

# HANFORD SITE

NEAR-FACILITY ENVIRONMENTAL MONITORING DATA REPORT



*for Calendar Year 2006*

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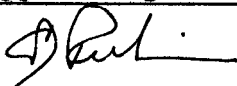
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# **Hanford Site Near-Facility Environmental Monitoring Data Report for Calendar Year 2006**

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September 2007

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## LIST OF TERMS

CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
CSB	Canister Storage Building
CVDF	Cold Vacuum Drying Facility
DCG	derived concentration guides
DOE	U.S. Department of Energy
EDE	effective dose equivalent
EDP (code)	environmental data point (identification number indicating sample location)
ERDF	Environmental Restoration Disposal Facility
GEA	gamma energy analysis
IDF	Integrated Disposal Facility
LERF	Liquid Effluent Retention Facility
PFP	Plutonium Finishing Plant
PHMC	Project Hanford Management Contract
PNNL	Pacific Northwest National Laboratory
PUREX	Plutonium-Uranium Extraction
QA	quality assurance
RCC	River Corridor Closure
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RPP	River Protection Project
TEDF	Treated Effluent Disposal Facility
TLD	thermoluminescent dosimeter
URM	underground radioactive material
WAC	<i>Washington Administrative Code</i>
WDOH	Washington State Department of Health
WSCF	Waste Sampling and Characterization Facility

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## 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* (DOE 2004); *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, and external radiation. 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* (DTS 2006).

Samples are collected from known or expected effluent pathways. These pathways are generally downwind of potential or actual airborne releases and down gradient of past liquid discharges. Table 1-1 shows the type and location of routine near-facility monitoring samples collected in 2006.

Table 1-1. Near-Facility Routine Environmental Monitoring Samples and Locations, 2006.

Sample Type	Number of sample Locations	Operational Area								
		100 B/C	100 D	100 F	100 H	100 K	100 N	200/600	300/400	ERDF <sup>a</sup>
Air	77	5	0	5	2	10	3	46 <sup>b</sup>	3	3
Soil	90	0	4	5	0	2	4	57	17	1
Vegetation	69	0	0	0	0	0	4	49	16	0
External Radiation	134	4	0	0	0	23	11	68	25	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 2006. Detailed discussions and summarized analytical results are provided in PNNL-16623, *Hanford Site Environmental Report for Calendar Year 2006* (PNNL 2007).

## **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 2006, air radioactivity was sampled by a network of continuously operating samplers at 77 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 Hanford Site operational areas. A discussion and survey location maps are provided in Section 6.0, "Radiological Surveys."

In 2006, the Hanford Site had approximately 3,583 ha (8,853 acres) of posted outdoor surface contamination, and 600 ha (1,482 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 analyzed in 2006, 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 77 near-facility monitoring locations sampled radioactivity in air during 2006. 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 2006 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 2-9. Historical air sampling results for the 100-K, 100-N, 200 and 300 Areas are represented in graph form in Figures 2-10 through 2-20.

A summary of near-facility ambient-air sampling results for selected radionuclides collected during 2006 is presented in Table 2-3. The 2006 composited, sampler-specific monitoring results are provided in Table 2-4. The 2006 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 2006 air sampling results can be found in Section 10.2 of PNNL-16623 (PNNL 2007).

Near-facility environmental air samplers operate at a flow rate of 0.057 m<sup>3</sup>/min (2 ft<sup>3</sup>/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.

All air sampling results are compared to U.S. Department of Energy (DOE) derived concentration guides (DCG) and/or U.S. Environmental Protection Agency concentration levels and are also statistically evaluated. To help assess the impact of Hanford Site operations, monitoring results are compared to the results obtained from the distant communities of Yakima and Sunnyside as reported by the 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, 2006.

Site	Number of Samplers	EDP Code <sup>a</sup>	Analyses	
			Bi-weekly	Composite <sup>b</sup>
100-B/C Area Field Remediation project <sup>c</sup>	5	N464, N465, N466, N496, N497	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
100-F Area Field Remediation project <sup>c</sup>	5	N519, N520, N521, N552, N553	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
105-H Interim Safe Storage project	2	N524, N525	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
100-K Decontamination & Demolition project <sup>c</sup>	2	N476, N477	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
100-K Spent Nuclear Fuels	8	N401, N402, N403 <sup>d</sup> , N404, N476, N477, N478, N479	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso Pu-241, Am-241
118-K-1 Field Remediation project <sup>c</sup>	3	N403, N534, N535	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
100-N Area D4 project	3	N102, N103, N106	Gross $\alpha$ , $\beta$	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 <sup>d</sup> , N985, N999	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
Canister Storage Building (200 East Area)	2	N480, N481	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
Integrated Disposal Facility (200 East Area)	2	N532, N559	Gross $\alpha$ , $\beta$	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 $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
200-UW-1 Decontamination & Demolition project (200 West Area)	4	N168, N550, N956, N963	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
300 Area Decontamination & Demolition project <sup>c</sup>	1	N557	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
300-FF-2 Field Remediation project (300 Area) <sup>e</sup>	2	N130, N527	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
Environmental Restoration Disposal Facility <sup>c</sup>	4	N482 <sup>d</sup> , N517, N518, N963	Gross $\alpha$ , $\beta$	GEA, Sr-90, Pu-iso, U-iso
600 Area (WYE Barricade)	1	N981 <sup>e</sup>	Gross $\alpha$ , $\beta$	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.

Table 2-2. PNNL Supplemental Air Sampling Locations,<sup>a</sup> 2006.

<b>Site</b>	<b>Sampling Location</b>
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
118-K-1 Field Remediation project	E 100 K
300 Area Decontamination & Demolition project	300 NE, 300 South Gate, 300 Trench, 300 Water Intake, 300 South West
300-FF-2 Field Remediation project	300 NE, 300 Trench, 300 Water Intake
Environmental Restoration Disposal Facility	200 W SE

<sup>a</sup> Maps showing specific locations are available in PNNL-16623.

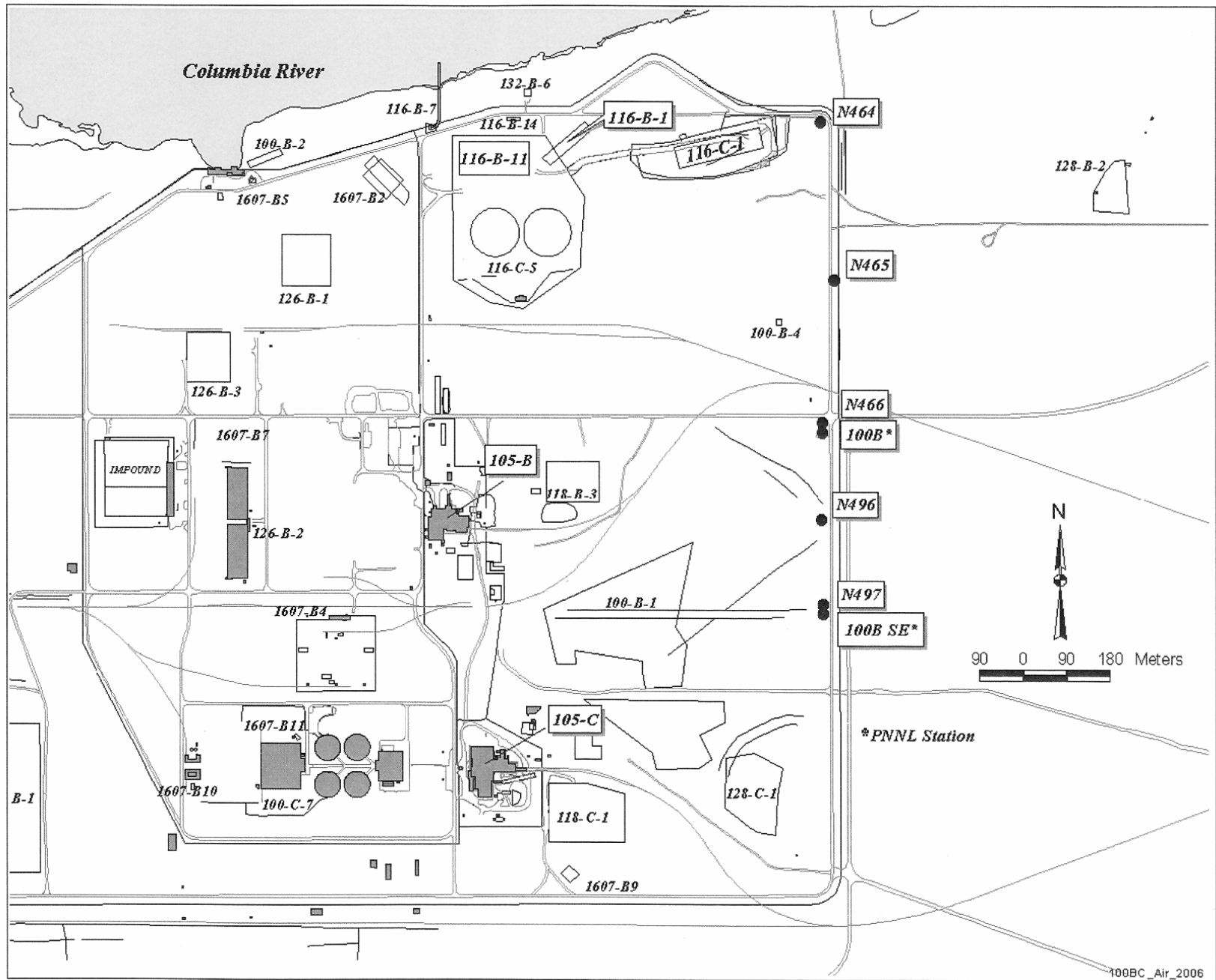


Figure 2-1. 100-B/C Area Air Sampler Locations.

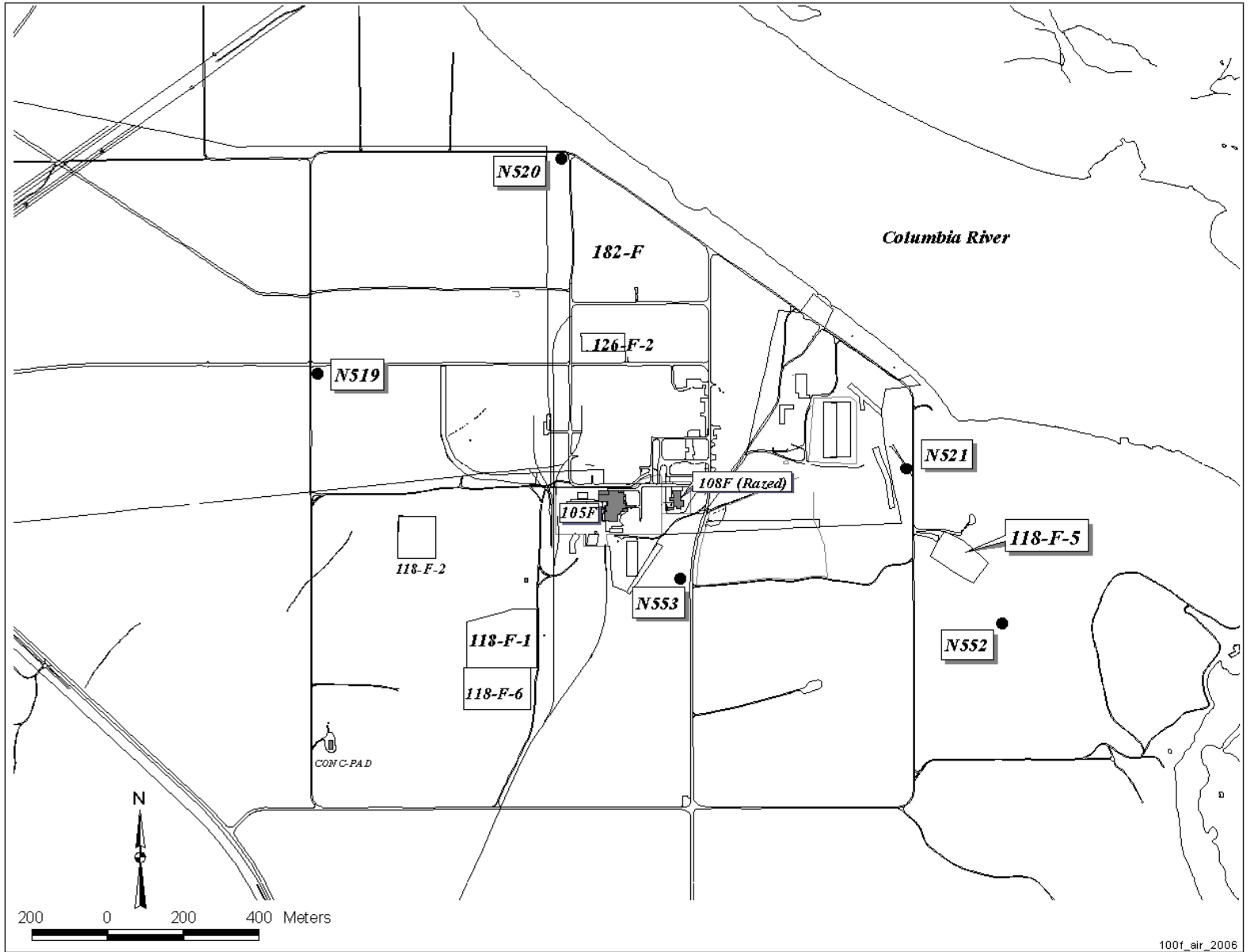


Figure 2-2. 100-F Area Air Sampler Locations.

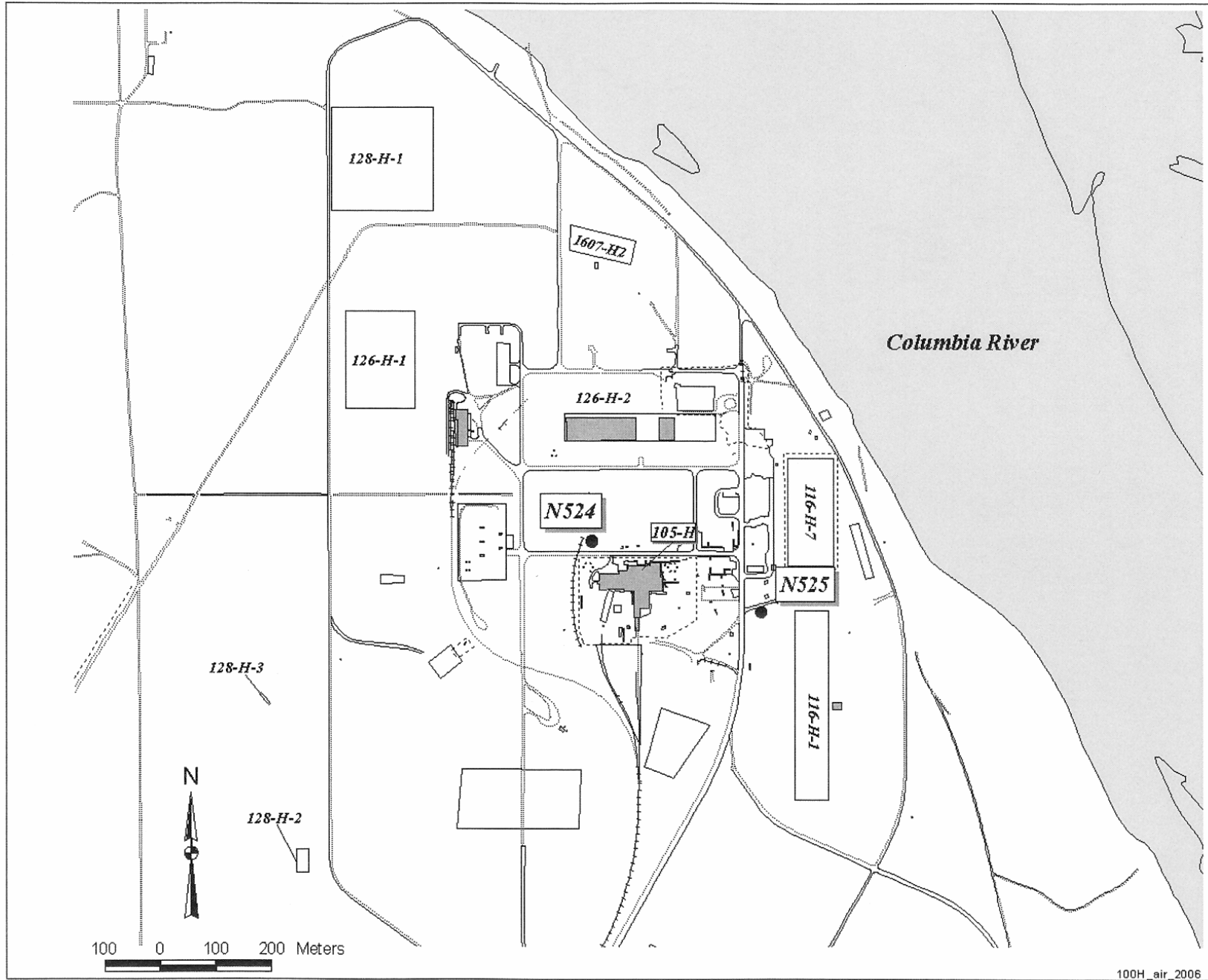


Figure 2-3. 100-H Area Air Sampler Locations.



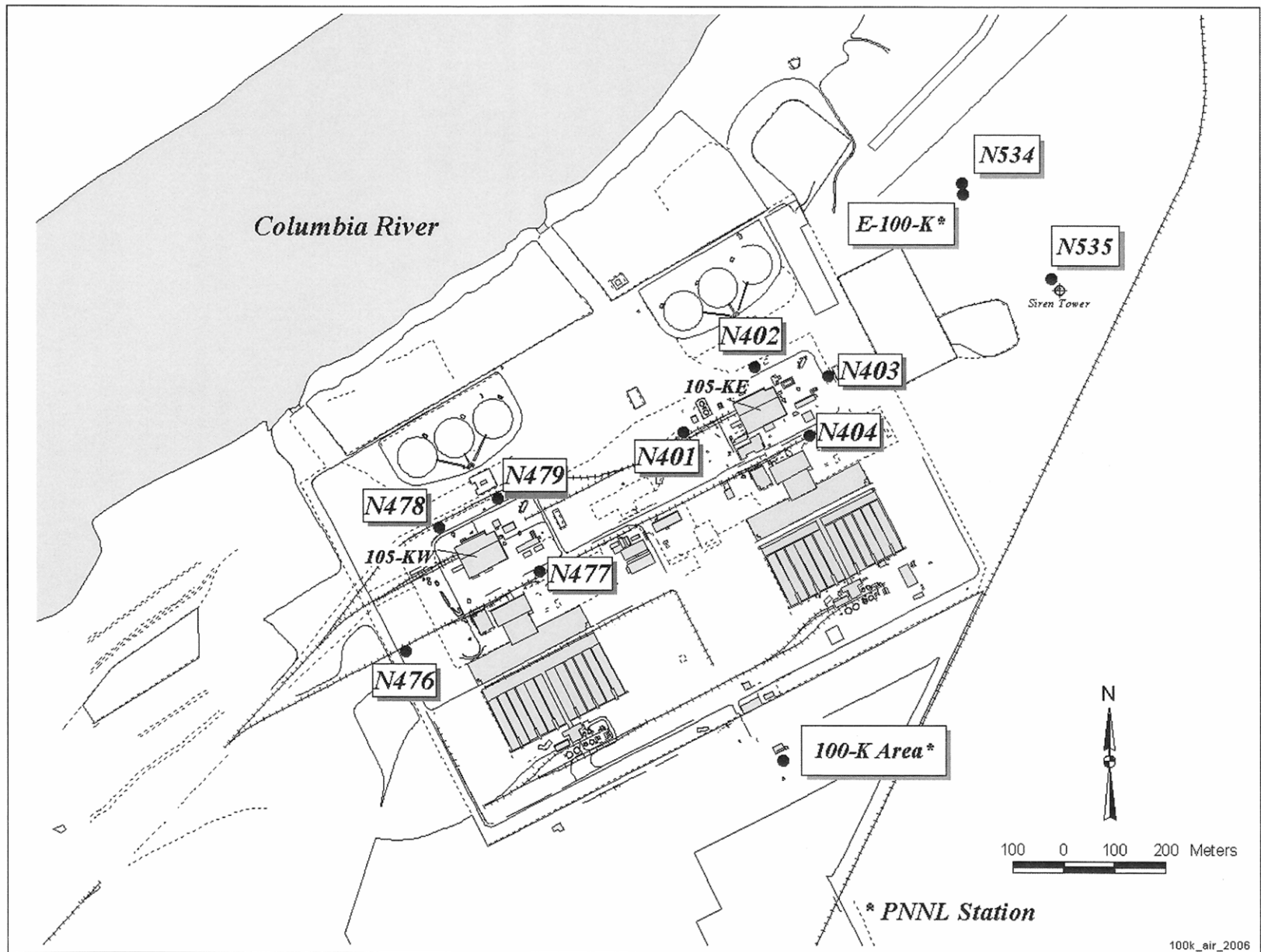


Figure 2-4. 100-K Area Air Sampler Locations.

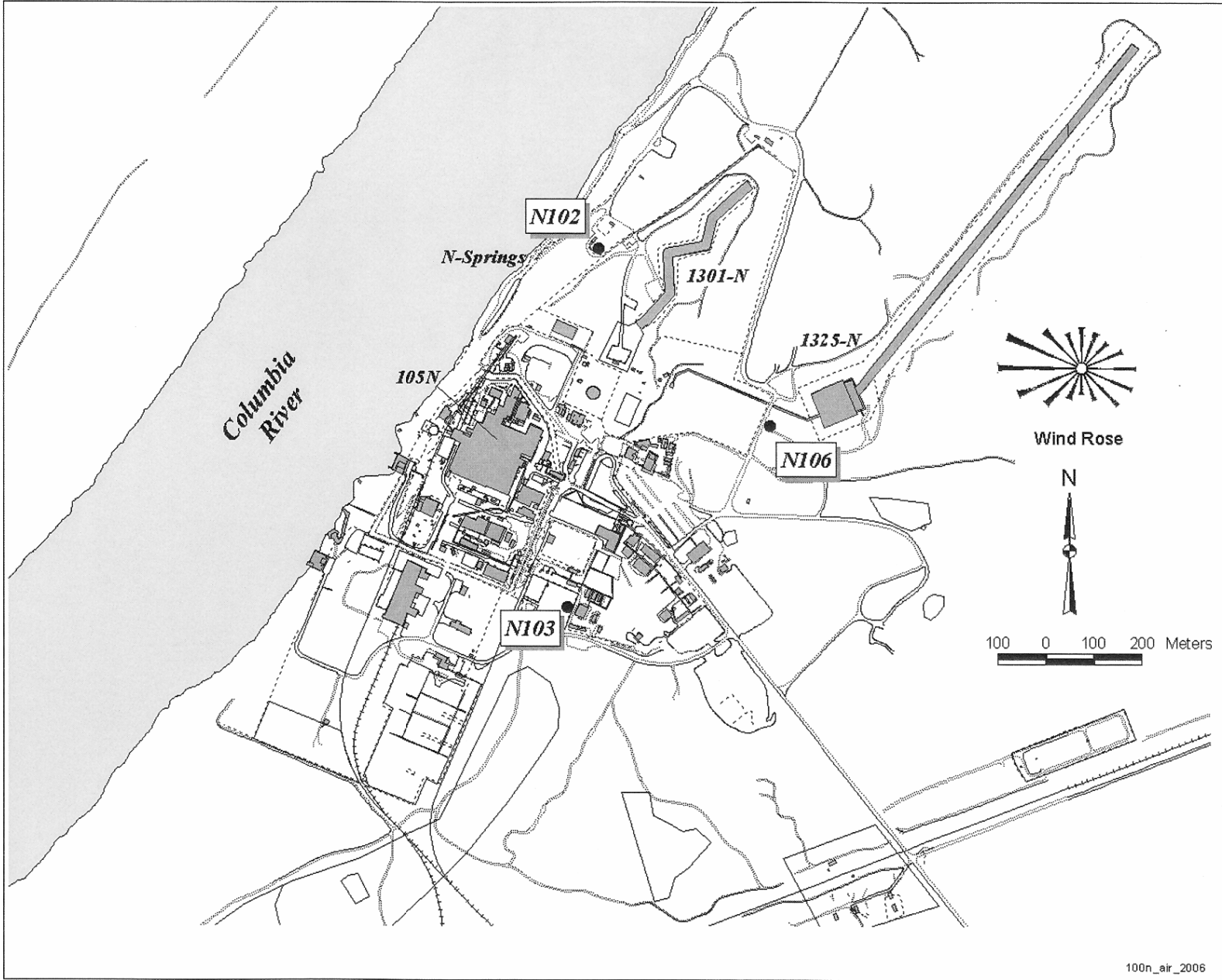


Figure 2-5. 100-N Area Air Sampler Locations.

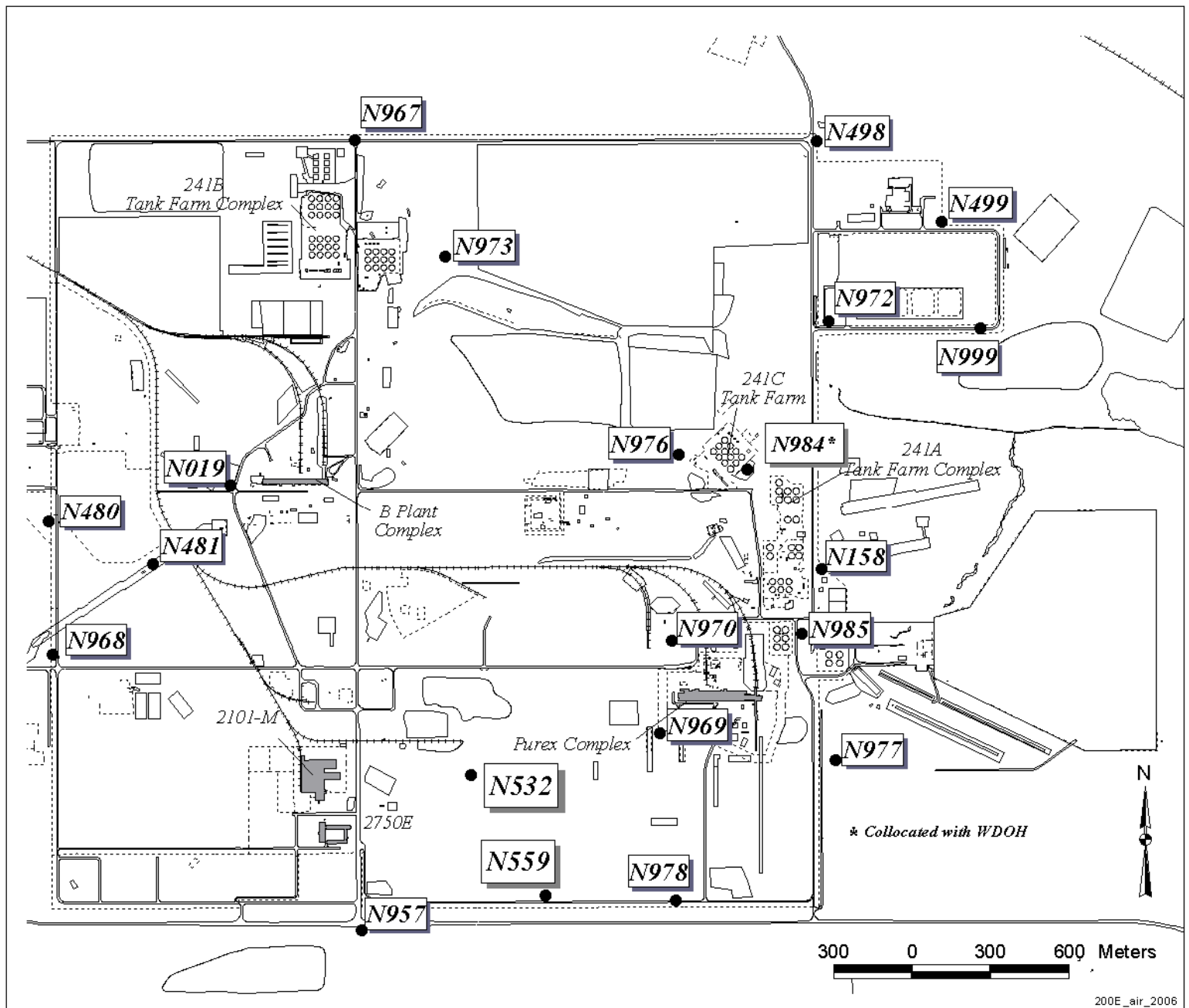


Figure 2-6. 200 East Area Air Sampler Locations.

