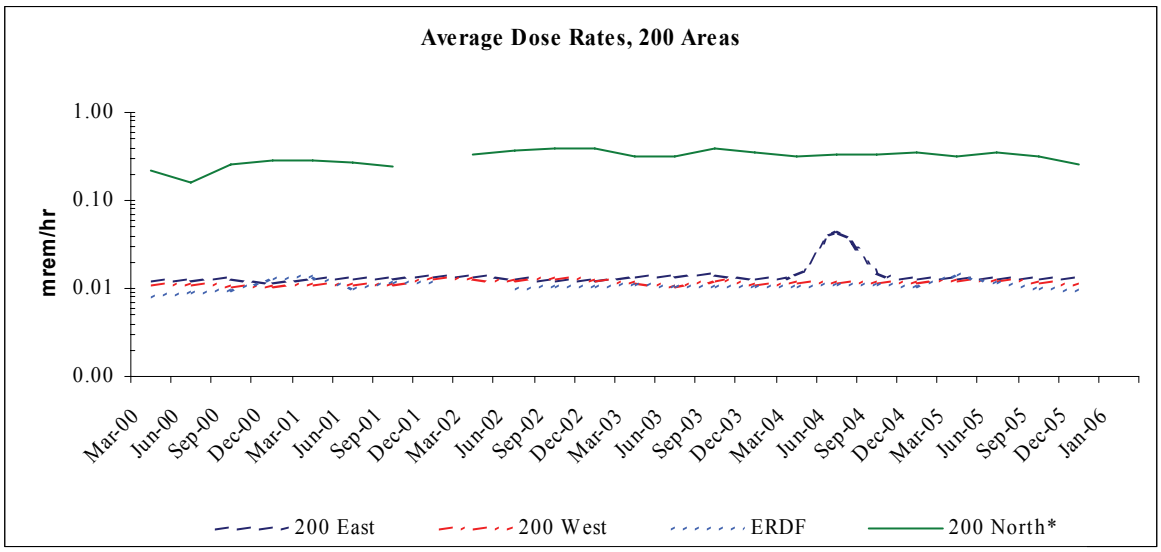

Figure 5-4. Average Quarterly Dose Rates, 300 and 400 Areas.

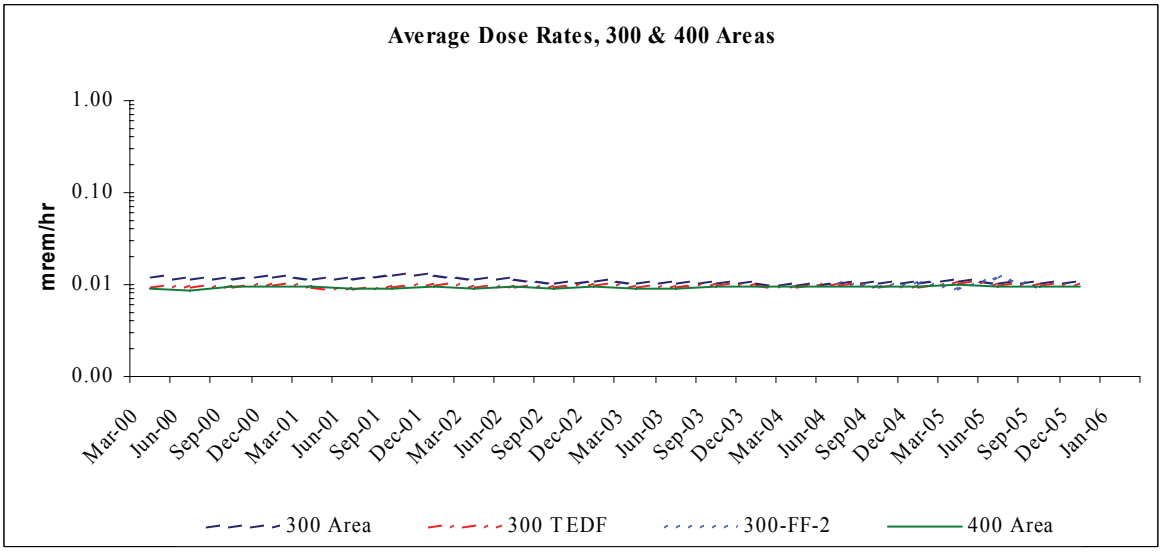

Figure 5-5. 100-B/C Area TLD Locations.

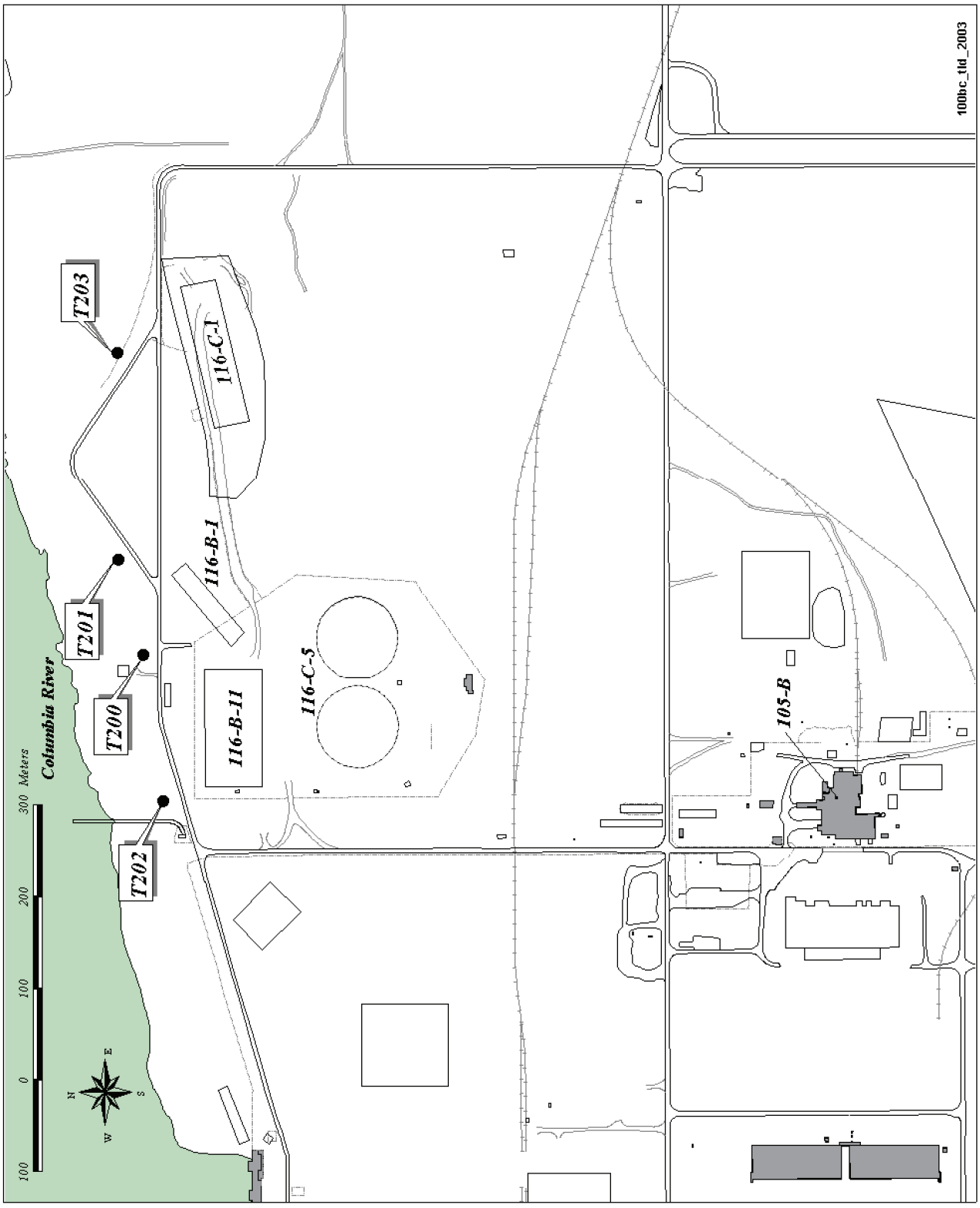

Figure 5-6. 100-K Area, Cold Vacuum Drying Facility and 100-KR-1 TLD Locations.

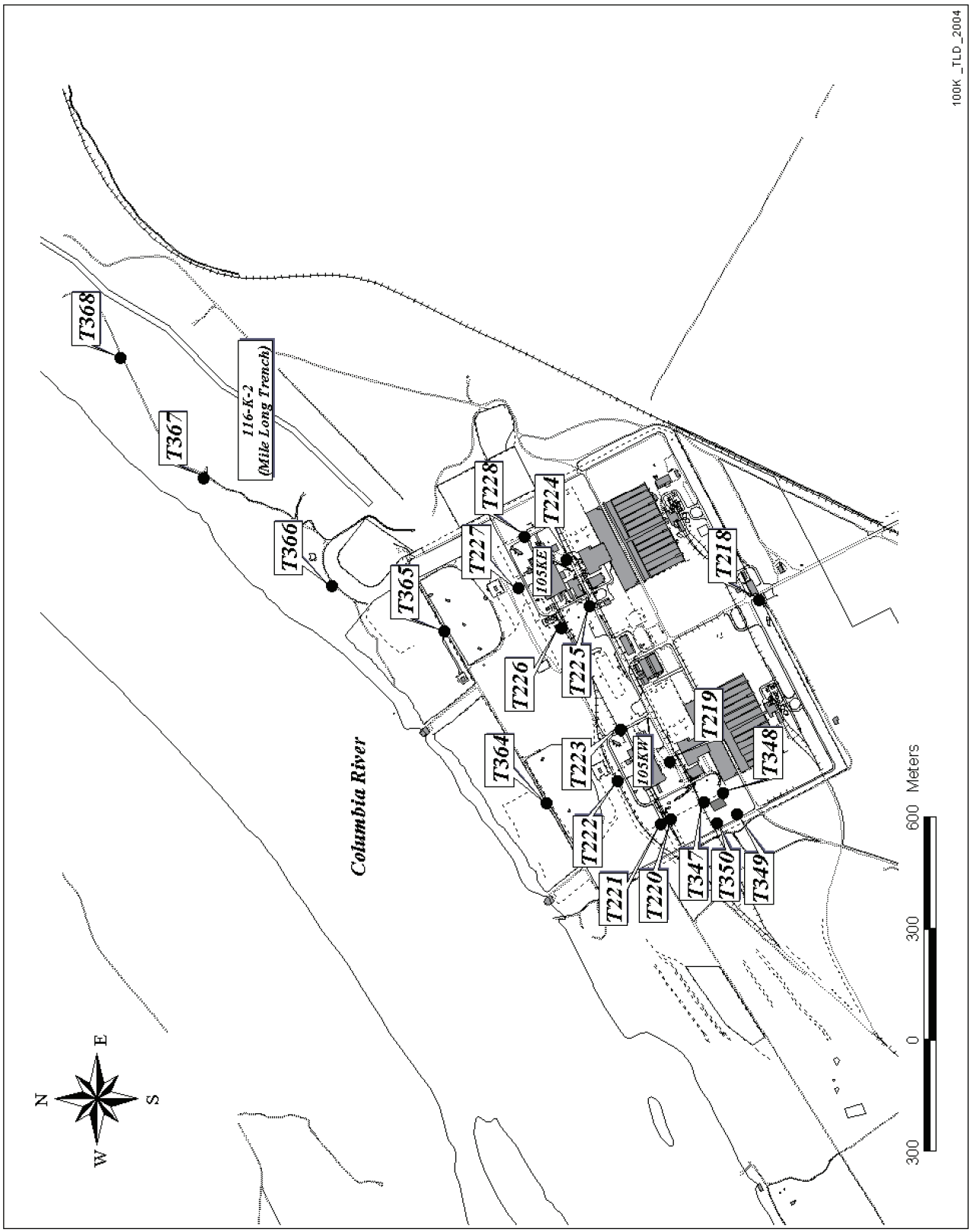

Figure 5-7. 100-N Area TLD Locations.

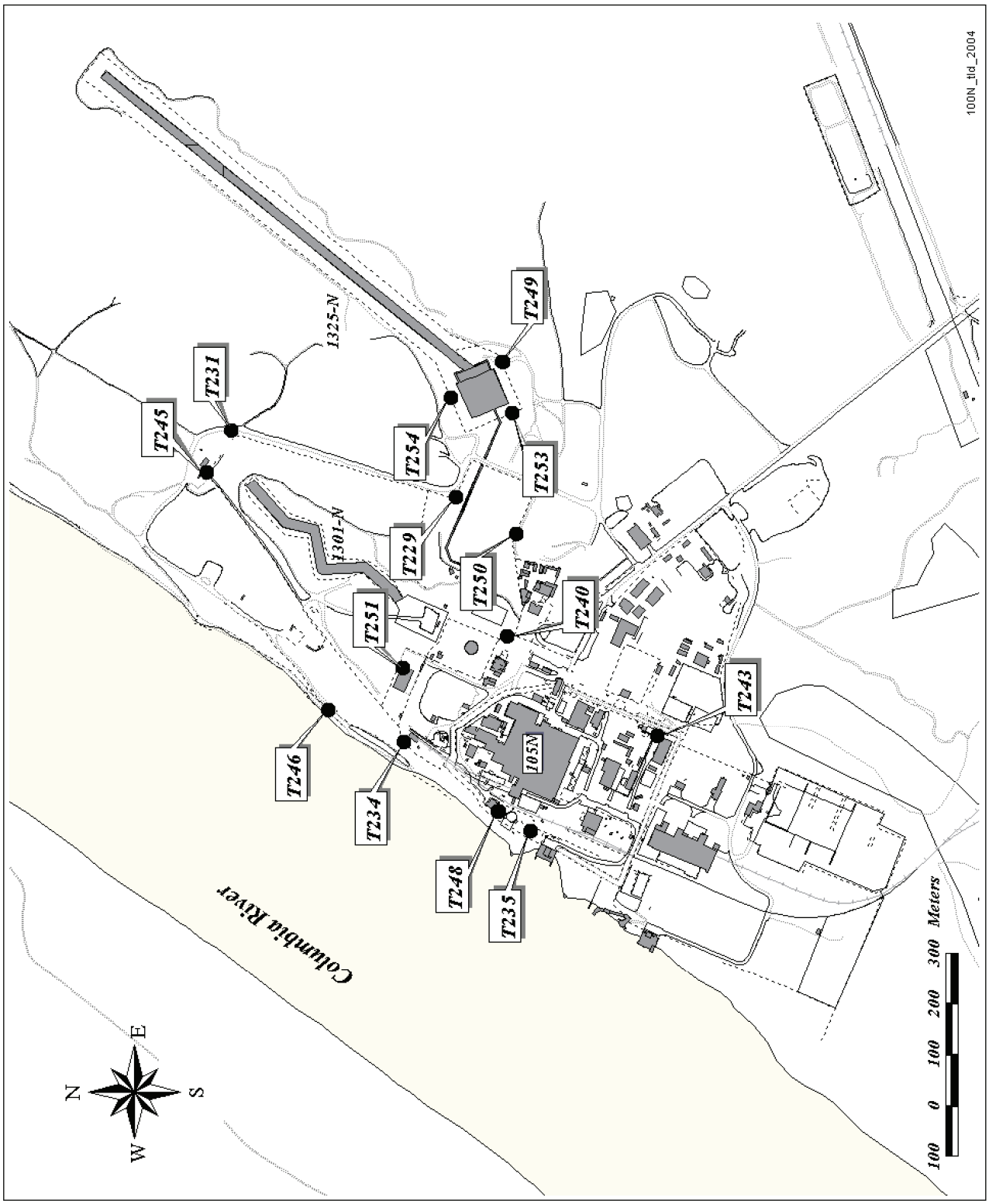

Figure 5-8. 200 East Area TLD Locations.

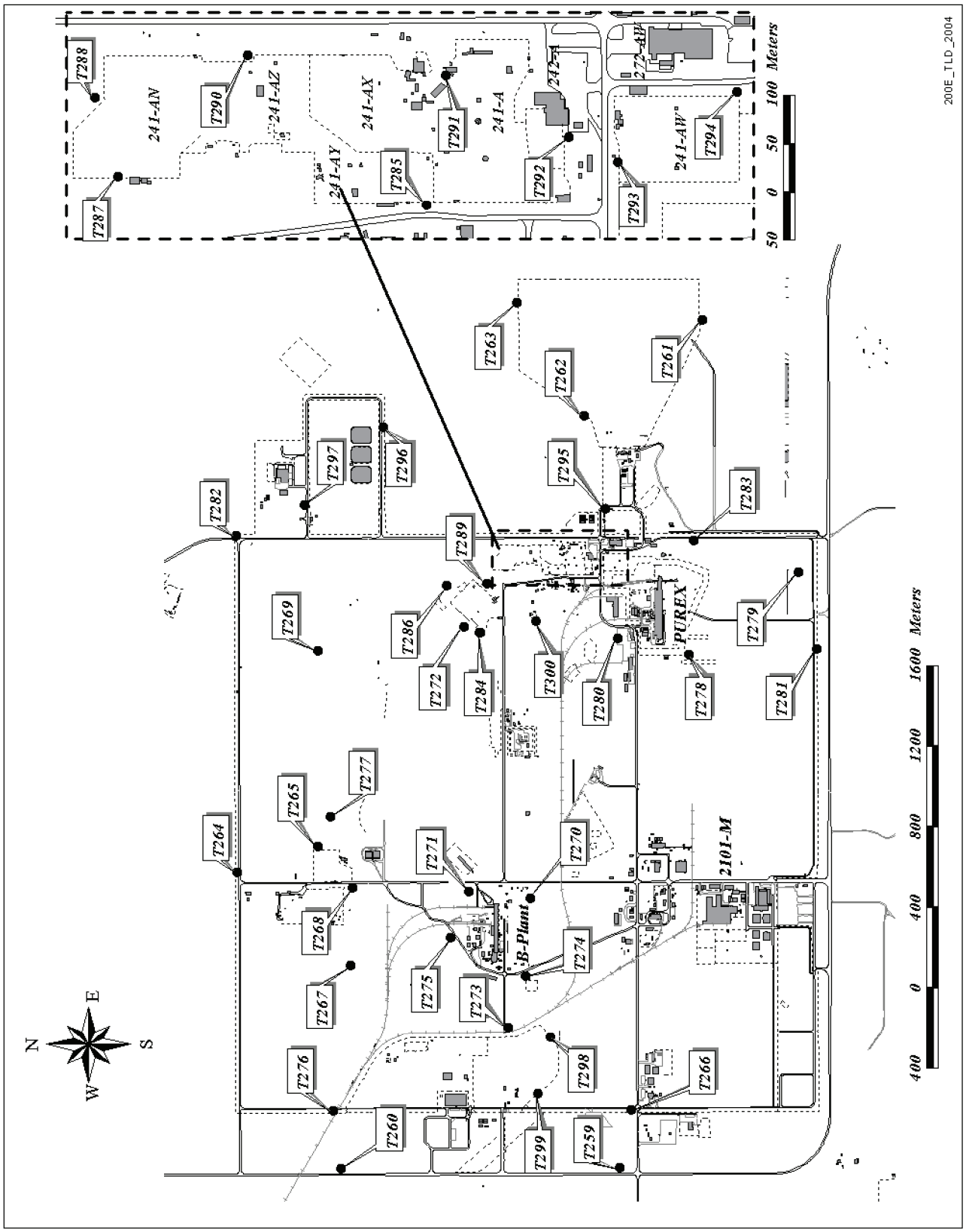

Figure 5-9. 200 West Area TLD Locations.

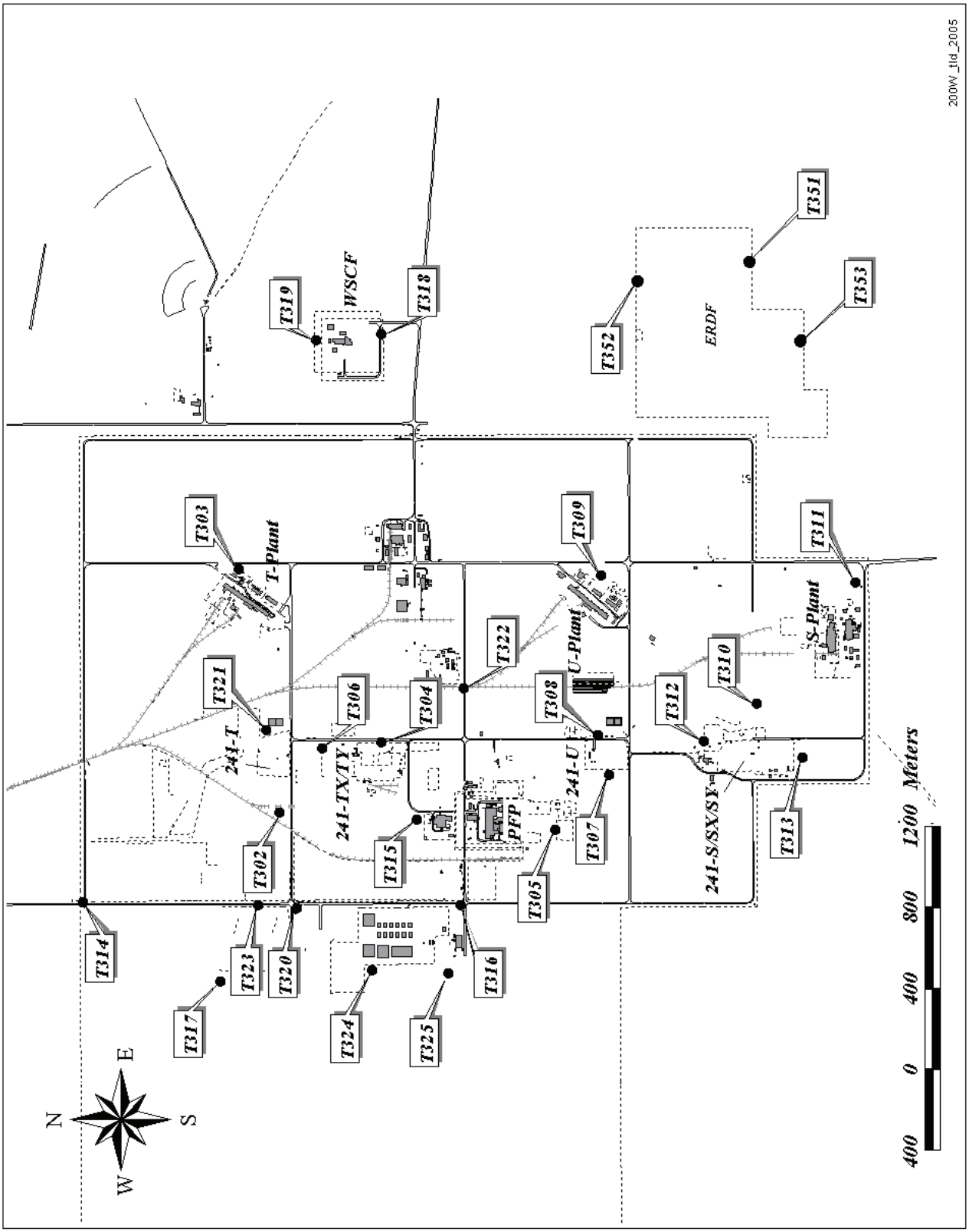

Figure 5-10. 200 North Area TLD Location.