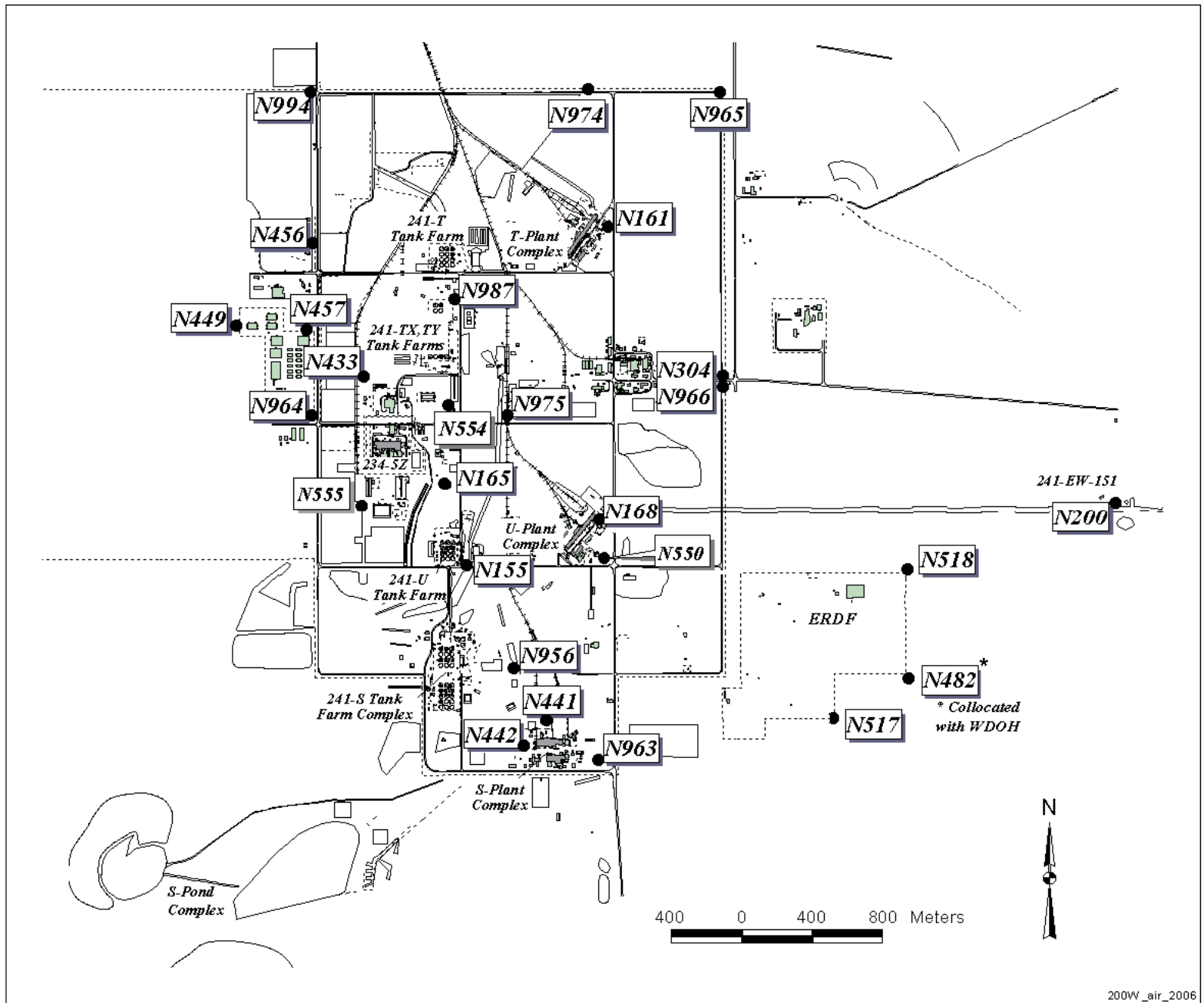


Figure 2-7. 200 West Area Air Sampler Locations.

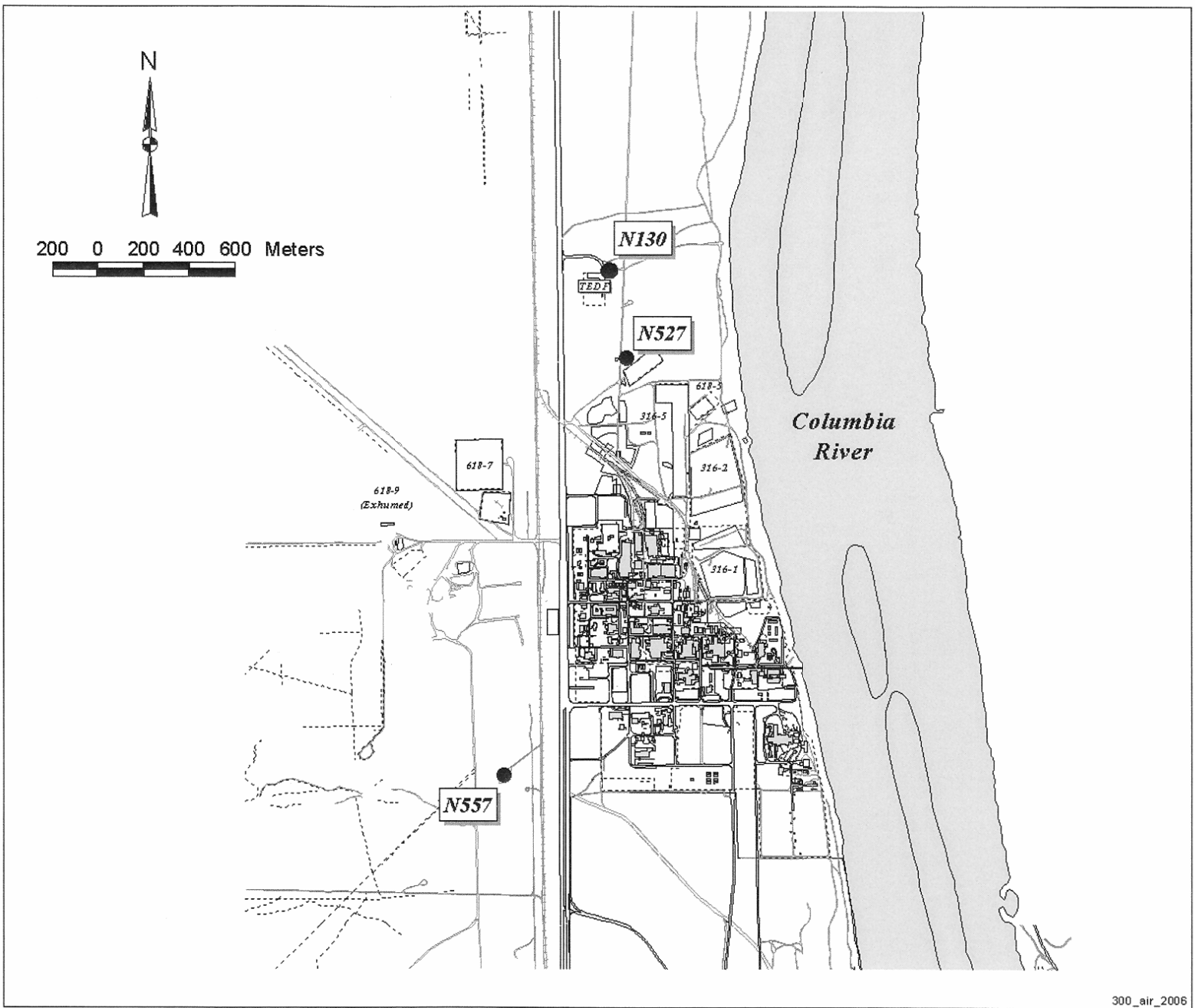


Figure 2-8. 300 Area Air Sampler Locations.

Figure 2-9. 600 Area Air Sampler Location.

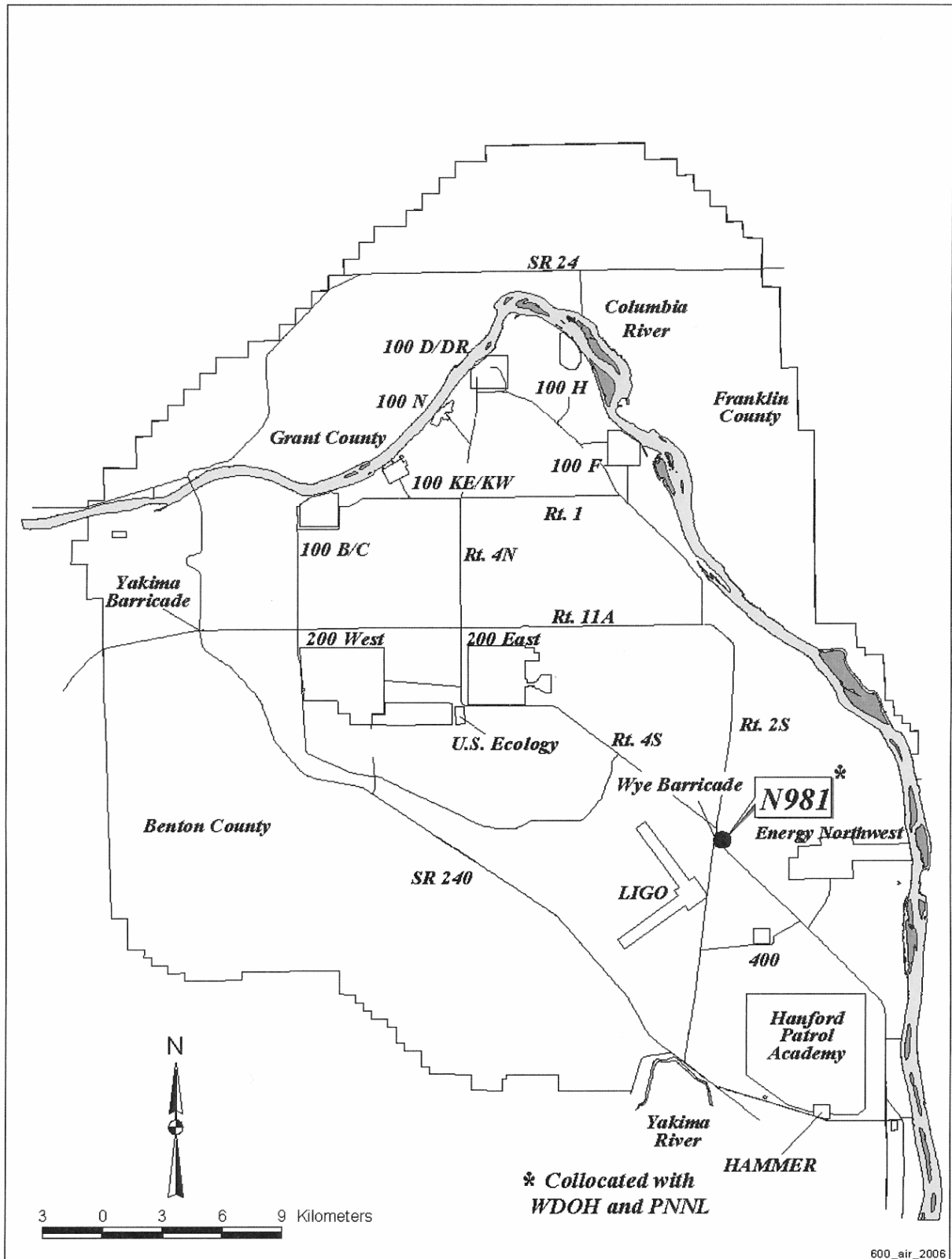
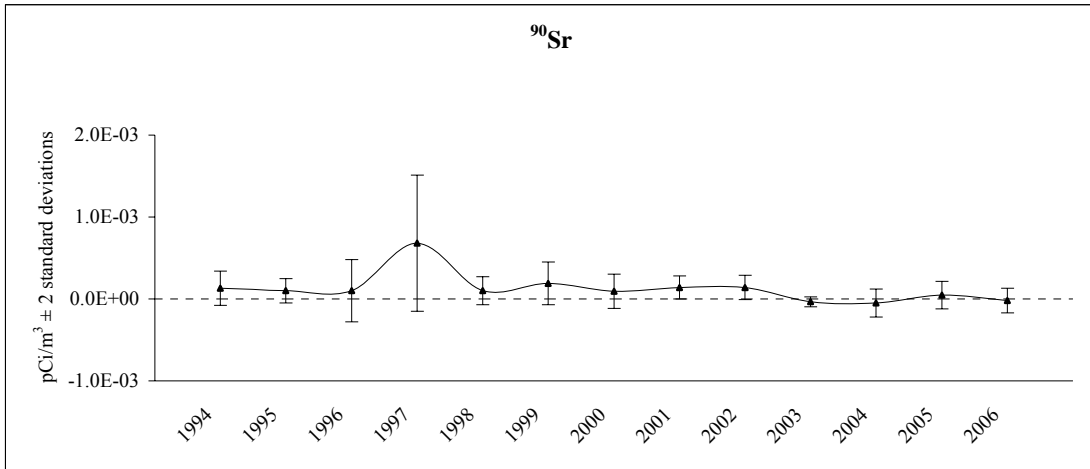
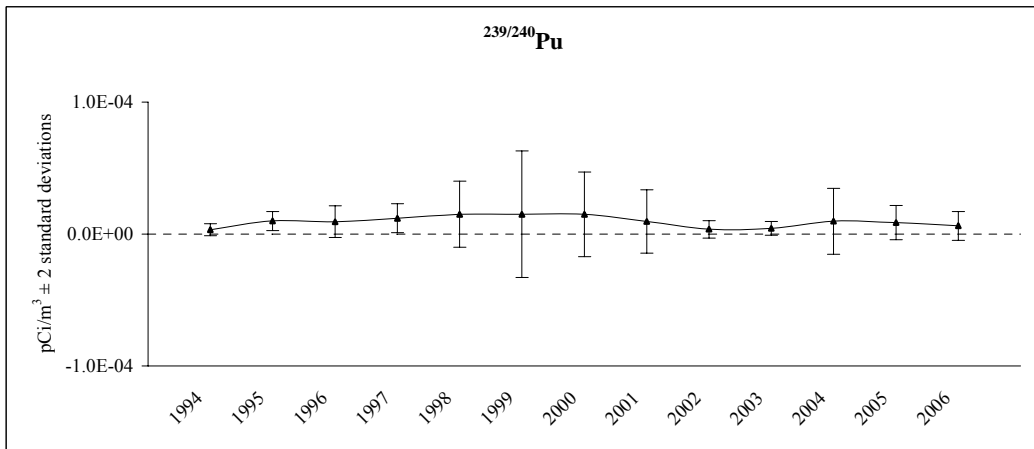


Figure 2-10. Annual Average Strontium-90 Concentrations in Air, 100-K Area.



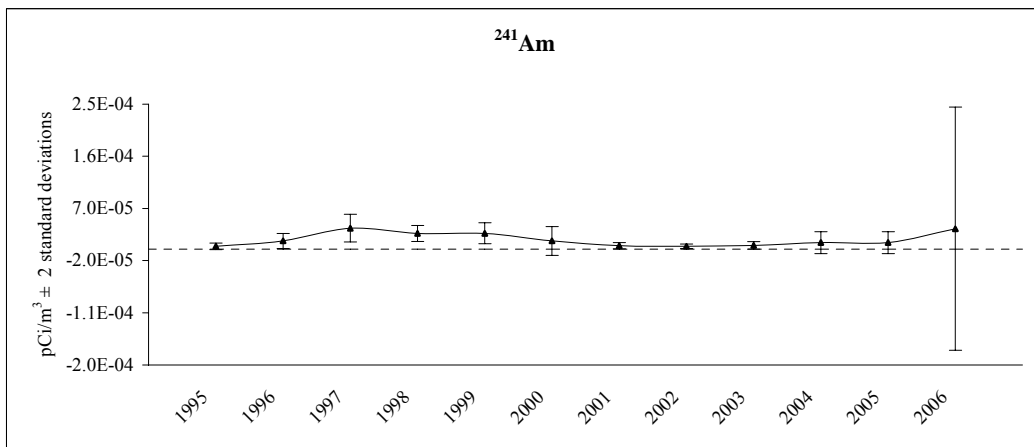
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 1.9 E-03 pCi/m<sup>3</sup>

Figure 2-11. Annual Average Plutonium-239/240 Concentrations in Air, 100-K Area.



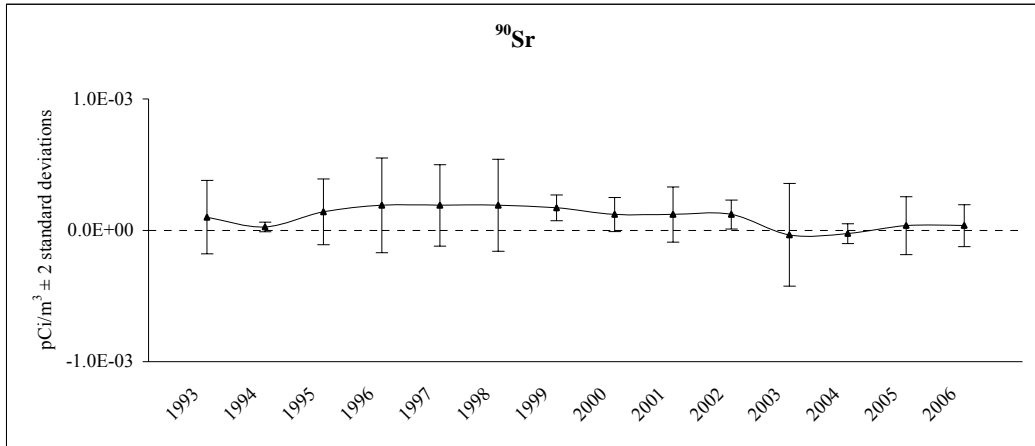
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 2.0 E-04 pCi/m<sup>3</sup>

Figure 2-12. Annual Average Americium-241 Concentrations in Air, 100-K Area.



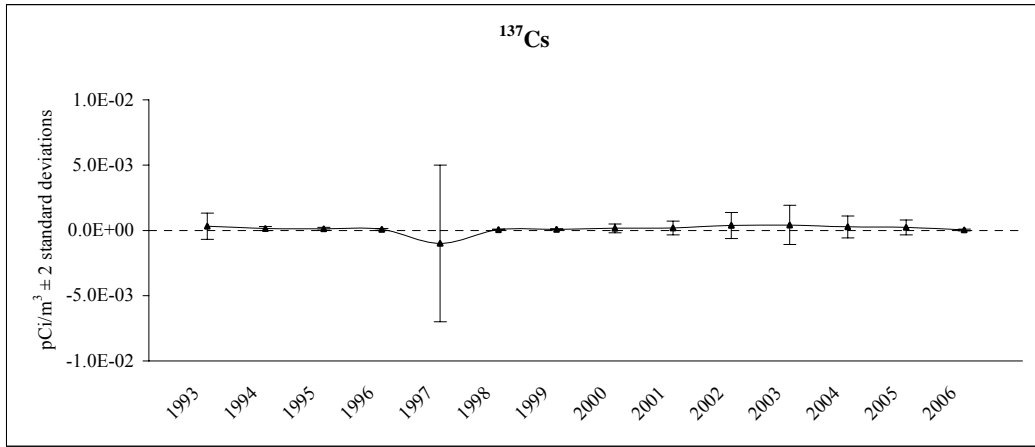
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 1.9 E-04 pCi/m<sup>3</sup>

Figure 2-13. Annual Average Strontium-90 Concentrations in Air, 100-N.



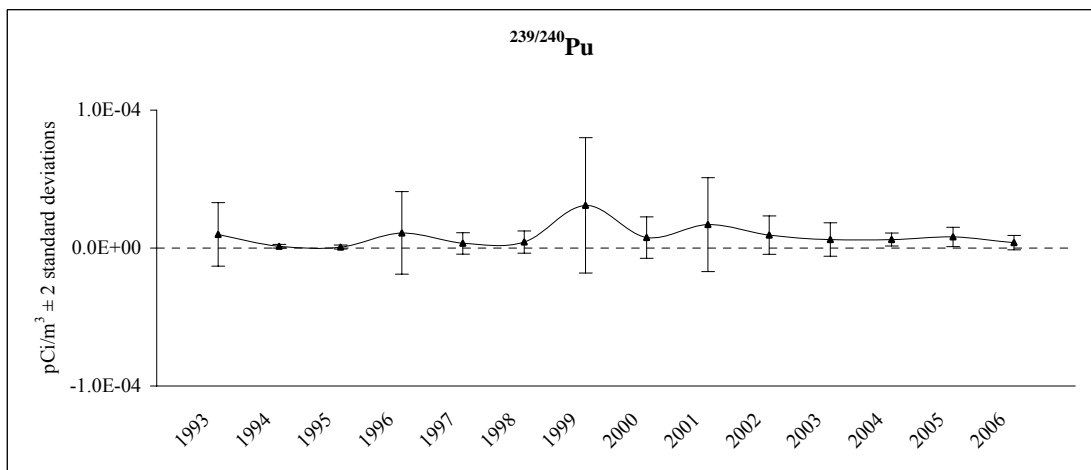
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 1.9 E-03 pCi/m<sup>3</sup>

Figure 2-14. Annual Average Cesium-137 Concentrations in Air, 100-N.



WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 1.9 E-03 pCi/m<sup>3</sup>

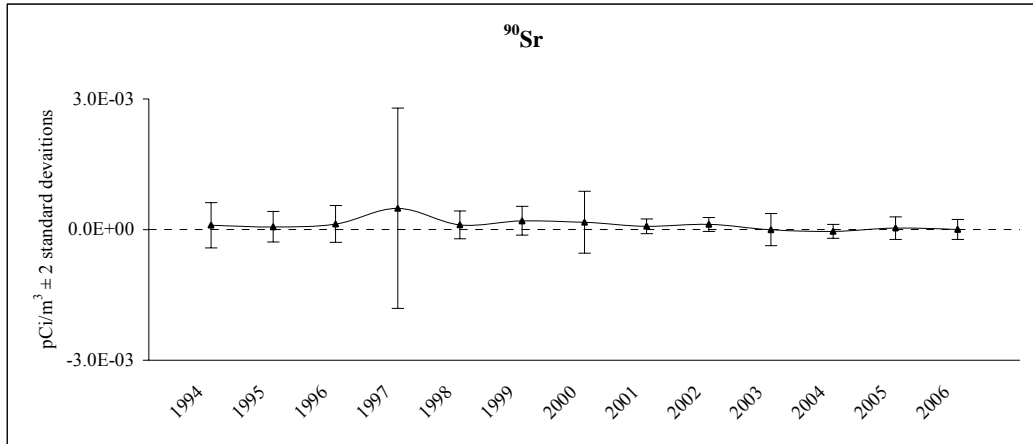
Figure 2-15. Annual Average Plutonium-239/240 Concentrations in Air, 100-N Area.



WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 2.0 E-04 pCi/m<sup>3</sup>

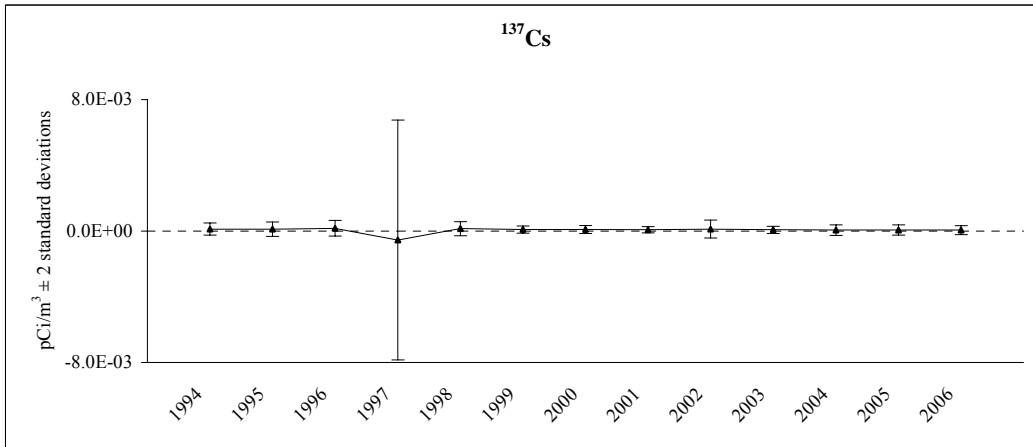


Figure 2-16. Annual Average Strontium-90 Concentrations in Air, 200 Areas.



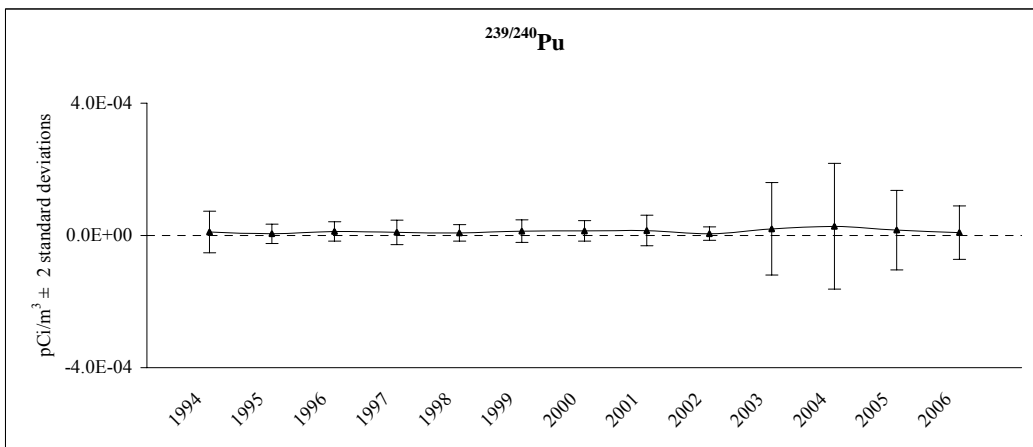
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 1.9 E-03 pCi/m<sup>3</sup>

Figure 2-17. Annual Average Cesium-137 Concentrations in Air, 200 Areas.



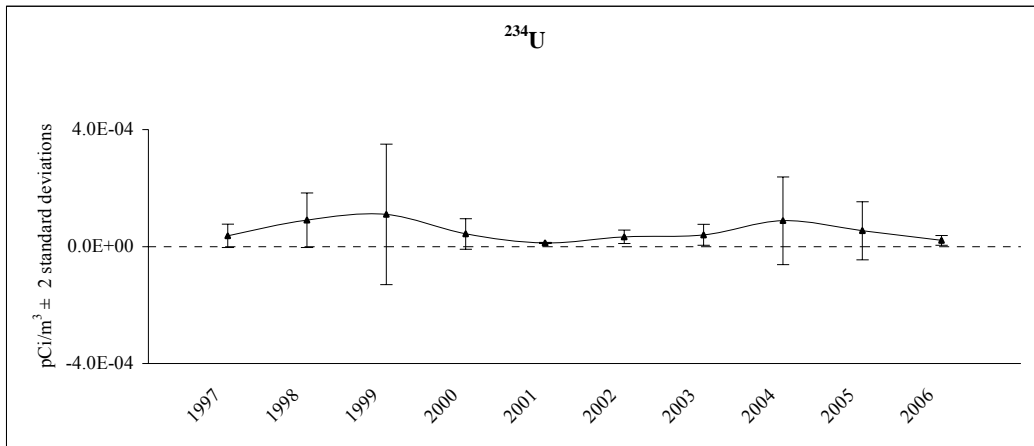
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 1.9 E-03 pCi/m<sup>3</sup>

Figure 2-18. Annual Average Plutonium-239/240 Concentrations in Air, 200 Areas.



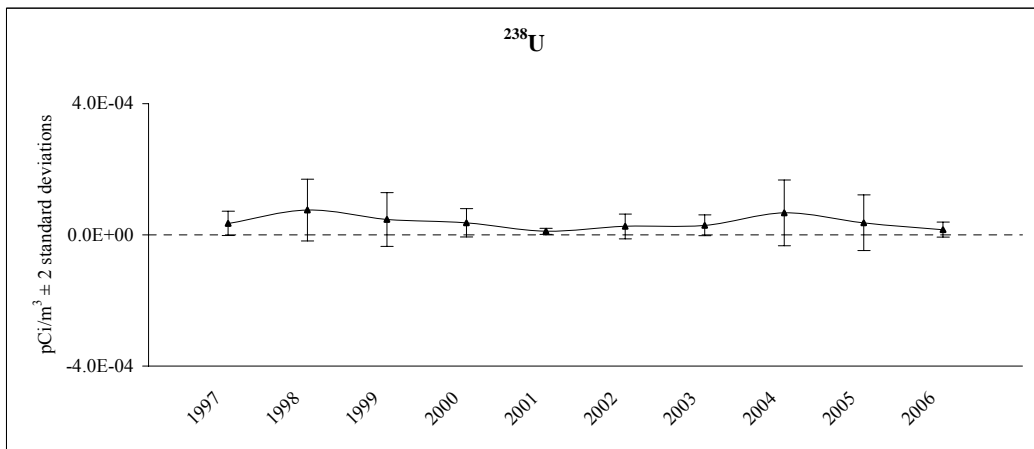
WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 2.0 E-04 pCi/m<sup>3</sup>

Figure 2-19. Annual Average Uranium-234 Concentrations in Air, 300 Area.



WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 7.7 E-04 pCi/m<sup>3</sup>

Figure 2-20. Annual Average Uranium-238 Concentrations in Air, 300 Area.



WDOH threshold value for notification (from 40 CFR 61, Appendix E, Table 2) = 8.3 E-04 pCi/m<sup>3</sup>

Table 2-3. Summary of Near-Facility Ambient-Air Sampling Results (pCi/m<sup>3</sup>) for Selected Radionuclides, 2006.

Isotope	Number of		Mean <sup>a</sup>	Maximum <sup>b</sup>	Location	Sampler
	Detects	Samples				
<sup>241</sup> Am	9	26	2.3E-05 ± 1.7E-04	4.4E-04 ± 1.7E-04	100-K East	N403
<sup>60</sup> Co	5	158	2.1E-06 ± 1.0E-04	1.4E-04 ± 6.3E-05	Wye Barricade	N981
<sup>137</sup> Cs	17	158	4.2E-05 ± 2.2E-04	8.9E-04 ± 3.6E-04	200 East Area	N984
<sup>239/240</sup> Pu	38	158	6.9E-06 ± 6.2E-05	3.6E-04 ± 1.4E-04	200 West Area	N165
<sup>90</sup> Sr	8	156	-4.6E-06 ± 2.2E-04	6.2E-04 ± 2.2E-04	200 West Area	N161
<sup>234</sup> U	145	158	1.2E-05 ± 1.2E-05	3.7E-05 ± 2.4E-05	105-H (100-H Area)	N524
<sup>235</sup> U	36	158	3.1E-06 ± 5.0E-06	1.9E-05 ± 1.7E-05	105-H (100-H Area)	N524
<sup>238</sup> U	142	158	9.4E-06 ± 1.0E-05	3.6E-05 ± 2.0E-05	300 D&D (300 Area)	N557

<sup>a</sup> ± 2 standard deviations

<sup>b</sup> ± total analytical uncertainty

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*		
N464 (100-B/C) Composite Period 12/20/05 to 06/19/06	<sup>60</sup> Co	-5.9E-06 ± 5.9E-05	U	N464 (100-B/C) Composite Period 06/19/06 to 01/03/07	<sup>60</sup> Co	-7.4E-06 ± 7.4E-05	U		
	<sup>134</sup> Cs	-1.5E-05 ± 6.3E-05	U		<sup>134</sup> Cs	7.8E-06 ± 7.5E-05	U		
	<sup>137</sup> Cs	-3.4E-05 ± 5.5E-05	U		<sup>137</sup> Cs	1.0E-04 ± 7.2E-05	U		
	<sup>152</sup> Eu	9.8E-06 ± 9.8E-05	U		<sup>152</sup> Eu	-1.5E-05 ± 1.6E-04	U		
	<sup>154</sup> Eu	2.4E-04 ± 2.2E-04	U		<sup>154</sup> Eu	4.0E-04 ± 1.8E-04	U		
	<sup>155</sup> Eu	5.8E-05 ± 1.5E-04	U		<sup>155</sup> Eu	5.4E-05 ± 1.5E-04	U		
	<sup>238</sup> Pu	1.2E-06 ± 2.5E-06	U		<sup>238</sup> Pu	-6.7E-06 ± 8.3E-06	U		
	<sup>239/240</sup> Pu	1.8E-06 ± 2.2E-06	U		<sup>239/240</sup> Pu	2.4E-06 ± 2.6E-06	U		
	<sup>106</sup> Ru	2.5E-04 ± 5.5E-04	U		<sup>106</sup> Ru	3.1E-05 ± 3.1E-04	U		
	<sup>125</sup> Sb	8.9E-05 ± 1.4E-04	U		<sup>125</sup> Sb	1.0E-04 ± 1.5E-04	U		
	<sup>90</sup> Sr	1.4E-05 ± 1.1E-04	U		<sup>90</sup> Sr	5.8E-05 ± 5.6E-05	U		
	<sup>234</sup> U	1.7E-05 ± 9.6E-06	U		<sup>234</sup> U	8.9E-06 ± 6.1E-06	U		
	<sup>235</sup> U	2.2E-06 ± 3.3E-06	U		<sup>235</sup> U	3.2E-06 ± 3.4E-06	U		
	<sup>238</sup> U	7.2E-06 ± 5.8E-06	U		<sup>238</sup> U	1.0E-05 ± 7.7E-06	U		
	N465 (100-B/C) Composite Period 12/20/05 to 06/19/06	<sup>60</sup> Co	4.3E-05 ± 7.6E-05		U	N465 (100-B/C) Composite Period 06/19/06 to 01/03/07	<sup>60</sup> Co	-1.6E-05 ± 6.2E-05	U
		<sup>134</sup> Cs	-9.4E-06 ± 6.4E-05		U		<sup>134</sup> Cs	2.4E-06 ± 2.4E-05	U
<sup>137</sup> Cs		-2.1E-05 ± 6.0E-05	U	<sup>137</sup> Cs	-1.3E-05 ± 5.6E-05		U		
<sup>152</sup> Eu		3.0E-05 ± 1.4E-04	U	<sup>152</sup> Eu	-1.2E-04 ± 1.3E-04		U		
<sup>154</sup> Eu		8.6E-05 ± 2.0E-04	U	<sup>154</sup> Eu	-1.0E-04 ± 1.9E-04		U		
<sup>155</sup> Eu		8.2E-05 ± 1.6E-04	U	<sup>155</sup> Eu	6.2E-05 ± 1.2E-04		U		
<sup>238</sup> Pu		6.5E-07 ± 1.3E-06	U	<sup>238</sup> Pu	3.7E-06 ± 4.1E-06		U		
<sup>239/240</sup> Pu		4.5E-06 ± 4.2E-06	U	<sup>239/240</sup> Pu	1.2E-06 ± 1.8E-06		U		
<sup>106</sup> Ru		2.2E-04 ± 5.7E-04	U	<sup>106</sup> Ru	4.0E-04 ± 4.9E-04		U		
<sup>125</sup> Sb		6.0E-05 ± 1.4E-04	U	<sup>125</sup> Sb	1.9E-05 ± 1.3E-04		U		
<sup>90</sup> Sr		-8.6E-05 ± 1.1E-04	U	<sup>90</sup> Sr	4.1E-05 ± 8.4E-05		U		
<sup>234</sup> U		1.1E-05 ± 6.9E-06	U	<sup>234</sup> U	7.1E-06 ± 6.6E-06		U		
<sup>235</sup> U		3.2E-06 ± 3.4E-06	U	<sup>235</sup> U	2.3E-06 ± 3.5E-06		U		
<sup>238</sup> U		8.7E-06 ± 6.0E-06	U	<sup>238</sup> U	7.8E-06 ± 5.6E-06		U		
N466 (100-B/C) Composite Period 12/20/05 to 06/19/06		<sup>60</sup> Co	-7.1E-05 ± 7.6E-05	U	N466 (100-B/C) Composite Period 06/19/06 to 01/03/07		<sup>60</sup> Co	-3.7E-05 ± 8.1E-05	U
		<sup>134</sup> Cs	3.7E-05 ± 6.8E-05	U			<sup>134</sup> Cs	5.4E-05 ± 7.5E-05	U
	<sup>137</sup> Cs	-1.5E-05 ± 6.4E-05	U	<sup>137</sup> Cs		6.6E-05 ± 6.6E-05	U		
	<sup>152</sup> Eu	1.2E-05 ± 1.2E-04	U	<sup>152</sup> Eu		-1.1E-04 ± 1.8E-04	U		
	<sup>154</sup> Eu	1.9E-04 ± 2.1E-04	U	<sup>154</sup> Eu		1.1E-05 ± 1.1E-04	U		
	<sup>155</sup> Eu	5.1E-05 ± 1.6E-04	U	<sup>155</sup> Eu		6.2E-05 ± 1.6E-04	U		
	<sup>238</sup> Pu	-1.2E-06 ± 1.8E-06	U	<sup>238</sup> Pu		2.0E-06 ± 4.2E-06	U		
	<sup>239/240</sup> Pu	6.2E-07 ± 6.4E-07	U	<sup>239/240</sup> Pu		2.7E-06 ± 2.9E-06	U		
	<sup>106</sup> Ru	2.6E-04 ± 5.3E-04	U	<sup>106</sup> Ru		-7.1E-04 ± 7.4E-04	U		
	<sup>125</sup> Sb	-8.9E-05 ± 1.4E-04	U	<sup>125</sup> Sb		-6.3E-06 ± 6.3E-05	U		
	<sup>90</sup> Sr	-1.0E-04 ± 1.0E-04	U	<sup>90</sup> Sr		-1.6E-05 ± 7.7E-05	U		
	<sup>234</sup> U	8.0E-06 ± 5.8E-06	U	<sup>234</sup> U		1.2E-05 ± 7.9E-06	U		
	<sup>235</sup> U	2.9E-06 ± 5.5E-06	U	<sup>235</sup> U		1.4E-06 ± 2.1E-06	U		
	<sup>238</sup> U	1.1E-05 ± 6.9E-06	U	<sup>238</sup> U		6.5E-06 ± 4.8E-06	U		

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N496 (100-B/C) Composite Period 12/20/05 to 06/19/06	<sup>60</sup> Co	2.5E-05 ± 9.8E-05	U	N496 (100-B/C) Composite Period 06/19/06 to 01/03/07	<sup>60</sup> Co	-1.2E-06 ± 1.3E-05	U
	<sup>134</sup> Cs	-3.0E-05 ± 1.0E-04	U		<sup>134</sup> Cs	8.9E-06 ± 5.2E-05	U
	<sup>137</sup> Cs	-8.3E-06 ± 8.3E-05	U		<sup>137</sup> Cs	-2.4E-06 ± 2.4E-05	U
	<sup>152</sup> Eu	-5.1E-05 ± 2.3E-04	U		<sup>152</sup> Eu	2.0E-05 ± 1.1E-04	U
	<sup>154</sup> Eu	8.9E-05 ± 3.2E-04	U		<sup>154</sup> Eu	9.0E-05 ± 1.9E-04	U
	<sup>155</sup> Eu	-8.1E-05 ± 1.7E-04	U		<sup>155</sup> Eu	1.7E-04 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.9E-06 ± 2.3E-06	U		<sup>238</sup> Pu	6.2E-07 ± 6.4E-07	U
	<sup>239/240</sup> Pu	2.5E-06 ± 2.6E-06	U		<sup>239/240</sup> Pu	3.1E-06 ± 3.5E-06	U
	<sup>106</sup> Ru	3.8E-04 ± 9.2E-04	U		<sup>106</sup> Ru	-8.6E-05 ± 4.4E-04	U
	<sup>125</sup> Sb	1.4E-06 ± 1.4E-05	U		<sup>125</sup> Sb	-5.3E-05 ± 1.1E-04	U
	<sup>90</sup> Sr	3.4E-05 ± 1.0E-04	U		<sup>90</sup> Sr	-6.5E-06 ± 6.5E-05	U
	<sup>234</sup> U	1.2E-05 ± 8.1E-06	U		<sup>234</sup> U	5.7E-06 ± 4.3E-06	U
	<sup>235</sup> U	3.0E-06 ± 3.2E-06	U		<sup>235</sup> U	3.4E-06 ± 3.4E-06	U
	<sup>238</sup> U	9.7E-06 ± 6.4E-06	U		<sup>238</sup> U	7.0E-06 ± 5.6E-06	U
	N497 (100-B/C) Composite Period 12/20/05 to 06/19/06	<sup>60</sup> Co	-5.0E-05 ± 1.1E-04		U	N497 (100-B/C) Composite Period 06/19/06 to 01/03/07	<sup>60</sup> Co
<sup>134</sup> Cs		9.3E-05 ± 1.1E-04	U	<sup>134</sup> Cs	-4.6E-06 ± 4.6E-05		U
<sup>137</sup> Cs		4.4E-05 ± 1.0E-04	U	<sup>137</sup> Cs	6.8E-05 ± 7.4E-05		U
<sup>152</sup> Eu		-1.8E-04 ± 2.2E-04	U	<sup>152</sup> Eu	1.0E-04 ± 2.3E-04		U
<sup>154</sup> Eu		1.7E-04 ± 3.0E-04	U	<sup>154</sup> Eu	-9.8E-07 ± 9.8E-06		U
<sup>155</sup> Eu		-5.9E-05 ± 1.7E-04	U	<sup>155</sup> Eu	-5.1E-05 ± 1.5E-04		U
<sup>238</sup> Pu		1.8E-06 ± 2.7E-06	U	<sup>238</sup> Pu	-1.2E-06 ± 1.8E-06		U
<sup>239/240</sup> Pu		1.2E-06 ± 2.4E-06	U	<sup>239/240</sup> Pu	1.9E-06 ± 2.3E-06		U
<sup>106</sup> Ru		-4.3E-04 ± 9.0E-04	U	<sup>106</sup> Ru	-2.7E-05 ± 2.7E-04		U
<sup>125</sup> Sb		3.3E-05 ± 2.2E-04	U	<sup>125</sup> Sb	-2.3E-05 ± 2.3E-04		U
<sup>90</sup> Sr		1.4E-04 ± 1.2E-04	U	<sup>90</sup> Sr	9.1E-06 ± 8.6E-05		U
<sup>234</sup> U		6.3E-06 ± 4.8E-06	U	<sup>234</sup> U	6.2E-06 ± 5.5E-06		U
<sup>235</sup> U		5.4E-06 ± 4.5E-06	U	<sup>235</sup> U	2.3E-06 ± 2.8E-06		U
<sup>238</sup> U		7.8E-06 ± 5.9E-06	U	<sup>238</sup> U	6.2E-06 ± 5.2E-06		U
N524 (100-H) Composite Period 12/20/05 to 03/28/06		<sup>60</sup> Co	6.2E-05 ± 8.8E-05	U	N524 (100-H) Composite Period 03/28/06 to 06/20/06		<sup>60</sup> Co
	<sup>134</sup> Cs	-2.5E-05 ± 1.1E-04	U	<sup>134</sup> Cs		7.3E-07 ± 7.3E-06	U
	<sup>137</sup> Cs	-7.5E-05 ± 1.1E-04	U	<sup>137</sup> Cs		1.1E-05 ± 1.1E-04	U
	<sup>152</sup> Eu	-1.2E-04 ± 2.5E-04	U	<sup>152</sup> Eu		-2.9E-04 ± 3.0E-04	U
	<sup>154</sup> Eu	-1.6E-04 ± 3.2E-04	U	<sup>154</sup> Eu		-2.4E-04 ± 4.2E-04	U
	<sup>155</sup> Eu	-2.6E-06 ± 2.6E-05	U	<sup>155</sup> Eu		1.5E-04 ± 3.3E-04	U
	<sup>238</sup> Pu	-1.3E-05 ± 2.5E-05	U	<sup>238</sup> Pu		-3.2E-05 ± 4.0E-05	U
	<sup>239/240</sup> Pu	1.5E-06 ± 8.7E-06	U	<sup>239/240</sup> Pu		3.3E-06 ± 6.8E-06	U
	<sup>106</sup> Ru	1.2E-04 ± 8.6E-04	U	<sup>106</sup> Ru		-1.1E-03 ± 1.1E-03	U
	<sup>125</sup> Sb	-1.4E-04 ± 2.4E-04	U	<sup>125</sup> Sb		-5.9E-05 ± 2.7E-04	U
	<sup>90</sup> Sr	1.6E-04 ± 1.7E-04	U	<sup>90</sup> Sr		-4.8E-05 ± 1.6E-04	U
	<sup>234</sup> U	9.0E-06 ± 6.7E-06	U	<sup>234</sup> U		2.9E-05 ± 1.7E-05	U
	<sup>235</sup> U	9.9E-06 ± 7.7E-06	U	<sup>235</sup> U		7.0E-06 ± 1.0E-05	U
	<sup>238</sup> U	9.0E-06 ± 6.7E-06	U	<sup>238</sup> U		2.3E-05 ± 1.4E-05	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N524 (100-H) Composite Period 06/20/06 to 08/15/06	<sup>60</sup> Co	-1.7E-04 ± 3.5E-04	U	N525 (100-H) Composite Period 12/20/05 to 03/28/06	<sup>60</sup> Co	-2.6E-05 ± 1.9E-04	U
	<sup>134</sup> Cs	1.9E-04 ± 3.1E-04	U		<sup>134</sup> Cs	9.2E-05 ± 2.0E-04	U
	<sup>137</sup> Cs	8.8E-05 ± 3.2E-04	U		<sup>137</sup> Cs	-9.5E-05 ± 1.9E-04	U
	<sup>152</sup> Eu	3.4E-04 ± 7.1E-04	U		<sup>152</sup> Eu	-3.0E-04 ± 4.0E-04	U
	<sup>154</sup> Eu	1.7E-04 ± 9.6E-04	U		<sup>154</sup> Eu	7.8E-05 ± 5.5E-04	U
	<sup>155</sup> Eu	-2.0E-04 ± 5.3E-04	U		<sup>155</sup> Eu	-1.6E-04 ± 3.3E-04	U
	<sup>238</sup> Pu	-1.2E-05 ± 2.4E-05	U		<sup>238</sup> Pu	6.8E-06 ± 2.6E-05	U
	<sup>239/240</sup> Pu	3.9E-06 ± 7.9E-06	U		<sup>239/240</sup> Pu	-1.4E-06 ± 6.1E-06	U
	<sup>106</sup> Ru	-1.2E-03 ± 2.6E-03	U		<sup>106</sup> Ru	2.2E-04 ± 1.6E-03	U
	<sup>125</sup> Sb	-5.2E-05 ± 5.2E-04	U		<sup>125</sup> Sb	-1.8E-04 ± 4.1E-04	U
	<sup>90</sup> Sr	-2.2E-04 ± 3.0E-04	U		<sup>90</sup> Sr	-2.6E-04 ± 1.7E-04	U
	<sup>234</sup> U	3.7E-05 ± 2.4E-05			<sup>234</sup> U	8.4E-06 ± 6.5E-06	
	<sup>235</sup> U	1.9E-05 ± 1.7E-05	U		<sup>235</sup> U	3.9E-06 ± 4.7E-06	
	<sup>238</sup> U	2.7E-05 ± 1.9E-05			<sup>238</sup> U	5.2E-06 ± 5.0E-06	
	N525 (100-H) Composite Period 03/28/06 to 06/20/06	<sup>60</sup> Co	-1.8E-04 ± 2.0E-04		U	N525 (100-H) Composite Period 06/20/06 to 08/15/06	<sup>60</sup> Co
<sup>134</sup> Cs		-1.3E-04 ± 2.2E-04	U	<sup>134</sup> Cs	1.3E-04 ± 2.3E-04		U
<sup>137</sup> Cs		-2.6E-05 ± 2.0E-04	U	<sup>137</sup> Cs	3.8E-05 ± 1.9E-04		U
<sup>152</sup> Eu		2.3E-04 ± 5.0E-04	U	<sup>152</sup> Eu	-1.0E-04 ± 4.3E-04		U
<sup>154</sup> Eu		4.0E-05 ± 4.0E-04	U	<sup>154</sup> Eu	1.4E-05 ± 1.4E-04		U
<sup>155</sup> Eu		-3.0E-04 ± 3.7E-04	U	<sup>155</sup> Eu	2.0E-04 ± 4.8E-04		U
<sup>238</sup> Pu		-3.1E-05 ± 3.6E-05		<sup>238</sup> Pu	2.2E-06 ± 1.2E-05		U
<sup>239/240</sup> Pu		3.1E-06 ± 4.5E-06		<sup>239/240</sup> Pu	2.2E-06 ± 2.3E-06		U
<sup>106</sup> Ru		1.1E-03 ± 1.9E-03	U	<sup>106</sup> Ru	-2.6E-04 ± 1.6E-03		U
<sup>125</sup> Sb		-2.2E-04 ± 4.9E-04	U	<sup>125</sup> Sb	-1.5E-04 ± 4.1E-04		U
<sup>90</sup> Sr		-1.5E-04 ± 1.5E-04	U	<sup>90</sup> Sr	-3.7E-04 ± 3.7E-04		
<sup>234</sup> U		1.0E-05 ± 9.5E-06	U	<sup>234</sup> U	2.8E-05 ± 1.9E-05		
<sup>235</sup> U		3.2E-06 ± 4.7E-06	U	<sup>235</sup> U	5.5E-06 ± 1.1E-05		U
<sup>238</sup> U		8.9E-06 ± 8.9E-06	U	<sup>238</sup> U	1.8E-05 ± 1.6E-05		U
N519 (100-F) Composite Period 12/20/05 to 06/20/06		<sup>60</sup> Co	2.8E-05 ± 1.0E-04	U	N519 (100-F) Composite Period 06/20/06 to 01/03/07		<sup>60</sup> Co
	<sup>134</sup> Cs	8.5E-05 ± 1.0E-04	U	<sup>134</sup> Cs		3.7E-05 ± 7.3E-05	U
	<sup>137</sup> Cs	-2.8E-05 ± 1.0E-04	U	<sup>137</sup> Cs		-1.6E-06 ± 1.6E-05	U
	<sup>152</sup> Eu	-1.3E-04 ± 2.4E-04	U	<sup>152</sup> Eu		1.3E-04 ± 1.4E-04	U
	<sup>154</sup> Eu	3.5E-04 ± 3.3E-04	U	<sup>154</sup> Eu		-2.1E-04 ± 2.2E-04	U
	<sup>155</sup> Eu	-1.6E-05 ± 1.6E-04	U	<sup>155</sup> Eu		6.0E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	1.1E-06 ± 2.2E-06	U	<sup>238</sup> Pu		8.7E-07 ± 7.2E-06	U
	<sup>239/240</sup> Pu	5.4E-07 ± 1.9E-06	U	<sup>239/240</sup> Pu		5.2E-06 ± 5.2E-06	U
	<sup>106</sup> Ru	-3.4E-04 ± 8.8E-04	U	<sup>106</sup> Ru		7.4E-05 ± 5.0E-04	U
	<sup>125</sup> Sb	-1.7E-04 ± 2.3E-04	U	<sup>125</sup> Sb		-4.0E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	-7.0E-05 ± 1.0E-04	U	<sup>90</sup> Sr		-1.1E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.2E-05 ± 7.6E-06		<sup>234</sup> U		9.0E-06 ± 7.5E-06	
	<sup>235</sup> U	6.5E-07 ± 6.5E-06	U	<sup>235</sup> U		2.7E-06 ± 4.1E-06	U
	<sup>238</sup> U	5.2E-06 ± 4.2E-06		<sup>238</sup> U		6.5E-06 ± 5.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N520 (100-F) Composite Period 12/20/05 to 06/20/06	<sup>60</sup> Co	1.4E-05 ± 6.6E-05	U	N520 (100-F) Composite Period 06/20/06 to 01/03/07	<sup>60</sup> Co	-7.7E-05 ± 8.0E-05	U
	<sup>134</sup> Cs	-2.2E-05 ± 6.1E-05	U		<sup>134</sup> Cs	1.8E-05 ± 6.6E-05	U
	<sup>137</sup> Cs	1.4E-05 ± 6.2E-05	U		<sup>137</sup> Cs	-2.6E-05 ± 6.2E-05	U
	<sup>152</sup> Eu	3.2E-05 ± 1.4E-04	U		<sup>152</sup> Eu	-1.5E-05 ± 1.5E-04	U
	<sup>154</sup> Eu	1.3E-04 ± 2.0E-04	U		<sup>154</sup> Eu	1.5E-04 ± 2.3E-04	U
	<sup>155</sup> Eu	2.8E-05 ± 1.5E-04	U		<sup>155</sup> Eu	4.8E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	-6.2E-07 ± 2.2E-06	U		<sup>238</sup> Pu	-6.2E-06 ± 1.5E-05	U
	<sup>239/240</sup> Pu	6.1E-07 ± 6.4E-07	U		<sup>239/240</sup> Pu	1.0E-06 ± 3.6E-06	U
	<sup>106</sup> Ru	3.7E-04 ± 5.7E-04	U		<sup>106</sup> Ru	-1.1E-04 ± 5.7E-04	U
	<sup>125</sup> Sb	5.6E-05 ± 1.3E-04	U		<sup>125</sup> Sb	-1.8E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	2.7E-04 ± 1.3E-04	U		<sup>90</sup> Sr	-9.2E-05 ± 1.1E-04	U
	<sup>234</sup> U	8.2E-06 ± 5.5E-06	U		<sup>234</sup> U	7.2E-07 ± 7.5E-07	U
	<sup>235</sup> U	2.8E-06 ± 3.0E-06	U		<sup>235</sup> U	-1.6E-06 ± 3.2E-06	U
	<sup>238</sup> U	8.2E-06 ± 5.5E-06	U		<sup>238</sup> U	1.4E-05 ± 8.2E-06	U
	N521 (100-F) Composite Period 12/20/05 to 06/20/06	<sup>60</sup> Co	-7.2E-05 ± 7.6E-05		U	N521 (100-F) Composite Period 06/20/06 to 01/03/07	<sup>60</sup> Co
<sup>134</sup> Cs		-1.5E-05 ± 6.1E-05	U	<sup>134</sup> Cs	3.6E-06 ± 3.6E-05		U
<sup>137</sup> Cs		-2.0E-05 ± 5.8E-05	U	<sup>137</sup> Cs	-1.1E-06 ± 1.1E-05		U
<sup>152</sup> Eu		6.7E-05 ± 1.3E-04	U	<sup>152</sup> Eu	1.4E-06 ± 1.4E-05		U
<sup>154</sup> Eu		-1.6E-04 ± 2.7E-04	U	<sup>154</sup> Eu	-1.3E-05 ± 1.3E-04		U
<sup>155</sup> Eu		5.4E-06 ± 5.4E-05	U	<sup>155</sup> Eu	-3.0E-05 ± 1.2E-04		U
<sup>238</sup> Pu		-1.3E-06 ± 6.6E-06	U	<sup>238</sup> Pu	-5.8E-06 ± 1.0E-05		U
<sup>239/240</sup> Pu		2.0E-06 ± 2.4E-06	U	<sup>239/240</sup> Pu	8.2E-07 ± 2.9E-06		U
<sup>106</sup> Ru		-2.2E-04 ± 5.7E-04	U	<sup>106</sup> Ru	1.1E-05 ± 1.1E-04		U
<sup>125</sup> Sb		4.2E-05 ± 1.3E-04	U	<sup>125</sup> Sb	-4.1E-05 ± 1.1E-04		U
<sup>90</sup> Sr		-9.1E-05 ± 9.9E-05	U	<sup>90</sup> Sr	1.6E-05 ± 1.1E-04		U
<sup>234</sup> U		1.3E-05 ± 7.8E-06	U	<sup>234</sup> U	1.0E-05 ± 6.6E-06		U
<sup>235</sup> U		2.9E-06 ± 3.7E-06	U	<sup>235</sup> U	-1.5E-06 ± 2.2E-06		U
<sup>238</sup> U		5.3E-06 ± 4.6E-06	U	<sup>238</sup> U	1.0E-05 ± 6.9E-06		U
N552 (100-F) Composite Period 12/20/05 to 06/20/06		<sup>60</sup> Co	-2.2E-05 ± 1.0E-04	U	N552 (100-F) Composite Period 06/20/06 to 01/03/07		<sup>60</sup> Co
	<sup>134</sup> Cs	5.1E-05 ± 1.0E-04	U	<sup>134</sup> Cs		1.6E-05 ± 5.9E-05	U
	<sup>137</sup> Cs	-2.8E-05 ± 9.7E-05	U	<sup>137</sup> Cs		9.7E-06 ± 5.5E-05	U
	<sup>152</sup> Eu	-1.7E-05 ± 1.7E-04	U	<sup>152</sup> Eu		1.1E-05 ± 1.1E-04	U
	<sup>154</sup> Eu	-5.3E-05 ± 3.5E-04	U	<sup>154</sup> Eu		-1.0E-05 ± 1.0E-04	U
	<sup>155</sup> Eu	-5.4E-05 ± 1.7E-04	U	<sup>155</sup> Eu		9.2E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	6.2E-07 ± 6.5E-07	U	<sup>238</sup> Pu		2.1E-06 ± 8.5E-06	U
	<sup>239/240</sup> Pu	3.1E-06 ± 3.0E-06	U	<sup>239/240</sup> Pu		6.6E-07 ± 6.9E-07	U
	<sup>106</sup> Ru	8.7E-05 ± 8.7E-04	U	<sup>106</sup> Ru		2.3E-04 ± 5.4E-04	U
	<sup>125</sup> Sb	-2.2E-05 ± 2.2E-04	U	<sup>125</sup> Sb		-7.1E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-3.6E-05 ± 1.2E-04	U	<sup>90</sup> Sr		-3.1E-05 ± 9.6E-05	U
	<sup>234</sup> U	1.3E-05 ± 7.8E-06	U	<sup>234</sup> U		1.8E-05 ± 9.7E-06	U
	<sup>235</sup> U	8.1E-07 ± 1.7E-06	U	<sup>235</sup> U		3.1E-06 ± 3.9E-06	U
	<sup>238</sup> U	1.7E-05 ± 9.6E-06	U	<sup>238</sup> U		9.8E-06 ± 7.1E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N553 (100-F) Composite Period 12/20/05 to 06/20/06	<sup>60</sup> Co	1.4E-06 ± 1.4E-05	U	N553 (100-F) Composite Period 06/20/06 to 01/03/07	<sup>60</sup> Co	3.0E-06 ± 3.0E-05	U
	<sup>134</sup> Cs	1.3E-04 ± 1.3E-04	U		<sup>134</sup> Cs	1.5E-05 ± 7.4E-05	U
	<sup>137</sup> Cs	3.7E-05 ± 1.0E-04	U		<sup>137</sup> Cs	-2.6E-05 ± 6.8E-05	U
	<sup>152</sup> Eu	-1.6E-05 ± 1.6E-04	U		<sup>152</sup> Eu	-1.5E-04 ± 2.0E-04	U
	<sup>154</sup> Eu	7.3E-05 ± 3.1E-04	U		<sup>154</sup> Eu	4.1E-06 ± 4.1E-05	U
	<sup>155</sup> Eu	6.3E-05 ± 1.8E-04	U		<sup>155</sup> Eu	-1.8E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	-6.5E-07 ± 1.3E-06	U		<sup>238</sup> Pu	1.4E-05 ± 1.3E-05	U
	<sup>239/240</sup> Pu	2.0E-06 ± 2.4E-06			<sup>239/240</sup> Pu	8.4E-07 ± 2.9E-06	U
	<sup>106</sup> Ru	-1.6E-04 ± 9.5E-04	U		<sup>106</sup> Ru	-6.9E-04 ± 7.1E-04	U
	<sup>125</sup> Sb	9.2E-05 ± 2.4E-04	U		<sup>125</sup> Sb	7.3E-07 ± 7.3E-06	U
	<sup>90</sup> Sr	-4.5E-05 ± 1.1E-04	U		<sup>90</sup> Sr	1.5E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.6E-05 ± 9.3E-06			<sup>234</sup> U	1.6E-05 ± 9.7E-06	
	<sup>235</sup> U	2.4E-06 ± 3.7E-06	U		<sup>235</sup> U	2.5E-06 ± 3.8E-06	U
	<sup>238</sup> U	1.4E-05 ± 8.4E-06			<sup>238</sup> U	1.2E-05 ± 7.6E-06	
	N401 (100-KE) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	6.6E-06 ± 2.1E-05		U	N401 (100-KE) Composite Period 06/20/06 to 12/19/06	<sup>241</sup> Am
<sup>60</sup> Co		7.9E-05 ± 8.9E-05	U	<sup>60</sup> Co	3.9E-05 ± 6.8E-05		U
<sup>134</sup> Cs		-7.1E-07 ± 7.1E-06	U	<sup>134</sup> Cs	-1.3E-05 ± 6.2E-05		U
<sup>137</sup> Cs		-1.7E-05 ± 6.7E-05	U	<sup>137</sup> Cs	2.1E-05 ± 6.5E-05		U
<sup>152</sup> Eu		-8.1E-05 ± 1.7E-04	U	<sup>152</sup> Eu	-5.9E-05 ± 1.6E-04		U
<sup>154</sup> Eu		2.7E-05 ± 2.5E-04	U	<sup>154</sup> Eu	2.1E-04 ± 2.1E-04		U
<sup>155</sup> Eu		-8.0E-05 ± 1.9E-04	U	<sup>155</sup> Eu	-1.6E-04 ± 1.7E-04		U
<sup>238</sup> Pu		3.6E-06 ± 3.6E-05	U	<sup>238</sup> Pu	3.2E-06 ± 2.2E-05		U
<sup>239/240</sup> Pu		-5.3E-06 ± 9.6E-06	U	<sup>239/240</sup> Pu	4.8E-06 ± 8.6E-06		U
<sup>241</sup> Pu		1.5E-03 ± 1.1E-03		<sup>241</sup> Pu	3.2E-04 ± 4.5E-04		U
<sup>106</sup> Ru		-3.3E-04 ± 8.1E-04	U	<sup>106</sup> Ru	-2.6E-07 ± 2.6E-06		U
<sup>125</sup> Sb		-1.4E-04 ± 1.8E-04	U	<sup>125</sup> Sb	8.6E-05 ± 1.4E-04		U
<sup>90</sup> Sr		-3.3E-05 ± 1.2E-04	U	<sup>90</sup> Sr	-1.8E-04 ± 1.4E-04		U
<sup>234</sup> U		1.8E-05 ± 1.0E-05		<sup>234</sup> U	1.1E-05 ± 7.4E-06		
<sup>235</sup> U		3.7E-06 ± 4.7E-06	U	<sup>235</sup> U	3.2E-06 ± 4.1E-06		U
<sup>238</sup> U	8.4E-06 ± 7.0E-06		<sup>238</sup> U	1.0E-05 ± 6.7E-06			
N402 (100-KE) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	1.1E-05 ± 2.1E-05	U	N402 (100-KE) Composite Period 06/20/06 to 12/19/06	<sup>241</sup> Am	7.7E-06 ± 5.1E-06	
	<sup>60</sup> Co	5.1E-05 ± 1.2E-04	U		<sup>60</sup> Co	6.9E-05 ± 1.3E-04	U
	<sup>134</sup> Cs	-1.7E-05 ± 1.2E-04	U		<sup>134</sup> Cs	-1.4E-05 ± 1.1E-04	U
	<sup>137</sup> Cs	-5.4E-05 ± 1.2E-04	U		<sup>137</sup> Cs	8.9E-05 ± 1.2E-04	U
	<sup>152</sup> Eu	1.7E-04 ± 2.6E-04	U		<sup>152</sup> Eu	-1.7E-04 ± 2.4E-04	U
	<sup>154</sup> Eu	3.3E-04 ± 3.4E-04	U		<sup>154</sup> Eu	4.8E-05 ± 3.4E-04	U
	<sup>155</sup> Eu	-1.1E-04 ± 2.0E-04	U		<sup>155</sup> Eu	-1.2E-04 ± 1.9E-04	U
	<sup>238</sup> Pu	-1.3E-05 ± 3.7E-05	U		<sup>238</sup> Pu	1.2E-05 ± 2.0E-05	U
	<sup>239/240</sup> Pu	1.1E-05 ± 1.3E-05	U		<sup>239/240</sup> Pu	1.1E-05 ± 9.1E-06	U
	<sup>241</sup> Pu	9.1E-04 ± 7.7E-04	U		<sup>241</sup> Pu	1.6E-04 ± 4.2E-04	U
	<sup>106</sup> Ru	-8.2E-04 ± 1.1E-03	U		<sup>106</sup> Ru	-8.8E-05 ± 8.8E-04	U
	<sup>125</sup> Sb	1.6E-04 ± 2.5E-04	U		<sup>125</sup> Sb	3.1E-04 ± 2.6E-04	U
	<sup>90</sup> Sr	-2.3E-05 ± 1.1E-04	U		<sup>90</sup> Sr	-1.1E-04 ± 1.2E-04	U
	<sup>234</sup> U	2.6E-06 ± 5.3E-06	U		<sup>234</sup> U	9.4E-06 ± 6.4E-06	U
	<sup>235</sup> U	9.5E-07 ± 3.3E-06	U		<sup>235</sup> U	4.4E-06 ± 4.0E-06	U
<sup>238</sup> U	7.0E-06 ± 6.5E-06	U	<sup>238</sup> U	6.7E-06 ± 4.9E-06	U		