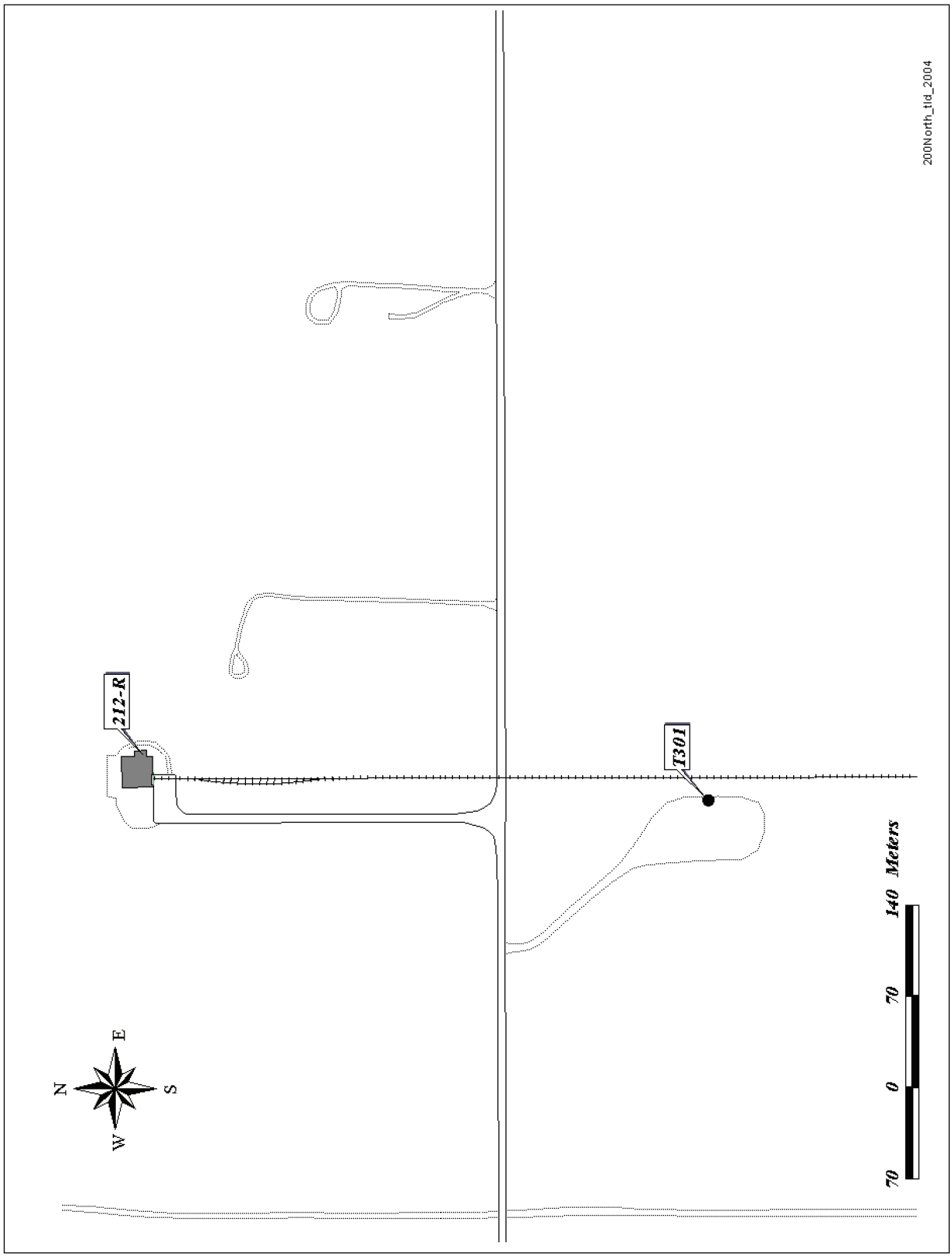

Figure 5-11. 300 Area Treated Effluent Disposal Facility and 300 Area TLD Locations.

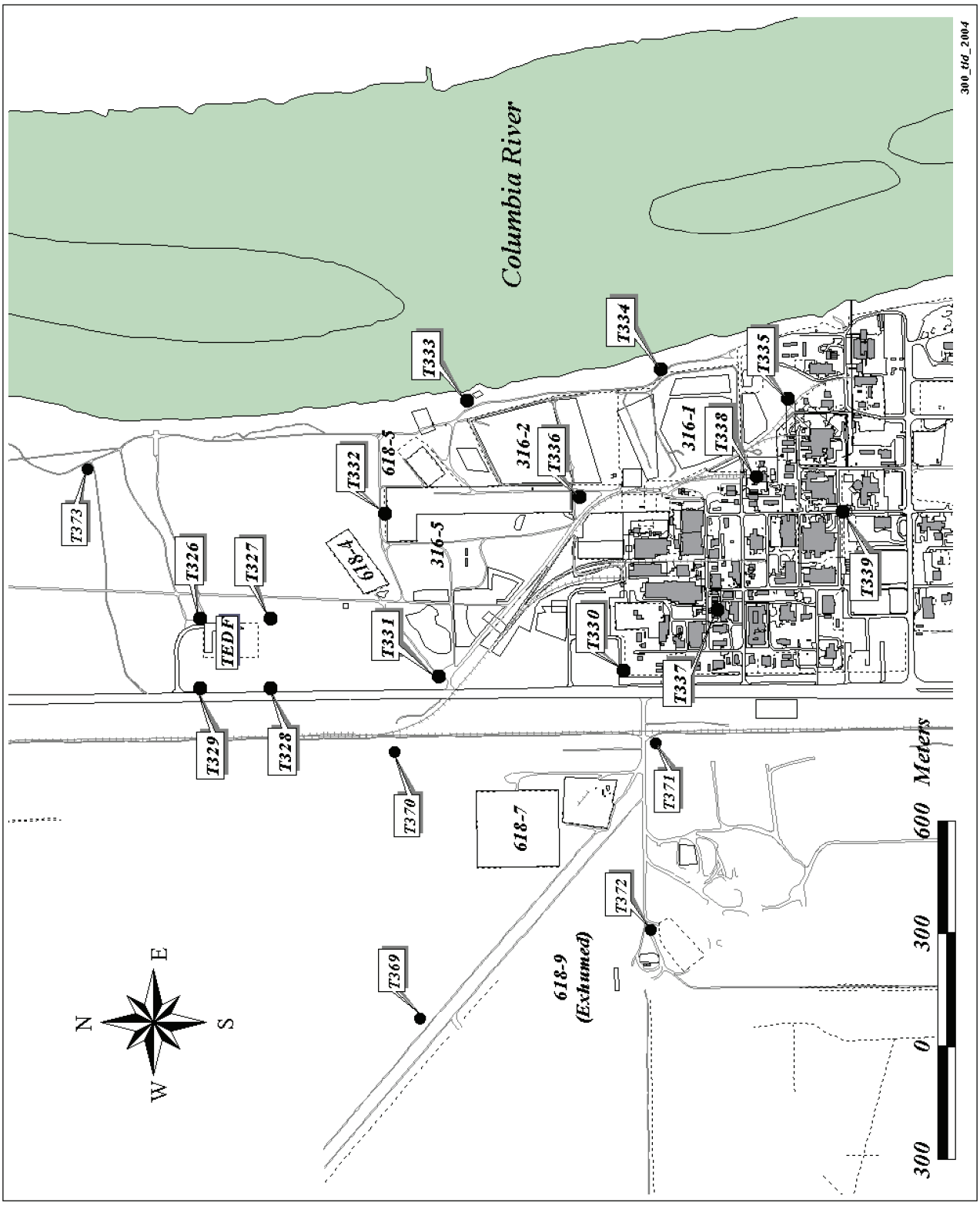

Figure 5-12. 300 Area (North) TLD Location.

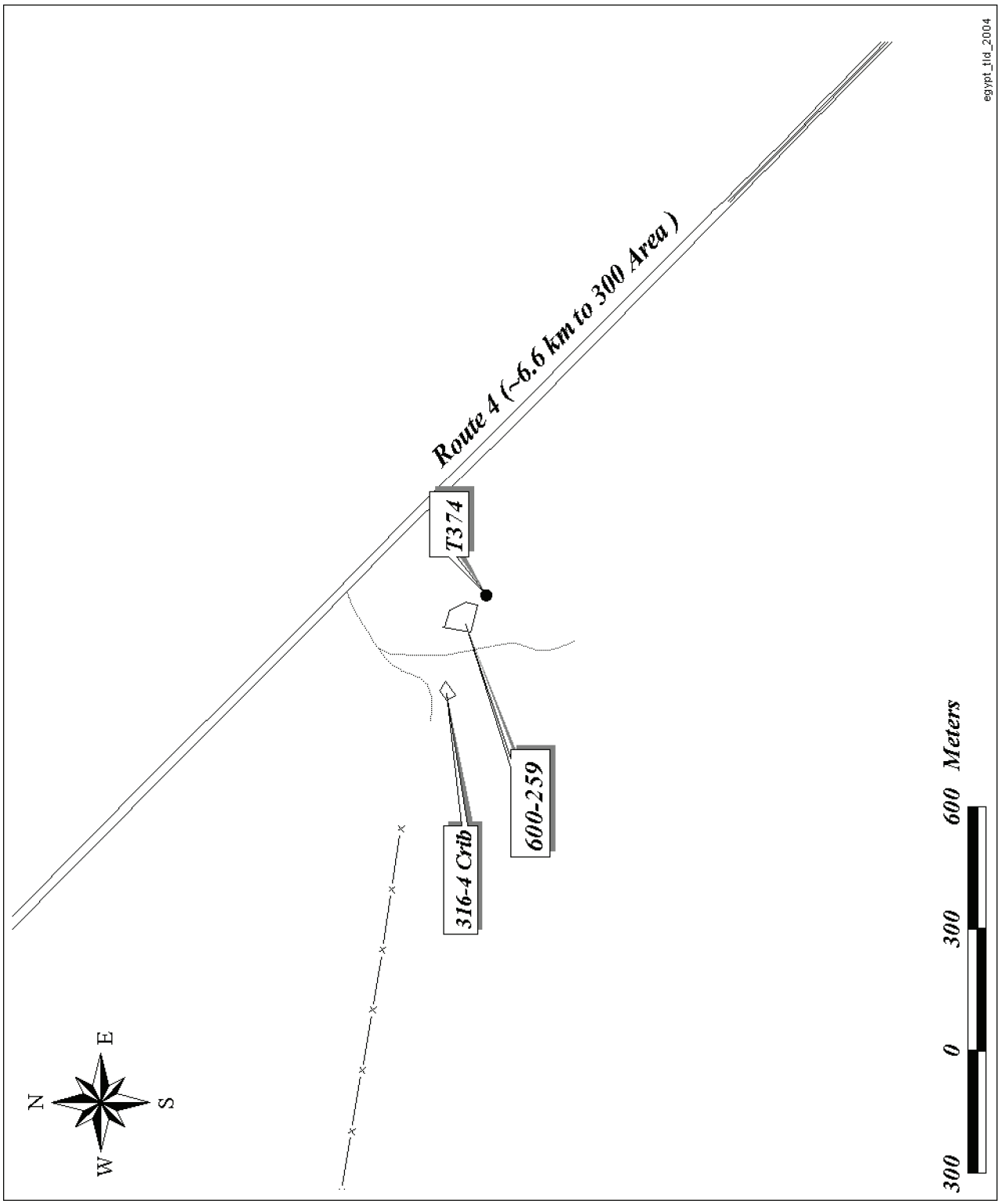

Figure 5-13. 400 Area TLD Locations.

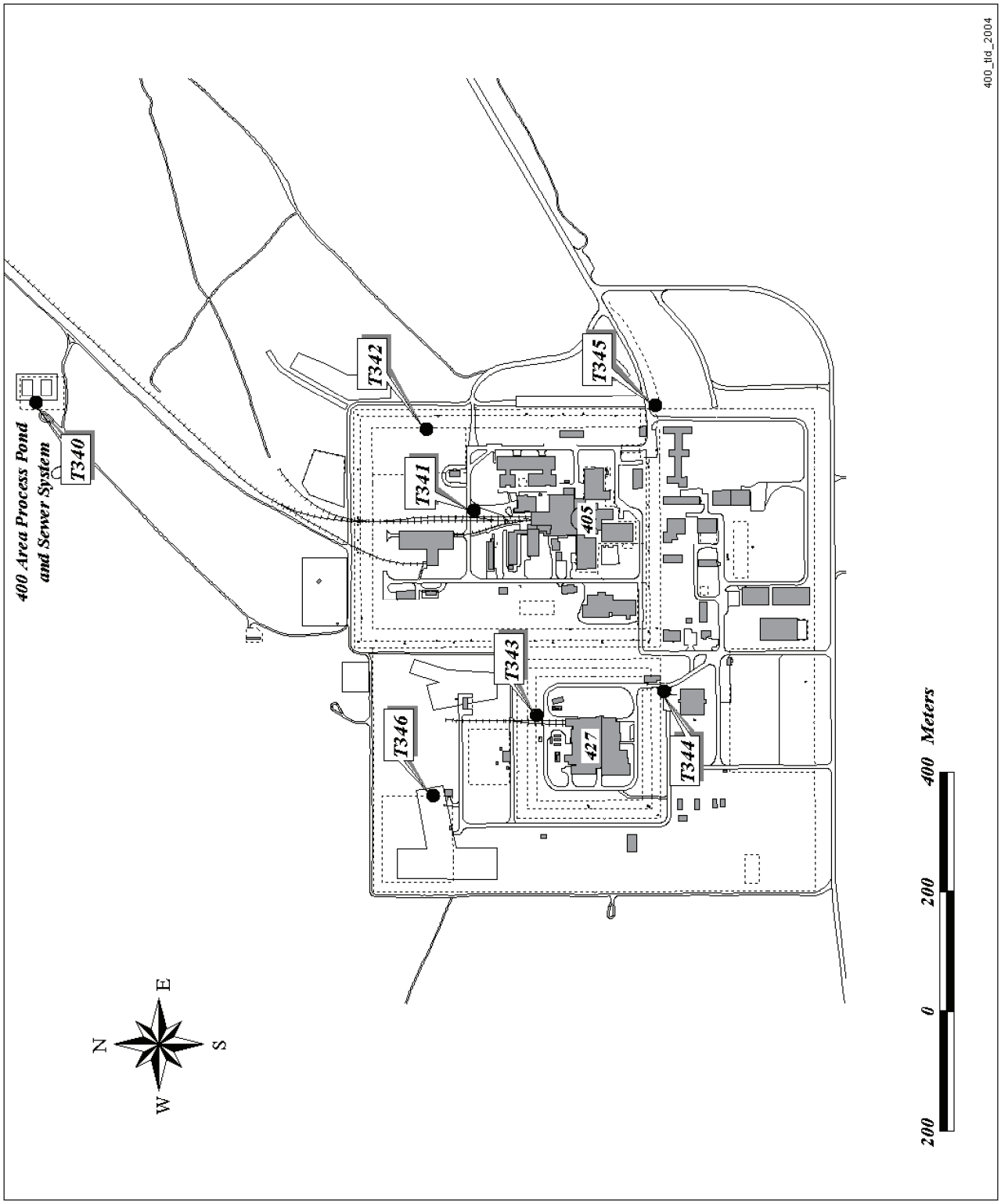

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100 B/C	T200	1st Quarter '05	0.01	0.27	24.8	100	91
Field	T201		0.01	0.24	21.6	87	91
Remediation	T202		0.01	0.27	24.3	98	91
project	T203		0.01	0.24	21.6	87	91
	T200	2nd Quarter '05	0.01	0.24	24.7	86	105
	T201		0.01	0.24	24.7	86	105
	T202		0.01	0.27	28.3	99	105
	T203		0.01	0.22	22.9	80	105
	T200	3rd Quarter '05	0.01	0.24	18.4	86	78
	T201		0.01	0.23	18.2	85	78
	T202		0.01	0.24	19.1	89	78
	T203		0.01	0.23	17.9	84	78
	T200	4th Quarter '05	0.01	0.24	20.6	88	86
	T201		0.01	0.24	20.3	86	86
	T202		0.01	0.24	21.0	89	86
	T203		0.01	0.22	18.7	79	86

100 B/C, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T200	0.010 ± 0.002	0.25 ± 0.04	22.4 ± 3.3	90 ± 13
T201	0.010 ± 0.000	0.24 ± 0.00	21.5 ± 0.3	86 ± 1
T202	0.011 ± 0.001	0.26 ± 0.03	23.5 ± 2.5	94 ± 10
T203	0.009 ± 0.001	0.23 ± 0.02	20.6 ± 1.8	82 ± 7

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100 K Area	T218	1st Quarter '05	0.01	0.22	19.9	81	90
	T219		0.03	0.78	70.8	284	91
	T220		0.06	1.5	135	541	91
	T221		0.06	1.4	132	528	91
	T222		0.46	11.1	1000	4056	90
	T223		0.02	0.46	42.2	169	91
	T224		0.01	0.24	21.4	86	91
	T225		0.02	0.50	45.5	183	91
	T226		0.01	0.25	22.3	89	91
	T227		0.04	0.98	89.3	358	91
	T228		0.01	0.22	20.4	82	91
	T218	2nd Quarter '05	0.01	0.20	21.1	73	105
	T219		0.06	1.5	160	555	105
	T220		0.51	12.2	1282	4459	105
	T221		0.32	7.61	798	2776	105
	T222		0.92	22.2	2326	8087	105
	T223		0.04	0.89	93.1	324	105
	T224		0.01	0.23	24.5	85	105
	T225		0.02	0.48	50.7	176	105
	T226		0.01	0.27	28.6	100	105
	T227		0.05	1.2	123	429	105
	T228		0.01	0.33	34.2	119	105
	T218	3rd Quarter '05	0.01	0.22	17.5	81	79
	T219		0.09	2.14	169	780	79
	T220		0.66	15.9	1253	5790	79
	T221		0.41	9.9	780	3604	79
	T222		0.54	13.1	1033	4773	79
	T223		0.04	0.90	71.1	328	79
	T224		0.01	0.31	24.8	115	79
	T225		0.02	0.53	41.6	192	79
	T226		0.01	0.30	24.1	111	79
	T227		0.08	1.9	146	676	79
	T228		0.04	0.86	68.1	315	79
	T218	4th Quarter '05	0.01	0.22	19.1	82	85
	T219		0.07	1.58	134	577	85
	T220		0.55	13.1	1117	4793	85
	T221		0.34	8.3	704	3019	85
	T222		0.56	13.4	1137	4881	85
	T223		0.04	0.98	83.3	357	85
	T224		0.01	0.34	28.9	124	85
	T225		0.02	0.52	44.1	189	85
	T226		0.01	0.32	27.0	116	85
	T227		0.08	2.0	168	722	85
	T228		0.04	0.96	81.8	351	85

100 K Area, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T218	0.009 ± 0.001	0.22 ± 0.02	19.7 ± 2.0	79 ± 8
T219	0.062 ± 0.046	1.5 ± 1.1	135 ± 102	541 ± 407
T220	0.438 ± 0.527	10.5 ± 12.6	960 ± 1153	3840 ± 4614
T221	0.279 ± 0.308	6.7 ± 7.4	612 ± 674	2447 ± 2696
T222	0.638 ± 0.410	15.3 ± 9.8	1397 ± 898	5588 ± 3593
T223	0.034 ± 0.019	0.80 ± 0.47	73.4 ± 42.5	294 ± 170
T224	0.012 ± 0.005	0.28 ± 0.11	25.2 ± 10.0	101 ± 40
T225	0.021 ± 0.002	0.51 ± 0.04	46.1 ± 3.6	184 ± 14
T226	0.012 ± 0.003	0.28 ± 0.07	25.8 ± 5.9	103 ± 24
T227	0.061 ± 0.041	1.46 ± 0.98	134 ± 90	534 ± 359
T228	0.024 ± 0.031	0.57 ± 0.74	51.8 ± 67.9	207 ± 272

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
CVDF	T347	1st Quarter '05	0.05	1.31	119	479	91
(100 K	T348		0.07	1.59	143	579	90
Area)	T349		0.02	0.48	42.9	174	90
	T350		0.02	0.40	35.9	146	90
	T347	2nd Quarter '05	0.13	3.08	323	1124	105
	T348		0.08	1.82	191	664	105
	T349		0.02	0.57	59.4	206	105
	T350		0.03	0.77	80.9	281	105
	T347	3rd Quarter '05	0.16	3.86	305	1409	79
	T348		0.08	2.01	159	735	79
	T349		0.03	0.65	51.1	236	79
	T350		0.04	0.98	77.1	356	79
	T347	4th Quarter '05	0.17	4.08	347	1488	85
	T348		0.07	1.79	153	654	85
	T349		0.02	0.58	49.2	211	85
	T350		0.03	0.82	70.0	301	85

CVDF, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T347	0.127 ± 0.105	3.04 ± 2.51	277 ± 229	1109 ± 916
T348	0.075 ± 0.015	1.80 ± 0.35	164 ± 32	656 ± 127
T349	0.024 ± 0.006	0.56 ± 0.14	51.5 ± 12.7	206 ± 51
T350	0.031 ± 0.020	0.74 ± 0.49	67.1 ± 44.7	268 ± 179

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-KR-1	T364	1st Quarter '05	0.01	0.33	30.1	121	91
Field	T365		0.01	0.25	22.9	92	91
Remediation	T366		0.01	0.27	24.3	98	91
project	T367		0.01	0.29	26.1	105	91
	T368		0.01	0.31	27.9	112	91
	T364	2nd Quarter '05	0.02	0.44	46.3	160	106
	T365		0.01	0.25	26.2	90	106
	T366		0.01	0.28	29.9	102	107
	T367		0.01	0.28	30.1	104	106
	T368		0.01	0.28	29.7	102	106
	T364	3rd Quarter '05	0.02	0.49	38.3	179	78
	T365		0.01	0.26	20.1	94	78
	T366		0.01	0.26	20.3	96	77
	T367		0.01	0.29	22.4	105	78
	T368		0.01	0.29	22.4	105	78
	T364	4th Quarter '05	0.02	0.49	43.7	179	89
	T365		0.01	0.27	24.1	99	89
	T366		0.01	0.30	26.3	108	89
	T367		0.01	0.30	26.4	108	89
	T368		0.01	0.30	27.0	111	89

100-KR-1, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T364	0.018 ± 0.006	0.44 ± 0.15	39.7 ± 13.8	159 ± 55
T365	0.011 ± 0.001	0.26 ± 0.02	23.4 ± 1.8	93 ± 7
T366	0.012 ± 0.001	0.28 ± 0.03	25.3 ± 2.6	101 ± 10
T367	0.012 ± 0.000	0.29 ± 0.01	26.3 ± 1.0	105 ± 4
T368	0.012 ± 0.001	0.29 ± 0.03	26.8 ± 2.3	107 ± 9