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



Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N403 (100-KE) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	4.4E-04 ± 1.7E-04		N403 (100-KE) Composite Period 06/20/06 to 01/03/07	<sup>241</sup> Am	1.4E-05 ± 7.7E-06	
	<sup>60</sup> Co	-2.7E-05 ± 1.3E-04	U		<sup>60</sup> Co	1.2E-06 ± 1.2E-05	U
	<sup>134</sup> Cs	6.3E-06 ± 6.3E-05	U		<sup>134</sup> Cs	-3.0E-05 ± 7.0E-05	U
	<sup>137</sup> Cs	5.9E-05 ± 1.1E-04	U		<sup>137</sup> Cs	2.0E-05 ± 6.3E-05	U
	<sup>152</sup> Eu	-1.9E-05 ± 1.9E-04	U		<sup>152</sup> Eu	-7.7E-05 ± 1.7E-04	U
	<sup>154</sup> Eu	1.3E-04 ± 3.0E-04	U		<sup>154</sup> Eu	-1.2E-05 ± 1.2E-04	U
	<sup>155</sup> Eu	-2.3E-05 ± 1.9E-04	U		<sup>155</sup> Eu	1.3E-04 ± 1.6E-04	U
	<sup>238</sup> Pu	1.8E-06 ± 1.8E-05	U		<sup>238</sup> Pu	7.8E-06 ± 2.2E-05	U
	<sup>239/240</sup> Pu	1.1E-05 ± 1.2E-05	U		<sup>239/240</sup> Pu	1.2E-05 ± 1.1E-05	
	<sup>241</sup> Pu	1.0E-03 ± 8.4E-04	U		<sup>241</sup> Pu	3.5E-04 ± 4.6E-04	U
	<sup>106</sup> Ru	5.2E-05 ± 5.2E-04	U		<sup>106</sup> Ru	-5.0E-04 ± 5.8E-04	U
	<sup>125</sup> Sb	9.3E-05 ± 2.6E-04	U		<sup>125</sup> Sb	-2.4E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	-2.4E-05 ± 1.2E-04	U		<sup>90</sup> Sr	5.9E-05 ± 1.2E-04	U
	<sup>234</sup> U	5.7E-06 ± 5.3E-06	U		<sup>234</sup> U	9.9E-06 ± 7.1E-06	
	<sup>235</sup> U	2.7E-06 ± 4.8E-06	U		<sup>235</sup> U	3.1E-06 ± 3.9E-06	U
	<sup>238</sup> U	1.5E-05 ± 9.5E-06			<sup>238</sup> U	1.0E-05 ± 6.7E-06	
N404 (100-KE) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	-6.0E-06 ± 2.0E-05	U	N404 (100-KE) Composite Period 06/20/06 to 01/03/07	<sup>241</sup> Am	1.2E-05 ± 7.2E-06	
	<sup>60</sup> Co	3.3E-05 ± 9.4E-05	U		<sup>60</sup> Co	-1.2E-05 ± 9.9E-05	U
	<sup>134</sup> Cs	-5.2E-06 ± 5.2E-05	U		<sup>134</sup> Cs	2.1E-05 ± 9.5E-05	U
	<sup>137</sup> Cs	-6.5E-05 ± 7.6E-05	U		<sup>137</sup> Cs	3.9E-05 ± 1.0E-04	U
	<sup>152</sup> Eu	-1.1E-04 ± 1.8E-04	U		<sup>152</sup> Eu	-7.3E-05 ± 2.4E-04	U
	<sup>154</sup> Eu	-1.5E-04 ± 2.7E-04	U		<sup>154</sup> Eu	-1.1E-04 ± 3.2E-04	U
	<sup>155</sup> Eu	-1.0E-04 ± 1.9E-04	U		<sup>155</sup> Eu	7.2E-05 ± 1.7E-04	U
	<sup>238</sup> Pu	9.6E-06 ± 4.2E-05	U		<sup>238</sup> Pu	-1.7E-05 ± 1.7E-05	U
	<sup>239/240</sup> Pu	1.9E-06 ± 1.2E-05	U		<sup>239/240</sup> Pu	4.5E-06 ± 6.9E-06	U
	<sup>241</sup> Pu	7.1E-04 ± 8.1E-04	U		<sup>241</sup> Pu	2.2E-04 ± 4.2E-04	U
	<sup>106</sup> Ru	3.6E-04 ± 7.2E-04	U		<sup>106</sup> Ru	-2.7E-04 ± 8.4E-04	U
	<sup>125</sup> Sb	-5.4E-05 ± 1.7E-04	U		<sup>125</sup> Sb	4.5E-05 ± 2.3E-04	U
	<sup>90</sup> Sr	-1.2E-04 ± 1.3E-04	U		<sup>90</sup> Sr	1.6E-05 ± 1.3E-04	U
	<sup>234</sup> U	9.0E-06 ± 7.0E-06			<sup>234</sup> U	9.1E-06 ± 6.6E-06	
	<sup>235</sup> U	3.9E-06 ± 4.2E-06			<sup>235</sup> U	1.5E-06 ± 3.8E-06	U
	<sup>238</sup> U	8.1E-06 ± 6.1E-06			<sup>238</sup> U	1.0E-05 ± 7.0E-06	
N476 (100-KW) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	1.2E-05 ± 1.5E-05	U	N476 (100-KW) Composite Period 06/20/06 to 01/03/07	<sup>241</sup> Am	5.9E-06 ± 5.1E-06	U
	<sup>60</sup> Co	-1.5E-05 ± 7.3E-05	U		<sup>60</sup> Co	3.6E-05 ± 7.5E-05	U
	<sup>134</sup> Cs	2.0E-05 ± 6.3E-05	U		<sup>134</sup> Cs	-2.3E-05 ± 6.1E-05	U
	<sup>137</sup> Cs	4.6E-06 ± 4.6E-05	U		<sup>137</sup> Cs	9.1E-06 ± 5.4E-05	U
	<sup>152</sup> Eu	1.4E-04 ± 1.3E-04	U		<sup>152</sup> Eu	-9.1E-05 ± 1.3E-04	U
	<sup>154</sup> Eu	1.7E-05 ± 1.7E-04	U		<sup>154</sup> Eu	-1.0E-04 ± 2.2E-04	U
	<sup>155</sup> Eu	-8.6E-05 ± 1.7E-04	U		<sup>155</sup> Eu	2.9E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	9.6E-06 ± 2.8E-05	U		<sup>238</sup> Pu	-9.6E-06 ± 2.0E-05	U
	<sup>239/240</sup> Pu	8.1E-06 ± 1.0E-05	U		<sup>239/240</sup> Pu	6.4E-06 ± 8.2E-06	U
	<sup>241</sup> Pu	1.5E-03 ± 7.8E-04			<sup>241</sup> Pu	1.8E-04 ± 4.7E-04	U
	<sup>106</sup> Ru	-2.9E-04 ± 5.5E-04	U		<sup>106</sup> Ru	-2.6E-04 ± 5.1E-04	U
	<sup>125</sup> Sb	-4.9E-05 ± 1.5E-04	U		<sup>125</sup> Sb	-4.9E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	1.2E-04 ± 1.3E-04	U		<sup>90</sup> Sr	7.8E-05 ± 1.4E-04	U
	<sup>234</sup> U	1.0E-05 ± 6.6E-06			<sup>234</sup> U	1.7E-05 ± 9.8E-06	
	<sup>235</sup> U	3.9E-06 ± 3.8E-06			<sup>235</sup> U	5.5E-06 ± 4.6E-06	
	<sup>238</sup> U	7.2E-06 ± 5.7E-06			<sup>238</sup> U	8.7E-06 ± 6.3E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N477 (100-KW) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	6.1E-06 ± 1.4E-05	U	N477 (100-KW) Composite Period 06/20/06 to 01/03/07	<sup>241</sup> Am	1.3E-05 ± 7.3E-06	
	<sup>60</sup> Co	5.6E-07 ± 5.6E-06	U		<sup>60</sup> Co	-5.4E-05 ± 1.1E-04	U
	<sup>134</sup> Cs	4.2E-05 ± 1.1E-04	U		<sup>134</sup> Cs	-5.3E-05 ± 1.1E-04	U
	<sup>137</sup> Cs	5.2E-05 ± 9.9E-05	U		<sup>137</sup> Cs	3.2E-05 ± 1.1E-04	U
	<sup>152</sup> Eu	1.1E-05 ± 1.1E-04	U		<sup>152</sup> Eu	2.0E-04 ± 2.3E-04	U
	<sup>154</sup> Eu	1.3E-04 ± 3.2E-04	U		<sup>154</sup> Eu	-1.0E-04 ± 3.2E-04	U
	<sup>155</sup> Eu	-5.2E-05 ± 1.8E-04	U		<sup>155</sup> Eu	5.6E-05 ± 1.7E-04	U
	<sup>238</sup> Pu	-1.8E-05 ± 3.1E-05	U		<sup>238</sup> Pu	1.6E-06 ± 1.6E-05	U
	<sup>239/240</sup> Pu	3.0E-06 ± 7.5E-06	U		<sup>239/240</sup> Pu	9.4E-06 ± 8.5E-06	
	<sup>241</sup> Pu	9.0E-04 ± 7.2E-04	U		<sup>241</sup> Pu	4.6E-04 ± 4.8E-04	U
	<sup>106</sup> Ru	1.3E-04 ± 8.9E-04	U		<sup>106</sup> Ru	-4.5E-04 ± 8.3E-04	U
	<sup>125</sup> Sb	-1.7E-05 ± 1.7E-04	U		<sup>125</sup> Sb	8.9E-05 ± 2.2E-04	U
	<sup>90</sup> Sr	-3.7E-06 ± 3.7E-05	U		<sup>90</sup> Sr	-4.7E-05 ± 1.3E-04	U
	<sup>234</sup> U	8.2E-06 ± 6.2E-06			<sup>234</sup> U	1.1E-05 ± 7.0E-06	
	<sup>235</sup> U	4.1E-06 ± 4.0E-06			<sup>235</sup> U	7.3E-07 ± 1.5E-06	U
	<sup>238</sup> U	6.0E-06 ± 4.8E-06			<sup>238</sup> U	8.7E-06 ± 6.1E-06	
N478 (100-KW) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	8.7E-06 ± 1.5E-05	U	N478 (100-KW) Composite Period 06/20/06 to 12/19/06	<sup>241</sup> Am	6.0E-06 ± 4.7E-06	
	<sup>60</sup> Co	2.3E-05 ± 1.0E-04	U		<sup>60</sup> Co	8.1E-06 ± 7.7E-05	U
	<sup>134</sup> Cs	-4.3E-05 ± 1.1E-04	U		<sup>134</sup> Cs	1.7E-05 ± 6.7E-05	U
	<sup>137</sup> Cs	7.6E-05 ± 1.1E-04	U		<sup>137</sup> Cs	1.7E-05 ± 6.7E-05	U
	<sup>152</sup> Eu	3.4E-05 ± 2.5E-04	U		<sup>152</sup> Eu	-1.3E-04 ± 1.5E-04	U
	<sup>154</sup> Eu	-2.6E-05 ± 2.6E-04	U		<sup>154</sup> Eu	1.6E-04 ± 2.2E-04	U
	<sup>155</sup> Eu	3.7E-06 ± 3.7E-05	U		<sup>155</sup> Eu	2.3E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	-1.7E-05 ± 3.0E-05	U		<sup>238</sup> Pu	7.6E-06 ± 8.5E-06	U
	<sup>239/240</sup> Pu	-4.7E-06 ± 7.2E-06	U		<sup>239/240</sup> Pu	1.3E-06 ± 5.7E-06	U
	<sup>241</sup> Pu	7.7E-04 ± 7.2E-04	U		<sup>241</sup> Pu	3.0E-04 ± 4.5E-04	U
	<sup>106</sup> Ru	-2.0E-06 ± 2.0E-05	U		<sup>106</sup> Ru	-2.9E-04 ± 6.5E-04	U
	<sup>125</sup> Sb	-1.5E-04 ± 2.3E-04	U		<sup>125</sup> Sb	-5.2E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	2.6E-05 ± 1.1E-04	U		<sup>90</sup> Sr	-7.0E-05 ± 1.2E-04	U
	<sup>234</sup> U	8.7E-06 ± 6.6E-06			<sup>234</sup> U	1.5E-05 ± 9.3E-06	
	<sup>235</sup> U	-8.0E-07 ± 1.6E-06	U		<sup>235</sup> U	5.7E-06 ± 5.1E-06	
	<sup>238</sup> U	8.7E-06 ± 6.0E-06			<sup>238</sup> U	5.2E-06 ± 4.7E-06	
N479 (100-KW) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	-7.7E-07 ± 7.7E-06	U	N479 (100-KW) Composite Period 06/20/06 to 12/19/06	<sup>241</sup> Am	9.8E-06 ± 6.0E-06	
	<sup>60</sup> Co	3.6E-05 ± 1.1E-04	U		<sup>60</sup> Co	-6.1E-06 ± 6.1E-05	U
	<sup>134</sup> Cs	1.0E-04 ± 1.1E-04	U		<sup>134</sup> Cs	2.7E-05 ± 6.7E-05	U
	<sup>137</sup> Cs	2.6E-05 ± 1.0E-04	U		<sup>137</sup> Cs	3.1E-05 ± 6.4E-05	U
	<sup>152</sup> Eu	-2.7E-04 ± 2.8E-04	U		<sup>152</sup> Eu	-3.7E-06 ± 3.7E-05	U
	<sup>154</sup> Eu	-6.0E-05 ± 3.2E-04	U		<sup>154</sup> Eu	9.7E-05 ± 2.0E-04	U
	<sup>155</sup> Eu	-8.8E-05 ± 1.9E-04	U		<sup>155</sup> Eu	-4.1E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	1.5E-06 ± 1.5E-05	U		<sup>238</sup> Pu	4.0E-06 ± 1.9E-05	U
	<sup>239/240</sup> Pu	1.1E-05 ± 1.0E-05	U		<sup>239/240</sup> Pu	1.3E-05 ± 9.7E-06	
	<sup>241</sup> Pu	1.8E-03 ± 8.8E-04			<sup>241</sup> Pu	7.5E-05 ± 4.4E-04	U
	<sup>106</sup> Ru	4.4E-04 ± 8.9E-04	U		<sup>106</sup> Ru	6.5E-05 ± 5.3E-04	U
	<sup>125</sup> Sb	-2.8E-04 ± 2.9E-04	U		<sup>125</sup> Sb	2.2E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	1.2E-05 ± 1.1E-04	U		<sup>90</sup> Sr	-2.0E-05 ± 1.3E-04	U
	<sup>234</sup> U	9.7E-06 ± 6.8E-06			<sup>234</sup> U	9.3E-06 ± 6.7E-06	
	<sup>235</sup> U	3.3E-06 ± 3.5E-06			<sup>235</sup> U	8.4E-07 ± 3.8E-06	U
	<sup>238</sup> U	6.0E-06 ± 5.2E-06			<sup>238</sup> U	9.3E-06 ± 6.4E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N534 (100-K) Composite Period 12/20/05 to 06/20/06	<sup>60</sup> Co	3.9E-05 ± 7.3E-05	U	N534 (100-K) Composite Period 06/20/06 to 01/03/07	<sup>60</sup> Co	-7.0E-05 ± 8.4E-05	U
	<sup>134</sup> Cs	2.5E-05 ± 7.2E-05	U		<sup>134</sup> Cs	5.9E-05 ± 8.0E-05	U
	<sup>137</sup> Cs	2.9E-05 ± 5.8E-05	U		<sup>137</sup> Cs	2.4E-05 ± 6.5E-05	U
	<sup>152</sup> Eu	-1.3E-05 ± 1.3E-04	U		<sup>152</sup> Eu	-5.3E-06 ± 5.3E-05	U
	<sup>154</sup> Eu	1.7E-05 ± 1.7E-04	U		<sup>154</sup> Eu	-5.1E-05 ± 2.3E-04	U
	<sup>155</sup> Eu	5.9E-05 ± 1.4E-04	U		<sup>155</sup> Eu	-6.4E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	1.3E-06 ± 1.9E-06	U		<sup>238</sup> Pu	-4.5E-06 ± 9.7E-06	U
	<sup>239/240</sup> Pu	2.6E-06 ± 3.3E-06	U		<sup>239/240</sup> Pu	8.3E-06 ± 5.9E-06	U
	<sup>106</sup> Ru	-2.4E-04 ± 5.5E-04	U		<sup>106</sup> Ru	2.8E-04 ± 5.9E-04	U
	<sup>125</sup> Sb	-6.6E-05 ± 1.3E-04	U		<sup>125</sup> Sb	3.5E-05 ± 1.5E-04	U
	<sup>90</sup> Sr	1.3E-04 ± 1.2E-04	U		<sup>90</sup> Sr	-9.4E-05 ± 1.0E-04	U
	<sup>234</sup> U	1.6E-05 ± 8.9E-06	U		<sup>234</sup> U	1.3E-05 ± 8.5E-06	U
	<sup>235</sup> U	2.3E-06 ± 3.6E-06	U		<sup>235</sup> U	3.0E-06 ± 3.7E-06	U
	<sup>238</sup> U	1.7E-05 ± 9.8E-06	U		<sup>238</sup> U	1.0E-05 ± 7.3E-06	U
	N535 (100-K) Composite Period 12/20/05 to 06/20/06	<sup>60</sup> Co	-6.5E-06 ± 6.5E-05		U	N535 (100-K) Composite Period 06/20/06 to 01/03/07	<sup>60</sup> Co
<sup>134</sup> Cs		1.4E-05 ± 6.2E-05	U	<sup>134</sup> Cs	1.3E-05 ± 5.6E-05		U
<sup>137</sup> Cs		-1.5E-05 ± 6.2E-05	U	<sup>137</sup> Cs	1.1E-04 ± 9.0E-05		U
<sup>152</sup> Eu		-5.7E-05 ± 1.4E-04	U	<sup>152</sup> Eu	5.7E-05 ± 1.2E-04		U
<sup>154</sup> Eu		-4.1E-05 ± 2.1E-04	U	<sup>154</sup> Eu	1.4E-04 ± 1.7E-04		U
<sup>155</sup> Eu		1.3E-04 ± 1.5E-04	U	<sup>155</sup> Eu	-2.2E-05 ± 1.2E-04		U
<sup>238</sup> Pu		5.9E-07 ± 6.1E-07	U	<sup>238</sup> Pu	-4.2E-06 ± 1.1E-05		U
<sup>239/240</sup> Pu		1.8E-06 ± 2.2E-06	U	<sup>239/240</sup> Pu	4.2E-06 ± 4.7E-06		U
<sup>106</sup> Ru		2.1E-04 ± 5.4E-04	U	<sup>106</sup> Ru	3.0E-05 ± 3.0E-04		U
<sup>125</sup> Sb		4.5E-05 ± 1.4E-04	U	<sup>125</sup> Sb	-5.9E-05 ± 1.2E-04		U
<sup>90</sup> Sr		-5.1E-05 ± 1.0E-04	U	<sup>90</sup> Sr	4.1E-06 ± 4.1E-05		U
<sup>234</sup> U		8.1E-06 ± 5.6E-06	U	<sup>234</sup> U	1.8E-05 ± 1.0E-05		U
<sup>235</sup> U		4.4E-06 ± 4.0E-06	U	<sup>235</sup> U	4.0E-06 ± 4.5E-06		U
<sup>238</sup> U		1.2E-05 ± 7.4E-06	U	<sup>238</sup> U	1.3E-05 ± 8.1E-06		U
N102 (100-N) Composite Period 12/20/05 to 06/20/06		<sup>241</sup> Am	-2.2E-06 ± 1.0E-05	U	N102 (100-N) Composite Period 06/20/06 to 01/03/07		<sup>241</sup> Am
	<sup>60</sup> Co	-1.9E-05 ± 8.0E-05	U	<sup>60</sup> Co		4.2E-05 ± 7.7E-05	U
	<sup>134</sup> Cs	3.1E-05 ± 7.9E-05	U	<sup>134</sup> Cs		3.1E-05 ± 6.1E-05	U
	<sup>137</sup> Cs	4.5E-05 ± 6.6E-05	U	<sup>137</sup> Cs		-7.8E-06 ± 5.8E-05	U
	<sup>152</sup> Eu	-1.4E-04 ± 1.7E-04	U	<sup>152</sup> Eu		-5.5E-05 ± 1.5E-04	U
	<sup>154</sup> Eu	1.4E-04 ± 2.3E-04	U	<sup>154</sup> Eu		-7.0E-06 ± 7.0E-05	U
	<sup>155</sup> Eu	1.2E-04 ± 1.7E-04	U	<sup>155</sup> Eu		8.8E-06 ± 8.8E-05	U
	<sup>238</sup> Pu	2.4E-06 ± 3.9E-06	U	<sup>238</sup> Pu		1.3E-06 ± 1.9E-06	U
	<sup>239/240</sup> Pu	4.3E-06 ± 3.6E-06	U	<sup>239/240</sup> Pu		9.0E-06 ± 6.1E-06	U
	<sup>106</sup> Ru	-1.9E-05 ± 1.9E-04	U	<sup>106</sup> Ru		2.8E-04 ± 4.9E-04	U
	<sup>125</sup> Sb	4.4E-05 ± 1.6E-04	U	<sup>125</sup> Sb		1.5E-04 ± 1.3E-04	U
	<sup>90</sup> Sr	1.4E-05 ± 9.2E-05	U	<sup>90</sup> Sr		1.6E-04 ± 1.1E-04	U
	<sup>234</sup> U	2.2E-05 ± 1.1E-05	U	<sup>234</sup> U		1.1E-05 ± 7.8E-06	U
	<sup>235</sup> U	3.0E-06 ± 3.2E-06	U	<sup>235</sup> U		1.9E-06 ± 2.7E-06	U
	<sup>238</sup> U	7.6E-06 ± 5.7E-06	U	<sup>238</sup> U		6.8E-06 ± 6.4E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*		
N103 (100-N) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	4.9E-06 ± 8.5E-06	U	N103 (100-N) Composite Period 06/20/06 to 01/03/07	<sup>241</sup> Am	1.4E-05 ± 1.0E-05			
	<sup>60</sup> Co	2.3E-05 ± 6.9E-05	U		<sup>60</sup> Co	-3.5E-05 ± 5.3E-05	U		
	<sup>134</sup> Cs	3.1E-05 ± 6.6E-05	U		<sup>134</sup> Cs	3.6E-05 ± 6.8E-05	U		
	<sup>137</sup> Cs	4.4E-05 ± 5.7E-05	U		<sup>137</sup> Cs	-2.7E-05 ± 5.5E-05	U		
	<sup>152</sup> Eu	-8.8E-05 ± 1.3E-04	U		<sup>152</sup> Eu	3.1E-05 ± 1.5E-04	U		
	<sup>154</sup> Eu	8.8E-05 ± 1.9E-04	U		<sup>154</sup> Eu	-6.8E-06 ± 6.8E-05	U		
	<sup>155</sup> Eu	-8.6E-05 ± 1.4E-04	U		<sup>155</sup> Eu	-5.0E-05 ± 1.6E-04	U		
	<sup>238</sup> Pu	-6.0E-07 ± 4.3E-06	U		<sup>238</sup> Pu	2.7E-06 ± 3.0E-06	U		
	<sup>239/240</sup> Pu	5.4E-06 ± 4.1E-06			<sup>239/240</sup> Pu	2.1E-06 ± 2.3E-06			
	<sup>106</sup> Ru	-1.9E-04 ± 5.2E-04	U		<sup>106</sup> Ru	-4.5E-04 ± 4.8E-04	U		
	<sup>125</sup> Sb	-3.8E-05 ± 1.2E-04	U		<sup>125</sup> Sb	7.4E-05 ± 1.3E-04	U		
	<sup>90</sup> Sr	-1.9E-05 ± 9.2E-05	U		<sup>90</sup> Sr	-8.7E-05 ± 9.1E-05	U		
	<sup>234</sup> U	1.1E-05 ± 6.6E-06			<sup>234</sup> U	1.6E-05 ± 1.0E-05			
	<sup>235</sup> U	3.6E-06 ± 3.5E-06			<sup>235</sup> U	8.2E-06 ± 6.9E-06			
	<sup>238</sup> U	8.6E-06 ± 5.8E-06			<sup>238</sup> U	7.4E-06 ± 7.0E-06	U		
	N106 (100-N) Composite Period 12/20/05 to 06/20/06	<sup>241</sup> Am	5.0E-06 ± 1.1E-05		U	N106 (100-N) Composite Period 06/20/06 to 01/03/07	<sup>241</sup> Am	-6.1E-06 ± 7.3E-06	U
		<sup>60</sup> Co	-1.0E-05 ± 7.4E-05		U		<sup>60</sup> Co	2.6E-05 ± 8.5E-05	U
<sup>134</sup> Cs		9.6E-06 ± 6.0E-05	U	<sup>134</sup> Cs	-3.0E-05 ± 1.0E-04		U		
<sup>137</sup> Cs		5.6E-05 ± 6.0E-05	U	<sup>137</sup> Cs	7.5E-05 ± 1.0E-04		U		
<sup>152</sup> Eu		-1.2E-04 ± 1.5E-04	U	<sup>152</sup> Eu	-1.3E-04 ± 2.1E-04		U		
<sup>154</sup> Eu		1.2E-04 ± 2.0E-04	U	<sup>154</sup> Eu	-2.1E-04 ± 3.5E-04		U		
<sup>155</sup> Eu		-1.4E-06 ± 1.4E-05	U	<sup>155</sup> Eu	1.4E-04 ± 1.7E-04		U		
<sup>238</sup> Pu		1.3E-06 ± 3.6E-06	U	<sup>238</sup> Pu	5.2E-07 ± 2.3E-06		U		
<sup>239/240</sup> Pu		1.9E-06 ± 2.3E-06		<sup>239/240</sup> Pu	1.6E-06 ± 1.9E-06				
<sup>106</sup> Ru		-4.4E-04 ± 5.5E-04	U	<sup>106</sup> Ru	1.6E-04 ± 7.8E-04		U		
<sup>125</sup> Sb		-3.7E-05 ± 1.3E-04	U	<sup>125</sup> Sb	-1.5E-04 ± 2.2E-04		U		
<sup>90</sup> Sr		6.8E-05 ± 1.0E-04	U	<sup>90</sup> Sr	7.2E-05 ± 9.2E-05		U		
<sup>234</sup> U		1.4E-05 ± 8.4E-06		<sup>234</sup> U	8.5E-06 ± 6.6E-06				
<sup>235</sup> U	6.6E-07 ± 6.6E-06	U	<sup>235</sup> U	7.2E-07 ± 2.5E-06	U				
<sup>238</sup> U	3.3E-06 ± 3.2E-06		<sup>238</sup> U	4.6E-06 ± 3.9E-06					
N482 (200-W) Composite Period 12/21/05 to 06/20/06	<sup>60</sup> Co	-2.2E-05 ± 7.2E-05	U	N482 (200-W) Composite Period 06/20/06 to 01/04/07	<sup>60</sup> Co	5.3E-05 ± 8.0E-05	U		
	<sup>134</sup> Cs	-2.2E-05 ± 6.7E-05	U		<sup>134</sup> Cs	8.5E-05 ± 1.1E-04	U		
	<sup>137</sup> Cs	-8.1E-06 ± 5.7E-05	U		<sup>137</sup> Cs	7.0E-05 ± 7.2E-05	U		
	<sup>152</sup> Eu	-1.3E-04 ± 1.5E-04	U		<sup>152</sup> Eu	-1.3E-04 ± 1.6E-04	U		
	<sup>154</sup> Eu	-3.1E-05 ± 1.7E-04	U		<sup>154</sup> Eu	-9.1E-05 ± 2.2E-04	U		
	<sup>155</sup> Eu	-6.9E-05 ± 1.7E-04	U		<sup>155</sup> Eu	4.4E-05 ± 1.6E-04	U		
	<sup>238</sup> Pu	7.3E-07 ± 1.5E-06	U		<sup>238</sup> Pu	2.4E-06 ± 3.7E-06	U		
	<sup>239/240</sup> Pu	8.7E-06 ± 5.9E-06			<sup>239/240</sup> Pu	1.6E-06 ± 2.3E-06	U		
	<sup>106</sup> Ru	-2.7E-04 ± 5.7E-04	U		<sup>106</sup> Ru	-2.8E-04 ± 5.7E-04	U		
	<sup>125</sup> Sb	7.1E-05 ± 1.4E-04	U		<sup>125</sup> Sb	2.0E-05 ± 1.5E-04	U		
	<sup>90</sup> Sr	8.7E-07 ± 8.7E-06	U		<sup>90</sup> Sr	-3.1E-05 ± 8.6E-05	U		
	<sup>234</sup> U	1.8E-05 ± 9.7E-06			<sup>234</sup> U	1.1E-05 ± 7.5E-06			
	<sup>235</sup> U	7.1E-06 ± 5.4E-06			<sup>235</sup> U	1.4E-06 ± 2.1E-06	U		
<sup>238</sup> U	1.6E-05 ± 9.1E-06		<sup>238</sup> U	1.3E-05 ± 8.1E-06					