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100 N	T229	1st Quarter '05	0.03	0.64	58.4	234	91
Area	T231		0.02	0.60	54.9	218	92
	T234		0.02	0.36	32.8	132	91
	T235		0.01	0.30	27.4	110	91
	T240		0.02	0.51	46.7	185	92
	T243		0.01	0.22	20.2	82	90
	T245		0.02	0.59	54.2	215	92
	T246		0.01	0.33	29.6	119	91
	T248		0.01	0.33	29.9	120	91
	T249		0.01	0.28	25.5	103	91
	T250		0.01	0.34	31.1	123	92
	T251		0.02	0.43	39.5	158	91
	T253		0.01	0.32	29.8	118	92
	T254		0.01	0.30	27.1	109	91
	T229	2nd Quarter '05	0.02	0.51	54.0	188	105
	T231		0.03	0.61	64.0	223	105
	T234		0.02	0.36	38.4	132	106
	T235		0.01	0.28	29.9	102	107
	T240		0.02	0.49	51.1	178	105
	T243		0.01	0.21	22.3	77	106
	T245		0.02	0.59	61.4	214	105
	T246		0.01	0.33	34.8	120	106
	T248		NR	NR	NR	NR	n/a
	T249		0.01	0.26	27.1	94	105
	T250		0.01	0.32	33.8	117	105
	T251		0.02	0.44	46.1	160	105
	T253		0.01	0.23	65.3	84	284
	T254		0.01	0.30	31.6	110	105
	T229	3rd Quarter '05	0.02	0.53	42.1	192	80
	T231		0.03	0.63	50.7	232	80
	T234		0.01	0.35	28.1	128	80
	T235		0.01	0.28	21.8	101	79
	T240		0.02	0.47	37.4	171	80
	T243		0.01	0.22	17.5	80	80
	T245		0.03	0.66	52.6	240	80
	T246		0.01	0.32	25.6	117	80
	T248		0.01	0.29	23.0	106	79
	T249		0.01	0.24	19.2	88	80
	T250		0.01	0.31	25.2	115	80
	T251		0.02	0.37	31.1	137	83
	T253		0.02	0.56	44.6	204	80
	T254		0.01	0.28	22.8	104	80
	T229	4th Quarter '05	0.02	0.46	38.7	168	84
	T231		0.03	0.61	51.7	224	84
	T234		0.01	0.32	27.2	118	84
	T235		0.01	0.29	24.2	105	84
	T240		0.02	0.45	37.6	163	84
	T243		0.01	0.22	18.5	80	84
	T245		0.03	0.69	58.1	253	84
	T246		0.01	0.31	26.0	113	84
	T248		0.01	0.30	25.0	109	84
	T249		0.01	0.25	21.1	92	84
	T250		0.01	0.31	25.9	113	84
	T251		0.02	0.38	31.6	137	84
	T253		0.01	0.31	26.1	113	84
	T254		0.01	0.30	25.2	110	84

Table 5-2. 2005 TLD Results. (17 sheets total)

100 N, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T229	0.022 ± 0.006	0.54 ± 0.15	48.9 ± 13.9	196 ± 55
T231	0.026 ± 0.001	0.61 ± 0.03	55.9 ± 2.9	224 ± 11
T234	0.015 ± 0.001	0.35 ± 0.04	32.0 ± 3.3	128 ± 13
T235	0.012 ± 0.001	0.29 ± 0.02	26.1 ± 2.0	104 ± 8
T240	0.020 ± 0.002	0.48 ± 0.05	43.7 ± 4.7	175 ± 19
T243	0.009 ± 0.000	0.22 ± 0.01	19.9 ± 1.0	79 ± 4
T245	0.026 ± 0.004	0.63 ± 0.10	57.2 ± 9.6	229 ± 38
T246	0.013 ± 0.001	0.32 ± 0.02	29.3 ± 1.5	117 ± 6
T248	0.013 ± 0.002	0.31 ± 0.04	28.0 ± 3.7	112 ± 15
T249	0.011 ± 0.001	0.26 ± 0.03	23.6 ± 3.2	94 ± 13
T250	0.013 ± 0.001	0.32 ± 0.03	29.3 ± 2.3	117 ± 9
T251	0.017 ± 0.003	0.41 ± 0.07	37.3 ± 6.5	149 ± 26
T253	0.013 ± 0.012	0.31 ± 0.28	28.0 ± 25.7	112 ± 103
T254	0.012 ± 0.001	0.30 ± 0.02	27.1 ± 1.4	108 ± 6

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	T259	1st Quarter '05	0.01	0.24	23.5	88	97
	T260		0.01	0.24	23.1	87	97
	T261		0.01	0.25	24.0	90	97
	T262		0.01	0.23	21.8	82	97
	T263		0.01	0.24	23.4	88	97
	T264		0.01	0.33	31.6	119	97
	T265		0.01	0.33	31.8	120	97
	T266		0.01	0.25	24.0	90	97
	T267		0.01	0.25	23.9	90	97
	T268		0.01	0.32	30.9	116	97
	T269		0.01	0.26	25.0	94	97
	T270		0.02	0.36	35.3	133	97
	T271		0.01	0.26	25.0	94	97
	T272		0.01	0.30	29.1	109	98
	T273		0.01	0.23	22.6	85	97
	T274		0.01	0.26	25.6	97	97
	T275		0.01	0.25	24.7	93	97
	T276		0.01	0.23	22.1	83	97
	T277		0.01	0.27	25.7	97	97
	T278		0.01	0.25	24.3	91	97
	T279		0.01	0.26	25.4	96	97
	T280		0.01	0.24	23.2	87	97
	T281		0.01	0.25	23.8	90	97
	T282		0.01	0.25	24.2	92	96
	T283		0.01	0.25	24.0	91	96
	T284		0.01	0.31	30.5	114	98
	T285		0.02	0.47	45.3	170	97
	T286		0.02	0.39	38.6	144	98
	T287		0.02	0.59	57.9	216	98
	T288		0.03	0.65	62.8	236	97
	T289		0.02	0.38	37.2	139	98
	T290		0.01	0.35	33.8	127	97
	T291		0.02	0.46	45.1	170	97
	T292		0.03	0.64	62.0	233	97
	T293		0.02	0.37	35.6	134	97
	T294		0.02	0.49	47.7	180	97
	T295		0.01	0.25	23.8	89	97
	T296		0.01	0.24	23.4	88	97
	T297		0.01	0.26	25.5	96	97
	T298		0.01	0.23	22.2	83	97
	T299		0.01	0.26	24.8	94	97
	T300		0.01	0.29	27.9	105	97

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	2nd Quarter '05	0.01	0.24	22.6	89	93
Area	T260		0.01	0.24	19.7	87	83
	T261		0.01	0.24	21.9	87	92
	T262		0.01	0.24	21.7	86	92
	T263		0.01	0.23	21.3	85	92
	T264		0.01	0.30	28.3	111	93
	T265		0.01	0.30	28.3	111	93
	T266		0.01	0.23	21.0	82	93
	T267		0.01	0.26	23.7	93	93
	T268		0.01	0.31	28.7	113	93
	T269		0.01	0.25	22.9	92	91
	T270		0.01	0.34	31.3	123	93
	T271		0.01	0.25	23.1	91	93
	T272		0.01	0.30	26.8	108	91
	T273		0.01	0.23	21.6	85	93
	T274		0.01	0.24	21.9	86	93
	T275		0.01	0.26	24.5	96	93
	T276		0.01	0.22	20.9	82	93
	T277		0.01	0.28	25.7	101	93
	T278		0.01	0.24	22.2	88	92
	T279		0.01	0.25	22.8	90	92
	T280		0.01	0.23	21.2	84	92
	T281		0.01	0.23	21.4	85	92
	T282		0.01	0.23	21.6	85	93
	T283		0.01	0.23	20.8	82	92
	T284		0.01	0.29	26.1	105	91
	T285		0.02	0.56	51.5	205	92
	T286		0.02	0.37	33.4	134	91
	T287		0.03	0.82	74.8	300	91
	T288		0.02	0.53	47.9	192	91
	T289		0.02	0.37	33.4	134	91
	T290		0.01	0.33	30.1	121	91
	T291		0.02	0.43	39.3	158	91
	T292		0.03	0.75	69.3	275	92
	T293		0.01	0.35	31.8	126	92
	T294		0.02	0.48	41.3	176	86
	T295		0.01	0.25	22.6	90	92
	T296		0.01	0.25	23.4	92	93
	T297		0.01	0.24	22.7	89	93
	T298		0.01	0.22	20.0	79	93
	T299		0.01	0.25	23.6	93	93
	T300		0.01	0.25	23.2	92	92

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	3rd Quarter '05	0.01	0.24	19.8	88	82
Area	T260		0.01	0.22	20.5	81	92
	T261		0.01	0.24	20.3	89	83
	T262		0.01	0.24	19.5	86	83
	T263		0.01	0.24	19.7	87	83
	T264		0.01	0.29	23.8	106	82
	T265		0.01	0.29	24.3	107	83
	T266		0.01	0.24	19.9	89	82
	T267		0.01	0.26	21.0	94	82
	T268		0.01	0.31	25.5	114	82
	T269		0.01	0.25	21.3	93	84
	T270		0.01	0.36	29.2	130	82
	T271		0.01	0.23	18.7	82	83
	T272		0.01	0.29	24.4	107	83
	T273		0.01	0.25	20.1	90	82
	T274		0.01	0.25	20.2	90	82
	T275		0.01	0.26	21.5	96	82
	T276		0.01	0.22	18.3	82	82
	T277		0.01	0.27	22.1	97	83
	T278		0.01	0.24	20.1	88	83
	T279		0.01	0.24	19.7	87	83
	T280		0.01	0.24	19.9	88	83
	T281		0.01	0.24	19.6	86	83
	T282		0.01	0.23	19.3	85	83
	T283		0.01	0.23	19.1	84	83
	T284		0.01	0.31	25.8	113	83
	T285		0.02	0.55	45.6	201	83
	T286		0.02	0.37	30.7	135	83
	T287		0.04	0.98	81.7	359	83
	T288		0.02	0.51	42.5	187	83
	T289		0.02	0.48	39.8	175	83
	T290		0.01	0.34	27.9	123	83
	T291		0.02	0.45	37.5	165	83
	T292		0.02	0.59	49.3	217	83
	T293		0.01	0.32	26.5	116	83
	T294		0.02	0.43	38.2	157	89
	T295		0.01	0.24	20.3	89	83
	T296		0.01	0.27	22.2	98	83
	T297		0.01	0.23	19.3	85	83
	T298		0.01	0.23	18.7	83	82
	T299		0.01	0.23	19.1	85	82
	T300		0.01	0.26	21.2	93	83

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East	T259	4th Quarter '05	0.01	0.23	20.9	84	91
Area	T260		0.01	0.23	20.5	82	91
	T261		0.01	0.22	20.4	82	91
	T262		0.01	0.21	19.2	77	91
	T263		0.01	0.22	20.3	82	91
	T264		0.01	0.30	27.3	109	91
	T265		0.01	0.30	26.7	108	90
	T266		0.01	0.24	21.7	87	91
	T267		0.01	0.25	22.9	92	91
	T268		0.01	0.30	27.1	109	91
	T269		0.01	0.26	23.2	94	90
	T270		0.01	0.36	32.5	130	91
	T271		0.01	0.24	22.0	89	90
	T272		0.01	0.29	26.5	108	90
	T273		0.01	0.22	20.2	81	91
	T274		0.01	0.24	21.8	87	91
	T275		0.01	0.25	22.5	90	91
	T276		0.01	0.23	21.1	85	91
	T277		0.01	0.25	22.7	92	90
	T278		0.01	0.24	21.4	86	91
	T279		0.01	0.23	21.0	84	91
	T280		0.01	0.24	21.8	88	90
	T281		0.01	0.23	20.9	84	91
	T282		0.01	0.22	20.1	82	90
	T283		0.01	0.23	21.4	86	91
	T284		0.01	0.31	28.2	114	90
	T285		0.02	0.54	48.7	198	90
	T286		0.02	0.38	34.2	139	90
	T287		0.04	1.06	96.4	387	91
	T288		0.02	0.50	45.2	181	91
	T289		0.02	0.39	35.5	142	91
	T290		0.01	0.30	27.3	109	91
	T291		0.02	0.46	41.0	166	90
	T292		0.02	0.58	52.6	213	90
	T293		0.01	0.32	29.1	118	90
	T294		0.02	0.48	43.5	174	91
	T295		0.01	0.27	24.3	99	90
	T296		0.01	0.24	21.8	89	90
	T297		0.01	0.23	20.9	85	90
	T298		0.01	0.23	20.8	83	91
	T299		0.01	0.24	21.7	87	91
	T300		0.01	0.27	24.6	100	90

Table 5-2. 2005 TLD Results. (17 sheets total)

200 East Area, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T259	0.010 ± 0.001	0.24 ± 0.01	21.8 ± 1.1	87 ± 4
T260	0.010 ± 0.001	0.23 ± 0.02	21.1 ± 1.5	84 ± 6
T261	0.010 ± 0.001	0.24 ± 0.02	21.8 ± 1.9	87 ± 8
T262	0.009 ± 0.001	0.23 ± 0.02	20.7 ± 2.2	83 ± 9
T263	0.010 ± 0.001	0.23 ± 0.02	21.3 ± 1.4	85 ± 5
T264	0.013 ± 0.001	0.31 ± 0.03	27.9 ± 2.7	112 ± 11
T265	0.013 ± 0.001	0.31 ± 0.03	27.9 ± 2.8	112 ± 11
T266	0.010 ± 0.001	0.24 ± 0.02	21.7 ± 1.7	87 ± 7
T267	0.011 ± 0.000	0.25 ± 0.01	23.0 ± 0.8	92 ± 3
T268	0.013 ± 0.001	0.31 ± 0.02	28.2 ± 1.6	113 ± 6
T269	0.011 ± 0.000	0.26 ± 0.01	23.3 ± 0.5	93 ± 2
T270	0.015 ± 0.001	0.35 ± 0.02	32.3 ± 2.1	129 ± 8
T271	0.010 ± 0.001	0.24 ± 0.03	22.3 ± 2.5	89 ± 10
T272	0.012 ± 0.000	0.30 ± 0.00	27.0 ± 0.3	108 ± 1
T273	0.010 ± 0.001	0.23 ± 0.02	21.2 ± 1.8	85 ± 7
T274	0.010 ± 0.001	0.25 ± 0.03	22.5 ± 2.3	90 ± 9
T275	0.011 ± 0.001	0.26 ± 0.01	23.4 ± 1.4	94 ± 5
T276	0.009 ± 0.000	0.23 ± 0.01	20.7 ± 0.7	83 ± 3
T277	0.011 ± 0.001	0.27 ± 0.02	24.2 ± 1.8	97 ± 7
T278	0.010 ± 0.001	0.24 ± 0.01	22.1 ± 1.1	88 ± 4
T279	0.010 ± 0.001	0.24 ± 0.03	22.4 ± 2.4	89 ± 10
T280	0.010 ± 0.000	0.24 ± 0.01	21.7 ± 0.9	87 ± 3
T281	0.010 ± 0.001	0.24 ± 0.01	21.5 ± 1.3	86 ± 5
T282	0.010 ± 0.001	0.24 ± 0.02	21.5 ± 2.2	86 ± 9
T283	0.010 ± 0.001	0.24 ± 0.02	21.5 ± 2.0	86 ± 8
T284	0.013 ± 0.001	0.31 ± 0.02	27.9 ± 2.3	111 ± 9
T285	0.022 ± 0.004	0.53 ± 0.08	48.2 ± 7.8	193 ± 31
T286	0.016 ± 0.001	0.38 ± 0.02	34.5 ± 2.2	138 ± 9
T287	0.036 ± 0.017	0.86 ± 0.41	78.1 ± 37.8	312 ± 151
T288	0.023 ± 0.006	0.55 ± 0.14	50.0 ± 12.6	200 ± 50
T289	0.017 ± 0.004	0.40 ± 0.10	36.7 ± 9.3	147 ± 37
T290	0.014 ± 0.002	0.33 ± 0.04	30.0 ± 3.8	120 ± 15
T291	0.019 ± 0.001	0.45 ± 0.03	41.2 ± 2.5	165 ± 10
T292	0.027 ± 0.006	0.64 ± 0.16	58.8 ± 14.2	235 ± 57
T293	0.014 ± 0.002	0.34 ± 0.04	31.0 ± 4.1	124 ± 16
T294	0.020 ± 0.002	0.47 ± 0.06	42.9 ± 5.0	172 ± 20
T295	0.010 ± 0.001	0.25 ± 0.03	22.9 ± 2.3	92 ± 9
T296	0.010 ± 0.001	0.25 ± 0.02	22.8 ± 2.2	91 ± 9
T297	0.010 ± 0.001	0.24 ± 0.03	22.2 ± 2.7	89 ± 11
T298	0.009 ± 0.001	0.22 ± 0.01	20.5 ± 1.2	82 ± 5
T299	0.010 ± 0.001	0.25 ± 0.02	22.5 ± 2.1	90 ± 8
T300	0.011 ± 0.001	0.27 ± 0.03	24.4 ± 3.0	98 ± 12

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 West Area	T302	1st Quarter '05	0.011	0.27	26.6	100	97
	T303		0.013	0.32	31.1	117	97
	T304		0.015	0.35	34.3	129	97
	T305		0.010	0.24	23.4	88	97
	T306		0.013	0.30	29.3	110	97
	T307		0.012	0.29	27.8	105	97
	T308		0.011	0.27	26.6	100	97
	T309		0.010	0.24	23.7	89	97
	T310		0.012	0.30	29.0	109	97
	T311		0.011	0.26	25.2	95	97
	T312		0.018	0.43	41.6	157	97
	T313		0.020	0.47	46.0	173	97
	T314		0.010	0.25	24.2	91	97
	T315		0.011	0.26	25.2	95	97
	T316		0.012	0.28	26.7	101	97
	T317		0.011	0.25	24.6	93	97
	T318		0.010	0.24	23.5	89	97
	T319		0.010	0.24	23.3	88	97
	T320		0.012	0.28	27.0	102	97
	T321		0.012	0.28	26.9	101	97
	T322		0.010	0.23	22.2	84	97
	T323		0.013	0.31	30.0	113	97
	T324		0.018	0.42	41.2	155	97
	T325		0.014	0.34	33.2	125	97
	T302	2nd Quarter '05	0.010	0.25	20.6	91	83
	T303		0.013	0.31	26.1	115	83
	T304		0.015	0.36	29.9	132	83
	T305		0.010	0.24	22.0	88	91
	T306		0.013	0.32	26.2	115	83
	T307		0.012	0.28	25.2	101	91
	T308		0.011	0.27	24.2	97	91
	T309		0.010	0.23	21.0	84	91
	T310		0.012	0.29	26.0	105	91
	T311		0.010	0.24	21.9	88	91
	T312		0.014	0.33	30.3	122	91
	T313		0.021	0.50	45.6	183	91
	T314		0.009	0.22	18.2	80	83
	T315		0.011	0.26	21.2	93	83
	T316		0.011	0.27	22.4	98	83
	T317		0.011	0.26	22.0	97	83
	T318		0.011	0.25	21.0	92	83
	T319		0.010	0.24	21.8	87	91
	T320		0.012	0.29	24.1	106	83
	T321		0.012	0.29	24.0	106	83
	T322		0.010	0.24	20.1	88	83
	T323		0.013	0.30	25.0	110	83
	T324		0.019	0.45	37.4	165	83
	T325		0.014	0.34	28.1	124	83

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 West Area	T302	3rd Quarter '05	0.011	0.25	23.4	93	92
	T303		0.013	0.32	29.1	116	92
	T304		0.014	0.34	31.7	126	92
	T305		0.010	0.25	20.7	90	84
	T306		0.012	0.29	26.4	105	92
	T307		0.011	0.27	22.6	98	84
	T308		0.012	0.28	23.2	101	84
	T309		0.010	0.24	19.8	86	84
	T310		0.012	0.28	23.6	103	84
	T311		0.010	0.23	19.5	85	84
	T312		0.015	0.37	30.7	133	84
	T313		0.021	0.51	42.9	186	84
	T314		0.010	0.24	21.6	86	92
	T315		0.010	0.24	22.4	89	92
	T316		0.011	0.26	24.8	97	94
	T317		0.010	0.24	22.4	87	94
	T318		0.009	0.21	19.2	76	92
	T319		0.010	0.24	20.0	87	84
	T320		0.012	0.28	26.1	102	94
	T321		0.012	0.28	25.1	101	91
	T322		0.010	0.24	22.4	89	92
	T323		0.012	0.28	26.0	101	94
	T324		0.015	0.37	34.5	134	94
	T325		0.012	0.29	26.9	104	94
	T302	4th Quarter '05	0.010	0.23	21.1	86	90
	T303		0.013	0.30	27.5	111	90
	T304		0.015	0.35	31.6	128	90
	T305		0.010	0.23	21.0	85	90
	T306		0.013	0.31	27.6	112	90
	T307		0.011	0.27	25.0	100	91
	T308		0.011	0.27	24.9	100	91
	T309		0.010	0.24	22.3	89	91
	T310		0.012	0.28	25.6	103	91
	T311		0.011	0.25	22.9	92	91
	T312		0.014	0.34	30.8	124	91
	T313		0.021	0.51	46.8	188	91
	T314		0.010	0.23	21.0	85	90
	T315		0.011	0.26	23.5	96	90
	T316		0.011	0.27	23.4	97	88
	T317		0.010	0.24	20.8	86	88
	T318		0.010	0.23	20.7	83	91
	T319		0.010	0.24	21.6	87	91
	T320		0.011	0.26	23.2	96	88
	T321		0.012	0.28	25.9	104	91
	T322		0.010	0.24	21.2	86	90
	T323		0.012	0.29	25.5	106	88
	T324		0.014	0.35	30.5	126	88
	T325		0.012	0.28	25.0	104	88

Table 5-2. 2005 TLD Results. (17 sheets total)

200 West Area, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T302	0.011 ± 0.001	0.25 ± 0.03	23.1 ± 3.0	92 ± 12
T303	0.013 ± 0.001	0.31 ± 0.01	28.7 ± 1.2	115 ± 5
T304	0.015 ± 0.001	0.35 ± 0.01	32.1 ± 1.2	129 ± 5
T305	0.010 ± 0.000	0.24 ± 0.01	22.0 ± 0.9	88 ± 4
T306	0.013 ± 0.001	0.30 ± 0.02	27.6 ± 2.2	110 ± 9
T307	0.012 ± 0.001	0.28 ± 0.01	25.3 ± 1.3	101 ± 5
T308	0.011 ± 0.000	0.27 ± 0.01	24.9 ± 0.8	99 ± 3
T309	0.010 ± 0.001	0.24 ± 0.01	21.8 ± 1.3	87 ± 5
T310	0.012 ± 0.001	0.29 ± 0.02	26.2 ± 1.5	105 ± 6
T311	0.010 ± 0.001	0.25 ± 0.02	22.5 ± 2.2	90 ± 9
T312	0.015 ± 0.004	0.37 ± 0.09	33.5 ± 8.0	134 ± 32
T313	0.021 ± 0.001	0.50 ± 0.04	45.6 ± 3.3	182 ± 13
T314	0.010 ± 0.001	0.24 ± 0.03	21.4 ± 2.3	86 ± 9
T315	0.011 ± 0.001	0.26 ± 0.02	23.3 ± 1.5	93 ± 6
T316	0.011 ± 0.000	0.27 ± 0.01	24.5 ± 0.9	98 ± 4
T317	0.010 ± 0.001	0.25 ± 0.03	22.6 ± 2.5	90 ± 10
T318	0.010 ± 0.002	0.23 ± 0.04	21.2 ± 3.5	85 ± 14
T319	0.010 ± 0.000	0.24 ± 0.00	21.8 ± 0.2	87 ± 1
T320	0.012 ± 0.001	0.28 ± 0.02	25.3 ± 1.9	101 ± 8
T321	0.012 ± 0.001	0.28 ± 0.01	25.7 ± 1.2	103 ± 5
T322	0.010 ± 0.001	0.24 ± 0.01	21.6 ± 1.2	87 ± 5
T323	0.012 ± 0.001	0.29 ± 0.03	26.8 ± 2.6	107 ± 10
T324	0.017 ± 0.004	0.40 ± 0.10	36.2 ± 8.9	145 ± 36
T325	0.013 ± 0.003	0.31 ± 0.06	28.5 ± 5.8	114 ± 23

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
212-R	T301	1st Quarter '05	0.31	7.35	706	2684	96
(200 North	T301	2nd Quarter '05	0.36	8.60	782	3139	91
Area)	T301	3rd Quarter '05	0.31	7.52	639	2743	85
	T301	4th Quarter '05	0.26	6.22	566	2271	91

212-R, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T301	0.31 ± 0.08	7.42 ± 1.95	677 ± 178	2708 ± 710

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 Area	T332	1st Quarter '05	0.01	0.23	21.2	84	92
	T333		0.01	0.24	22.0	87	92
	T334		0.01	0.23	21.5	86	92
	T335		0.01	0.26	23.9	95	92
	T336		0.01	0.28	25.7	102	92
	T337		0.01	0.25	23.0	91	92
	T338		0.01	0.31	28.7	114	92
	T339		0.01	0.33	30.1	119	92
	T332	2nd Quarter '05	0.01	0.22	22.4	79	104
	T333		0.01	0.25	26.0	91	104
	T334		0.01	0.23	23.5	83	104
	T335		0.01	0.25	25.3	92	101
	T336		0.01	0.25	25.7	90	104
	T337		0.01	0.22	22.9	80	104
	T338		0.01	0.32	32.4	117	101
	T339		0.01	0.30	30.5	110	101
	T332	3rd Quarter '05	0.01	0.23	19.7	85	85
	T333		0.01	0.23	19.8	85	85
	T334		0.01	0.23	19.6	84	85
	T335		0.01	0.25	21.8	90	88
	T336		0.01	0.23	19.6	84	85
	T337		NR	NR	NR	NR	n/a
	T338		0.01	0.31	27.4	113	88
	T339		0.01	0.31	27.4	114	88
	T332	4th Quarter '05	0.01	0.25	21.7	92	86
	T333		0.01	0.25	21.6	92	86
	T334		0.01	0.24	20.5	87	86
	T335		0.01	0.24	21.0	89	86
	T336		0.01	0.22	19.0	81	86
	T337		NR	NR	NR	NR	n/a
	T338		0.01	0.29	25.4	108	86
	T339		0.01	0.27	23.2	99	86

300 Area, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T332	0.010 ± 0.001	0.23 ± 0.03	21.1 ± 2.8	85 ± 11
T333	0.010 ± 0.001	0.24 ± 0.02	22.2 ± 1.6	89 ± 6
T334	0.010 ± 0.000	0.23 ± 0.01	21.2 ± 0.9	85 ± 4
T335	0.010 ± 0.001	0.25 ± 0.01	22.9 ± 1.2	91 ± 5
T336	0.010 ± 0.002	0.25 ± 0.05	22.4 ± 4.7	89 ± 19
T337	0.010 ± 0.002	0.23 ± 0.04	21.4 ± 3.9	85 ± 15
T338	0.013 ± 0.001	0.31 ± 0.02	28.3 ± 2.0	113 ± 8
T339	0.013 ± 0.002	0.30 ± 0.05	27.7 ± 4.4	111 ± 18

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300 TEDF	T326	1st Quarter '05	0.01	0.26	24.0	95	92
	T327		0.01	0.24	22.2	88	92
	T328		0.01	0.27	24.6	98	92
	T329		0.01	0.24	21.9	87	92
	T330		0.01	0.25	22.8	91	92
	T331		0.01	0.26	23.7	94	92
	T326	2nd Quarter '05	0.01	0.24	24.3	88	101
	T327		0.01	0.23	23.8	84	104
	T328		0.01	0.25	25.0	90	101
	T329		0.01	0.24	24.5	89	101
	T330		0.01	0.24	23.7	86	101
	T331		0.01	0.25	24.8	90	101
	T326	3rd Quarter '05	0.01	0.22	19.8	82	88
	T327		0.01	0.24	20.7	89	85
	T328		0.01	0.24	21.3	88	88
	T329		0.01	0.23	20.4	85	88
	T330		0.01	0.24	21.1	88	88
	T331		0.01	0.25	22.1	92	88
	T326	4th Quarter '05	0.01	0.24	20.2	86	86
	T327		0.01	0.23	19.8	84	86
	T328		0.01	0.24	20.2	86	86
	T329		0.01	0.24	20.8	88	86
	T330		0.01	0.23	19.6	83	86
	T331		0.01	0.24	20.6	88	86

300 TEDF, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T326	0.010 ± 0.001	0.24 ± 0.03	21.9 ± 2.7	88 ± 11
T327	0.010 ± 0.001	0.24 ± 0.01	21.5 ± 1.3	86 ± 5
T328	0.010 ± 0.001	0.25 ± 0.03	22.6 ± 2.6	91 ± 10
T329	0.010 ± 0.000	0.24 ± 0.01	21.8 ± 0.9	87 ± 4
T330	0.010 ± 0.001	0.24 ± 0.02	21.7 ± 1.5	87 ± 6
T331	0.010 ± 0.001	0.25 ± 0.02	22.7 ± 1.4	91 ± 5

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300-FF-2	T369	1st Quarter '05	0.01	0.20	24.1	73	120
Field	T370		0.01	0.20	24.3	74	120
Remediation	T371		0.01	0.21	25.1	76	120
project	T372		0.01	0.21	24.6	75	120
(300 Area)	T373		0.01	0.20	23.7	72	120
	T374		0.01	0.29	34.6	105	120
	T369	2nd Quarter '05	0.01	0.28	20.7	104	73
	T370		0.01	0.29	21.2	106	73
	T371		0.01	0.28	20.3	101	73
	T372		0.01	0.30	21.6	108	73
	T373		0.01	0.30	22.9	110	76
	T374		0.01	0.33	24.3	121	73
	T369	3rd Quarter '05	0.01	0.22	19.6	81	88
	T370		0.01	0.23	20.6	85	88
	T371		0.01	0.22	19.7	82	88
	T372		0.01	0.24	21.0	87	88
	T373		0.01	0.24	20.0	86	85
	T374		0.01	0.21	18.7	78	88
	T369	4th Quarter '05	Monitoring Concluded				
	T370		Monitoring Concluded				
	T371		Monitoring Concluded				
	T372		Monitoring Concluded				
	T373		Monitoring Concluded				
	T374		Monitoring Concluded				

300-FF-2, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T369	0.010 ± 0.004	0.23 ± 0.09	20.9 ± 7.9	84 ± 31
T370	0.010 ± 0.004	0.24 ± 0.09	21.5 ± 8.2	86 ± 33
T371	0.010 ± 0.003	0.23 ± 0.07	21.1 ± 6.6	85 ± 26
T372	0.010 ± 0.004	0.24 ± 0.09	21.8 ± 8.3	87 ± 33
T373	0.010 ± 0.004	0.24 ± 0.10	21.6 ± 9.5	86 ± 38
T374	0.012 ± 0.005	0.28 ± 0.12	25.2 ± 11.1	101 ± 44

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
400 Area	T340	1st Quarter '05	0.01	0.24	22.5	89	92
	T341		0.01	0.23	21.3	85	92
	T342		0.01	0.23	21.5	85	92
	T343		0.01	0.24	22.3	89	92
	T344		0.01	0.24	21.6	86	92
	T345		0.01	0.23	21.3	85	92
	T346		0.01	0.24	22.3	88	92
	T340	2nd Quarter '05	0.01	0.25	25.0	90	101
	T341		0.01	0.23	23.3	84	101
	T342		0.01	0.23	22.8	82	101
	T343		0.01	0.22	22.4	81	101
	T344		0.01	0.23	22.9	83	101
	T345		0.01	0.24	24.3	88	101
	T346		0.01	0.22	22.1	80	101
	T340	3rd Quarter '05	0.01	0.23	20.3	84	88
	T341		0.01	0.24	21.2	88	88
	T342		0.01	0.21	18.8	78	88
	T343		0.01	0.23	20.1	84	88
	T344		0.01	0.21	18.9	78	88
	T345		0.01	0.23	20.1	84	88
	T346		0.01	0.22	18.9	79	88
	T340	4th Quarter '05	0.01	0.24	20.0	86	85
	T341		0.01	0.22	19.0	81	86
	T342		0.01	0.22	18.7	80	85
	T343		0.01	0.22	19.1	82	85
	T344		0.01	0.23	19.8	85	85
	T345		0.01	0.22	19.0	82	85
	T346		0.01	0.23	19.1	82	85

400 Area, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T340	0.010 ± 0.001	0.24 ± 0.02	21.9 ± 1.4	87 ± 5
T341	0.010 ± 0.001	0.23 ± 0.02	21.1 ± 1.4	84 ± 6
T342	0.009 ± 0.001	0.22 ± 0.02	20.4 ± 1.5	82 ± 6
T343	0.010 ± 0.001	0.23 ± 0.02	20.9 ± 1.7	84 ± 7
T344	0.009 ± 0.001	0.23 ± 0.02	20.8 ± 1.7	83 ± 7
T345	0.010 ± 0.001	0.23 ± 0.01	21.1 ± 1.3	84 ± 5
T346	0.009 ± 0.001	0.23 ± 0.02	20.6 ± 2.2	82 ± 9

Table 5-2. 2005 TLD Results. (17 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
ERDF	T351	1st Quarter '05	0.01	0.31	24.4	114	78
(200 West	T352		0.01	0.33	26.0	122	78
Area)	T353		0.02	0.38	29.6	139	78
	T351	2nd Quarter '05	0.01	0.26	23.6	96	90
	T352		0.01	0.28	25.5	104	90
	T353		0.01	0.30	27.3	111	90
	T351	3rd Quarter '05	0.01	0.25	17.5	91	70
	T352		0.01	0.25	17.2	90	70
	T353		0.01	0.24	16.7	87	70
	T351	4th Quarter '05	0.01	0.24	21.6	88	90
	T352		0.01	0.23	20.6	84	90
	T353		0.01	0.23	20.5	83	90

ERDF, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T351	0.011 ± 0.003	0.27 ± 0.06	24.3 ± 5.9	97 ± 23
T352	0.011 ± 0.004	0.27 ± 0.09	24.9 ± 8.4	99 ± 34
T353	0.012 ± 0.006	0.29 ± 0.14	26.2 ± 12.7	105 ± 51

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
IDF	T375	1st Quarter '05	0.01	0.25	24.0	90	97
(200 East	T375	2nd Quarter '05	0.01	0.24	22.0	88	91
Area)	T375	3rd Quarter '05	0.01	0.24	20.5	89	84
	T375	4th Quarter '05	0.01	0.24	21.6	88	90

IDF, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T375	0.010 ± 0.000	0.24 ± 0.01	22.2 ± 0.6	89 ± 2

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6.0 RADIOLOGICAL SURVEYS

In 2005, there were approximately 3,592 hectares (8,876 acres) of posted outdoor contamination areas and 635 hectares (1,569 acres) of posted underground radioactive materials areas at the Hanford Site. During 2005, twelve small areas totaling less than one acre were reclassified from contamination/soil contamination areas to underground radioactive materials areas, and several waste sites in the 100 Areas [7 hectares (17 acres)] and one waste site in the 300 Area [2 hectares (5 acres)] were remediated and released from posting. A listing of these waste sites is provided in Table 6-1.

Posted contamination areas continually vary in number and size from year to year because of ongoing efforts to clean, stabilize, and remediate areas of known contamination. In conjunction, new areas of contamination are also being identified throughout the year. Survey locations, typically associated with cribs, trenches, burial grounds, tank farms, and covered ponds and ditches, are illustrated in Figures 6-1 through 6-10.

It was estimated that the external dose rate at 80% of the identified outdoor contamination areas was less than 1 mrem/hr, although direct dose rate readings from isolated radioactive specks (a diameter less than 0.6 cm [0.25 in.]) could have been considerably higher. Contamination levels of this magnitude did not significantly add to dose rates for the public or Hanford Site workers in 2005.

Table 6-1. Waste Sites Remediated and Released From Posting During 2005.

Area	Waste Site
100 B/C	100-B-8
	100-C-6
	116-B-1
	116-B-11
	116-C-1
	116-C-5
	118-B-2
100 N	116-N-1
300	300-8

Figure 6-1. 2005 Radiological Survey Locations, 100-B/C Area.

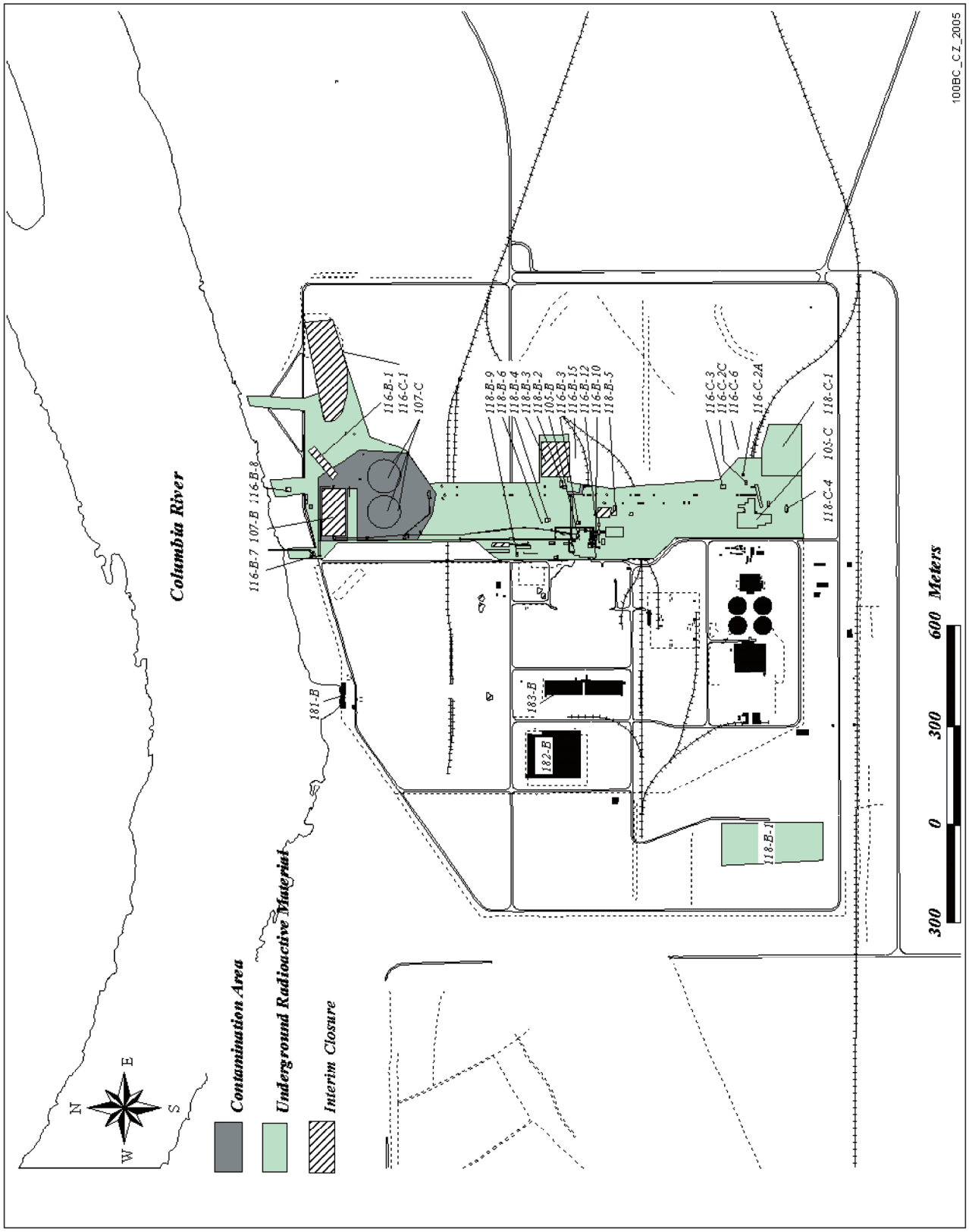


Figure 6-2. 2005 Radiological Survey Locations, 100-D/DR Area.

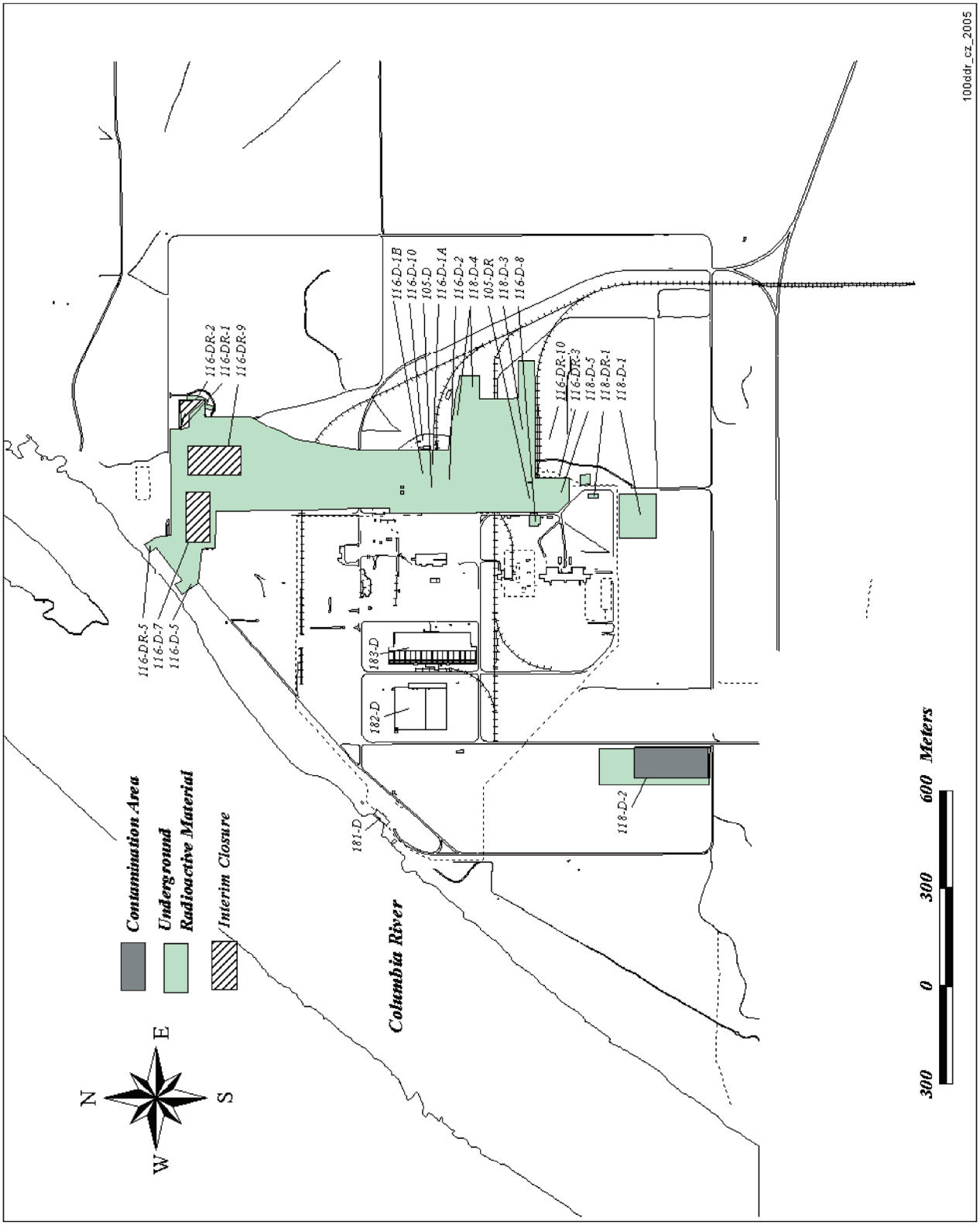


Figure 6-3. 2005 Radiological Survey Locations, 100-F Area.