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N517 (200-W) Composite Period 12/21/05 to 06/20/06	<sup>60</sup> Co	-2.9E-06 ± 2.9E-05	U	N517 (200-W) Composite Period 06/20/06 to 01/04/07	<sup>60</sup> Co	-4.7E-05 ± 9.7E-05	U
	<sup>134</sup> Cs	-2.8E-05 ± 1.1E-04	U		<sup>134</sup> Cs	-4.6E-06 ± 4.6E-05	U
	<sup>137</sup> Cs	2.8E-04 ± 1.7E-04			<sup>137</sup> Cs	8.8E-05 ± 6.4E-05	U
	<sup>152</sup> Eu	2.3E-06 ± 2.3E-05	U		<sup>152</sup> Eu	-2.5E-05 ± 1.2E-04	U
	<sup>154</sup> Eu	7.0E-05 ± 2.7E-04	U		<sup>154</sup> Eu	-2.2E-04 ± 2.3E-04	U
	<sup>155</sup> Eu	-9.1E-05 ± 1.8E-04	U		<sup>155</sup> Eu	3.3E-05 ± 1.3E-04	U
	<sup>238</sup> Pu	6.0E-07 ± 6.2E-07	U		<sup>238</sup> Pu	8.9E-06 ± 1.0E-05	U
	<sup>239/240</sup> Pu	2.8E-05 ± 1.3E-05			<sup>239/240</sup> Pu	1.1E-05 ± 7.5E-06	
	<sup>106</sup> Ru	-1.6E-04 ± 8.6E-04	U		<sup>106</sup> Ru	-4.2E-05 ± 4.2E-04	U
	<sup>125</sup> Sb	6.9E-05 ± 2.4E-04	U		<sup>125</sup> Sb	-4.7E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	7.1E-05 ± 1.1E-04	U		<sup>90</sup> Sr	8.3E-05 ± 1.3E-04	U
	<sup>234</sup> U	1.9E-05 ± 1.0E-05			<sup>234</sup> U	1.9E-05 ± 1.0E-05	
	<sup>235</sup> U	6.5E-07 ± 6.5E-06	U		<sup>235</sup> U	2.6E-06 ± 3.2E-06	
	<sup>238</sup> U	1.8E-05 ± 9.8E-06			<sup>238</sup> U	1.5E-05 ± 9.1E-06	
	N518 (200-W) Composite Period 12/21/05 to 06/20/06	<sup>60</sup> Co	8.5E-05 ± 8.1E-05		U	N518 (200-W) Composite Period 06/20/06 to 01/04/07	<sup>60</sup> Co
<sup>134</sup> Cs		-3.2E-05 ± 6.9E-05	U	<sup>134</sup> Cs	4.9E-06 ± 4.9E-05		U
<sup>137</sup> Cs		2.7E-05 ± 6.0E-05	U	<sup>137</sup> Cs	-1.4E-05 ± 9.3E-05		U
<sup>152</sup> Eu		-5.2E-05 ± 1.4E-04	U	<sup>152</sup> Eu	-1.5E-05 ± 1.5E-04		U
<sup>154</sup> Eu		3.3E-05 ± 2.1E-04	U	<sup>154</sup> Eu	-2.8E-04 ± 3.0E-04		U
<sup>155</sup> Eu		-8.4E-05 ± 1.6E-04	U	<sup>155</sup> Eu	5.2E-05 ± 1.6E-04		U
<sup>238</sup> Pu		-1.2E-06 ± 2.4E-06	U	<sup>238</sup> Pu	-2.8E-06 ± 1.1E-05		U
<sup>239/240</sup> Pu		1.1E-05 ± 6.2E-06		<sup>239/240</sup> Pu	5.5E-06 ± 5.0E-06		
<sup>106</sup> Ru		-2.9E-04 ± 5.6E-04	U	<sup>106</sup> Ru	-2.2E-04 ± 7.6E-04		U
<sup>125</sup> Sb		-5.3E-05 ± 1.4E-04	U	<sup>125</sup> Sb	7.6E-05 ± 2.1E-04		U
<sup>90</sup> Sr		-6.8E-05 ± 1.0E-04	U	<sup>90</sup> Sr	-6.6E-05 ± 1.2E-04		U
<sup>234</sup> U		1.9E-05 ± 1.0E-05		<sup>234</sup> U	1.2E-05 ± 8.4E-06		
<sup>235</sup> U		3.2E-06 ± 3.1E-06		<sup>235</sup> U	7.3E-07 ± 7.6E-07		U
<sup>238</sup> U		1.8E-05 ± 9.7E-06		<sup>238</sup> U	1.0E-05 ± 6.7E-06		
N019 (200-E) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	2.2E-05 ± 1.0E-04	U	N019 (200-E) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	8.9E-05 ± 1.1E-04	U	<sup>134</sup> Cs		6.9E-06 ± 6.3E-05	U
	<sup>137</sup> Cs	-4.8E-05 ± 9.5E-05	U	<sup>137</sup> Cs		3.4E-05 ± 6.8E-05	U
	<sup>152</sup> Eu	-3.5E-04 ± 3.7E-04	U	<sup>152</sup> Eu		2.6E-05 ± 1.6E-04	U
	<sup>154</sup> Eu	-3.5E-04 ± 3.7E-04	U	<sup>154</sup> Eu		-2.0E-06 ± 2.0E-05	U
	<sup>155</sup> Eu	8.9E-05 ± 1.7E-04	U	<sup>155</sup> Eu		6.4E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	6.5E-06 ± 1.1E-05	U	<sup>238</sup> Pu		5.5E-07 ± 1.9E-06	U
	<sup>239/240</sup> Pu	-1.9E-06 ± 2.7E-06	U	<sup>239/240</sup> Pu		3.3E-06 ± 2.9E-06	
	<sup>106</sup> Ru	6.5E-04 ± 8.9E-04	U	<sup>106</sup> Ru		4.0E-05 ± 4.1E-04	U
	<sup>125</sup> Sb	8.7E-05 ± 2.3E-04	U	<sup>125</sup> Sb		5.4E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	9.8E-05 ± 1.0E-04	U	<sup>90</sup> Sr		2.9E-05 ± 9.7E-05	U
	<sup>234</sup> U	8.4E-06 ± 6.4E-06		<sup>234</sup> U		1.4E-05 ± 9.9E-06	
	<sup>235</sup> U	6.1E-06 ± 5.4E-06		<sup>235</sup> U		1.0E-06 ± 3.6E-06	U
	<sup>238</sup> U	7.0E-06 ± 5.1E-06		<sup>238</sup> U		1.3E-05 ± 9.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N158 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	1.1E-04 ± 1.1E-04	U	N158 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	4.9E-05 ± 7.8E-05	U
	<sup>134</sup> Cs	-4.6E-05 ± 1.2E-04	U		<sup>134</sup> Cs	2.4E-05 ± 6.8E-05	U
	<sup>137</sup> Cs	6.7E-04 ± 3.3E-04			<sup>137</sup> Cs	7.9E-05 ± 8.0E-05	U
	<sup>152</sup> Eu	-9.0E-06 ± 9.0E-05	U		<sup>152</sup> Eu	-4.7E-05 ± 1.4E-04	U
	<sup>154</sup> Eu	-5.0E-05 ± 2.6E-04	U		<sup>154</sup> Eu	-2.7E-04 ± 2.7E-04	U
	<sup>155</sup> Eu	-3.3E-05 ± 1.7E-04	U		<sup>155</sup> Eu	-1.8E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	6.9E-07 ± 7.1E-07	U		<sup>238</sup> Pu	-2.0E-06 ± 8.3E-06	U
	<sup>239/240</sup> Pu	2.7E-06 ± 2.9E-06			<sup>239/240</sup> Pu	1.4E-06 ± 3.4E-06	U
	<sup>106</sup> Ru	7.3E-05 ± 7.3E-04	U		<sup>106</sup> Ru	-1.1E-04 ± 5.2E-04	U
	<sup>125</sup> Sb	5.0E-05 ± 2.3E-04	U		<sup>125</sup> Sb	4.8E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	1.3E-06 ± 1.3E-05	U		<sup>90</sup> Sr	2.3E-05 ± 9.7E-05	
	<sup>234</sup> U	5.5E-06 ± 5.6E-06	U		<sup>234</sup> U	9.3E-06 ± 5.9E-06	
	<sup>235</sup> U	5.3E-06 ± 4.5E-06			<sup>235</sup> U	2.0E-06 ± 3.1E-06	U
	<sup>238</sup> U	4.2E-06 ± 3.8E-06			<sup>238</sup> U	9.9E-06 ± 6.4E-06	
	N480 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>241</sup> Am	8.6E-06 ± 1.3E-05		U	N480 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>241</sup> Am
<sup>60</sup> Co		-3.2E-05 ± 7.0E-05	U	<sup>60</sup> Co	8.3E-05 ± 9.3E-05		U
<sup>134</sup> Cs		2.3E-05 ± 6.9E-05	U	<sup>134</sup> Cs	6.5E-06 ± 6.5E-05		U
<sup>137</sup> Cs		1.4E-05 ± 5.8E-05	U	<sup>137</sup> Cs	8.2E-05 ± 9.5E-05		U
<sup>152</sup> Eu		-6.4E-05 ± 1.3E-04	U	<sup>152</sup> Eu	2.6E-05 ± 2.1E-04		U
<sup>154</sup> Eu		-2.8E-05 ± 1.9E-04	U	<sup>154</sup> Eu	-1.6E-04 ± 2.8E-04		U
<sup>155</sup> Eu		1.7E-06 ± 1.7E-05	U	<sup>155</sup> Eu	1.2E-04 ± 1.7E-04		U
<sup>238</sup> Pu		1.5E-05 ± 2.6E-05	U	<sup>238</sup> Pu	2.3E-06 ± 1.4E-05		U
<sup>239/240</sup> Pu		5.5E-06 ± 7.1E-06	U	<sup>239/240</sup> Pu	1.2E-06 ± 1.2E-05		U
<sup>241</sup> Pu		4.6E-04 ± 6.1E-04	U	<sup>241</sup> Pu	2.0E-04 ± 4.0E-04		U
<sup>106</sup> Ru		-1.8E-05 ± 1.8E-04	U	<sup>106</sup> Ru	5.0E-06 ± 5.0E-05		U
<sup>125</sup> Sb		-7.5E-05 ± 1.4E-04	U	<sup>125</sup> Sb	-1.8E-04 ± 2.3E-04		U
<sup>90</sup> Sr		3.3E-05 ± 9.7E-05	U	<sup>90</sup> Sr	-1.3E-05 ± 1.1E-04		U
<sup>234</sup> U		7.1E-06 ± 5.6E-06		<sup>234</sup> U	8.3E-06 ± 5.8E-06		
<sup>235</sup> U		3.1E-06 ± 3.3E-06		<sup>235</sup> U	2.3E-06 ± 3.5E-06		U
<sup>238</sup> U	6.4E-06 ± 4.9E-06		<sup>238</sup> U	6.3E-06 ± 4.8E-06			
N481 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>241</sup> Am	7.2E-06 ± 1.3E-05	U	N481 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>241</sup> Am	-2.5E-06 ± 9.7E-06	U
	<sup>60</sup> Co	2.0E-05 ± 8.2E-05	U		<sup>60</sup> Co	8.3E-06 ± 6.6E-05	U
	<sup>134</sup> Cs	5.2E-05 ± 7.3E-05	U		<sup>134</sup> Cs	3.8E-05 ± 6.1E-05	U
	<sup>137</sup> Cs	1.5E-06 ± 1.5E-05	U		<sup>137</sup> Cs	1.3E-05 ± 5.5E-05	U
	<sup>152</sup> Eu	8.0E-05 ± 1.3E-04	U		<sup>152</sup> Eu	-2.6E-05 ± 1.3E-04	U
	<sup>154</sup> Eu	-9.0E-05 ± 2.1E-04	U		<sup>154</sup> Eu	3.9E-05 ± 2.1E-04	U
	<sup>155</sup> Eu	-1.3E-04 ± 1.5E-04	U		<sup>155</sup> Eu	1.5E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	-8.4E-06 ± 2.4E-05	U		<sup>238</sup> Pu	4.5E-06 ± 7.9E-06	U
	<sup>239/240</sup> Pu	-1.4E-06 ± 8.4E-06	U		<sup>239/240</sup> Pu	2.2E-06 ± 4.5E-06	U
	<sup>241</sup> Pu	1.0E-03 ± 6.3E-04			<sup>241</sup> Pu	7.2E-05 ± 3.9E-04	U
	<sup>106</sup> Ru	-5.4E-04 ± 5.6E-04	U		<sup>106</sup> Ru	6.2E-06 ± 6.2E-05	U
	<sup>125</sup> Sb	-8.5E-05 ± 1.4E-04	U		<sup>125</sup> Sb	7.1E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	-8.5E-05 ± 9.6E-05	U		<sup>90</sup> Sr	-1.4E-05 ± 1.1E-04	U
	<sup>234</sup> U	8.4E-06 ± 6.0E-06			<sup>234</sup> U	1.0E-05 ± 6.7E-06	
	<sup>235</sup> U	4.3E-06 ± 3.9E-06			<sup>235</sup> U	3.7E-06 ± 4.1E-06	U
<sup>238</sup> U	8.4E-06 ± 6.0E-06		<sup>238</sup> U	1.0E-05 ± 6.5E-06			

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N498 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-1.2E-05 ± 6.3E-05	U	N498 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	1.4E-05 ± 6.9E-05	U
	<sup>134</sup> Cs	-2.5E-05 ± 7.3E-05	U		<sup>134</sup> Cs	1.9E-05 ± 6.1E-05	U
	<sup>137</sup> Cs	2.8E-05 ± 6.2E-05	U		<sup>137</sup> Cs	2.8E-05 ± 5.5E-05	U
	<sup>152</sup> Eu	-7.7E-05 ± 1.5E-04	U		<sup>152</sup> Eu	-4.9E-05 ± 1.2E-04	U
	<sup>154</sup> Eu	-9.4E-05 ± 2.3E-04	U		<sup>154</sup> Eu	3.7E-05 ± 1.8E-04	U
	<sup>155</sup> Eu	-1.3E-05 ± 1.3E-04	U		<sup>155</sup> Eu	1.0E-04 ± 1.5E-04	U
	<sup>238</sup> Pu	5.8E-07 ± 1.2E-06	U		<sup>238</sup> Pu	1.3E-05 ± 1.4E-05	U
	<sup>239/240</sup> Pu	3.5E-06 ± 3.5E-06	U		<sup>239/240</sup> Pu	4.3E-06 ± 4.6E-06	U
	<sup>106</sup> Ru	-1.2E-06 ± 1.2E-05	U		<sup>106</sup> Ru	2.9E-04 ± 4.9E-04	U
	<sup>125</sup> Sb	-7.5E-05 ± 1.4E-04	U		<sup>125</sup> Sb	-8.1E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	5.2E-05 ± 1.0E-04	U		<sup>90</sup> Sr	3.0E-05 ± 1.1E-04	U
	<sup>234</sup> U	8.2E-06 ± 5.8E-06			<sup>234</sup> U	8.3E-06 ± 6.4E-06	
	<sup>235</sup> U	1.4E-06 ± 2.8E-06	U		<sup>235</sup> U	1.5E-06 ± 3.1E-06	U
	<sup>238</sup> U	9.5E-06 ± 6.4E-06			<sup>238</sup> U	1.0E-05 ± 7.0E-06	
N499 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-4.3E-06 ± 4.3E-05	U	N499 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	7.3E-05 ± 7.5E-05	U
	<sup>134</sup> Cs	2.6E-05 ± 1.1E-04	U		<sup>134</sup> Cs	3.9E-06 ± 3.9E-05	U
	<sup>137</sup> Cs	5.9E-05 ± 1.0E-04	U		<sup>137</sup> Cs	2.8E-05 ± 5.9E-05	U
	<sup>152</sup> Eu	1.2E-04 ± 2.3E-04	U		<sup>152</sup> Eu	-3.5E-05 ± 1.4E-04	U
	<sup>154</sup> Eu	-2.7E-04 ± 3.3E-04	U		<sup>154</sup> Eu	-4.9E-05 ± 2.1E-04	U
	<sup>155</sup> Eu	9.9E-06 ± 9.9E-05	U		<sup>155</sup> Eu	1.1E-04 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.1E-06 ± 1.7E-06	U		<sup>238</sup> Pu	-5.1E-06 ± 7.3E-06	U
	<sup>239/240</sup> Pu	5.7E-07 ± 1.2E-06	U		<sup>239/240</sup> Pu	-2.9E-06 ± 3.1E-06	U
	<sup>106</sup> Ru	1.9E-04 ± 9.0E-04	U		<sup>106</sup> Ru	4.2E-04 ± 5.8E-04	U
	<sup>125</sup> Sb	-6.1E-05 ± 2.3E-04	U		<sup>125</sup> Sb	9.4E-05 ± 1.6E-04	U
	<sup>90</sup> Sr	-1.2E-04 ± 1.2E-04	U		<sup>90</sup> Sr	-2.0E-05 ± 1.1E-04	U
	<sup>234</sup> U	9.8E-06 ± 6.4E-06			<sup>234</sup> U	1.2E-05 ± 7.8E-06	
	<sup>235</sup> U	2.7E-06 ± 2.9E-06			<sup>235</sup> U	1.6E-06 ± 2.4E-06	U
	<sup>238</sup> U	7.4E-06 ± 5.1E-06			<sup>238</sup> U	8.9E-06 ± 6.6E-06	
N532 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-2.6E-05 ± 1.3E-04	U	N532 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	1.2E-05 ± 6.5E-05	U
	<sup>134</sup> Cs	1.5E-05 ± 1.2E-04	U		<sup>134</sup> Cs	2.3E-05 ± 5.4E-05	U
	<sup>137</sup> Cs	8.0E-05 ± 1.1E-04	U		<sup>137</sup> Cs	2.7E-05 ± 5.6E-05	U
	<sup>152</sup> Eu	2.5E-05 ± 2.5E-04	U		<sup>152</sup> Eu	-8.3E-05 ± 1.3E-04	U
	<sup>154</sup> Eu	1.3E-04 ± 3.4E-04	U		<sup>154</sup> Eu	-4.2E-05 ± 1.8E-04	U
	<sup>155</sup> Eu	-9.0E-05 ± 2.1E-04	U		<sup>155</sup> Eu	-3.3E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	7.4E-07 ± 7.6E-07	U		<sup>238</sup> Pu	-1.4E-06 ± 1.4E-05	U
	<sup>239/240</sup> Pu	7.4E-07 ± 1.5E-06	U		<sup>239/240</sup> Pu	4.3E-06 ± 4.4E-06	U
	<sup>106</sup> Ru	1.1E-03 ± 1.0E-03	U		<sup>106</sup> Ru	-9.8E-05 ± 5.1E-04	U
	<sup>125</sup> Sb	5.7E-05 ± 2.6E-04	U		<sup>125</sup> Sb	-4.0E-06 ± 4.0E-05	U
	<sup>90</sup> Sr	-4.6E-06 ± 4.6E-05	U		<sup>90</sup> Sr	1.3E-04 ± 1.5E-04	U
	<sup>234</sup> U	1.7E-05 ± 9.9E-06			<sup>234</sup> U	1.3E-05 ± 8.8E-06	
	<sup>235</sup> U	6.5E-06 ± 5.5E-06			<sup>235</sup> U	2.6E-06 ± 3.2E-06	
	<sup>238</sup> U	8.5E-06 ± 6.2E-06			<sup>238</sup> U	6.5E-06 ± 5.2E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N559 (200-E) Composite Period 04/27/06 to 06/19/06	<sup>60</sup> Co	1.7E-04 ± 2.7E-04	U	N559 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-4.1E-05 ± 7.2E-05	U
	<sup>134</sup> Cs	4.6E-05 ± 2.4E-04	U		<sup>134</sup> Cs	1.8E-05 ± 5.6E-05	U
	<sup>137</sup> Cs	-7.9E-05 ± 2.2E-04	U		<sup>137</sup> Cs	2.7E-06 ± 2.7E-05	U
	<sup>152</sup> Eu	-4.8E-05 ± 4.8E-04	U		<sup>152</sup> Eu	-4.0E-05 ± 1.3E-04	U
	<sup>154</sup> Eu	-1.2E-06 ± 1.2E-05	U		<sup>154</sup> Eu	-5.4E-05 ± 2.0E-04	U
	<sup>155</sup> Eu	-2.5E-04 ± 5.5E-04	U		<sup>155</sup> Eu	3.7E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.3E-05 ± 2.7E-05	U		<sup>238</sup> Pu	-2.6E-06 ± 8.2E-06	U
	<sup>239/240</sup> Pu	-5.3E-06 ± 1.1E-05	U		<sup>239/240</sup> Pu	-1.3E-06 ± 1.9E-06	U
	<sup>106</sup> Ru	-1.8E-03 ± 2.1E-03	U		<sup>106</sup> Ru	-3.6E-04 ± 5.1E-04	U
	<sup>125</sup> Sb	1.5E-05 ± 1.6E-04	U		<sup>125</sup> Sb	-4.2E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	-1.4E-04 ± 3.4E-04	U		<sup>90</sup> Sr	-7.9E-05 ± 1.0E-04	U
	<sup>234</sup> U	3.2E-05 ± 2.1E-05			<sup>234</sup> U	1.4E-05 ± 8.0E-06	
	<sup>235</sup> U	1.4E-05 ± 1.7E-05	U		<sup>235</sup> U	5.2E-06 ± 4.4E-06	
	<sup>238</sup> U	4.9E-06 ± 1.0E-05	U		<sup>238</sup> U	8.7E-06 ± 5.9E-06	
	N957 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	8.5E-05 ± 7.8E-05		U	N957 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-4.0E-05 ± 6.7E-05	U	<sup>134</sup> Cs	3.5E-05 ± 5.5E-05		U
<sup>137</sup> Cs		-8.7E-06 ± 5.8E-05	U	<sup>137</sup> Cs	4.7E-05 ± 5.8E-05		U
<sup>152</sup> Eu		-4.5E-05 ± 1.4E-04	U	<sup>152</sup> Eu	-7.2E-05 ± 1.2E-04		U
<sup>154</sup> Eu		-2.1E-05 ± 2.1E-04	U	<sup>154</sup> Eu	-8.9E-05 ± 2.0E-04		U
<sup>155</sup> Eu		6.9E-06 ± 6.9E-05	U	<sup>155</sup> Eu	-1.1E-04 ± 1.2E-04		U
<sup>238</sup> Pu		1.8E-06 ± 1.0E-05	U	<sup>238</sup> Pu	2.9E-06 ± 4.8E-06		U
<sup>239/240</sup> Pu		1.8E-06 ± 3.6E-06	U	<sup>239/240</sup> Pu	7.2E-07 ± 7.5E-07		U
<sup>106</sup> Ru		-4.5E-05 ± 4.5E-04	U	<sup>106</sup> Ru	3.9E-05 ± 3.9E-04		U
<sup>125</sup> Sb		-5.5E-06 ± 5.5E-05	U	<sup>125</sup> Sb	1.1E-04 ± 1.5E-04		U
<sup>90</sup> Sr		-3.7E-05 ± 1.0E-04	U	<sup>90</sup> Sr	-9.2E-05 ± 1.0E-04		U
<sup>234</sup> U		1.7E-05 ± 9.3E-06		<sup>234</sup> U	1.2E-05 ± 7.8E-06		
<sup>235</sup> U		5.2E-06 ± 4.4E-06		<sup>235</sup> U	4.2E-06 ± 4.3E-06		U
<sup>238</sup> U		8.2E-06 ± 5.9E-06		<sup>238</sup> U	6.5E-06 ± 4.8E-06		
N967 (200-E) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	-5.6E-05 ± 7.5E-05	U	N967 (200-E) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	3.1E-06 ± 3.1E-05	U	<sup>134</sup> Cs		-6.2E-06 ± 6.2E-05	U
	<sup>137</sup> Cs	2.5E-05 ± 5.8E-05	U	<sup>137</sup> Cs		1.2E-04 ± 1.1E-04	U
	<sup>152</sup> Eu	2.0E-05 ± 1.6E-04	U	<sup>152</sup> Eu		5.1E-05 ± 2.2E-04	U
	<sup>154</sup> Eu	1.3E-05 ± 1.3E-04	U	<sup>154</sup> Eu		1.4E-04 ± 2.9E-04	U
	<sup>155</sup> Eu	1.3E-05 ± 1.3E-04	U	<sup>155</sup> Eu		4.7E-05 ± 1.7E-04	U
	<sup>238</sup> Pu	1.3E-06 ± 7.3E-06	U	<sup>238</sup> Pu		8.1E-06 ± 1.5E-05	U
	<sup>239/240</sup> Pu	-6.4E-07 ± 2.9E-06	U	<sup>239/240</sup> Pu		3.7E-06 ± 4.2E-06	U
	<sup>106</sup> Ru	-1.1E-04 ± 5.4E-04	U	<sup>106</sup> Ru		2.9E-05 ± 2.9E-04	U
	<sup>125</sup> Sb	-1.8E-06 ± 1.8E-05	U	<sup>125</sup> Sb		1.0E-05 ± 1.0E-04	U
	<sup>90</sup> Sr	-6.6E-05 ± 9.6E-05	U	<sup>90</sup> Sr		-2.4E-05 ± 1.1E-04	U
	<sup>234</sup> U	6.8E-06 ± 5.1E-06		<sup>234</sup> U		1.5E-05 ± 8.2E-06	
	<sup>235</sup> U	2.7E-06 ± 2.9E-06		<sup>235</sup> U		8.7E-06 ± 6.1E-06	
	<sup>238</sup> U	5.0E-06 ± 4.4E-06		<sup>238</sup> U		1.1E-05 ± 6.5E-06	