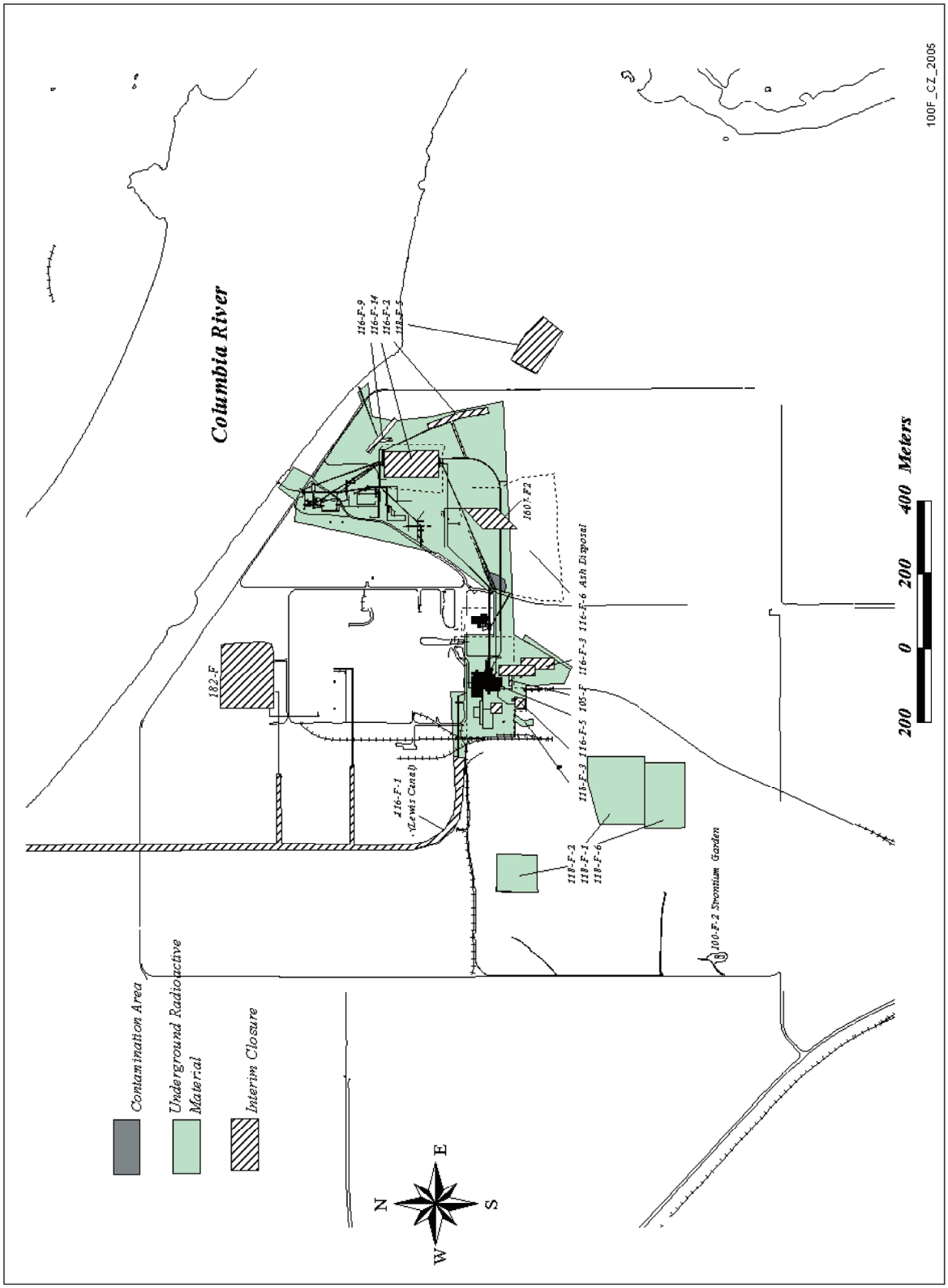


Figure 6-4. 2005 Radiological Survey Locations, 100-H Area.

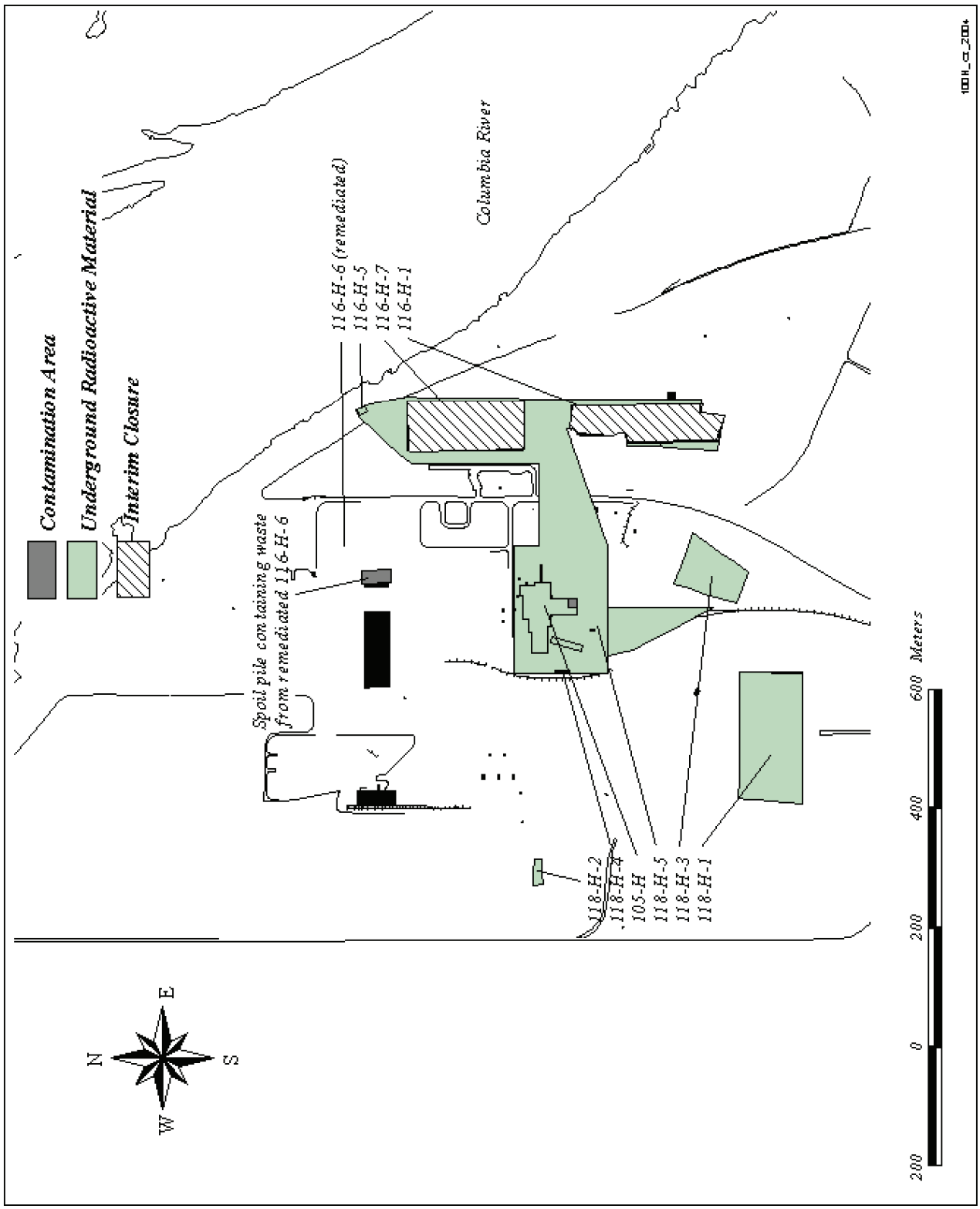


Figure 6-5. 2005 Radiological Survey Locations, 100-K Area.

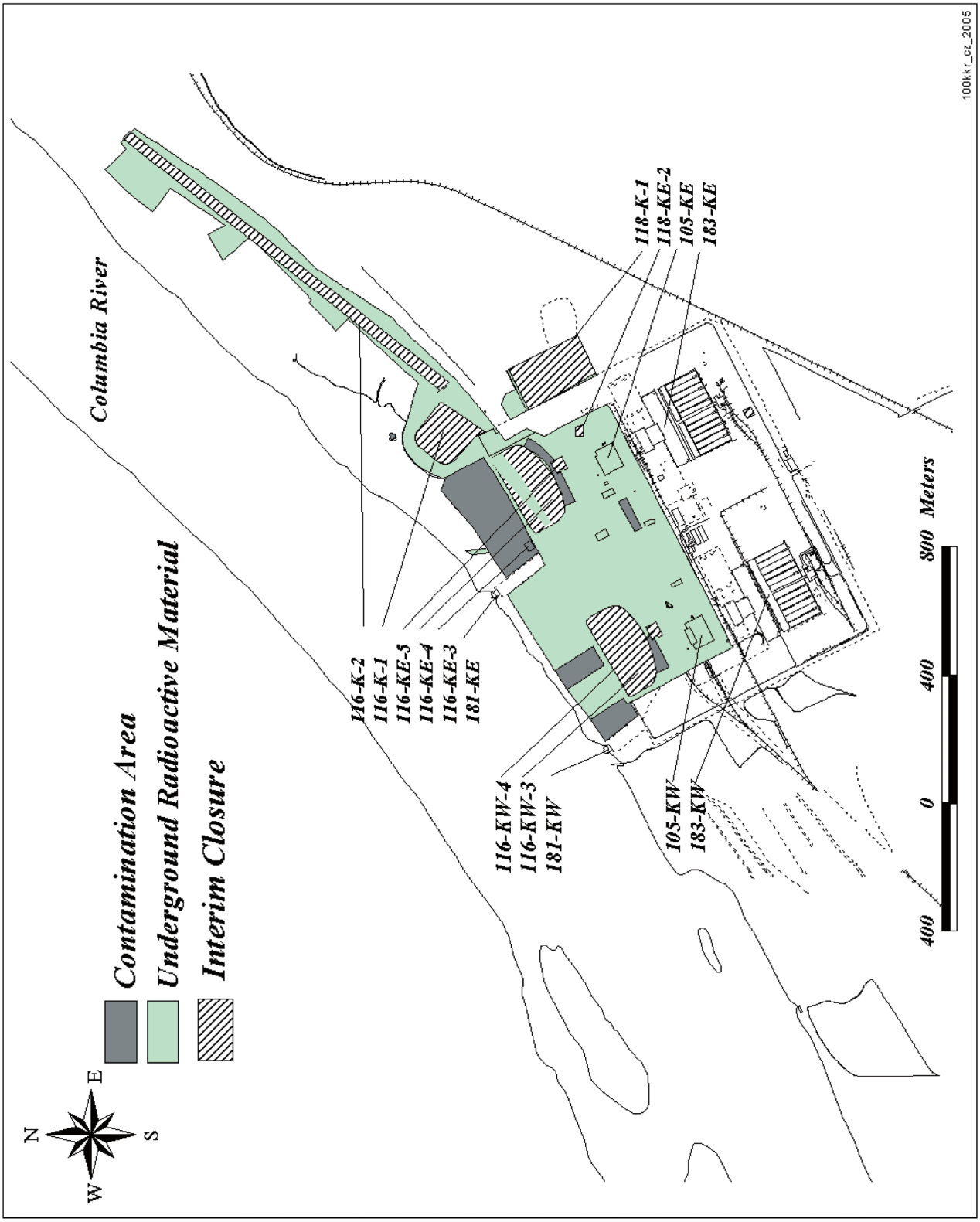


Figure 6-6. 2005 Radiological Survey Locations, 100-N Area.

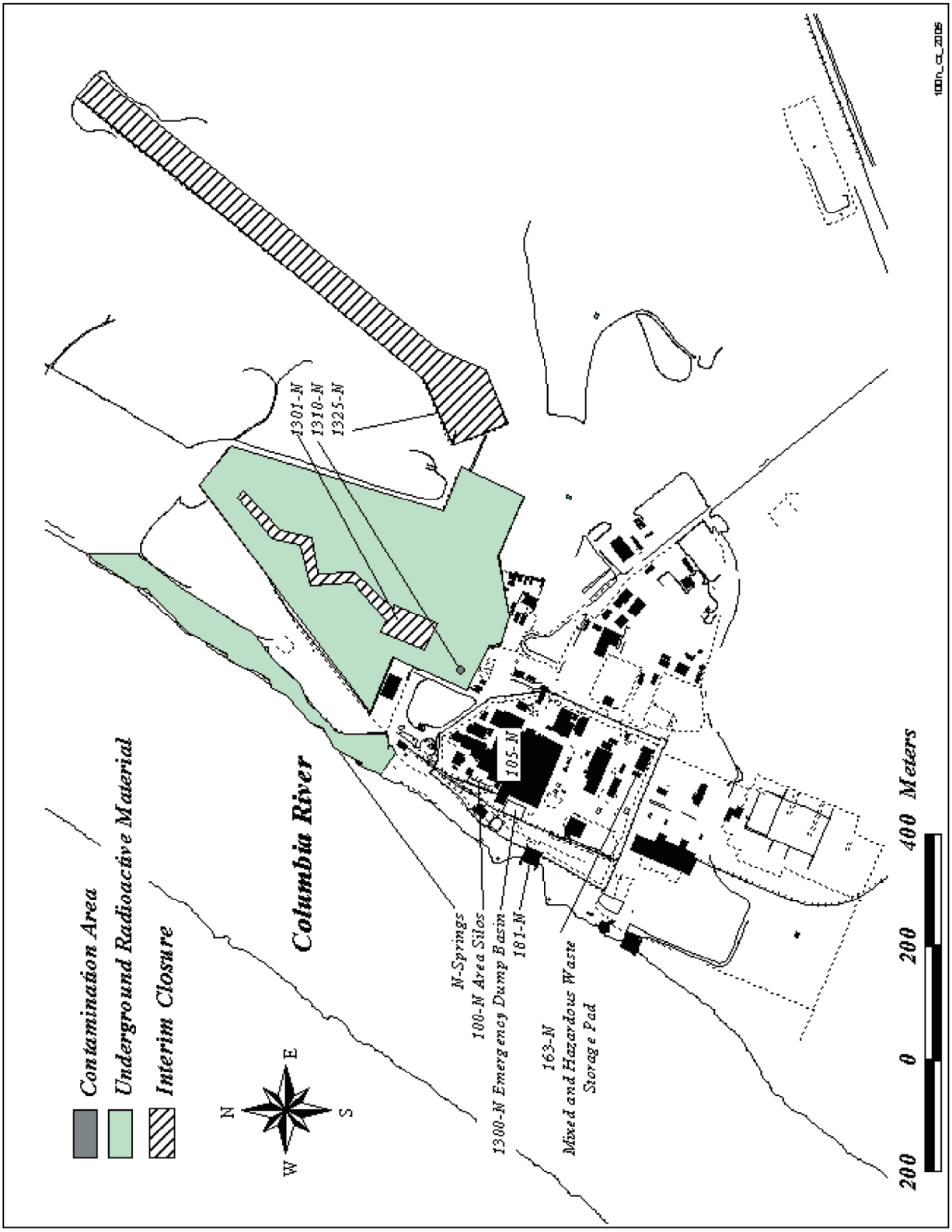


Figure 6-7. 2005 Radiological Survey Locations, 200 East Area.

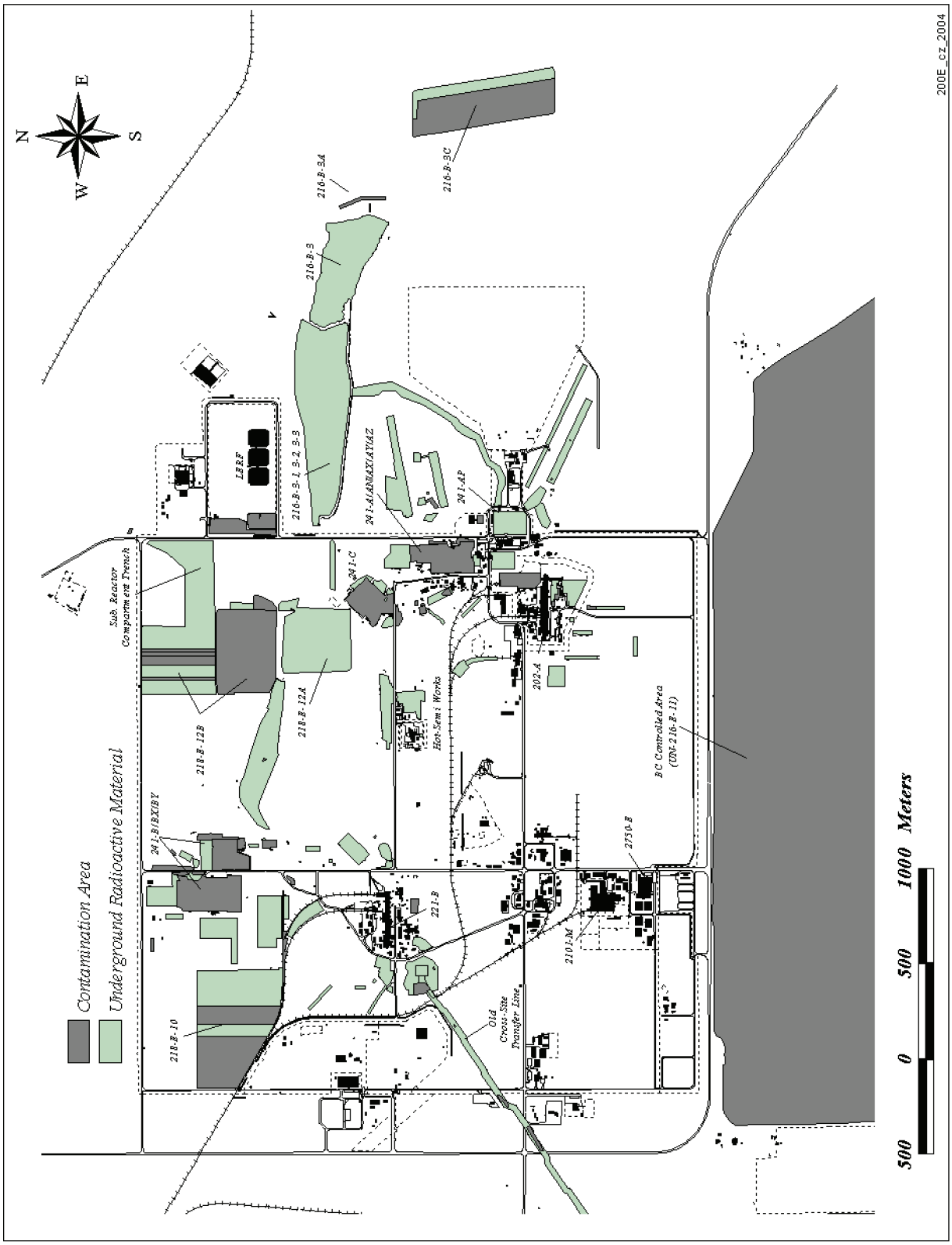


Figure 6-8. 2005 Radiological Survey Locations, 200 West Area.

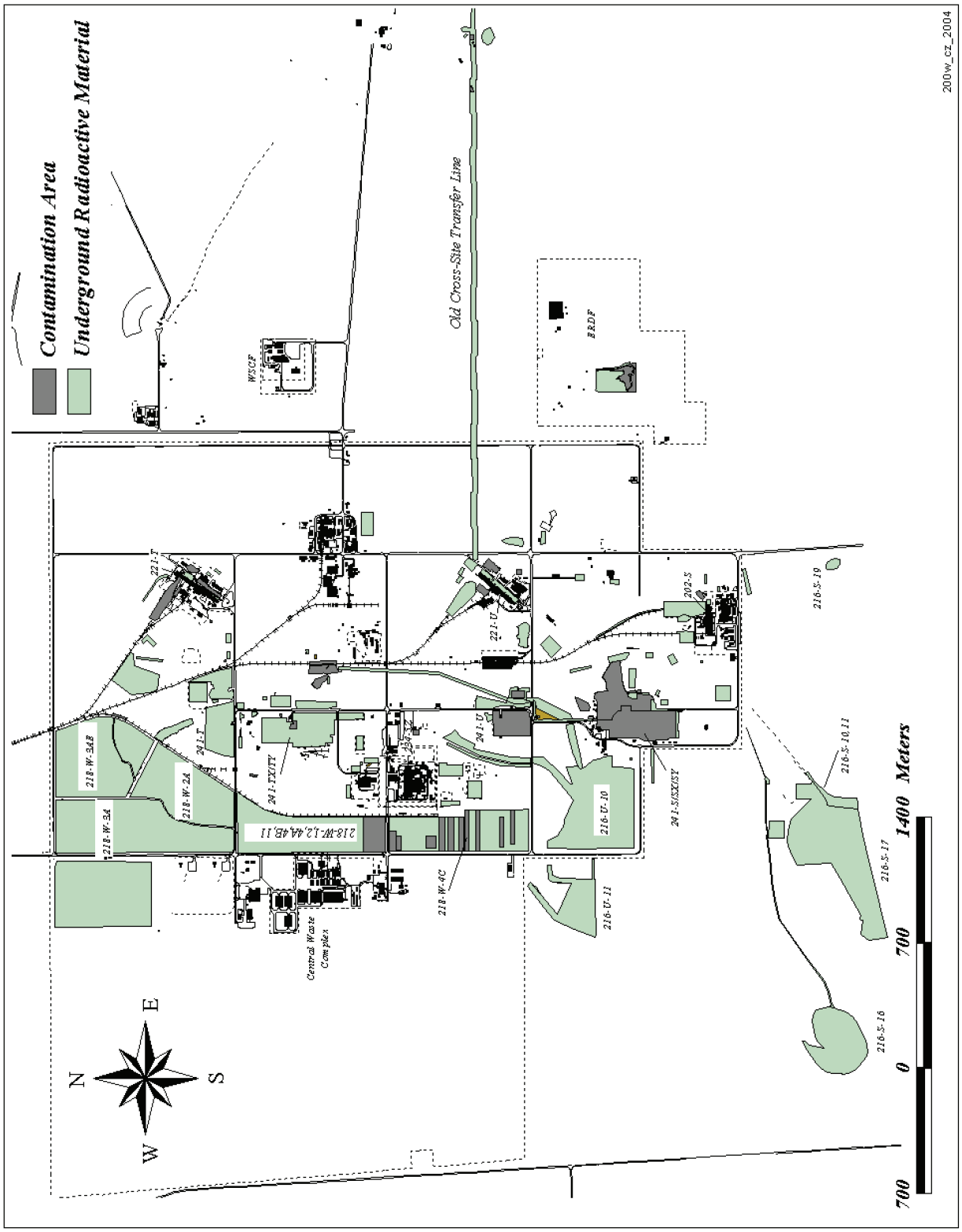


Figure 6-9. 2005 Radiological Survey Locations, 300 Area.