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



Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N968 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-3.0E-05 ± 1.0E-04	U	N968 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	1.0E-04 ± 8.8E-05	U
	<sup>134</sup> Cs	7.0E-06 ± 7.0E-05	U		<sup>134</sup> Cs	9.9E-06 ± 6.1E-05	U
	<sup>137</sup> Cs	1.6E-05 ± 1.0E-04	U		<sup>137</sup> Cs	3.4E-05 ± 5.7E-05	U
	<sup>152</sup> Eu	1.5E-04 ± 2.4E-04	U		<sup>152</sup> Eu	-1.2E-04 ± 1.4E-04	U
	<sup>154</sup> Eu	-1.3E-04 ± 3.3E-04	U		<sup>154</sup> Eu	3.4E-05 ± 1.9E-04	U
	<sup>155</sup> Eu	-2.8E-06 ± 2.8E-05	U		<sup>155</sup> Eu	-1.2E-04 ± 1.5E-04	U
	<sup>238</sup> Pu	6.7E-07 ± 6.7E-06	U		<sup>238</sup> Pu	-6.0E-06 ± 1.3E-05	U
	<sup>239/240</sup> Pu	4.0E-06 ± 4.1E-06	U		<sup>239/240</sup> Pu	5.0E-06 ± 4.8E-06	U
	<sup>106</sup> Ru	3.1E-04 ± 8.7E-04	U		<sup>106</sup> Ru	-2.7E-04 ± 5.4E-04	U
	<sup>125</sup> Sb	2.1E-05 ± 2.1E-04	U		<sup>125</sup> Sb	-6.9E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	-1.6E-04 ± 1.6E-04	U		<sup>90</sup> Sr	3.4E-05 ± 1.1E-04	U
	<sup>234</sup> U	9.9E-06 ± 6.6E-06	U		<sup>234</sup> U	1.7E-05 ± 8.8E-06	U
	<sup>235</sup> U	2.2E-06 ± 2.6E-06	U		<sup>235</sup> U	1.4E-06 ± 2.0E-06	U
	<sup>238</sup> U	6.6E-06 ± 4.9E-06	U		<sup>238</sup> U	6.7E-06 ± 4.5E-06	U
	N969 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-2.5E-05 ± 9.1E-05		U	N969 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-7.7E-05 ± 8.7E-05	U	<sup>134</sup> Cs	-3.8E-05 ± 7.8E-05		U
<sup>137</sup> Cs		-1.2E-05 ± 7.1E-05	U	<sup>137</sup> Cs	4.9E-06 ± 4.9E-05		U
<sup>152</sup> Eu		6.0E-05 ± 1.7E-04	U	<sup>152</sup> Eu	6.8E-06 ± 6.8E-05		U
<sup>154</sup> Eu		-9.4E-05 ± 2.5E-04	U	<sup>154</sup> Eu	5.8E-05 ± 2.1E-04		U
<sup>155</sup> Eu		5.9E-05 ± 1.6E-04	U	<sup>155</sup> Eu	8.0E-05 ± 1.6E-04		U
<sup>238</sup> Pu		3.3E-06 ± 1.0E-05	U	<sup>238</sup> Pu	-3.3E-06 ± 1.3E-05		U
<sup>239/240</sup> Pu		4.0E-06 ± 4.0E-06	U	<sup>239/240</sup> Pu	4.9E-06 ± 5.5E-06		U
<sup>106</sup> Ru		7.4E-04 ± 7.2E-04	U	<sup>106</sup> Ru	7.7E-05 ± 6.0E-04		U
<sup>125</sup> Sb		-7.4E-05 ± 1.7E-04	U	<sup>125</sup> Sb	-4.8E-06 ± 4.8E-05		U
<sup>90</sup> Sr		-4.7E-05 ± 1.1E-04	U	<sup>90</sup> Sr	-5.2E-05 ± 1.1E-04		U
<sup>234</sup> U		9.9E-06 ± 7.1E-06	U	<sup>234</sup> U	8.9E-06 ± 5.8E-06		U
<sup>235</sup> U		1.4E-06 ± 2.9E-06	U	<sup>235</sup> U	3.2E-06 ± 3.3E-06		U
<sup>238</sup> U		5.9E-06 ± 5.2E-06	U	<sup>238</sup> U	5.7E-06 ± 4.3E-06		U
N970 (200-E) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	7.6E-05 ± 7.6E-05	U	N970 (200-E) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	1.3E-05 ± 6.9E-05	U	<sup>134</sup> Cs		-5.6E-05 ± 9.9E-05	U
	<sup>137</sup> Cs	2.8E-05 ± 6.2E-05	U	<sup>137</sup> Cs		3.4E-05 ± 9.9E-05	U
	<sup>152</sup> Eu	-4.2E-06 ± 4.2E-05	U	<sup>152</sup> Eu		-6.8E-05 ± 2.2E-04	U
	<sup>154</sup> Eu	7.2E-05 ± 2.1E-04	U	<sup>154</sup> Eu		-8.9E-05 ± 2.5E-04	U
	<sup>155</sup> Eu	-2.4E-05 ± 1.3E-04	U	<sup>155</sup> Eu		-6.0E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	-3.1E-06 ± 6.2E-06	U	<sup>238</sup> Pu		6.9E-06 ± 1.2E-05	U
	<sup>239/240</sup> Pu	1.8E-06 ± 3.3E-06	U	<sup>239/240</sup> Pu		3.1E-06 ± 3.3E-06	U
	<sup>106</sup> Ru	3.2E-04 ± 5.6E-04	U	<sup>106</sup> Ru		2.4E-04 ± 7.4E-04	U
	<sup>125</sup> Sb	-1.0E-05 ± 1.0E-04	U	<sup>125</sup> Sb		2.9E-05 ± 2.0E-04	U
	<sup>90</sup> Sr	3.7E-05 ± 1.0E-04	U	<sup>90</sup> Sr		-1.3E-05 ± 1.1E-04	U
	<sup>234</sup> U	9.0E-06 ± 6.2E-06	U	<sup>234</sup> U		6.6E-06 ± 5.5E-06	U
	<sup>235</sup> U	2.1E-06 ± 2.5E-06	U	<sup>235</sup> U		7.2E-07 ± 1.5E-06	U
	<sup>238</sup> U	2.6E-06 ± 3.8E-06	U	<sup>238</sup> U		6.6E-06 ± 4.8E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N972 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	1.2E-05 ± 6.8E-05	U	N972 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-1.6E-05 ± 6.6E-05	U
	<sup>134</sup> Cs	4.1E-05 ± 6.8E-05	U		<sup>134</sup> Cs	-4.6E-06 ± 4.6E-05	U
	<sup>137</sup> Cs	9.9E-05 ± 7.1E-05	U		<sup>137</sup> Cs	2.9E-05 ± 5.8E-05	U
	<sup>152</sup> Eu	-2.5E-05 ± 1.3E-04	U		<sup>152</sup> Eu	1.7E-05 ± 1.3E-04	U
	<sup>154</sup> Eu	6.1E-05 ± 1.8E-04	U		<sup>154</sup> Eu	3.9E-05 ± 1.8E-04	U
	<sup>155</sup> Eu	-3.1E-05 ± 1.5E-04	U		<sup>155</sup> Eu	7.5E-05 ± 1.4E-04	U
	<sup>238</sup> Pu	2.0E-06 ± 7.7E-06	U		<sup>238</sup> Pu	2.0E-06 ± 8.1E-06	U
	<sup>239/240</sup> Pu	2.0E-06 ± 3.1E-06	U		<sup>239/240</sup> Pu	6.7E-06 ± 5.3E-06	U
	<sup>106</sup> Ru	2.5E-04 ± 5.6E-04	U		<sup>106</sup> Ru	1.9E-04 ± 5.0E-04	U
	<sup>125</sup> Sb	-1.2E-05 ± 1.2E-04	U		<sup>125</sup> Sb	-1.5E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	-3.1E-05 ± 1.0E-04	U		<sup>90</sup> Sr	5.3E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.1E-05 ± 6.9E-06	U		<sup>234</sup> U	9.7E-06 ± 6.3E-06	U
	<sup>235</sup> U	2.9E-06 ± 3.1E-06	U		<sup>235</sup> U	2.3E-06 ± 2.8E-06	U
	<sup>238</sup> U	6.6E-06 ± 5.5E-06	U		<sup>238</sup> U	5.5E-06 ± 4.4E-06	U
	N973 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	9.5E-05 ± 1.1E-04		U	N973 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		1.0E-04 ± 1.1E-04	U	<sup>134</sup> Cs	-1.5E-06 ± 1.5E-05		U
<sup>137</sup> Cs		1.6E-05 ± 1.1E-04	U	<sup>137</sup> Cs	-1.1E-05 ± 6.6E-05		U
<sup>152</sup> Eu		5.4E-05 ± 2.2E-04	U	<sup>152</sup> Eu	-2.1E-04 ± 2.2E-04		U
<sup>154</sup> Eu		-1.7E-04 ± 3.6E-04	U	<sup>154</sup> Eu	1.5E-04 ± 2.4E-04		U
<sup>155</sup> Eu		8.3E-05 ± 1.7E-04	U	<sup>155</sup> Eu	1.4E-04 ± 1.6E-04		U
<sup>238</sup> Pu		7.1E-07 ± 7.1E-06	U	<sup>238</sup> Pu	2.1E-06 ± 8.4E-06		U
<sup>239/240</sup> Pu		5.0E-06 ± 4.2E-06	U	<sup>239/240</sup> Pu	7.3E-07 ± 7.6E-07		U
<sup>106</sup> Ru		-4.3E-04 ± 8.4E-04	U	<sup>106</sup> Ru	7.3E-05 ± 5.8E-04		U
<sup>125</sup> Sb		-9.9E-05 ± 2.3E-04	U	<sup>125</sup> Sb	1.3E-04 ± 1.6E-04		U
<sup>90</sup> Sr		4.3E-05 ± 1.1E-04	U	<sup>90</sup> Sr	1.9E-05 ± 1.0E-04		U
<sup>234</sup> U		1.9E-05 ± 1.1E-05	U	<sup>234</sup> U	1.6E-05 ± 9.0E-06		U
<sup>235</sup> U		6.8E-07 ± 7.1E-07	U	<sup>235</sup> U	3.7E-06 ± 4.2E-06		U
<sup>238</sup> U		4.1E-06 ± 4.6E-06	U	<sup>238</sup> U	9.5E-06 ± 6.2E-06		U
N976 (200-E) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	2.6E-05 ± 8.8E-05	U	N976 (200-E) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	5.4E-05 ± 7.2E-05	U	<sup>134</sup> Cs		-7.1E-05 ± 1.1E-04	U
	<sup>137</sup> Cs	2.5E-04 ± 1.3E-04	U	<sup>137</sup> Cs		1.1E-04 ± 1.2E-04	U
	<sup>152</sup> Eu	1.1E-04 ± 1.7E-04	U	<sup>152</sup> Eu		5.9E-05 ± 2.3E-04	U
	<sup>154</sup> Eu	1.8E-06 ± 1.8E-05	U	<sup>154</sup> Eu		6.1E-06 ± 6.1E-05	U
	<sup>155</sup> Eu	-2.8E-05 ± 1.7E-04	U	<sup>155</sup> Eu		-6.0E-05 ± 1.8E-04	U
	<sup>238</sup> Pu	-6.7E-07 ± 6.7E-06	U	<sup>238</sup> Pu		6.1E-07 ± 3.7E-06	U
	<sup>239/240</sup> Pu	-2.7E-06 ± 3.4E-06	U	<sup>239/240</sup> Pu		6.1E-07 ± 1.2E-06	U
	<sup>106</sup> Ru	1.1E-04 ± 5.9E-04	U	<sup>106</sup> Ru		3.2E-04 ± 8.5E-04	U
	<sup>125</sup> Sb	-1.2E-04 ± 1.8E-04	U	<sup>125</sup> Sb		1.5E-04 ± 2.6E-04	U
	<sup>90</sup> Sr	9.2E-05 ± 1.1E-04	U	<sup>90</sup> Sr		1.2E-04 ± 1.3E-04	U
	<sup>234</sup> U	1.3E-05 ± 7.9E-06	U	<sup>234</sup> U		1.7E-05 ± 9.6E-06	U
	<sup>235</sup> U	2.1E-06 ± 2.6E-06	U	<sup>235</sup> U		4.8E-06 ± 4.6E-06	U
	<sup>238</sup> U	1.4E-05 ± 8.4E-06	U	<sup>238</sup> U		1.3E-05 ± 7.9E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N977 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	1.4E-05 ± 8.7E-05	U	N977 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	1.9E-05 ± 6.4E-05	U
	<sup>134</sup> Cs	-4.1E-05 ± 8.1E-05	U		<sup>134</sup> Cs	-1.7E-05 ± 6.9E-05	U
	<sup>137</sup> Cs	1.5E-05 ± 6.3E-05	U		<sup>137</sup> Cs	1.2E-05 ± 6.0E-05	U
	<sup>152</sup> Eu	-1.2E-04 ± 1.6E-04	U		<sup>152</sup> Eu	-7.7E-05 ± 1.3E-04	U
	<sup>154</sup> Eu	-1.5E-04 ± 2.4E-04	U		<sup>154</sup> Eu	8.7E-05 ± 2.1E-04	U
	<sup>155</sup> Eu	6.5E-05 ± 1.5E-04	U		<sup>155</sup> Eu	3.8E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.2E-05 ± 1.4E-05	U		<sup>238</sup> Pu	5.2E-06 ± 8.4E-06	U
	<sup>239/240</sup> Pu	7.0E-07 ± 7.0E-06	U		<sup>239/240</sup> Pu	5.8E-07 ± 6.0E-07	U
	<sup>106</sup> Ru	3.7E-04 ± 7.6E-04	U		<sup>106</sup> Ru	9.5E-05 ± 4.8E-04	U
	<sup>125</sup> Sb	-1.9E-04 ± 1.9E-04	U		<sup>125</sup> Sb	-9.9E-07 ± 9.9E-06	U
	<sup>90</sup> Sr	-9.1E-05 ± 9.8E-05	U		<sup>90</sup> Sr	-2.9E-05 ± 1.0E-04	U
	<sup>234</sup> U	1.4E-05 ± 8.4E-06			<sup>234</sup> U	4.9E-06 ± 4.2E-06	
	<sup>235</sup> U	3.0E-06 ± 3.2E-06			<sup>235</sup> U	4.5E-06 ± 4.0E-06	
	<sup>238</sup> U	6.1E-06 ± 4.7E-06			<sup>238</sup> U	6.7E-06 ± 4.7E-06	
	N978 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	4.1E-05 ± 7.3E-05		U	N978 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		1.0E-05 ± 6.3E-05	U	<sup>134</sup> Cs	-3.0E-05 ± 7.6E-05		U
<sup>137</sup> Cs		-4.1E-05 ± 5.3E-05	U	<sup>137</sup> Cs	2.4E-05 ± 6.1E-05		U
<sup>152</sup> Eu		4.9E-05 ± 1.3E-04	U	<sup>152</sup> Eu	3.9E-06 ± 3.9E-05		U
<sup>154</sup> Eu		-2.7E-05 ± 2.0E-04	U	<sup>154</sup> Eu	-1.3E-05 ± 1.3E-04		U
<sup>155</sup> Eu		2.0E-05 ± 1.3E-04	U	<sup>155</sup> Eu	1.2E-04 ± 1.5E-04		U
<sup>238</sup> Pu		-2.8E-06 ± 1.5E-05	U	<sup>238</sup> Pu	-5.1E-07 ± 5.1E-06		U
<sup>239/240</sup> Pu		-7.0E-07 ± 2.5E-06	U	<sup>239/240</sup> Pu	1.5E-06 ± 2.8E-06		U
<sup>106</sup> Ru		4.7E-05 ± 4.7E-04	U	<sup>106</sup> Ru	-3.6E-04 ± 6.3E-04		U
<sup>125</sup> Sb		-6.0E-05 ± 1.5E-04	U	<sup>125</sup> Sb	3.2E-05 ± 1.4E-04		U
<sup>90</sup> Sr		-2.3E-05 ± 1.0E-04	U	<sup>90</sup> Sr	1.9E-07 ± 2.0E-06		U
<sup>234</sup> U		1.3E-05 ± 8.6E-06		<sup>234</sup> U	1.2E-05 ± 6.6E-06		
<sup>235</sup> U		3.8E-06 ± 4.2E-06	U	<sup>235</sup> U	-7.1E-07 ± 1.4E-06		U
<sup>238</sup> U		6.2E-06 ± 5.5E-06	U	<sup>238</sup> U	6.3E-06 ± 4.4E-06		
N984 (200-E) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	2.0E-05 ± 7.7E-05	U	N984 (200-E) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	-4.7E-05 ± 6.7E-05	U	<sup>134</sup> Cs		7.2E-05 ± 6.2E-05	U
	<sup>137</sup> Cs	8.9E-04 ± 3.6E-04		<sup>137</sup> Cs		3.9E-04 ± 1.9E-04	
	<sup>152</sup> Eu	9.3E-06 ± 9.3E-05	U	<sup>152</sup> Eu		6.0E-05 ± 1.5E-04	U
	<sup>154</sup> Eu	-7.1E-05 ± 2.4E-04	U	<sup>154</sup> Eu		3.4E-06 ± 3.4E-05	U
	<sup>155</sup> Eu	8.4E-05 ± 1.6E-04	U	<sup>155</sup> Eu		1.7E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	8.4E-06 ± 1.4E-05	U	<sup>238</sup> Pu		5.4E-07 ± 2.8E-06	U
	<sup>239/240</sup> Pu	7.2E-07 ± 7.5E-07	U	<sup>239/240</sup> Pu		5.4E-07 ± 1.9E-06	U
	<sup>106</sup> Ru	7.0E-05 ± 6.9E-04	U	<sup>106</sup> Ru		2.3E-04 ± 5.5E-04	U
	<sup>125</sup> Sb	1.1E-04 ± 1.6E-04	U	<sup>125</sup> Sb		-3.8E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	8.7E-05 ± 1.2E-04	U	<sup>90</sup> Sr		3.0E-04 ± 1.6E-04	
	<sup>234</sup> U	1.0E-05 ± 7.2E-06		<sup>234</sup> U		2.4E-05 ± 1.1E-05	
	<sup>235</sup> U	5.7E-06 ± 4.8E-06		<sup>235</sup> U		7.1E-07 ± 1.4E-06	U
	<sup>238</sup> U	4.5E-06 ± 5.0E-06	U	<sup>238</sup> U		6.8E-06 ± 4.6E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N985 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-1.9E-05 ± 1.3E-04	U	N985 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-5.1E-05 ± 1.1E-04	U
	<sup>134</sup> Cs	2.6E-05 ± 1.2E-04	U		<sup>134</sup> Cs	4.9E-05 ± 1.0E-04	U
	<sup>137</sup> Cs	1.0E-04 ± 1.2E-04	U		<sup>137</sup> Cs	-9.5E-06 ± 9.5E-05	U
	<sup>152</sup> Eu	-1.1E-04 ± 2.6E-04	U		<sup>152</sup> Eu	-8.7E-05 ± 2.1E-04	U
	<sup>154</sup> Eu	-3.4E-04 ± 3.6E-04	U		<sup>154</sup> Eu	1.0E-04 ± 2.9E-04	U
	<sup>155</sup> Eu	1.2E-05 ± 1.2E-04	U		<sup>155</sup> Eu	1.1E-05 ± 1.1E-04	U
	<sup>238</sup> Pu	-2.9E-06 ± 1.5E-05	U		<sup>238</sup> Pu	-6.5E-07 ± 4.7E-06	U
	<sup>239/240</sup> Pu	-7.3E-07 ± 2.5E-06	U		<sup>239/240</sup> Pu	6.5E-07 ± 6.8E-07	U
	<sup>106</sup> Ru	2.1E-04 ± 1.0E-03	U		<sup>106</sup> Ru	3.0E-04 ± 8.6E-04	U
	<sup>125</sup> Sb	-1.6E-04 ± 2.4E-04	U		<sup>125</sup> Sb	5.9E-05 ± 2.1E-04	U
	<sup>90</sup> Sr	-2.6E-05 ± 9.3E-05	U		<sup>90</sup> Sr	3.9E-05 ± 1.1E-04	U
	<sup>234</sup> U	6.7E-06 ± 6.7E-06	U		<sup>234</sup> U	1.5E-05 ± 7.7E-06	U
	<sup>235</sup> U	3.3E-06 ± 4.2E-06	U		<sup>235</sup> U	-6.9E-07 ± 1.4E-06	U
	<sup>238</sup> U	9.0E-06 ± 6.9E-06	U		<sup>238</sup> U	8.9E-06 ± 5.4E-06	U
	N999 (200-E) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	3.7E-05 ± 7.6E-05		U	N999 (200-E) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-8.6E-06 ± 6.3E-05	U	<sup>134</sup> Cs	-5.0E-05 ± 6.6E-05		U
<sup>137</sup> Cs		3.3E-05 ± 6.2E-05	U	<sup>137</sup> Cs	3.9E-05 ± 6.1E-05		U
<sup>152</sup> Eu		9.5E-05 ± 1.4E-04	U	<sup>152</sup> Eu	-5.4E-05 ± 1.4E-04		U
<sup>154</sup> Eu		-4.0E-05 ± 2.1E-04	U	<sup>154</sup> Eu	1.7E-05 ± 1.7E-04		U
<sup>155</sup> Eu		2.4E-05 ± 1.3E-04	U	<sup>155</sup> Eu	-1.1E-05 ± 1.1E-04		U
<sup>238</sup> Pu		2.3E-06 ± 1.3E-05	U	<sup>238</sup> Pu	1.1E-06 ± 2.3E-06		U
<sup>239/240</sup> Pu		8.0E-07 ± 8.0E-06	U	<sup>239/240</sup> Pu	1.1E-06 ± 1.7E-06		U
<sup>106</sup> Ru		1.3E-04 ± 6.1E-04	U	<sup>106</sup> Ru	-8.4E-05 ± 5.4E-04		U
<sup>125</sup> Sb		-7.4E-06 ± 7.4E-05	U	<sup>125</sup> Sb	1.2E-04 ± 1.3E-04		U
<sup>90</sup> Sr		-1.5E-04 ± 1.6E-04	U	<sup>90</sup> Sr	-2.5E-05 ± 1.1E-04		U
<sup>234</sup> U		9.7E-06 ± 7.1E-06	U	<sup>234</sup> U	6.2E-06 ± 5.2E-06		U
<sup>235</sup> U		8.2E-07 ± 1.7E-06	U	<sup>235</sup> U	7.7E-07 ± 2.7E-06		U
<sup>238</sup> U		1.1E-05 ± 7.2E-06	U	<sup>238</sup> U	7.4E-06 ± 5.0E-06		U
N155 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	-2.0E-05 ± 7.0E-05	U	N155 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	-2.9E-05 ± 6.3E-05	U	<sup>134</sup> Cs		3.1E-05 ± 9.2E-05	U
	<sup>137</sup> Cs	8.4E-05 ± 7.1E-05	U	<sup>137</sup> Cs		1.3E-04 ± 1.2E-04	U
	<sup>152</sup> Eu	1.1E-05 ± 1.1E-04	U	<sup>152</sup> Eu		-1.4E-04 ± 2.2E-04	U
	<sup>154</sup> Eu	5.8E-05 ± 2.0E-04	U	<sup>154</sup> Eu		-4.1E-04 ± 4.3E-04	U
	<sup>155</sup> Eu	-1.9E-04 ± 2.0E-04	U	<sup>155</sup> Eu		2.8E-05 ± 1.9E-04	U
	<sup>238</sup> Pu	-6.4E-07 ± 3.4E-06	U	<sup>238</sup> Pu		1.2E-06 ± 1.7E-06	U
	<sup>239/240</sup> Pu	5.8E-06 ± 4.3E-06	U	<sup>239/240</sup> Pu		5.3E-06 ± 4.0E-06	U
	<sup>106</sup> Ru	-2.2E-04 ± 5.8E-04	U	<sup>106</sup> Ru		-1.1E-04 ± 6.9E-04	U
	<sup>125</sup> Sb	6.5E-05 ± 1.4E-04	U	<sup>125</sup> Sb		1.2E-04 ± 1.8E-04	U
	<sup>90</sup> Sr	4.3E-05 ± 1.0E-04	U	<sup>90</sup> Sr		1.1E-05 ± 9.4E-05	U
	<sup>234</sup> U	1.0E-05 ± 7.0E-06	U	<sup>234</sup> U		5.1E-06 ± 3.9E-06	U
	<sup>235</sup> U	2.3E-06 ± 2.8E-06	U	<sup>235</sup> U		7.0E-07 ± 1.4E-06	U