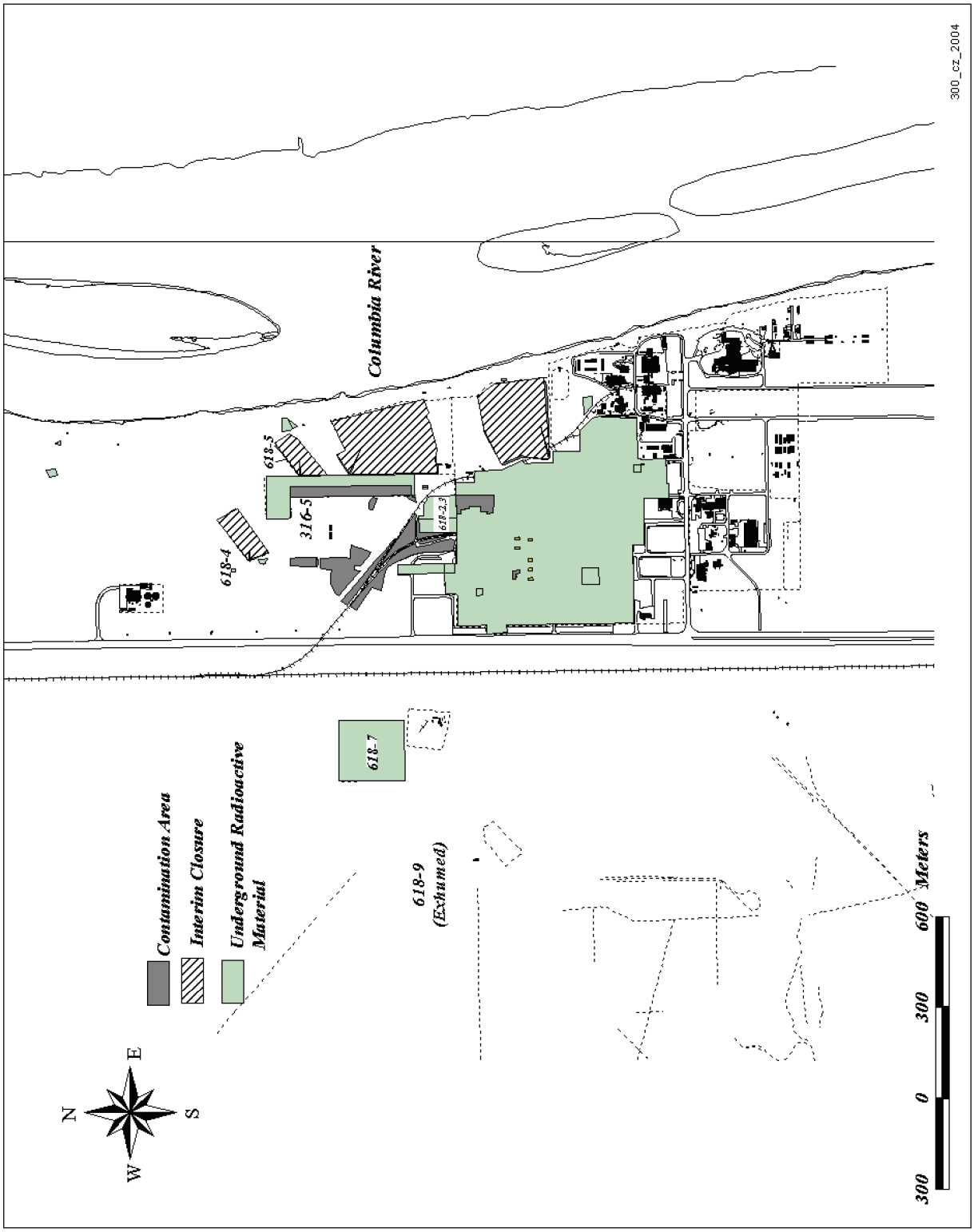
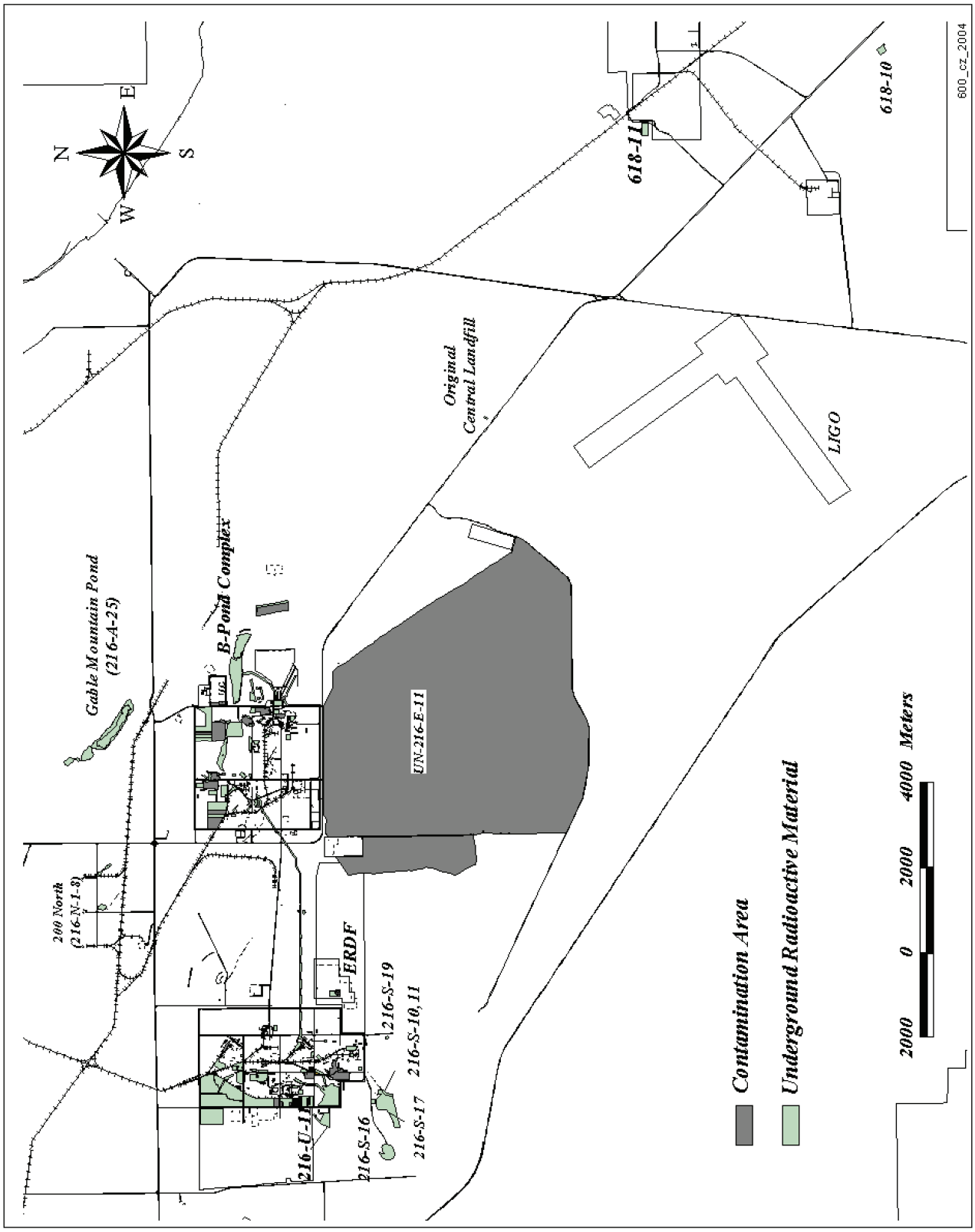


Figure 6-10. 2005 Radiological Survey Locations, 600 Area.



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7.0 INVESTIGATIVE SAMPLING

Investigative samples were collected where known or suspected radioactive contamination was present, or to verify radiological conditions at project sites. In 2005, nine samples (three soil, four vegetation, and two animals) were analyzed for radionuclides at the 222-S Laboratory and the analytical results are provided in Table 7-1. Analytical results from two animal samples collected late in 2004 were not available for reporting until 2005 and those results are also provided in Table 7-1. Another 122 contaminated environmental samples were reported and disposed without isotopic analyses (although field instrument readings were recorded) during surveillance and/or cleanup operations. A listing of these, their locations and field readings are provided in Table 7-2.

7.1 SOIL

In 2005, there were 20 instances of radiological contamination in which soil was identified as the carrier of contamination. Of these, 14 were identified only as specks, or soil specks. Often, specks observed under high magnification are found to be small pieces of decomposed vegetation, most often tumbleweeds. External radioactivity levels ranged from approximately 40,000 disintegrations per minute (dpm)/100 cm^2 to greater than 6,000,000 dpm/100cm^2. Contaminated areas were radiologically posted or cleaned up. The number of contamination incidents, the range of radiation dose rate levels, and radionuclide concentrations observed in 2005 were generally within historical ranges.

Contaminated soil (in matrix with Crested Wheatgrass), found on top of the 218-E-12A burial ground (200 East Area), was divided into three split samples and the analytical results are provided in Table 7-1.

7.2 VEGETATION

In 2005, there were 66 instances in which vegetation was identified as the carrier of radiological contamination. One sample (Crested Wheatgrass), found on top of the 218-E-12A burial ground (200 East Area), was divided into four sub-samples and the analytical results are provided in Table 7-1.

One instance of contaminated vegetation had field readings in excess of 1,000,000 dpm/100cm^2. The radioactivity levels and range of radionuclide concentrations were all within historical ranges.

The number of contaminated vegetation incidents increased from 60 in 2004 to 66 in 2005. The increase can be attributed to favorable growing conditions (moisture) and a possible resistance to the herbicide. Nevertheless, contaminated tumbleweeds that grew in recent years continue to be identified by radiological surveys. It is expected that as contaminated vegetation from past years is identified and cleaned up, subsequent years will show the results of program improvements.

7.3 ANIMALS

Animals were collected either as part of an integrated pest management program or as a result of radiological surveys finding contaminated wildlife-related material (e.g., feces, nests, etc.). Animals were collected directly from or near facilities in an effort to monitor and track effectiveness of preventive measures designed to deter animal intrusion. For 2005, the number of animals found to be contaminated with radioactivity, the radioactivity levels, and the range of radionuclide concentrations were within historical ranges.

In 2005, twenty instances of contaminated animals or animal-related contamination were identified. Of these, the following were submitted to the laboratory and the analytical results are provided in Table 7-1:

- A contaminated Gopher snake found outside of the 221-B Plant (200 East Area). Two sub-samples were submitted.

- Two animal samples collected late in 2004:
  - A contaminated mouse found outside the 241-U Tank Farm (200 West Area).
  - A contaminated mouse found in an unknown location in the 100 Areas.

Several animal or animal-related samples collected in the 200 Areas during 2005 exhibited field readings in excess of 1,000,000 dpm/100cm^2. A listing of these and their field readings is included in Table 7-2.

7.4 SPECIAL CHARACTERIZATION SAMPLING

Listed below are special characterization projects conducted or completed during 2005 to ascertain the radiological, and in some cases, physical condition of specific sites or operations:

A preoperational monitoring plan (RPP-6877, Rev. 1) has been developed in support of waste vitrification, and the facility mission has expanded to include mixed waste and low-level waste. An ongoing environmental survey was conducted on the proposed location for the Integrated Disposal Facility, formerly the Immobilized Low-Activity Waste Disposal Facility, in the 200 East Area. Tasks completed included soil, vegetation, and small mammal sampling. The preoperational monitoring report is currently scheduled for release in 2006.

Table 7-1. Investigative Sample Results, 2005. (3 sheets total)

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/g)	Analytical Uncertainty
Soil - Split 1 (Crested Wheat Grass/Soil matrix)	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<1.2E-1	
				^{89,90}Sr	6.0E+02	± 1.6E+00
				^{134}Cs	<1.3E-01	
				^{137}Cs	2.1E+00	
				^{152}Eu	<5.7E-01	
				^{154}Eu	<3.8E-01	
				^{155}Eu	<5.3E-01	
				^{Total}U	1.3E+00	
				^{238}Pu	<6.2E+00	± 5.3E+00
				^{239,240}Pu	1.4E+02	± 2.4E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/g)	Analytical Uncertainty
Soil - Split 2 (Crested Wheat Grass/Soil matrix)	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<1.1E-1	
				^{89,90}Sr	6.1E+02	± 1.7E+00
				^{134}Cs	<1.3E-01	
				^{137}Cs	2.4E+00	± 8.8E+00
				^{152}Eu	<6.2E-01	
				^{154}Eu	<3.8E-01	
				^{155}Eu	<5.3E-01	
				^{Total}U	1.4E+00	
				^{238}Pu	<4.68E+00	± 5.5E+00
				^{239,240}Pu	1.3E+02	± 2.2E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/g)	Analytical Uncertainty
Soil - Split 3 (Crested Wheat Grass/Soil matrix)	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<1.2E-1	
				^{89,90}Sr	4.8E+02	± 1.7E+00
				^{134}Cs	<1.3E-01	
				^{137}Cs	2.4E+00	± 8.0E+00
				^{152}Eu	<5.7E-01	
				^{154}Eu	<3.9E-01	
				^{155}Eu	<5.3E-01	
				^{Total}U	1.3E+00	
				^{238}Pu	<4.0E+00	± 5.5E+00
				^{239,240}Pu	1.0E+02	± 2.2E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (Sample)	Analytical Uncertainty
Crested Wheet Grass Wash	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<3.6E-02	
				^{89,90}Sr	1.1E+04	± 1.2E+00
				^{134}Cs	<3.6E-02	
				^{137}Cs	<4.6E-02	
				^{152}Eu	<1.8E-1	
				^{154}Eu	<1.1E-01	
				^{155}Eu	<9.3E-02	
				^{Total}U	4.9E-01	
				^{238}Pu	<2.5E+01	± 1.0E+02
				^{239,240}Pu	1.2E+03	± 3.70E+00

Table 7-1. Investigative Sample Results, 2005. (3 sheets total)

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/Sample) ± Analytical Uncertainty
Crested Wheet Grass Leaves	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<5.2E-01
				^{89,90}Sr	2.0E+04 ± 9.6E-01
				^{134}Cs	<5.1E-01
				^{137}Cs	1.9E+00 ± 2.1E+01
				^{152}Eu	<2.4E+00
				^{154}Eu	<1.7E+00
				^{155}Eu	<1.3E+00
				^{Total}U	2.4E+01
				^{238}Pu	<1.4E+02 ± 1.2E+01
				^{239,240}Pu	2.5E+03 ± 2.7E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/Sample) ± Analytical Uncertainty
Crested Wheet Grass Roots	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<3.5E-01
				^{89,90}Sr	3.7E+04 ± 7.7E-01
				^{134}Cs	<5.1E-01
				^{137}Cs	4.0E+00 ± 1.5E+01
				^{152}Eu	<2.6E+00
				^{154}Eu	<1.6E+00
				^{155}Eu	<1.3E+00
				^{Total}U	3.2E+01
				^{238}Pu	<2.1E+02 ± 8.6E+00
				^{239,240}Pu	4.7E+03 ± 2.3E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/Sample) ± Analytical Uncertainty
Crested Wheet Grass Crown	218-E-12A Burial Ground (200 East)	07/07/05	1,800,000dpm/100cm^2	^{60}Co	<5.0E+00
				^{89,90}Sr	3.7E+06 ± 5.1E-01
				^{134}Cs	<5.2E+00
				^{137}Cs	5.2E+01 ± 1.3E+01
				^{152}Eu	<2.7E+01
				^{154}Eu	<1.7E+01
				^{155}Eu	<1.6E+01
				^{Total}U	7.2E+00
				^{238}Pu	<3.5E+03 ± 7.9E+00
				^{239,240}Pu	7.2E+04 ± 1.8E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/g) ± Analytical Uncertainty
Gopher Snake	221-B Plant (200 East)	04/21/05	3,000dpm/100cm^2	^{60}Co	<3.1E-01
				^{89,90}Sr	6.1E+00 ± 1.5E+00
				^{134}Cs	<9.4E-01
				^{137}Cs	1.2E+03 ± 4.2E+00
				^{152}Eu	<1.5E+00
				^{154}Eu	<9.3E-01
				^{155}Eu	<2.5E+00
				^{Total}U	3.2E-04
				^{238}Pu	<3.8E-02 ± 1.6E+01
				^{239,240}Pu	<3.8E-02 ± 1.0E+02

Table 7-1. Investigative Sample Results, 2005. (3 sheets total)

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/g) ± Analytical Uncertainty
Snake Wash	221-B Plant (200 East)	04/21/05	3,000dpm/100cm^2	^{60}Co	<1.8E+01
				^{89,90}Sr	3.9E+01 ± 2.4E+01
				^{134}Cs	<1.8E+01
				^{137}Cs	2.0E+02 ± 1.1E+01
				^{152}Eu	<8.7E+01
				^{154}Eu	<5.6E+01
				^{155}Eu	<4.4E+01
				^{Total}U	<2.5E-3
				^{238}Pu	<1.5E+01 ± 1.0E+02
				^{239,240}Pu	<1.5E+01 ± 1.0E+02

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/g) ± Analytical Uncertainty
Mouse	241-U Tank Farm (200 West)	10/01/04	300,000dpm/100cm^2	^{60}Co	<2.5E+01
				^{89,90}Sr	2.3E+03 ± 5.3E-01
				^{134}Cs	<3.9E+01
				^{137}Cs	1.8E+04 ± 4.3E+00
				^{152}Eu	<1.2E+02
				^{154}Eu	<7.7E+01
				^{155}Eu	<8.8E+01
				^{Total}U	1.1E-01
				^{238}Pu	<2.7E+00 ± 1.1E+01
				^{239,240}Pu	1.2E+01 ± 5.2E+00

Matrix	Location	Date	Field Reading[a]	Isotope	Result[b] (pCi/gm) ± Analytical Uncertainty
Mouse	100 Areas	10/11/04	30,000dpm/100cm^2	^{60}Co	<4.9E+01
				^{89,90}Sr	2.7E+03 ± 7.4E-01
				^{134}Cs	<5.0E+01
				^{137}Cs	2.0E+03 ± 5.8E+00
				^{152}Eu	<2.3E+02
				^{154}Eu	<1.6E+02
				^{155}Eu	<9.8E+01
				^{Total}U	5.8E-02
				^{238}Pu	1.5E+01 ± 6.9E+00
				^{239,240}Pu	1.1E+02 ± 3.2E+00

[a] dpm = disintegrations per minute

[b] A "<" symbol indicates that the analyte was analyzed for but not detected. Uncertainty values were not reported by the laboratory for all results. To convert to international metric system units (SI), multiply pCi/g by 0.03704 to obtain Bq/g.

Table 7-2. Investigative Samples Not Analyzed, 2005. (2 sheets total)

SAMPLE MATRIX	LOCATION	FIELD READING (Beta/Gamma)	DATE
Soil	200-BC Cribs	>6,000,000 dpm/100cm^2	08/30/05
Soil	UPR-600-20	3,000,000 dpm/100cm^2	04/19/05
Plastic Debris	218-W-3 Burial Ground	>1,000,000 dpm/100cm^2	04/13/05
Rabbit Feces	241-C Tank Farm Perimeter	>1,000,000 dpm/100cm^2	04/19/05
Rabbit Feces	218-E-12A Burial Ground	>1,000,000 dpm/100cm^2	07/07/05
Bait Station and Mouse Feces	241-U Tank Farm	>1,000,000 dpm/100cm^2	08/04/05
Tumbleweed Fragments/Feces	241-B Tank Farm242-B Evaporator	>1,000,000 dpm/100cm^2	08/05/05
Mouse feces	241-SX Tank Farm Perimeter Fence	>1,000,000 dpm/100cm^2	08/31/05
Animal Urine/Soil	241-SX Perimeter	>1,000,000 dpm/100cm^2	09/15/05
Urine)	Southwest corner 241-SX Tank Farm	>1,000,000 dpm/100cm^2	11/03/05
Specks (Animal Urine)	241-SX Tank Farm	>1,000,000 dpm/100cm^2	11/11/05
Rabbit Feces	West side of 241-S Tank Farm	>1,000,000 dpm/100cm^2	12/16/05
Tumbleweed	200-E Perimeter Fence Line @ Canton Ave	1,074,000 dpm/100cm^2	05/10/05
Specks/Animal Droppings	SW corner 241-SX Tank Farm	1,000,000 dpm/100cm^2	11/22/05
Tumbleweed Fragments	200-E-139	999,000 dpm/100cm^2	04/19/05
Tumbleweeds	Haul Rd. near the 116-N-1 Trench	900,000 dpm/100cm^2	03/22/05
Speck	118-B-1 Haul Road	800,000 dpm/100cm^2	05/03/05
Tumbleweeds (3)	218-E-12B Trenches 17 & 27	750,000 dpm/100cm^2	08/30/05
Tumbleweed	241-TX-302-C (behind 221-T Plant)	700,000 dpm/100cm^2	09/01/05
Speck	UPR-200-E-69, 221-P Plant RR Cut	600,000 dpm/100cm^2	04/29/05
Spot in asphalt	118-B-1 Haul Road	600,000 dpm/100cm^2	05/16/05
Rabbit	241-SX/SY Tank Farms	600,000 dpm/100cm^2	11/17/05
Tumbleweeds (10)	218-E-8 Burial Ground	540,000 dpm/100cm^2	04/20/05
Paint Chips	Adjacent to 107-N T-4 Tank	500,000 dpm/100cm^2	04/01/05
Specks (6)	West side of 241-S Tank Farm	500,000 dpm/100cm^2	10/28/05
Tumbleweed Fragment	West side of 241-B Tank Farm	500,000 dpm/100cm^2	11/04/05
Crested Wheat Grass	218-E-12A	420,000 dpm/100cm^2	06/29/05
Tumbleweed Fragments	UPR-200-E-101 (UN-216-E-30)	400,000 dpm/100cm^2	06/03/05
Tumbleweed	200-E-109, East of 218-E-12B Sub Trench	360,000 dpm/100cm^2	09/02/05
6"x6" area of Soil	218-E-10 Burial Ground	350,000 dpm/100cm^2	11/30/05
Rabbit Feces	North of MO-211 @ 241-C Tank Farm	349,000 dpm/100cm^2	02/22/05
Specks	241-C Tank Farm Perimeter	300,000 dpm/100cm^2	04/24/05
Grass	216-Z-5 Crib	300,000 dpm/100cm^2	08/08/05
Soil/Animal Urine	200-E-116 URM Pipeline 100' E. of 241-B-154	300,000 dpm/100cm^2	09/01/05
Speck	Near the 244-A Lift Station	300,000 dpm/100cm^2	09/19/05
Speck	Southwest corner 241-SX Tank Farm	300,000 dpm/100cm^2	12/01/05
Soil	West of the 209-E Building	300,000 dpm/100cm^2	12/03/05
Tumbleweeds	200-E-111 URM Transfer Line	300,000 dpm/100cm^2	12/06/05
Tumbleweeds (3)	West perimeter fence @ 241-B Tank Farm	299,700 dpm/100cm^2	04/14/05
Tumbleweeds (4)	218-E-12B Burial Ground	280,000 dpm/100cm^2	11/28/05
Tumbleweed Fragment	East vehicle gate at 241-SY Tank Farm	250,000 dpm/100cm^2	11/22/05
Rabbit Feces	242-A Evaporator	245,000 dpm/100cm^2	10/20/05
Tumbleweed	UPR-200-113, 241-TX-155 Diversion Box	240,000 dpm/100cm^2	10/05/05
Ground Surface	1300 Emergency Dump Basin	210,000 dpm/100cm^2	02/28/05
soil	200-E-139 north of 241-C Tank Farm	210,000 dpm/100cm^2	10/12/05
Tumbleweeds (3)	UPR-200-E-99	210,000 dpm/100cm^2	11/14/05
Tumbleweed Fragment	S of 7th & W of Buffalo @ 244-A LS	210,000 dpm/100cm^2	11/15/05
Tumbleweed Fragment	South Fenceline 241-SX Tank Farm	200,000 dpm/100cm^2	09/30/05
Soil Speck	North fence line at 241-C Tank Farm	200,000 dpm/100cm^2	11/17/05
Tumbleweed Fragments	West side of 241-B Tank Farm	199,000 dpm/100cm^2	05/25/05
Tumbleweeds (2)	216-T-21 & 24 Cribs	180,000 dpm/100cm^2	10/12/05
Soil	NW corner 105-KE Facility	175,000 dpm/100cm^2	05/24/05
Radioactive Material	Outside the 618-2 Burial Ground	172,000 dpm/100cm^2	03/17/05
Tumbleweed Fragment	241-SX Tank Farm	160,000 dpm/100cm^2	06/24/05
Choker/Pallet/Gloves	CERCLA Waste Staging Area KW-CW-4 (SW 105-KW)	150,000 dpm/100cm^2	04/08/05
Tumbleweed (1)	UPR-200-E-92	150,000 dpm/100cm^2	04/13/05
Speck	241-AY/AZ Tank Farm Perimeter	150,000 dpm/100cm^2	04/27/05
Debris	URM Pipeline 300 yds. NE of 241-SY	150,000 dpm/100cm^2	09/14/05
Speck	241-ER-151 Diversion Box	150,000 dpm/100cm^2	09/19/05
Wooden Conduit Cover	South of the RCT Trailer at 100-H	125,000 dpm/100cm^2	02/21/05
Soil - Roll Off Container	ERDF RMA/RMSA	120,000 dpm/100cm^2	02/25/05
Tumbleweeds (3)	South of 241-U and North of 241-SX/SY	120,000 dpm/100cm^2	09/18/05
Tumbleweed	West of 241-A Tank Farm	100,000 dpm/100cm^2	10/29/05
Tumbleweed Specks	Outside 241-SX Tank Farm	100,000 dpm/100cm^2	10/29/05
Tumbleweeds (2)	218-E-12B Burial Ground	100,000 dpm/100cm^2	04/15/05