	<sup>238</sup> U	8.4E-06 ± 5.8E-06	U	<sup>238</sup> U		2.8E-06 ± 2.7E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N161 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	4.4E-06 ± 4.4E-05	U	N161 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-3.2E-05 ± 7.2E-05	U
	<sup>134</sup> Cs	-2.6E-05 ± 6.8E-05	U		<sup>134</sup> Cs	-3.8E-06 ± 3.8E-05	U
	<sup>137</sup> Cs	4.4E-05 ± 6.5E-05	U		<sup>137</sup> Cs	4.5E-05 ± 7.0E-05	U
	<sup>152</sup> Eu	-2.6E-05 ± 1.5E-04	U		<sup>152</sup> Eu	-4.6E-05 ± 1.7E-04	U
	<sup>154</sup> Eu	7.8E-05 ± 2.0E-04	U		<sup>154</sup> Eu	-1.3E-04 ± 2.2E-04	U
	<sup>155</sup> Eu	-1.5E-04 ± 1.6E-04	U		<sup>155</sup> Eu	-1.1E-04 ± 1.8E-04	U
	<sup>238</sup> Pu	2.2E-06 ± 3.2E-06	U		<sup>238</sup> Pu	-1.4E-06 ± 9.8E-06	U
	<sup>239/240</sup> Pu	1.1E-06 ± 1.6E-06	U		<sup>239/240</sup> Pu	2.8E-06 ± 3.5E-06	U
	<sup>106</sup> Ru	-1.5E-05 ± 1.6E-04	U		<sup>106</sup> Ru	1.5E-04 ± 5.3E-04	U
	<sup>125</sup> Sb	-4.7E-05 ± 1.4E-04	U		<sup>125</sup> Sb	-3.9E-05 ± 1.4E-04	U
	<sup>90</sup> Sr	5.9E-05 ± 1.1E-04	U		<sup>90</sup> Sr	6.2E-04 ± 2.2E-04	U
	<sup>234</sup> U	6.3E-07 ± 6.3E-06	U		<sup>234</sup> U	5.7E-06 ± 5.7E-06	U
	<sup>235</sup> U	2.8E-06 ± 2.9E-06	U		<sup>235</sup> U	-7.7E-07 ± 3.5E-06	U
	<sup>238</sup> U	1.9E-06 ± 3.4E-06	U		<sup>238</sup> U	6.4E-06 ± 4.9E-06	U
	N165 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-1.5E-05 ± 9.4E-05		U	N165 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		5.6E-05 ± 8.9E-05	U	<sup>134</sup> Cs	7.1E-05 ± 1.2E-04		U
<sup>137</sup> Cs		7.8E-05 ± 7.8E-05	U	<sup>137</sup> Cs	-2.1E-05 ± 1.1E-04		U
<sup>152</sup> Eu		-5.5E-05 ± 1.7E-04	U	<sup>152</sup> Eu	-2.2E-05 ± 2.2E-04		U
<sup>154</sup> Eu		2.0E-04 ± 2.7E-04	U	<sup>154</sup> Eu	-2.6E-05 ± 2.6E-04		U
<sup>155</sup> Eu		8.1E-05 ± 1.7E-04	U	<sup>155</sup> Eu	1.3E-04 ± 1.8E-04		U
<sup>238</sup> Pu		6.1E-07 ± 2.7E-06	U	<sup>238</sup> Pu	1.5E-05 ± 1.7E-05		U
<sup>239/240</sup> Pu		1.4E-04 ± 5.3E-05	U	<sup>239/240</sup> Pu	3.6E-04 ± 1.4E-04		U
<sup>106</sup> Ru		-5.5E-04 ± 6.9E-04	U	<sup>106</sup> Ru	1.2E-03 ± 1.0E-03		U
<sup>125</sup> Sb		-5.7E-05 ± 1.9E-04	U	<sup>125</sup> Sb	-1.2E-04 ± 2.3E-04		U
<sup>90</sup> Sr		-2.7E-05 ± 1.1E-04	U	<sup>90</sup> Sr	-1.6E-05 ± 9.6E-05		U
<sup>234</sup> U		8.4E-06 ± 6.0E-06	U	<sup>234</sup> U	1.5E-05 ± 9.2E-06		U
<sup>235</sup> U		3.8E-06 ± 4.3E-06	U	<sup>235</sup> U	4.9E-06 ± 5.0E-06		U
<sup>238</sup> U		1.0E-05 ± 7.0E-06	U	<sup>238</sup> U	1.4E-05 ± 8.8E-06		U
N168 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	-1.5E-05 ± 7.6E-05	U	N168 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	-1.5E-05 ± 7.0E-05	U	<sup>134</sup> Cs		2.8E-05 ± 6.1E-05	U
	<sup>137</sup> Cs	2.8E-05 ± 5.6E-05	U	<sup>137</sup> Cs		8.5E-05 ± 7.3E-05	U
	<sup>152</sup> Eu	-7.1E-05 ± 1.5E-04	U	<sup>152</sup> Eu		6.0E-05 ± 1.5E-04	U
	<sup>154</sup> Eu	1.6E-05 ± 1.6E-04	U	<sup>154</sup> Eu		4.5E-05 ± 2.0E-04	U
	<sup>155</sup> Eu	-3.0E-05 ± 1.3E-04	U	<sup>155</sup> Eu		4.2E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.2E-06 ± 1.7E-06	U	<sup>238</sup> Pu		-7.3E-06 ± 1.7E-05	U
	<sup>239/240</sup> Pu	4.1E-06 ± 3.4E-06	U	<sup>239/240</sup> Pu		5.8E-06 ± 6.2E-06	U
	<sup>106</sup> Ru	-2.2E-04 ± 4.9E-04	U	<sup>106</sup> Ru		2.2E-04 ± 5.8E-04	U
	<sup>125</sup> Sb	-6.4E-05 ± 1.3E-04	U	<sup>125</sup> Sb		-4.2E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	-7.8E-05 ± 9.7E-05	U	<sup>90</sup> Sr		5.4E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.8E-05 ± 1.0E-05	U	<sup>234</sup> U		2.2E-05 ± 1.2E-05	U
	<sup>235</sup> U	7.8E-06 ± 5.7E-06	U	<sup>235</sup> U		-9.2E-07 ± 3.2E-06	U
	<sup>238</sup> U	1.8E-05 ± 9.9E-06	U	<sup>238</sup> U		1.4E-05 ± 9.1E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N200 (200-W) Composite Period 12/20/05 to 06/20/06	<sup>60</sup> Co	-1.8E-05 ± 6.9E-05	U	N200 (200-W) Composite Period 06/20/06 to 01/03/07	<sup>60</sup> Co	-4.7E-05 ± 8.7E-05	U
	<sup>134</sup> Cs	-2.1E-05 ± 6.7E-05	U		<sup>134</sup> Cs	-1.1E-04 ± 1.1E-04	U
	<sup>137</sup> Cs	2.2E-05 ± 6.1E-05	U		<sup>137</sup> Cs	-7.9E-06 ± 6.9E-05	U
	<sup>152</sup> Eu	-2.2E-05 ± 1.4E-04	U		<sup>152</sup> Eu	-1.1E-04 ± 2.0E-04	U
	<sup>154</sup> Eu	-2.5E-05 ± 1.9E-04	U		<sup>154</sup> Eu	-1.9E-04 ± 2.5E-04	U
	<sup>155</sup> Eu	-2.8E-04 ± 2.9E-04	U		<sup>155</sup> Eu	-5.6E-05 ± 1.8E-04	U
	<sup>238</sup> Pu	2.2E-06 ± 2.4E-06			<sup>238</sup> Pu	-4.8E-06 ± 1.4E-05	U
	<sup>239/240</sup> Pu	1.1E-06 ± 1.6E-06	U		<sup>239/240</sup> Pu	6.8E-07 ± 6.8E-06	U
	<sup>106</sup> Ru	-3.4E-04 ± 6.1E-04	U		<sup>106</sup> Ru	-5.7E-05 ± 5.7E-04	U
	<sup>125</sup> Sb	1.1E-04 ± 1.5E-04	U		<sup>125</sup> Sb	8.0E-06 ± 8.0E-05	U
	<sup>90</sup> Sr	-2.4E-05 ± 1.0E-04	U		<sup>90</sup> Sr	1.2E-04 ± 1.1E-04	U
	<sup>234</sup> U	1.3E-05 ± 7.6E-06			<sup>234</sup> U	1.6E-05 ± 9.5E-06	
	<sup>235</sup> U	3.1E-06 ± 3.9E-06	U		<sup>235</sup> U	6.0E-06 ± 5.0E-06	
	<sup>238</sup> U	1.3E-05 ± 8.2E-06			<sup>238</sup> U	3.9E-06 ± 5.4E-06	U
	N304 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	1.5E-05 ± 7.2E-05		U	N304 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-3.3E-05 ± 6.5E-05	U	<sup>134</sup> Cs	4.7E-05 ± 6.2E-05		U
<sup>137</sup> Cs		-6.6E-06 ± 6.2E-05	U	<sup>137</sup> Cs	1.9E-05 ± 5.4E-05		U
<sup>152</sup> Eu		-4.0E-05 ± 1.4E-04	U	<sup>152</sup> Eu	3.6E-05 ± 1.3E-04		U
<sup>154</sup> Eu		7.6E-05 ± 2.0E-04	U	<sup>154</sup> Eu	3.9E-05 ± 1.9E-04		U
<sup>155</sup> Eu		-1.8E-05 ± 1.5E-04	U	<sup>155</sup> Eu	-2.6E-05 ± 1.2E-04		U
<sup>238</sup> Pu		1.1E-06 ± 1.7E-06	U	<sup>238</sup> Pu	8.8E-06 ± 1.2E-05		U
<sup>239/240</sup> Pu		5.7E-07 ± 2.0E-06	U	<sup>239/240</sup> Pu	2.0E-06 ± 4.1E-06		U
<sup>106</sup> Ru		1.1E-04 ± 5.5E-04	U	<sup>106</sup> Ru	-1.1E-04 ± 4.6E-04		U
<sup>125</sup> Sb		1.0E-04 ± 1.4E-04	U	<sup>125</sup> Sb	-8.7E-05 ± 1.2E-04		U
<sup>90</sup> Sr		-5.0E-06 ± 5.0E-05	U	<sup>90</sup> Sr	8.5E-05 ± 9.8E-05		U
<sup>234</sup> U		1.2E-05 ± 7.2E-06		<sup>234</sup> U	1.3E-05 ± 8.9E-06		
<sup>235</sup> U		2.2E-06 ± 2.6E-06		<sup>235</sup> U	1.6E-06 ± 3.2E-06		U
<sup>238</sup> U		9.2E-06 ± 6.4E-06		<sup>238</sup> U	1.1E-05 ± 7.0E-06		
N433 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	1.5E-04 ± 1.5E-04	U	N433 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	-1.1E-05 ± 1.1E-04	U	<sup>134</sup> Cs		2.4E-06 ± 2.4E-05	U
	<sup>137</sup> Cs	-9.8E-05 ± 1.1E-04	U	<sup>137</sup> Cs		1.2E-05 ± 6.6E-05	U
	<sup>152</sup> Eu	-9.5E-05 ± 2.5E-04	U	<sup>152</sup> Eu		-1.1E-04 ± 1.5E-04	U
	<sup>154</sup> Eu	-4.9E-05 ± 3.0E-04	U	<sup>154</sup> Eu		-1.8E-04 ± 2.3E-04	U
	<sup>155</sup> Eu	1.9E-04 ± 1.9E-04	U	<sup>155</sup> Eu		-2.7E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	2.3E-06 ± 3.4E-06	U	<sup>238</sup> Pu		8.1E-07 ± 8.1E-06	U
	<sup>239/240</sup> Pu	8.1E-06 ± 5.2E-06		<sup>239/240</sup> Pu		4.7E-06 ± 6.0E-06	U
	<sup>106</sup> Ru	5.4E-04 ± 9.3E-04	U	<sup>106</sup> Ru		1.3E-04 ± 5.7E-04	U
	<sup>125</sup> Sb	-1.1E-05 ± 1.1E-04	U	<sup>125</sup> Sb		-2.1E-06 ± 2.1E-05	U
	<sup>90</sup> Sr	-2.4E-05 ± 1.2E-04	U	<sup>90</sup> Sr		1.5E-05 ± 1.1E-04	U
	<sup>234</sup> U	9.9E-06 ± 6.8E-06		<sup>234</sup> U		1.3E-05 ± 8.5E-06	
	<sup>235</sup> U	2.3E-06 ± 4.2E-06	U	<sup>235</sup> U		6.4E-06 ± 5.1E-06	
	<sup>238</sup> U	7.8E-06 ± 5.5E-06		<sup>238</sup> U		1.0E-05 ± 6.7E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N441 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-3.6E-05 ± 7.1E-05	U	N441 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	6.8E-05 ± 7.5E-05	U
	<sup>134</sup> Cs	-2.6E-05 ± 6.5E-05	U		<sup>134</sup> Cs	-5.7E-05 ± 7.6E-05	U
	<sup>137</sup> Cs	9.6E-05 ± 9.5E-05	U		<sup>137</sup> Cs	2.0E-04 ± 1.4E-04	U
	<sup>152</sup> Eu	-6.5E-05 ± 1.5E-04	U		<sup>152</sup> Eu	-2.8E-05 ± 1.5E-04	U
	<sup>154</sup> Eu	-1.1E-04 ± 2.4E-04	U		<sup>154</sup> Eu	6.2E-05 ± 2.2E-04	U
	<sup>155</sup> Eu	1.2E-04 ± 1.4E-04	U		<sup>155</sup> Eu	-7.5E-05 ± 1.6E-04	U
	<sup>238</sup> Pu	1.0E-06 ± 1.5E-06	U		<sup>238</sup> Pu	2.9E-06 ± 1.4E-05	U
	<sup>239/240</sup> Pu	3.1E-06 ± 2.7E-06	U		<sup>239/240</sup> Pu	2.9E-06 ± 4.3E-06	U
	<sup>106</sup> Ru	3.3E-04 ± 5.7E-04	U		<sup>106</sup> Ru	3.4E-05 ± 3.4E-04	U
	<sup>125</sup> Sb	9.3E-05 ± 1.4E-04	U		<sup>125</sup> Sb	-1.2E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-4.6E-05 ± 1.0E-04	U		<sup>90</sup> Sr	1.3E-05 ± 9.1E-05	U
	<sup>234</sup> U	1.0E-05 ± 6.1E-06	U		<sup>234</sup> U	1.2E-05 ± 7.9E-06	U
	<sup>235</sup> U	5.9E-07 ± 6.1E-07	U		<sup>235</sup> U	5.9E-06 ± 4.7E-06	U
	<sup>238</sup> U	5.9E-06 ± 4.3E-06	U		<sup>238</sup> U	8.8E-06 ± 6.6E-06	U
	N442 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-1.7E-05 ± 1.0E-04		U	N442 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-2.5E-06 ± 2.5E-05	U	<sup>134</sup> Cs	4.6E-05 ± 5.7E-05		U
<sup>137</sup> Cs		-1.6E-05 ± 9.8E-05	U	<sup>137</sup> Cs	6.7E-05 ± 6.6E-05		U
<sup>152</sup> Eu		5.6E-05 ± 2.3E-04	U	<sup>152</sup> Eu	-1.5E-06 ± 1.5E-05		U
<sup>154</sup> Eu		2.9E-04 ± 3.6E-04	U	<sup>154</sup> Eu	4.0E-05 ± 1.7E-04		U
<sup>155</sup> Eu		2.2E-04 ± 1.9E-04	U	<sup>155</sup> Eu	-7.1E-05 ± 1.2E-04		U
<sup>238</sup> Pu		-6.3E-07 ± 2.8E-06	U	<sup>238</sup> Pu	2.9E-06 ± 1.3E-05		U
<sup>239/240</sup> Pu		2.5E-06 ± 2.7E-06	U	<sup>239/240</sup> Pu	4.3E-06 ± 4.8E-06		U
<sup>106</sup> Ru		1.7E-04 ± 9.2E-04	U	<sup>106</sup> Ru	7.3E-05 ± 4.7E-04		U
<sup>125</sup> Sb		-2.0E-04 ± 2.5E-04	U	<sup>125</sup> Sb	3.2E-05 ± 1.1E-04		U
<sup>90</sup> Sr		-2.6E-05 ± 1.1E-04	U	<sup>90</sup> Sr	5.1E-04 ± 1.9E-04		U
<sup>234</sup> U		8.6E-06 ± 5.8E-06	U	<sup>234</sup> U	1.3E-05 ± 7.8E-06		U
<sup>235</sup> U		2.2E-06 ± 3.3E-06	U	<sup>235</sup> U	6.5E-06 ± 5.0E-06		U
<sup>238</sup> U		3.3E-06 ± 3.7E-06	U	<sup>238</sup> U	8.0E-06 ± 6.1E-06		U
N449 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	1.3E-05 ± 6.7E-05	U	N449 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	7.8E-06 ± 5.9E-05	U	<sup>134</sup> Cs		4.0E-05 ± 5.5E-05	U
	<sup>137</sup> Cs	1.9E-05 ± 6.1E-05	U	<sup>137</sup> Cs		-2.2E-06 ± 2.2E-05	U
	<sup>152</sup> Eu	-2.1E-04 ± 2.1E-04	U	<sup>152</sup> Eu		6.8E-05 ± 1.2E-04	U
	<sup>154</sup> Eu	7.6E-05 ± 2.0E-04	U	<sup>154</sup> Eu		-6.2E-05 ± 1.7E-04	U
	<sup>155</sup> Eu	1.3E-05 ± 1.3E-04	U	<sup>155</sup> Eu		-3.9E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	-6.6E-07 ± 1.3E-06	U	<sup>238</sup> Pu		8.9E-06 ± 8.8E-06	U
	<sup>239/240</sup> Pu	5.2E-06 ± 4.5E-06	U	<sup>239/240</sup> Pu		2.7E-06 ± 2.9E-06	U
	<sup>106</sup> Ru	-1.6E-04 ± 5.6E-04	U	<sup>106</sup> Ru		-1.2E-04 ± 4.7E-04	U
	<sup>125</sup> Sb	8.4E-06 ± 8.4E-05	U	<sup>125</sup> Sb		3.3E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-8.4E-05 ± 1.0E-04	U	<sup>90</sup> Sr		6.5E-05 ± 9.5E-05	U
	<sup>234</sup> U	6.8E-06 ± 5.7E-06	U	<sup>234</sup> U		7.5E-06 ± 6.3E-06	U
	<sup>235</sup> U	6.8E-07 ± 6.8E-06	U	<sup>235</sup> U		3.7E-06 ± 3.6E-06	U
	<sup>238</sup> U	3.4E-06 ± 3.8E-06	U	<sup>238</sup> U		8.1E-06 ± 5.9E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*		
N456 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-3.1E-05 ± 1.1E-04	U	N456 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-2.3E-05 ± 1.4E-04	U		
	<sup>134</sup> Cs	9.4E-05 ± 1.1E-04	U		<sup>134</sup> Cs	7.9E-05 ± 1.1E-04	U		
	<sup>137</sup> Cs	8.3E-05 ± 1.0E-04	U		<sup>137</sup> Cs	-1.4E-05 ± 1.0E-04	U		
	<sup>152</sup> Eu	1.4E-04 ± 2.3E-04	U		<sup>152</sup> Eu	-6.6E-05 ± 2.3E-04	U		
	<sup>154</sup> Eu	3.7E-05 ± 3.0E-04	U		<sup>154</sup> Eu	8.9E-06 ± 8.9E-05	U		
	<sup>155</sup> Eu	6.8E-05 ± 1.8E-04	U		<sup>155</sup> Eu	5.2E-05 ± 1.8E-04	U		
	<sup>238</sup> Pu	-6.0E-07 ± 2.1E-06	U		<sup>238</sup> Pu	7.4E-07 ± 7.7E-07	U		
	<sup>239/240</sup> Pu	6.0E-07 ± 1.2E-06	U		<sup>239/240</sup> Pu	3.0E-06 ± 3.9E-06	U		
	<sup>106</sup> Ru	-8.4E-04 ± 9.8E-04	U		<sup>106</sup> Ru	3.5E-04 ± 8.7E-04	U		
	<sup>125</sup> Sb	-4.5E-05 ± 2.4E-04	U		<sup>125</sup> Sb	-2.0E-05 ± 2.0E-04	U		
	<sup>90</sup> Sr	-4.9E-05 ± 1.2E-04	U		<sup>90</sup> Sr	-4.8E-05 ± 9.5E-05	U		
	<sup>234</sup> U	8.4E-06 ± 5.6E-06			<sup>234</sup> U	1.3E-05 ± 8.3E-06			
	<sup>235</sup> U	4.3E-06 ± 4.3E-06	U		<sup>235</sup> U	1.6E-06 ± 4.0E-06	U		
	<sup>238</sup> U	7.8E-06 ± 5.7E-06			<sup>238</sup> U	9.6E-06 ± 6.8E-06			
	N457 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-4.8E-05 ± 7.1E-05		U	N457 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	5.6E-05 ± 8.0E-05	U
		<sup>134</sup> Cs	3.8E-06 ± 3.8E-05		U		<sup>134</sup> Cs	2.8E-05 ± 5.8E-05	U
<sup>137</sup> Cs		3.0E-06 ± 3.0E-05	U	<sup>137</sup> Cs	1.9E-05 ± 6.2E-05		U		
<sup>152</sup> Eu		-2.1E-05 ± 1.5E-04	U	<sup>152</sup> Eu	-1.0E-04 ± 1.4E-04		U		
<sup>154</sup> Eu		5.7E-05 ± 1.6E-04	U	<sup>154</sup> Eu	-6.4E-06 ± 6.4E-05		U		
<sup>155</sup> Eu		-4.7E-06 ± 4.7E-05	U	<sup>155</sup> Eu	4.4E-05 ± 1.5E-04		U		
<sup>238</sup> Pu		5.9E-07 ± 6.1E-07	U	<sup>238</sup> Pu	6.9E-07 ± 7.2E-07		U		
<sup>239/240</sup> Pu		4.7E-06 ± 3.7E-06		<sup>239/240</sup> Pu	1.4E-06 ± 2.9E-06		U		
<sup>106</sup> Ru		-1.8E-04 ± 5.4E-04	U	<sup>106</sup> Ru	1.4E-05 ± 1.4E-04		U		
<sup>125</sup> Sb		6.3E-05 ± 1.3E-04	U	<sup>125</sup> Sb	-6.3E-05 ± 1.3E-04		U		
<sup>90</sup> Sr		-1.1E-04 ± 1.1E-04	U	<sup>90</sup> Sr	-9.7E-05 ± 9.3E-05		U		
<sup>234</sup> U		1.2E-05 ± 7.8E-06		<sup>234</sup> U	6.8E-06 ± 5.7E-06				
<sup>235</sup> U		3.8E-06 ± 4.8E-06	U	<sup>235</sup> U	6.8E-07 ± 7.1E-07		U		
<sup>238</sup> U		1.2E-05 ± 7.5E-06		<sup>238</sup> U	8.2E-06 ± 5.9E-06				
N550 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	1.7E-05 ± 6.9E-05	U	N550 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co	-4.6E-06 ± 4.7E-05	U
		<sup>134</sup> Cs	5.6E-05 ± 6.9E-05	U			<sup>134</sup> Cs	-6.0E-05 ± 1.0E-04	U
	<sup>137</sup> Cs	3.1E-05 ± 6.6E-05	U	<sup>137</sup> Cs		3.2E-04 ± 1.8E-04	U		
	<sup>152</sup> Eu	-9.7E-05 ± 1.5E-04	U	<sup>152</sup> Eu		-1.4E-04 ± 2.2E-04	U		
	<sup>154</sup> Eu	3.2E-06 ± 3.2E-05	U	<sup>154</sup> Eu		3.2E-05 ± 2.7E-04	U		
	<sup>155</sup> Eu	5.5E-05 ± 1.6E-04	U	<sup>155</sup> Eu		-1.8E-05 ± 1.5E-04	U		
	<sup>238</sup> Pu	5.7E-07 ± 5.9E-07	U	<sup>238</sup> Pu		2.5E-06 ± 1.1E-05	U		
	<sup>239/240</sup> Pu	4.5E-06 ± 3.6E-06		<sup>239/240</sup> Pu		6.7E-06 ± 5.3E-06			
	<sup>106</sup> Ru	5.6E-05 ± 5.6E-04	U	<sup>106</sup> Ru		-3.1E-05 ± 3.2E-04	U		
	<sup>125</sup> Sb	3.5E-05 ± 1.4E-04	U	<sup>125</sup> Sb		-4.5E-05 ± 2.0E-04	U		
	<sup>90</sup> Sr	-1.7E-04 ± 1.8E-04	U	<sup>90</sup> Sr		7.1E-05 ± 1.0E-04	U		
	<sup>234</sup> U	2.3E-05 ± 1.2E-05		<sup>234</sup> U		2.8E-05 ± 1.4E-05			
	<sup>235</sup> U	4.3E-06 ± 4.8E-06	U	<sup>235</sup> U		4.9E-06 ± 4.2E-06			
	<sup>238</sup> U	1.8E-05 ± 9.6E-06		<sup>238</sup> U		2.9E-05 ± 1.4E-05			