Table 7-2. Investigative Samples Not Analyzed, 2005. (2 sheets total)

SAMPLE MATRIX	LOCATION	FIELD READING (Beta/Gamma)	DATE
Speck	Adjacent to 244-A	99,000 dpm/100cm^2	03/03/05
Tumbleweed Fragment	North of 241-C Tank Farm	95,000 dpm/100cm^2	09/08/05
Tumbleweeds	218-E-12A Burial Ground	90,000 dpm/100cm^2	06/01/05
Tumbleweed Fragment	Southeast of 244-A Lift Station	90,000 dpm/100cm^2	09/07/05
Tumbleweeds (2)	200-E-135	90,000 dpm/100cm^2	09/16/05
Tumbleweed	200-E Fence line, 200-E-109	90,000 dpm/100cm^2	10/14/05
Radioactive Material	Outside the 618-2 Burial Ground	89,000 dpm/100cm^2	03/30/05
Plastic	Outside the ERDF Posted CA	82,000 dpm/100cm^2	03/17/05
Tumbleweed Fragment	North Fenceline 241-S Tank Farm	75,000 dpm/100cm^2	09/30/05
Tumbleweeds (10)	207-B Retention Basin	72,000 dpm/100cm^2	02/10/05
Wasp Nest Fragments	105-H @ connex boxes	69,525 dpm/100cm^2	02/07/05
Vegetation	UPR-600-20 inside 200-E (4th & Rt. 4)	69,000 dpm/100cm^2	02/25/05
Black Plastic	Outside the ERDF CA	65,668 dpm/100cm^2	03/30/05
Tumbleweed Fragments	200-W-91 NE of 241-U Tank Farm	60,000 dpm/100cm^2	01/25/05
Packer/Screen Assembly	Outside 241-C Tank Farm	60,000 dpm/100cm^2	02/25/05
Asphalt	North of 105-KW Basin @ Gate 10	60,000 dpm/100cm^2	03/29/05
Tumbleweed (1)	UPR-200-E-92	60,000 dpm/100cm^2	04/14/05
Tumbleweed Fragment	South side of 241-B Tank Farm	60,000 dpm/100cm^2	05/26/05
Tumbleweeds	UPR-200-E-95 (B-Plant RR Spur)	60,000 dpm/100cm^2	08/08/05
Specks	241-SX Tank Farm Perimeter Fence	60,000 dpm/100cm^2	10/20/05
Tumbleweeds	218-E-12B, Trench 94	57,000 dpm/100cm^2	03/24/05
Tumbleweeds (5)	216-T-34 Crib	54,000 dpm/100cm^2	10/03/05
Plastic	Outside posted CA @ ERDF	53,000 dpm/100cm^2	05/26/05
Tumbleweed (attached)	UPR-600-20 inside 200-E	48,000 dpm/100cm^2	02/08/05
Tumbleweeds (5)	241-TX-154 Diversion Box (UPR-200-W-38)	48,000 dpm/100cm^2	02/23/05
Tumbleweeds (5)	216-U-1&2 Cribs	48,000 dpm/100cm^2	09/30/05
Soil	East side of 241-T tank Farm	40,000 dpm/100cm^2	11/18/05
Roofing Material	Adjacent to the 272-U Building	36,000 dpm/100cm^2	03/17/05
Tumbleweeds (25 Growing)	216-U-11 Trench	36,000 dpm/100cm^2	09/12/05
Tumbleweed	216-T-21 & 24 Cribs	36,000 dpm/100cm^2	10/11/05
Paint Chips	200-E-80 Southwest side of 221-B	30,000 dpm/100cm^2	04/21/05
Tumbleweeds	216-S-172 weir box pipe line	30,000 dpm/100cm^2	09/26/05
Tumbleweeds (20)	on top of the 216-U-11 covered ditch	30,000 dpm/100cm^2	11/02/05
Tumbleweeds (6)	UPR-200-W-123	30,000 dpm/100cm^2	11/03/05
Rust Flakes	216-B-8 @ Well 299-E-33-15	25,000 dpm/100cm^2	05/09/05
Tumbleweeds (attached)	216-A-24 Crib	24,000 dpm/100cm^2	07/13/05
Tumbleweeds (2)	200-BC Cribs	24,000 dpm/100cm^2	08/23/05
Tumbleweed	216-S-17 backfilled pond	24,000 dpm/100cm^2	09/29/05
Tumbleweeds (8)	UPR-200-W-86	24,000 dpm/100cm^2	09/30/05
Bird Nest	Crane 17T-5687 Boom	20,000 dpm/100cm^2	01/27/05
Tumbleweeds (3-attached)	200-W-63 Graveled Storage Pad	18,000 dpm/100cm^2	08/03/05
Tumbleweed	241-B Tank Farm Perimeter	15,000 dpm/100cm^2	03/19/05
Tumbleweeds (43)	216-U-14 Covered Ditch	14,000 dpm/100cm^2	10/20/05
Mouse	216-B-63 Covered Ditch	12,000 dpm/100cm^2	05/13/05
Tumbleweeds (13)	UPR-200-E-95	12,000 dpm/100cm^2	05/31/05
Tumbleweeds (6)	UPR-600-20 @ 241-ER-151	12,000 dpm/100cm^2	11/02/05
Tumbleweeds (3)	216-U-10 Covered Pond	12,000 dpm/100cm^2	11/15/05
Electrical Wire	600 Area Fueling Station Dumpster	9,000 dpm/100cm^2	02/18/05
Tumbleweed Fragment	200-E-121	8,000 dpm/100cm^2	05/31/05
Tumbleweeds	241-B-154	7,000 dpm/100cm^2	09/12/05
Tumbleweeds	7TH and Baltimore @ 241-B-154	7,000 dpm/100cm^2	09/19/05
Tumbleweed	216-S-18 backfilled area	6,000 dpm/100cm^2	09/27/05
Tumbleweeds (3)	200-E-127, PUREX to Gable Pond	5,500 dpm/100cm^2	12/10/05
Mouse	242-B Evaporator	4,000 dpm/100cm^2	09/28/05
Mouse	241-S Tank Farm	2,000 dpm/100cm^2	06/28/05
Mouse Nest	218-W-4C Burial Ground	1,400 dpm/100cm^2	11/15/05
Speck	241-C Tank Farm	16 mRad/hr	11/30/05

CA = contamination area
CERCLA = *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
ERDF = Environmental Restoration Disposal Facility
PUREX = Plutonium-Uranium Extraction
RCT = radiological control technician
RMA = radioactive material area
RMSA = radioactive material storage area
URM = underground radioactive material

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8.0 QUALITY ASSURANCE

Quality assurance (QA) may be defined as the actions necessary to provide confidence that an item, process, or program meets or exceeds the user's requirements and expectations. The near-facility environmental monitoring QA program consists of procedures and guides to demonstrate that environmental monitoring techniques and analyses are performed within established limits of acceptance. The near-facility environmental monitoring QA program and its objectives are documented in DTS-OEM-PLN-003, *Near-Facility Environmental Monitoring Quality Assurance Project Plan* (McKinney 2005).

Written operating procedures are an integral part of near-facility environmental monitoring QA. Procedures for field operations are provided in internal manual DTS-OEM-001. This section briefly describes the essential components of the near-facility environmental monitoring QA program.

8.1 DOCUMENTATION

Record keeping is a vital part of any environmental monitoring program. Maintenance of environmental data is important from a QA standpoint, from a regulatory standpoint, and for trend analyses and optimization of environmental monitoring procedures. Each phase of near-facility environmental monitoring is documented. This documentation includes environmental sample logbooks, quarterly reports, annual reports, and occurrence reports.

8.2 SAMPLE REPLICATION

Collection of field replicate samples and statistical evaluation of the analytical results are the primary means of assessing the quality of sample collection methods and strategies. Field replicates were collected for ambient air, soil, and vegetation samples during 2005, and 100% of the air and vegetation field replicate results and 96% of the soil replicate results were in agreement (see Table 8-1).

Table 8-1. Summary of Field Replicate Results for 2005.

Medium	Radionuclide	Number of Results		% Agreement
		Reported	In Agreement	
Air	^{60}Co	4	4	100
	^{65}Zn	2	2	100
	^{90}Sr	4	4	100
	^{103}Ru	2	2	100
	^{106}Ru	4	4	100
	^{113}Sn	2	2	100
	^{125}Sb	4	4	100
	^{134}Cs	4	4	100
	^{137}Cs	4	4	100
	^{144}Ce	2	2	100
	^{152}Eu	4	4	100
	^{154}Eu	4	4	100
	^{155}Eu	4	4	100
	^{234}U	4	4	100
	^{235}U	4	4	100
	^{238}U	4	4	100
	^{238}Pu	4	4	100
	$^{239/240}$Pu	4	4	100
	gross α	52	52	100
	gross β	52	52	100
	Totals:	168	168	100%
Soil	^{60}Co	12	12	100
	^{65}Zn	12	10	83
	^{90}Sr	12	12	100
	^{103}Ru	12	12	100
	^{106}Ru	12	12	100
	^{113}Sn	12	12	100
	^{125}Sb	12	12	100
	^{134}Cs	12	12	100
	^{137}Cs	12	12	100
	^{144}Ce	12	12	100
	^{152}Eu	12	12	100
	^{154}Eu	12	12	100
	^{155}Eu	12	6	50
	^{234}U	12	12	100
	^{235}U	12	12	100
	^{238}U	12	12	100
	^{238}Pu	12	12	100
	$^{239/240}$Pu	12	12	100
	Totals:	216	208	96%
Vegetation	^{60}Co	6	6	100
	^{65}Zn	6	6	100
	^{90}Sr	6	6	100
	^{103}Ru	6	6	100
	^{106}Ru	6	6	100
	^{113}Sn	6	6	100
	^{125}Sb	6	6	100
	^{134}Cs	6	6	100
	^{137}Cs	6	6	100
	^{144}Ce	6	6	100
	^{152}Eu	6	6	100
	^{154}Eu	6	6	100
	^{155}Eu	6	6	100
	^{234}U	6	6	100
	^{235}U	6	6	100
	^{238}U	6	6	100
	^{238}Pu	6	6	100
	$^{239/240}$Pu	6	6	100
	Totals:	108	108	100%

Sampling methods and strategies were considered acceptable if, for a given sample medium, the overall agreement of all isotopic comparisons made between "original" and "replicate" samples were one of the following:

- Equal to or greater than 75% for air samples
- Equal to or greater than 50% for soil and vegetation samples.

The concentrations of a sample and its replicate were considered to be "in close agreement" (meaning the concentrations are, for all practical purposes, identical) if either of the following applies:

- Each concentration falls within the error range of the other; or
- Both the concentration of the sample and its replicate are "essentially zero."

The concentrations of a sample and its replicate were considered to be "in agreement" (meaning the concentrations are close to the same value) if one of the following applies:

- On a plot, the uncertainty error bars of the sample and its replicate overlap; or
- The lower uncertainty values of both the sample and its replicate extend below the [contractual] minimum detectable concentration; or
- The relative percent difference was <30% or the percent significant difference was <15%.

8.3 DATA ANALYSIS

Environmental data are reviewed to determine compliance with applicable federal and company guides. The data are analyzed both graphically and by standard statistical tests to determine trends and impacts on the environment. Newly acquired data are compared with historical data and natural background levels. Routine environmental data are stored on both magnetic media (i.e., in a computer environment) and hardcopy printouts.

8.4 TRAINING

To ensure quality and consistency in sample collection and handling, all personnel performing such work received formal training. All radiological control technicians are required to complete a certification program. In addition, those radiological control technicians assigned to environmental monitoring receive special classroom orientation and on-the-job training by experienced personnel. Duratek Technical Services Environmental Monitoring and Investigations personnel, in addition to their formal training received while obtaining professional degrees, have received training in courses taught through Washington State University, the Harvard School of Public Health, and various other institutions.

8.5 SAMPLE FREQUENCY

1. Ambient air sample filters are collected biweekly.
2. Radiological surveys of roads are performed quarterly, bimonthly, or annually.
3. The thermoluminescent dosimeters (TLD) are exchanged quarterly.
4. Radiological surveys of waste sites are performed quarterly, semiannually, or annually depending on the operating status, condition, and history of the site.
5. Soil and vegetation are collected annually.

8.6 ANALYTICAL PROCEDURES

Three laboratories provided routine analytical support to the near-facility environmental monitoring: Pacific Northwest National Laboratory (PNNL), the Waste Sampling and Characterization Facility (WSCF), and the 222-S Analytical Laboratory. Samples are analyzed in accordance with prescribed procedures and quality control guides that are described briefly in the following paragraphs.

8.6.1 Pacific Northwest National Laboratory Radiation Standards and Engineering

8.6.1.1 Thermoluminescent Dosimeters. External radiation levels are measured using TLDs. The Hanford Site uses the Harshaw 8807 dosimeter and the Harshaw 8800 reader. The TLDs are calibrated, packaged, and read by the PNNL Radiation Calibration Laboratory, Radiation Standards and Engineering Department. All TLD work is performed in accordance with formal, written procedures.

8.6.2 222-S and Waste Sampling and Characterization Facility Analytical Laboratories

The 222-S and WSCF laboratories also provide analytical support to near-facility environmental monitoring. Formal, written laboratory procedures are used in analyzing samples. The 222-S Laboratory is normally used for samples containing higher-than-normal environmental levels of radioactivity. The WSCF is used for the samples containing typical environmental levels of radioactivity. The WSCF also participates in an annual QA Task Force intercomparison program coordinated by the Radiation Protection division of the Washington State Department of Health.

9.0 GLOSSARY

Accessible Soils: Hanford soils that are not behind security fences must meet a 10 mrem/yr effective dose equivalent (EDE) limit from Hanford Site operations to the most exposed member of the public.

Average Soil Contamination: Contamination generally dispersed through the soil. Numerically, the radioactivity content averaged over a suitable mass of soil.

Background Radiation: Refers to regional levels of radioactivity produced by sources other than those of specific interest (e.g., the nuclear activities at the Hanford Site).

Becquerel (Bq): The standard international unit of radioactivity. One Becquerel is one disintegration per second or: Bq = 2.7 E-11 Ci

Biological Transport: Means of biological transport may include one or more of the following processes:

- Movement of subsurface radioactivity to the surface by physiological vegetative processes.
- Dispersion of such vegetation by the wind.
- Contaminated urine and feces deposited by animals that have gained access to and ingested radioactive materials.
- Contaminated animals themselves that have ingested radioactive materials directly or ingested other contaminated animals or plants.
- Physical displacement of radioactive materials by burrowing animals.
- Nests built using contaminated materials.

Biota: The plant and animal life of a specific region.

Burial Ground: A land area specifically designated to receive contaminated solid or solidified liquid waste packages and equipment. The contaminated articles are usually placed in trenches and covered with overburden.

Byproduct: A material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slag or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form in which it is produced by the process.

Calibration: Determining the deviation of an instrument from a standard traceable to the National Bureau of Standards or other recognized agency and reporting the deviations and/or eliminating them by adjustment.

Chemical Processing: Chemical treatment of material to separate desired components selectively. At the Hanford Site, plutonium, uranium, and fission products were chemically separated from irradiated fuels.

Committed Dose Equivalent: The predicted total dose equivalent to a tissue or organ over a 50-year period after a known intake of a radionuclide into the body. It does not include contributions from external dose. Committed dose equivalent is expressed in units of rem (or sievert).

Committed Effective Dose Equivalent: The sum of the committed dose equivalents to various tissues in the body, each multiplied by the appropriate weighing factor. Committed effective dose equivalent is expressed in units of rem (or sievert).

Composite Sample: A number of samples initially collected from a sample medium and combined into a single sample; this sample is analyzed for the contaminants of concern.

***Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA)**: Commonly known as "Superfund," CERCLA was enacted to respond to uncontrolled releases of hazardous substances to the environment, primarily at inactive sites that were not adequately addressed by the *Resource Conservation and Recovery Act of 1976* (RCRA). CERCLA also applies to actively managed facilities and any onshore or offshore facility.

Controlled Area: An area where access is controlled to protect individuals from exposure to radiation and/or radioactive materials.

Contamination Area: Any area where contamination levels are greater than the values specified in Chapter 2, Table 2-2 of HNF-5173, *PHMC Radiological Control Manual* (FH 2004) but less than or equal to 100 times those values.

Crib: An underground structure designed to receive liquid waste that percolates into the soil directly or percolates into the soil after having traveled through a connected tile field.

Decommissioning: Actions taken to reduce the potential health and safety impacts of DOE-controlled contaminated facilities. Actions could include stabilizing, reducing, or removing radioactivity or demolishing the contaminated facilities.

Decontamination: The removal of radioactive or hazardous contamination from facilities, equipment, or soils by washing, heating, chemical or electrochemical treating, mechanical cleaning, or other techniques.

Derived Concentration Guide for Public Exposure (DCG-Public): The concentration of a radionuclide in air or water that, under conditions of continuous exposure for one year by one exposure mode (e.g., ingestion of water, submersion in air, or inhalation of air), would result in an EDE equal to the annual dose limit applicable to the group exposed. For exposure of the public, the DCG is the radionuclide concentration in air or water that would result in an EDE of 100 mrem (1 mSv) to a person having the characteristics of the reference man.

Diffuse Source: A source or sources of radioactive or chemical contaminants released into the environment that do not have a defined point or origin of release (a nonpoint source). Such sources are also known as area sources.

Disposal Facility: Any facility or part of a facility where hazardous and/or radioactive waste is intentionally placed or where any land or water wastes will remain after closure.

Ditch: An open surface site for transport of liquid wastes to a pond or trench structure designed for percolation.

Ecology: The Washington State Department of Ecology.

Effective Dose Equivalent: The summation of the products of the dose equivalent received by specified tissues of the body and a tissue-specific weighing factor. This sum is a risk-equivalent value and can be used to estimate the health-effects risk of the exposed individual. The tissue-specific weighing factor represents the fraction of the total health risk resulting from uniform whole-body irradiation that would be contributed by that particular tissue. The EDE includes the committed EDE from internal deposition of radionuclides and the EDE caused by penetrating radiation from sources outside the body. EDE is expressed in units of rem (or sievert).

Effluent: An airborne or liquid discharge from a facility after all engineered waste treatment and effluent controls have been performed. The term includes onsite discharges to the atmosphere, lagoons, ponds, cribs, injection wells, French drains, or ditches. The term does not include solid waste stored or removed for disposal or waste that is contained in retention basins or tanks before treatment and/or disposal.

Environmental Monitoring Plan: A two-part document prepared for each site, facility, or process that uses, generates, releases, or manages significant pollutants or hazardous materials.

External Radiation: Radiation originating from a source outside the body.

Facility: A processing plant, tank farm, shop, laboratory, powerhouse, or laundry. Including all contiguous land and structures, other appurtenances, and improvements on land used for recycling, reusing, reclaiming, transferring, storing, and treating of dangerous waste (including treatment, storage, and disposal sites as well as groundwater wells). (40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment Storage and Disposal Facilities," and WAC 173-303-040.)

Facility-Specific Environmental Monitoring: Routine environmental monitoring of all environmental media (air, biota, etc.) around facility parameters.

Field Blank: Aliquots of analyte-free water or solvents brought to the field in sealed containers and transported to the laboratory with the sample container. Field blanks include trip blanks and equipment blanks.

Field Duplicate: Field duplicates are collected at specified frequencies and are used to document precision. The field duplicate precision depends on the variance of waste composition, sampling techniques, and analytical technique.

Fugitive Emissions: Material that is generated incidental to an operation, process, or activity and that is released or dispersed into the open air. Fugitive emissions occur via pathways that do not allow routine measurement at the point of release.

Grab Sample: A single sample removed from a sample medium over a short time interval.

High-Efficiency Particulate Air (HEPA) Filter: To qualify as a HEPA filter, a filter must achieve an efficiency of 99.97% under laboratory conditions and 99.95% after installation for the removal of airborne particulates greater than 3 E-05 cm (0.3 microns).

High-Level Nuclear Waste: Spent nuclear fuel or radioactive waste resulting directly from the dissolution and reprocessing of spent nuclear fuel. Secondary waste streams resulting from the dissolution and reprocessing of spent nuclear fuel are not considered high-level waste.

Inaccessible Soils: Areas from which the general public is excluded (by fences, posting, patrols, or distance), but that are still subject to meteorological effects, are subject to a 10 mrem/yr operational EDE limit.

Inactive Crib: A crib that has been designated as permanently out of service.

Inactive Radioactive Waste Site: Any waste site that is no longer needed for current operational programs and that is not currently an active waste disposal site.

Inactive Waste Sites: Inactive waste sites include units such as burial grounds, unplanned release sites, cribs, ditches, ponds, trenches, and basins, abandoned storage areas, drains, single-shell tank piping, transfer pits, and jumper boxes.

Less Than Detectable: An analytical term for a concentration in a sample that is lower than the minimum detection capabilities of that analytical equipment or process.

Low-Level Waste: Any gaseous, liquid, or solid radioactive waste not classified as high-level waste, transuranic waste, or spent nuclear fuel, as defined by DOE Order 435.1*, Radioactive Waste Management*.

Mean: Average value of a series of measurements.

Minimum Detection Limit: Smallest amount or concentration of a radionuclide or nonradioactive element that can be reliably detected in a sample.

Mixed Waste: Dangerous waste that also contains enough radioactivity to be classified as radioactive waste.

Monitoring System: Instrumentation that provides measurement of an airborne or liquid waste stream parameters. The system includes a detector and associated readout components. A continuous monitoring system measures the stream parameters on a near-real-time basis or as specified in applicable Environmental Protection Agency regulations, 40 CFR 52, "Approval and Promulgation of Implementation Plans," Appendix E; 40 CFR 51, "Requirements for Preparation, Adoption, and Submittal of Implementation Plans," Appendix P, or as defined in applicable American National Standards Institute standards. A radiation monitoring system is a system in which radiation or radioactivity is the measured parameter. An integrating monitoring system totals the instantaneously measured parameter over some time period. A sampling system does not measure or read out an instantaneous stream parameter.

Near Facility Environmental Monitoring: The collection and analysis of samples of air, water, soil, biota, and other media near nuclear facilities on DOE sites and their environs and the measurement of external radiation to demonstrate compliance with applicable standards and assess radiation exposures to employees and members of the public, and the near-field environment.

Nonroutine Activities: Any actions on a large-scale (>2 hectares [5 acres]), including stabilization, soil removal, fixative or sealant application, other surface treatments, or other activities that could affect future remediation activities in an inactive waste site.

Not Detected: A reporting term which describes any or all of the following: the overall analytical error was greater than the radionuclide concentration itself; or, after allowing for the subtraction of the background level of the radionuclide, the resulting concentration was less than zero; or, no radio analytical peak was detected during the analysis.

Operations: In this report, this term loosely refers to Fluor Project Hanford activities including chemical processing, waste management, and decommissioning.

Point Source: A single defined point (origin) of an airborne release, such as a vent or stack.

Pond: A surface impoundment used to contain or percolate low-level liquid radioactive waste, mixed waste, or hazardous waste.

Quality Assurance: A process designed to maintain the quality of the results of a program within established limits of acceptance.

Radiation Survey: Evaluation of an area or object with portable instruments to identify radioactive materials and radiation fields present.

Radioactive Byproduct: Any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or using special nuclear material. The nonradioactive hazardous component of the waste material will be subject to regulation under the RCRA.

Radiological Control Area: An area where access is controlled to protect individuals from exposure to radiation and/or radioactive materials. Radiological control areas include, but are not limited to, areas posted as radiation areas, surface contamination, and underground radioactive materials, to describe the radiological condition of the area within.

Radiological Posting: Information in the form of signs and barriers to inform people of radiological conditions that warrant avoidance or special precautions for entry.

Representative Sample: A sample that can be expected to exhibit the average properties of the sample source.

Retired Waste Site: A waste site that is isolated and no longer available to receive waste in any form.

Routine Activities: Any actions on a small-scale (<2 hectares [5 acres]), including radioactive hot-spot removal, vegetation removal, fencing, posting, herbicide spraying, stabilization, or immediate spill response) in an inactive waste site. In general, these routine actions shall not interfere with RCRA/CERCLA response or site investigations.

Sampling System: Instrumentation and equipment that remove a part of a liquid or airborne waste stream for subsequent quantitative determination of stream parameters. The system generally employs such devices as filters, other sample collection media, or effluent traps of some kind. A continuous sampling system removes a part of the stream continuously except during sample change, maintenance, repair, or other necessary outages. A grab sampling system removes an instantaneous part of the stream or removes a part of the stream over a time period.

Sediment Column: The sediment beneath a crib. It can mean either all the sediment beneath the bottom of the crib extending to the water table or all sediment beneath a crib contaminated by radioactive materials.

Site: The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure (whether standing, ruined, or vanished) where the location itself maintains historical or archeological value, regardless of the value of any existing structure.

Soil at depth: Soil below 91 cm (36 in.).

Soil Contamination: Contaminated soil not releasable in accordance with DOE Order 5400.5.

Solid Waste: Any discarded material that is not excluded by WAC 173-303-017(2) or that is not excluded by a variance granted under WAC 173-303-017(5). Materials are solid waste if they are: (1) abandoned by being disposed of, burned, or incinerated, or (2) accumulated, stored, or treated (but not recycled) before (or in lieu of) being abandoned by being disposed of, burned, or incinerated. In addition, a solid waste includes any material considered to be inherently waste-like.

Speck Contamination: Single grains of soil, rust particles, feces, or pieces of vegetation.

Spot Contamination: A spot or quantity of contamination less than 1 cm^3 (0.06 in.) in volume, or areal contamination less than 15 cm^2 (2.3 $in.^2$) in area.

Stabilization: The process of covering surface contaminated areas with clean backfill or topsoil.

Standard: A specified set of rules or conditions concerned with the classification of components; delineation of procedures; definition of terms; designation of materials, performance, design, or operations; or measurements of quality in describing materials, products, systems, services, or practices. A standard is more general than a procedure or specification and more specific than a criterion.

Standard Deviation: A measure of the range of values about the mean.

Standard Error of the Mean: A measure of the uncertainty in the estimated mean of averaged values.

Surface Soil: Soil from 0 cm (0 in.) to 5 cm (2 in.) deep.

Surplus Facilities: Surplus facilities include all facilities that have been accepted into a decommissioning program.

Survey: A method to detect the release, disposal, or presence of radioactive materials or hazardous substances under a specific set of conditions to determine actual or potential hazards. Such an evaluation may include, but is not limited to, tests, physical examinations, and measurements of radiation or concentrations of materials.

Suspect Waste Site: A site, believed to have been previously unknown or undocumented, that, because of characteristics present at the site or historical information about the site, is suspected of containing waste (i.e., non-dangerous, hazardous, dangerous, mixed, and radioactive).

Tank Farm: An area of large underground tanks designed to store high-level liquid waste.

Thermoluminescent Dosimeter: A chip or series of chips used for measuring external gamma radiation. It consists of a material capable of absorbing energy imparted by ionizing radiation, then emitting light as a result of thermal stimulation. A measure of that light is proportional to the radioactivity absorbed.

Total Analytical Uncertainty: All analytical measurements include some degree of uncertainty as a consequence of a series of unavoidable and unintentional inaccuracies related to the collection and analysis of samples. Examples of these inaccuracies can include errors associated with reading and recording results, sample handling and processing, instrument calibrations, numerical rounding, and randomness of radioactive decay. The total analytical uncertainty value implies that approximately 95% of the time a recount or reanalysis of the sample would give a value somewhere in the range between the initial reported value plus or minus the total analytical uncertainty.

Trip Blank: A type of field blank used to accompany sample containers to and from the field and to detect contamination or cross-contamination that occurs during sample handling and transportation.

Uncontaminated Soil: A soil or a land area that requires no controls or restrictions in any way for radiation protection purposes and/or meets the contamination limit specifications.

Underground Radioactive Material: A radiological posting status where subsurface radioactivity is present but where surface contamination does not exceed the soil standards.

Unity Rule: If more than one radionuclide is present, the sum of the fractions represented by each radionuclide concentration divided by its respective limiting concentration (administrative control value) shall not exceed unity. This rule could also apply to parameters other than radionuclide concentration.

Unplanned Release Site: An area that was contaminated by an unplanned release of radioactive contamination, making it a radiological control area.

Unrestricted Release: Values below which unrestricted release of soils will occur will be defined in an applicable record of decision.

U.S. Environmental Protection Agency: The federal agency chartered with carrying out and monitoring the environmental regulations.

Waste Management: The activity involved with storing, disposing of, shipping, handling, and monitoring all radioactive waste.

Waste Sites: Any facility used for the planned disposal of hazardous, radioactive, toxic, or nonradioactive/nontoxic waste.

Table 9-1. Radionuclide Nomenclature.

Radionuclide	Symbol	Half-Life
Tritium	^{3}H	12.3 yr
Beryllium-7	^{7}Be	53.28 d
Carbon-14	^{14}C	5.72E+03 yr
Sodium-22	^{22}Na	2.6 yr
Potassium-40	^{40}K	1.26 E+09 yr
Argon-41	^{41}Ar	1.8 h
Chromium-51	^{51}Cr	27.7 d
Manganese-54	^{54}Mn	312 d
Cobalt-58	^{58}Co	71 d
Iron-59	^{59}Fe	45 d
Cobalt-60	^{60}Co	5.3 yr
Nickel-63	^{63}Ni	100 yr
Zinc-65	^{65}Zn	243.8 d
Krypton-85	^{85}Kr	10.7 yr
Strontium-89	^{89}Sr	50.5 d
Strontium-90	^{90}Sr	29.1 yr
Niobium-95	^{95}Nb	35.0 d
Zirconium-95	^{95}Zr	64.0 d
Technetium-99	^{99}Tc	2.12 E+05 yr
Ruthenium-103	^{103}Ru	39.4 d
Ruthenium-106	^{106}Ru	1.0 yr
Tin-113	^{113}Sn	115 d
Antimony-124	^{124}Sb	60 d
Antimony-125	^{125}Sb	2.7 yr
Iodine-129	^{129}I	1.7 E+07 yr
Iodine-131	^{131}I	8.0 d
Barium-133	^{133}Ba	10.53 yr

Radionuclide	Symbol	Half-Life
Cesium-134	^{134}Cs	2.1 yr
Cesium-137	^{137}Cs	30.3 yr
Cerium-141	^{141}Ce	32.5 d
Cerium-144	^{144}Ce	284.6 d
Promethium-147	^{147}Pm	13.4 min
Europium-152	^{152}Eu	13.5 yr
Europium-154	^{154}Eu	8.6 yr
Europium-155	^{155}Eu	4.7 yr
Thallium-208	^{208}Tl	3.1 min
Bismuth-212	^{212}Bi	60.6 min
Lead-212	^{212}Pb	10.6 h
Polonium-212	^{212}Po	0.3×10^{-6} s
Polonium-216	^{216}Po	0.15 s
Radon-220	^{220}Rn	55.6 s
Radium-226	^{226}Ra	1.60 E+03 yr
Radium-228	^{228}Ra	5.75 yr
Thorium-232	^{232}Th	1.40 E+10 yr
Uranium Total	U or Uranium	4.50 E+09 yr
Uranium-234	^{234}U	2.40 E+05 yr
Uranium-235	^{235}U	7.00 E+08 yr
Uranium-236	^{236}U	2.30 E+07 yr
Uranium-238	^{238}U	4.50 E+09 yr
Plutonium-238	^{238}Pu	87.7 yr
Plutonium-239/240	$^{239,240}Pu$	2.40 E+04 yr
Plutonium-241	^{241}Pu	14.4 yr
Americium-241	^{241}Am	433 yr

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10.0 STANDARDS

Table 10-1. U.S. Department of Energy Derived Concentration Guides.[a]

Radionuclide	DCG Air (pCi/m^3)	DCG Liquid (pCi/L)	Radionuclide	DCG Air (pCi/m^3)	DCG Liquid (pCi/L)
^{3}H	1.0E+05	2.0E+06	^{147}Pm	3.0E+02	1.0E+05
^{14}C	6.0E+03	7.0E+04	^{152}Eu	5.0E+01	2.0E+04
^{40}K	9.0E+02	7.0E+03	^{154}Eu	5.0E+01	2.0E+04
^{41}Ar	1.0E+04	0.0E+00	^{155}Eu	3.0E+02	1.0E+05
^{51}Cr	6.0E+04	1.0E+06	^{208}Tl	5.0E+03	0.0E+00
^{54}Mn	2.0E+03	5.0E+04	^{212}Bi	6.0E+02	1.0E+05
^{59}Fe	8.0E+02	2.0E+04	^{214}Bi	2.0E+03	6.0E+05
^{58}Co	2.0E+03	4.0E+04	^{212}Pb	8.0E+01	3.0E+03
^{60}Co	8.0E+01	5.0E+03	^{214}Pb	2.0E+03	2.0E+05
^{65}Zn	6.0E+02	9.0E+03	^{212}Po	1.0E+00	8.0E+01
^{85}Kr	3.0E+06	0.0E+00	^{216}Po	1.0E+00	8.0E+01
^{89}Sr	3.0E+02	2.0E+04	^{220}Rn	3.0E+03	0.0E+00
^{90}Sr	9.0E+00	1.0E+03	^{224}Ra	4.0E+00	4.0E+02
^{95}Zr	6.0E+02	4.0E+04	^{226}Ra	1.0E+00	1.0E+02
^{95}Nb	3.0E+03	6.0E+04	^{228}Ac	4.0E+01	6.0E+04
^{99}Tc	2.0E+03	1.0E+05	^{232}Th	7.0E-03	5.0E+01
^{103}Ru	2.0E+03	5.0E+04	^{Total}U	1.0E-01	6.0E+02
^{106}Ru	3.0E+01	6.0E+03	^{234}U	9.0E-02	5.0E+02
^{113}Sn	1.0E+03	5.0E+04	^{235}U	1.0E-01	6.0E+02
^{124}Sb	6.0E+02	1.0E+04	^{236}U	1.0E-01	5.0E+02
^{125}Sb	1.0E+03	5.0E+04	^{238}U	1.0E-01	6.0E+02
^{129}I	7.0E+01	5.0E+02	^{238}Pu	3.0E-02	4.0E+01
^{131}I	4.0E+02	3.0E+03	^{239,240}Pu	2.0E-02	3.0E+01
^{134}Cs	2.0E+02	2.0E+03	^{241}Pu	1.0E+00	2.0E+03
^{137}Cs	4.0E+02	3.0E+03	^{241}Am	2.0E-02	3.0E+01
^{141}Ce	1.0E+03	5.0E+04	Total Alpha	2.0E-02	3.0E+01
^{144}Ce	3.0E+01	7.0E+03	Total Beta	9.0E+00	1.0E+03

[a]From DOE Order 5400.5.

DCG = derived concentration guides

Table 10-2. EPA Concentration Levels for Environmental Compliance.[a]
(Radionuclide Concentrations [pCi/m^3] in Air)

Radionuclide	Concentration	Radionuclide	Concentration
^{3}H	1.5E+03	^{137}Cs	1.9E-02
^{14}C	1.0E+01	^{141}Ce	6.3E+00
^{40}K	2.7E-02	^{144}Ce	6.2E-01
^{41}Ar	1.7E+03	^{147}Pm	1.1E+01
^{51}Cr	3.1E+01	^{152}Eu	2.0E-02
^{54}Mn	2.8E-01	^{154}Eu	2.3E-02
^{59}Fe	6.7E-01	^{155}Eu	5.9E-01
^{58}Co	6.7E-01	^{212}Bi	5.6E+01
^{60}Co	1.7E-02	^{214}Bi	1.4E+02
^{65}Zn	9.1E-02	^{212}Pb	6.3E+00
^{85}Kr	1.0E+06	^{214}Pb	1.2E+02
^{89}Sr	1.8E+00	^{224}Ra	1.5E-01
^{90}Sr	1.9E-02	^{226}Ra	3.3E-03
^{95}Zr	6.7E-01	^{228}Ac	3.7E+00
^{95}Nb	2.2E+00	^{232}Th	6.2E-04
^{99}Tc	1.4E-01	^{234}U	7.7E-03
^{103}Ru	2.6E+00	^{235}U	7.1E-03
^{106}Ru	3.4E-01	^{236}U	7.7E-03
^{113}Sn	1.4E+00	^{238}U	8.3E-03
^{124}Sb	5.3E-01	^{238}Pu	2.1E-03
^{125}Sb	1.6E-01	$^{239/240}Pu$	2.0E-03
^{129}I	9.1E-03	^{241}Pu	1.0E-01
^{131}I	2.1E-01	^{241}Am	1.9E-03
^{134}Cs	2.7E-02		

a - from 40 CFR 61, Subpart I, Appendix E, Table 2

Table 10-3. Inaccessible Soil Concentrations (pCi/g).

Radionuclide	100 B,D,K,N	100 F, H	200 West Area	200 East Area	300 Area	400 Area
^{3}H	1.4 E+08	7.4 E+07	3.7 E+08	2.0 E+08	9.5 E+06	1.4 E+07
^{14}C	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05
^{55}Fe	9.7 E+06	9.7 E+06	3.6 E+10	1.9 E+10	1.0 E+07	1.4 E+09
^{58}Co	9.8 E+06	9.8 E+06	8.1 E+09	4.3 E+09	1.2 E+07	3.1 E+08
^{60}Co	9.9 E+05	9.9 E+05	5.7 E+08	3.0 E+08	1.0 E+06	9.9 E+06
^{63}Ni	1.5 E+08	1.5 E+08	6.9 E+09	6.9 E+09	1.5 E+08	2.2 E+08
^{90}Sr*	8.3 E+05	8.3 E+05	2.2 E+08	1.2 E+08	8.3 E+05	8.4 E+06
^{99}Tc	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07	1.3 E+07
^{106}Ru*	2.0 E+07	2.0 E+07	5.7 E+08	3.0 E+08	1.5 E+07	2.2 E+07
^{125}Sb*	9.1 E+06	9.1 E+06	5.7 E+09	3.0 E+09	9.2 E+06	1.1 E+08
^{129}I	2.8 E+05	2.8 E+05	2.8 E+05	2.8 E+05	2.2 E+05	2.8 E+05
^{134}Cs	1.7 E+04	1.7 E+04	2.5 E+08	1.4 E+08	2.4 E+04	9.7 E+06
^{137}Ce*	1.7 E+04	1.7 E+04	3.5 E+08	1.8 E+08	1.7 E+04	1.3 E+07
^{144}Cs*	1.4 E+06	1.4 E+06	7.4 E+08	4.0 E+08	1.9 E+06	2.8 E+07
^{147}Pm	3.4 E+07	3.4 E+07	7.4 E+09	4.0 E+09	3.5 E+07	2.8 E+08
^{152}Eu	4.5 E+06	4.5 E+06	1.2 E+09	6.2 E+08	4.6 E+06	4.5 E+07
^{154}Eu	3.3 E+06	3.3 E+06	8.8 E+08	4.7 E+08	3.3 E+06	3.4 E+07
^{155}Eu	2.3 E+07	2.3 E+07	6.9 E+09	3.7 E+09	2.4 E+07	2.6 E+08
^{226}Ra*	1.3 E+05	1.3 E+05	2.1 E+05	2.1 E+05	1.3 E+05	1.4 E+05
^{227}Ac*	2.4 E+03	2.4 E+03	5.4 E+04	2.9 E+04	1.4 E+03	2.1 E+03
^{232}Th*	2.0 E+04	2.0 E+04	2.0 E+04	2.0 E+04	4.7 E+03	7.1 E+03
^{232}U*	5.5 E+04	5.5 E+04	1.4 E+05	1.4 E+05	9.9 E+03	1.5 E+04
^{233}U	4.5 E+05	4.5 E+05	4.5 E+05	4.5 E+05	6.7 E+04	1.0 E+05
^{234}U	4.6 E+05	4.6 E+05	4.6 E+05	4.6 E+05	6.9 E+04	1.0 E+05
^{235}U*	4.9 E+05	4.9 E+05	4.9 E+05	4.9 E+05	7.3 E+04	1.1 E+05
^{236}U	4.9 E+05	4.9 E+05	4.9 E+05	4.9 E+05	7.1 E+04	1.1 E+05
^{238}U*	4.7 E+05	4.7 E+05	4.7 E+05	4.7 E+05	7.7 E+04	1.2 E+05
^{237}Np*	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02	8.9 E+02
^{238}Pu	1.3 E+04	1.3 E+04	8.8 E+05	4.7 E+05	1.3 E+04	3.4 E+04
^{239}Pu	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04	1.2 E+04
^{240}Pu	1.2 E+04	1.2 E+04	1.4 E+04	1.4 E+04	1.2 E+04	1.2 E+04
^{241}Pu	6.1 E+05	6.1 E+05	4.2 E+07	2.2 E+07	6.1 E+05	1.2 E+06
^{241}Am	2.5 E+04	2.5 E+04	7.4 E+05	4.0 E+05	1.9 E+04	2.8 E+04

Note: Asterisks mark nuclides with progeny that are assumed to be present in equilibrium amounts. However, ^{234}U was not included in the ^{238}U limits. For supporting references see WHC-SD-EN-TI-070, *Soil Concentration Limits for Accessible and Inaccessible Areas*.

Table 10-4. Accessible Soil Concentrations (pCi/g).

Radionuclide	100 B,D,K,N	100 F, H	200 West Area	200 East Area	300 Area	400 Area
^{3}H	1.4 E+08	7.4 E+07	3.7 E+08	2.0 E+08	9.5 E+06	1.4 E+07
^{14}C	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05	6.2 E+05
^{55}Fe	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05	5.3 E+05
^{58}Co	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01	1.8 E+01
^{60}Co	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00	7.1 E+00
^{63}Ni	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07	2.5 E+07
^{90}Sr*	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03	2.8 E+03
^{99}Tc	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06	1.0 E+06
^{106}Ru*	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01	7.7 E+01
^{125}Sb*	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01	3.7 E+01
^{129}I	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04
^{134}Cs	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{137}Cs*	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01	3.0 E+01
^{144}Ce*	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02	3.3 E+02
^{147}Pm	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06	1.1 E+06
^{152}Eu	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01	1.5 E+01
^{154}Eu	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01	1.4 E+01
^{155}Eu	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
^{226}Ra*	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{227}Ac*	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{232}Th*	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00	5.9 E+00
^{232}U*	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01	1.0 E+01
^{233}U	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
^{234}U	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02	6.3 E+02
^{235}U*	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02	1.7 E+02
^{236}U	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02	6.7 E+02
^{238}U*	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02	3.7 E+02
^{237}Np*	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01	4.8 E+01
^{238}Pu	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02	2.1 E+02
^{239}Pu	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02
^{240}Pu	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02	1.9 E+02
^{241}Pu	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04	1.0 E+04
^{241}Am	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02	1.8 E+02

Note: Asterisks mark nuclides with progeny that are assumed to be present in equilibrium amounts. However, ^{234}U was not included in the ^{238}U limits. For supporting references see WHC-SD-EN-TI-070, *Soil Concentration Limits for Accessible and Inaccessible Areas*.

11.0 DATA SUMMARY METHODS

Measuring any physical quantity has some degree of inherent uncertainty. This uncertainty results from the combination of all possible inaccuracies in the measurements process, including such factors as the reading of the result, the calibration of the measuring device, and numerical rounding errors.

In this report, individual radioactive measurements are accompanied by a plus or minus (±) value, which represents the total propagated analytical uncertainty (or two-sigma counting error). The two-sigma counting error gives information on what the measurement might be if the same sample were counted again under identical conditions. The two-sigma counting error implies that approximately 95% of the time, a recount of the same sample would give a value within plus or minus the two-sigma counting error at the value reported.

Values in the tables that are less than the minimum detectable activity indicate that the reported result might have come from a sample with no radioactivity. Such values are considered below the detection limits of the measuring instrument. Also note that each radioactive measurement must have the random background radioactivity of the measuring instrument subtracted; therefore, negative results are possible, especially when the sample has very little radioactivity.

Reported averages also are accompanied by a plus or minus (±) value, which represents two standard deviations from the mean. If the data fluctuate randomly, this is a measure of the uncertainty in the estimated average of the data because of this randomness.

Where averages of averages are reported, the plus or minus (±) value represents two standard errors of the mean.

The mean, X, is computed as:

$$X = \frac{1}{n}\sum_{i=1}^{n} X_i$$

where X_i is the ith measurement and n is the number of measurements.

The standard error of the mean was computed as:

$$SE = \sqrt{\frac{S^2}{n}}$$

where S^2, the variance of the n measurements, was computed as:

$$S_M^2 = \frac{1}{n-1}\sum_{i=1}^{n}(X_i - X)^2$$

This estimator, S^2, includes the variance among the samples and the counting variance. The estimated S^2 occasionally may be less than the average counting variance.

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