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



Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N554 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	6.7E-05 ± 9.1E-05	U	N554 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-5.6E-05 ± 6.3E-05	U
	<sup>134</sup> Cs	5.1E-05 ± 7.7E-05	U		<sup>134</sup> Cs	-7.1E-06 ± 5.8E-05	U
	<sup>137</sup> Cs	2.5E-05 ± 6.6E-05	U		<sup>137</sup> Cs	7.9E-05 ± 6.2E-05	U
	<sup>152</sup> Eu	-9.8E-06 ± 9.8E-05	U		<sup>152</sup> Eu	-8.5E-05 ± 1.2E-04	U
	<sup>154</sup> Eu	3.7E-05 ± 2.1E-04	U		<sup>154</sup> Eu	2.0E-04 ± 2.0E-04	U
	<sup>155</sup> Eu	-2.1E-05 ± 1.6E-04	U		<sup>155</sup> Eu	-5.1E-05 ± 1.2E-04	U
	<sup>238</sup> Pu	2.5E-06 ± 4.0E-06	U		<sup>238</sup> Pu	5.0E-06 ± 1.1E-05	U
	<sup>239/240</sup> Pu	4.3E-06 ± 3.6E-06	U		<sup>239/240</sup> Pu	3.5E-05 ± 1.8E-05	U
	<sup>106</sup> Ru	1.7E-04 ± 6.3E-04	U		<sup>106</sup> Ru	8.8E-05 ± 6.1E-04	U
	<sup>125</sup> Sb	-8.6E-05 ± 1.8E-04	U		<sup>125</sup> Sb	-3.1E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-1.2E-04 ± 1.3E-04	U		<sup>90</sup> Sr	6.8E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.4E-05 ± 7.9E-06	U		<sup>234</sup> U	1.5E-05 ± 9.4E-06	U
	<sup>235</sup> U	4.3E-06 ± 3.9E-06	U		<sup>235</sup> U	8.5E-07 ± 3.0E-06	U
	<sup>238</sup> U	1.7E-05 ± 9.3E-06	U		<sup>238</sup> U	9.3E-06 ± 7.1E-06	U
	N555 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-7.0E-06 ± 7.0E-05		U	N555 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		2.3E-06 ± 2.3E-05	U	<sup>134</sup> Cs	5.5E-05 ± 1.2E-04		U
<sup>137</sup> Cs		1.2E-05 ± 5.9E-05	U	<sup>137</sup> Cs	3.8E-05 ± 1.1E-04		U
<sup>152</sup> Eu		-7.8E-05 ± 1.4E-04	U	<sup>152</sup> Eu	1.4E-06 ± 1.4E-05		U
<sup>154</sup> Eu		7.0E-05 ± 1.9E-04	U	<sup>154</sup> Eu	6.9E-05 ± 2.9E-04		U
<sup>155</sup> Eu		-6.6E-05 ± 1.5E-04	U	<sup>155</sup> Eu	-2.0E-05 ± 1.6E-04		U
<sup>238</sup> Pu		1.1E-06 ± 1.7E-06	U	<sup>238</sup> Pu	-1.1E-06 ± 8.7E-06		U
<sup>239/240</sup> Pu		2.3E-06 ± 2.9E-06	U	<sup>239/240</sup> Pu	2.1E-06 ± 5.2E-06		U
<sup>106</sup> Ru		3.8E-04 ± 5.6E-04	U	<sup>106</sup> Ru	2.6E-04 ± 8.3E-04		U
<sup>125</sup> Sb		4.2E-06 ± 4.2E-05	U	<sup>125</sup> Sb	-5.0E-05 ± 2.2E-04		U
<sup>90</sup> Sr		3.4E-05 ± 1.0E-04	U	<sup>90</sup> Sr	4.1E-05 ± 1.0E-04		U
<sup>234</sup> U		9.0E-06 ± 6.6E-06	U	<sup>234</sup> U	1.3E-05 ± 8.4E-06		U
<sup>235</sup> U		7.6E-07 ± 3.4E-06	U	<sup>235</sup> U	2.5E-06 ± 3.1E-06		U
<sup>238</sup> U		9.7E-06 ± 6.7E-06	U	<sup>238</sup> U	7.8E-06 ± 6.9E-06		U
N956 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	-1.5E-05 ± 1.1E-04	U	N956 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	2.1E-05 ± 1.1E-04	U	<sup>134</sup> Cs		6.5E-05 ± 7.7E-05	U
	<sup>137</sup> Cs	1.3E-04 ± 1.3E-04	U	<sup>137</sup> Cs		2.6E-04 ± 1.4E-04	U
	<sup>152</sup> Eu	-1.1E-04 ± 2.2E-04	U	<sup>152</sup> Eu		-6.6E-05 ± 1.6E-04	U
	<sup>154</sup> Eu	1.9E-04 ± 3.5E-04	U	<sup>154</sup> Eu		1.5E-05 ± 1.6E-04	U
	<sup>155</sup> Eu	8.3E-05 ± 1.8E-04	U	<sup>155</sup> Eu		1.3E-05 ± 1.3E-04	U
	<sup>238</sup> Pu	-2.4E-06 ± 1.1E-05	U	<sup>238</sup> Pu		-2.5E-06 ± 3.1E-06	U
	<sup>239/240</sup> Pu	1.6E-06 ± 3.2E-06	U	<sup>239/240</sup> Pu		4.3E-06 ± 4.0E-06	U
	<sup>106</sup> Ru	-4.4E-04 ± 9.3E-04	U	<sup>106</sup> Ru		3.2E-04 ± 6.7E-04	U
	<sup>125</sup> Sb	5.2E-05 ± 2.2E-04	U	<sup>125</sup> Sb		-1.1E-07 ± 1.1E-06	U
	<sup>90</sup> Sr	1.0E-04 ± 1.1E-04	U	<sup>90</sup> Sr		1.5E-04 ± 1.2E-04	U
	<sup>234</sup> U	1.2E-05 ± 7.4E-06	U	<sup>234</sup> U		5.4E-06 ± 5.5E-06	U
	<sup>235</sup> U	6.2E-06 ± 4.9E-06	U	<sup>235</sup> U		3.7E-06 ± 3.6E-06	U
	<sup>238</sup> U	7.1E-06 ± 5.2E-06	U	<sup>238</sup> U		1.1E-05 ± 6.7E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N963 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	6.9E-06 ± 6.8E-05	U	N963 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	-4.3E-05 ± 6.5E-05	U
	<sup>134</sup> Cs	3.0E-05 ± 5.9E-05	U		<sup>134</sup> Cs	-9.4E-06 ± 5.6E-05	U
	<sup>137</sup> Cs	8.4E-06 ± 5.6E-05	U		<sup>137</sup> Cs	4.2E-05 ± 5.9E-05	U
	<sup>152</sup> Eu	3.4E-05 ± 1.3E-04	U		<sup>152</sup> Eu	9.7E-06 ± 9.7E-05	U
	<sup>154</sup> Eu	6.5E-05 ± 2.1E-04	U		<sup>154</sup> Eu	7.1E-05 ± 1.8E-04	U
	<sup>155</sup> Eu	-3.6E-05 ± 1.4E-04	U		<sup>155</sup> Eu	-9.7E-07 ± 9.7E-06	U
	<sup>238</sup> Pu	1.4E-05 ± 1.4E-05	U		<sup>238</sup> Pu	-2.2E-06 ± 4.9E-06	U
	<sup>239/240</sup> Pu	3.9E-06 ± 5.0E-06	U		<sup>239/240</sup> Pu	1.5E-06 ± 2.9E-06	U
	<sup>106</sup> Ru	8.5E-04 ± 6.7E-04	U		<sup>106</sup> Ru	-8.4E-05 ± 4.3E-04	U
	<sup>125</sup> Sb	-1.5E-04 ± 1.6E-04	U		<sup>125</sup> Sb	-2.8E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-9.9E-05 ± 1.0E-04	U		<sup>90</sup> Sr	-8.0E-05 ± 1.0E-04	U
	<sup>234</sup> U	9.3E-06 ± 6.6E-06			<sup>234</sup> U	7.1E-06 ± 4.8E-06	
	<sup>235</sup> U	3.9E-06 ± 3.8E-06			<sup>235</sup> U	6.0E-07 ± 6.0E-06	U
	<sup>238</sup> U	6.5E-06 ± 5.7E-06	U		<sup>238</sup> U	4.2E-06 ± 3.8E-06	U
	N964 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-8.3E-06 ± 7.1E-05		U	N964 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-3.3E-05 ± 6.6E-05	U	<sup>134</sup> Cs	-6.0E-05 ± 6.2E-05		U
<sup>137</sup> Cs		-1.1E-06 ± 1.1E-05	U	<sup>137</sup> Cs	3.7E-05 ± 5.6E-05		U
<sup>152</sup> Eu		1.7E-04 ± 1.6E-04	U	<sup>152</sup> Eu	-5.2E-05 ± 1.2E-04		U
<sup>154</sup> Eu		5.4E-05 ± 1.9E-04	U	<sup>154</sup> Eu	1.5E-05 ± 1.5E-04		U
<sup>155</sup> Eu		7.0E-05 ± 1.6E-04	U	<sup>155</sup> Eu	-2.2E-05 ± 1.3E-04		U
<sup>238</sup> Pu		-5.3E-06 ± 8.8E-06	U	<sup>238</sup> Pu	2.0E-06 ± 3.0E-06		U
<sup>239/240</sup> Pu		1.1E-05 ± 7.6E-06		<sup>239/240</sup> Pu	1.3E-06 ± 1.9E-06		U
<sup>106</sup> Ru		2.5E-04 ± 5.3E-04	U	<sup>106</sup> Ru	1.8E-04 ± 5.0E-04		U
<sup>125</sup> Sb		-1.8E-05 ± 1.4E-04	U	<sup>125</sup> Sb	-9.2E-05 ± 1.2E-04		U
<sup>90</sup> Sr		-1.4E-04 ± 1.4E-04	U	<sup>90</sup> Sr	-6.6E-05 ± 1.0E-04		U
<sup>234</sup> U		9.0E-06 ± 6.0E-06		<sup>234</sup> U	7.3E-06 ± 4.8E-06		
<sup>235</sup> U		3.0E-06 ± 3.2E-06		<sup>235</sup> U	7.0E-07 ± 2.4E-06		U
<sup>238</sup> U		6.2E-06 ± 5.2E-06		<sup>238</sup> U	9.0E-06 ± 5.5E-06		
N965 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	4.3E-06 ± 4.3E-05	U	N965 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	-2.2E-05 ± 6.6E-05	U	<sup>134</sup> Cs		7.5E-05 ± 6.4E-05	U
	<sup>137</sup> Cs	3.7E-05 ± 6.3E-05	U	<sup>137</sup> Cs		-1.6E-05 ± 5.3E-05	U
	<sup>152</sup> Eu	-3.8E-05 ± 1.4E-04	U	<sup>152</sup> Eu		-2.8E-05 ± 1.1E-04	U
	<sup>154</sup> Eu	7.5E-06 ± 7.5E-05	U	<sup>154</sup> Eu		-8.0E-05 ± 2.0E-04	U
	<sup>155</sup> Eu	9.4E-06 ± 9.4E-05	U	<sup>155</sup> Eu		-6.8E-05 ± 1.2E-04	U
	<sup>238</sup> Pu	6.9E-07 ± 6.9E-06	U	<sup>238</sup> Pu		7.2E-07 ± 7.5E-07	U
	<sup>239/240</sup> Pu	6.9E-07 ± 1.4E-06	U	<sup>239/240</sup> Pu		4.1E-06 ± 3.7E-06	
	<sup>106</sup> Ru	-1.7E-05 ± 1.7E-04	U	<sup>106</sup> Ru		-3.3E-06 ± 3.3E-05	U
	<sup>125</sup> Sb	-1.4E-04 ± 1.6E-04	U	<sup>125</sup> Sb		2.9E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-4.2E-06 ± 4.2E-05	U	<sup>90</sup> Sr		2.7E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.3E-05 ± 7.9E-06		<sup>234</sup> U		8.8E-06 ± 5.5E-06	
	<sup>235</sup> U	1.6E-06 ± 3.9E-06	U	<sup>235</sup> U		1.4E-06 ± 2.1E-06	U
	<sup>238</sup> U	5.1E-06 ± 4.3E-06		<sup>238</sup> U		4.7E-06 ± 3.7E-06	

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N966 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	3.1E-06 ± 3.1E-05	U	N966 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	5.5E-05 ± 6.2E-05	U
	<sup>134</sup> Cs	4.6E-05 ± 6.9E-05	U		<sup>134</sup> Cs	1.8E-07 ± 1.8E-06	U
	<sup>137</sup> Cs	7.4E-05 ± 6.6E-05	U		<sup>137</sup> Cs	1.6E-05 ± 5.3E-05	U
	<sup>152</sup> Eu	-8.6E-05 ± 1.4E-04	U		<sup>152</sup> Eu	-1.2E-04 ± 1.3E-04	U
	<sup>154</sup> Eu	3.7E-05 ± 2.5E-04	U		<sup>154</sup> Eu	-8.0E-05 ± 1.7E-04	U
	<sup>155</sup> Eu	1.1E-04 ± 1.4E-04	U		<sup>155</sup> Eu	4.4E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.3E-06 ± 5.0E-06	U		<sup>238</sup> Pu	1.7E-06 ± 2.6E-06	U
	<sup>239/240</sup> Pu	4.0E-06 ± 4.1E-06	U		<sup>239/240</sup> Pu	2.8E-06 ± 2.7E-06	U
	<sup>106</sup> Ru	2.8E-04 ± 5.6E-04	U		<sup>106</sup> Ru	1.6E-04 ± 4.7E-04	U
	<sup>125</sup> Sb	-7.4E-06 ± 7.4E-05	U		<sup>125</sup> Sb	4.3E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	4.6E-05 ± 1.1E-04	U		<sup>90</sup> Sr	2.1E-05 ± 1.1E-04	U
	<sup>234</sup> U	8.5E-06 ± 6.0E-06	U		<sup>234</sup> U	2.1E-05 ± 1.2E-05	U
	<sup>235</sup> U	3.6E-06 ± 3.5E-06	U		<sup>235</sup> U	2.7E-06 ± 4.0E-06	U
	<sup>238</sup> U	1.1E-05 ± 6.8E-06	U		<sup>238</sup> U	1.3E-05 ± 8.9E-06	U
	N974 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-3.5E-05 ± 7.1E-05		U	N974 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		4.8E-05 ± 1.0E-04	U	<sup>134</sup> Cs	1.1E-05 ± 6.8E-05		U
<sup>137</sup> Cs		-2.2E-05 ± 6.4E-05	U	<sup>137</sup> Cs	7.3E-05 ± 6.8E-05		U
<sup>152</sup> Eu		-3.8E-05 ± 1.7E-04	U	<sup>152</sup> Eu	-8.1E-05 ± 1.4E-04		U
<sup>154</sup> Eu		-8.7E-05 ± 2.5E-04	U	<sup>154</sup> Eu	3.7E-05 ± 2.2E-04		U
<sup>155</sup> Eu		-2.9E-05 ± 1.7E-04	U	<sup>155</sup> Eu	-3.9E-05 ± 1.4E-04		U
<sup>238</sup> Pu		2.5E-06 ± 5.0E-06	U	<sup>238</sup> Pu	8.8E-06 ± 1.1E-05		U
<sup>239/240</sup> Pu		6.2E-07 ± 6.4E-07	U	<sup>239/240</sup> Pu	6.1E-06 ± 6.2E-06		U
<sup>106</sup> Ru		1.5E-04 ± 6.7E-04	U	<sup>106</sup> Ru	-1.3E-04 ± 5.4E-04		U
<sup>125</sup> Sb		1.2E-04 ± 1.6E-04	U	<sup>125</sup> Sb	7.6E-05 ± 1.3E-04		U
<sup>90</sup> Sr		-2.1E-05 ± 1.2E-04	U	<sup>90</sup> Sr	-7.4E-05 ± 1.2E-04		U
<sup>234</sup> U		6.9E-06 ± 7.1E-06	U	<sup>234</sup> U	6.5E-06 ± 6.6E-06		U
<sup>235</sup> U		1.7E-06 ± 2.4E-06	U	<sup>235</sup> U	4.0E-06 ± 4.3E-06		U
<sup>238</sup> U		7.6E-06 ± 5.6E-06	U	<sup>238</sup> U	1.5E-05 ± 9.2E-06		U
N975 (200-W) Composite Period 12/19/05 to 06/19/06		<sup>60</sup> Co	4.6E-05 ± 1.2E-04	U	N975 (200-W) Composite Period 06/19/06 to 01/02/07		<sup>60</sup> Co
	<sup>134</sup> Cs	1.1E-04 ± 1.2E-04	U	<sup>134</sup> Cs		3.2E-06 ± 3.2E-05	U
	<sup>137</sup> Cs	-3.8E-05 ± 1.0E-04	U	<sup>137</sup> Cs		-1.9E-05 ± 5.2E-05	U
	<sup>152</sup> Eu	-1.0E-04 ± 2.4E-04	U	<sup>152</sup> Eu		-4.8E-05 ± 1.4E-04	U
	<sup>154</sup> Eu	-3.2E-05 ± 3.2E-04	U	<sup>154</sup> Eu		2.2E-05 ± 1.9E-04	U
	<sup>155</sup> Eu	2.9E-05 ± 1.8E-04	U	<sup>155</sup> Eu		-1.5E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	-1.7E-06 ± 4.2E-06	U	<sup>238</sup> Pu		7.1E-06 ± 9.4E-06	U
	<sup>239/240</sup> Pu	1.6E-05 ± 8.4E-06	U	<sup>239/240</sup> Pu		7.1E-06 ± 6.7E-06	U
	<sup>106</sup> Ru	-4.2E-05 ± 4.2E-04	U	<sup>106</sup> Ru		-3.0E-04 ± 5.3E-04	U
	<sup>125</sup> Sb	-1.4E-05 ± 1.4E-04	U	<sup>125</sup> Sb		-6.1E-05 ± 1.2E-04	U
	<sup>90</sup> Sr	-1.4E-05 ± 1.1E-04	U	<sup>90</sup> Sr		-6.4E-05 ± 1.1E-04	U
	<sup>234</sup> U	9.8E-06 ± 6.4E-06	U	<sup>234</sup> U		1.2E-05 ± 7.5E-06	U
	<sup>235</sup> U	1.5E-06 ± 3.8E-06	U	<sup>235</sup> U		4.3E-06 ± 4.8E-06	U
	<sup>238</sup> U	8.5E-06 ± 6.1E-06	U	<sup>238</sup> U		9.4E-06 ± 7.3E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N987 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	-3.9E-05 ± 8.1E-05	U	N987 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co	4.2E-05 ± 7.7E-05	U
	<sup>134</sup> Cs	-2.1E-05 ± 6.2E-05	U		<sup>134</sup> Cs	6.3E-07 ± 6.3E-06	U
	<sup>137</sup> Cs	1.1E-05 ± 6.2E-05	U		<sup>137</sup> Cs	1.3E-04 ± 1.0E-04	U
	<sup>152</sup> Eu	-3.8E-05 ± 1.5E-04	U		<sup>152</sup> Eu	-1.1E-04 ± 1.6E-04	U
	<sup>154</sup> Eu	-7.9E-05 ± 2.1E-04	U		<sup>154</sup> Eu	2.0E-05 ± 2.1E-04	U
	<sup>155</sup> Eu	-8.8E-06 ± 8.8E-05	U		<sup>155</sup> Eu	6.0E-05 ± 1.5E-04	U
	<sup>238</sup> Pu	1.0E-05 ± 1.6E-05	U		<sup>238</sup> Pu	6.9E-07 ± 7.2E-07	U
	<sup>239/240</sup> Pu	4.5E-05 ± 2.1E-05	U		<sup>239/240</sup> Pu	2.1E-06 ± 2.5E-06	U
	<sup>106</sup> Ru	-2.4E-04 ± 5.9E-04	U		<sup>106</sup> Ru	-3.7E-04 ± 5.9E-04	U
	<sup>125</sup> Sb	-3.7E-05 ± 1.4E-04	U		<sup>125</sup> Sb	-1.1E-04 ± 1.5E-04	U
	<sup>90</sup> Sr	-1.2E-04 ± 1.2E-04	U		<sup>90</sup> Sr	6.6E-05 ± 1.1E-04	U
	<sup>234</sup> U	6.5E-06 ± 6.7E-06	U		<sup>234</sup> U	8.9E-06 ± 5.9E-06	U
	<sup>235</sup> U	1.6E-06 ± 2.3E-06	U		<sup>235</sup> U	3.9E-06 ± 3.8E-06	U
	<sup>238</sup> U	7.2E-06 ± 5.3E-06	U		<sup>238</sup> U	8.9E-06 ± 5.7E-06	U
	N994 (200-W) Composite Period 12/19/05 to 06/19/06	<sup>60</sup> Co	5.4E-05 ± 8.5E-05		U	N994 (200-W) Composite Period 06/19/06 to 01/02/07	<sup>60</sup> Co
<sup>134</sup> Cs		-1.3E-05 ± 7.9E-05	U	<sup>134</sup> Cs	-3.3E-05 ± 9.6E-05		U
<sup>137</sup> Cs		3.4E-05 ± 7.2E-05	U	<sup>137</sup> Cs	-2.4E-05 ± 9.3E-05		U
<sup>152</sup> Eu		-2.5E-05 ± 1.6E-04	U	<sup>152</sup> Eu	-1.1E-04 ± 2.1E-04		U
<sup>154</sup> Eu		-2.3E-04 ± 2.4E-04	U	<sup>154</sup> Eu	-1.1E-04 ± 2.7E-04		U
<sup>155</sup> Eu		-3.4E-05 ± 1.6E-04	U	<sup>155</sup> Eu	-3.1E-06 ± 3.1E-05		U
<sup>238</sup> Pu		1.2E-05 ± 1.5E-05	U	<sup>238</sup> Pu	2.6E-06 ± 3.8E-06		U
<sup>239/240</sup> Pu		1.4E-06 ± 2.8E-06	U	<sup>239/240</sup> Pu	2.0E-06 ± 2.4E-06		U
<sup>106</sup> Ru		-2.4E-04 ± 6.6E-04	U	<sup>106</sup> Ru	-4.0E-04 ± 8.2E-04		U
<sup>125</sup> Sb		-4.0E-05 ± 1.5E-04	U	<sup>125</sup> Sb	2.3E-05 ± 2.1E-04		U
<sup>90</sup> Sr		-4.9E-05 ± 1.1E-04	U	<sup>90</sup> Sr	-8.2E-05 ± 1.1E-04		U
<sup>234</sup> U		9.3E-06 ± 6.1E-06	U	<sup>234</sup> U	9.7E-06 ± 5.7E-06		U
<sup>235</sup> U		2.2E-06 ± 3.9E-06	U	<sup>235</sup> U	1.3E-06 ± 2.7E-06		U
<sup>238</sup> U		5.3E-06 ± 4.6E-06	U	<sup>238</sup> U	3.2E-06 ± 2.9E-06		U
N527 (300 Area) Composite Period 12/22/05 to 06/20/06		<sup>60</sup> Co	-6.0E-05 ± 7.3E-05	U	N527 (300 Area) Composite Period 06/20/06 to 01/03/07		<sup>60</sup> Co
	<sup>134</sup> Cs	3.7E-06 ± 3.7E-05	U	<sup>134</sup> Cs		-6.5E-08 ± 6.5E-07	U
	<sup>137</sup> Cs	2.5E-05 ± 5.5E-05	U	<sup>137</sup> Cs		2.4E-05 ± 8.5E-05	U
	<sup>152</sup> Eu	-1.1E-04 ± 1.4E-04	U	<sup>152</sup> Eu		-1.1E-05 ± 1.1E-04	U
	<sup>154</sup> Eu	4.9E-05 ± 1.6E-04	U	<sup>154</sup> Eu		-4.8E-05 ± 2.5E-04	U
	<sup>155</sup> Eu	5.9E-05 ± 1.5E-04	U	<sup>155</sup> Eu		6.1E-06 ± 6.1E-05	U
	<sup>238</sup> Pu	1.3E-06 ± 3.2E-06	U	<sup>238</sup> Pu		6.0E-06 ± 4.8E-06	U
	<sup>239/240</sup> Pu	6.6E-07 ± 1.3E-06	U	<sup>239/240</sup> Pu		5.5E-07 ± 5.7E-07	U
	<sup>106</sup> Ru	4.5E-04 ± 5.6E-04	U	<sup>106</sup> Ru		1.0E-04 ± 7.1E-04	U
	<sup>125</sup> Sb	1.1E-04 ± 1.3E-04	U	<sup>125</sup> Sb		-1.9E-05 ± 1.9E-04	U
	<sup>234</sup> U	1.4E-05 ± 8.1E-06	U	<sup>234</sup> U		1.8E-05 ± 1.0E-05	U
	<sup>235</sup> U	1.4E-06 ± 2.9E-06	U	<sup>235</sup> U		7.0E-07 ± 3.7E-06	U
	<sup>238</sup> U	1.2E-05 ± 7.9E-06	U	<sup>238</sup> U		8.3E-06 ± 5.6E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N130 (300 Area)	<sup>60</sup> Co	-7.1E-05 ± 1.1E-04	U	N130 (300 Area)	<sup>60</sup> Co	2.7E-05 ± 7.2E-05	U
Composite Period	<sup>134</sup> Cs	3.3E-05 ± 1.1E-04	U	Composite Period	<sup>134</sup> Cs	-4.4E-06 ± 4.4E-05	U
12/22/05 to 06/20/06	<sup>137</sup> Cs	3.1E-05 ± 9.9E-05	U	06/20/06 to 01/03/07	<sup>137</sup> Cs	-1.2E-05 ± 5.5E-05	U
	<sup>152</sup> Eu	-1.0E-04 ± 2.3E-04	U		<sup>152</sup> Eu	-4.5E-05 ± 1.4E-04	U
	<sup>154</sup> Eu	-2.4E-04 ± 3.2E-04	U		<sup>154</sup> Eu	-4.3E-05 ± 2.5E-04	U
	<sup>155</sup> Eu	-3.0E-05 ± 1.8E-04	U		<sup>155</sup> Eu	-9.7E-06 ± 9.8E-05	U
	<sup>238</sup> Pu	-7.9E-07 ± 4.7E-06	U		<sup>238</sup> Pu	2.4E-06 ± 2.3E-06	
	<sup>239/240</sup> Pu	7.9E-07 ± 1.6E-06	U		<sup>239/240</sup> Pu	9.6E-07 ± 1.4E-06	U
	<sup>106</sup> Ru	3.7E-05 ± 3.7E-04	U		<sup>106</sup> Ru	-1.3E-05 ± 1.3E-04	U
	<sup>125</sup> Sb	-4.5E-05 ± 2.2E-04	U		<sup>125</sup> Sb	3.3E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	2.1E-05 ± 1.0E-04	U		<sup>90</sup> Sr	3.7E-05 ± 9.0E-05	U
	<sup>234</sup> U	1.3E-05 ± 8.4E-06			<sup>234</sup> U	1.2E-05 ± 7.9E-06	
	<sup>235</sup> U	1.5E-06 ± 2.2E-06	U		<sup>235</sup> U	7.1E-07 ± 1.4E-06	U
	<sup>238</sup> U	9.8E-06 ± 6.4E-06			<sup>238</sup> U	7.1E-06 ± 5.4E-06	
<hr/>				<hr/>			
N557 (300 Area)	<sup>60</sup> Co	-3.6E-06 ± 3.6E-05	U	N557 (300 Area)	<sup>60</sup> Co	1.1E-05 ± 1.1E-04	U
Composite Period	<sup>134</sup> Cs	5.4E-05 ± 1.2E-04	U	Composite Period	<sup>134</sup> Cs	1.8E-05 ± 1.5E-04	U
12/22/05 to 03/28/06	<sup>137</sup> Cs	-9.1E-05 ± 1.1E-04	U	03/28/06 to 06/20/06	<sup>137</sup> Cs	-8.3E-06 ± 8.3E-05	U
	<sup>152</sup> Eu	1.3E-04 ± 2.7E-04	U		<sup>152</sup> Eu	3.6E-05 ± 3.1E-04	U
	<sup>154</sup> Eu	8.2E-05 ± 4.1E-04	U		<sup>154</sup> Eu	4.8E-04 ± 4.7E-04	U
	<sup>155</sup> Eu	8.5E-05 ± 3.0E-04	U		<sup>155</sup> Eu	2.5E-05 ± 2.5E-04	U
	<sup>238</sup> Pu	7.2E-06 ± 2.5E-05	U		<sup>238</sup> Pu	5.5E-05 ± 4.4E-05	
	<sup>239/240</sup> Pu	2.9E-06 ± 5.8E-06	U		<sup>239/240</sup> Pu	6.5E-06 ± 1.2E-05	
	<sup>106</sup> Ru	3.7E-04 ± 1.0E-03	U		<sup>106</sup> Ru	3.1E-04 ± 1.2E-03	U
	<sup>125</sup> Sb	-2.6E-04 ± 2.7E-04	U		<sup>125</sup> Sb	3.5E-05 ± 2.9E-04	U
	<sup>90</sup> Sr	-9.3E-05 ± 1.6E-04	U		<sup>90</sup> Sr	-9.4E-05 ± 1.6E-04	U
	<sup>234</sup> U	3.3E-05 ± 1.6E-05			<sup>234</sup> U	3.1E-05 ± 1.9E-05	
	<sup>235</sup> U	5.2E-06 ± 5.5E-06			<sup>235</sup> U	5.4E-06 ± 8.2E-06	U
	<sup>238</sup> U	1.2E-05 ± 7.8E-06			<sup>238</sup> U	3.6E-05 ± 2.0E-05	
<hr/>				<hr/>			
N557 (300 Area)	<sup>60</sup> Co	-3.6E-05 ± 1.3E-04	U	N557 (300 Area)	<sup>60</sup> Co	-2.4E-05 ± 1.5E-04	U
Composite Period	<sup>134</sup> Cs	-5.2E-05 ± 1.1E-04	U	Composite Period	<sup>134</sup> Cs	4.5E-05 ± 1.5E-04	U
06/20/06 to 09/26/06	<sup>137</sup> Cs	7.6E-05 ± 1.2E-04	U	09/26/06 to 01/03/07	<sup>137</sup> Cs	4.0E-05 ± 1.2E-04	U
	<sup>152</sup> Eu	-5.3E-05 ± 2.9E-04	U		<sup>152</sup> Eu	3.7E-04 ± 3.3E-04	U
	<sup>154</sup> Eu	3.5E-04 ± 3.8E-04	U		<sup>154</sup> Eu	-2.2E-04 ± 4.1E-04	U
	<sup>155</sup> Eu	-4.0E-05 ± 2.7E-04	U		<sup>155</sup> Eu	-8.2E-05 ± 3.0E-04	U
	<sup>238</sup> Pu	1.5E-06 ± 1.5E-05	U		<sup>238</sup> Pu	3.5E-06 ± 4.2E-06	
	<sup>239/240</sup> Pu	3.0E-06 ± 4.3E-06	U		<sup>239/240</sup> Pu	1.2E-06 ± 1.2E-05	U
	<sup>106</sup> Ru	-1.4E-04 ± 1.0E-03	U		<sup>106</sup> Ru	1.6E-04 ± 1.2E-03	U
	<sup>125</sup> Sb	6.7E-05 ± 2.6E-04	U		<sup>125</sup> Sb	4.7E-05 ± 2.8E-04	U
	<sup>90</sup> Sr	1.9E-04 ± 2.1E-04	U		<sup>90</sup> Sr	-6.6E-05 ± 1.9E-04	U
	<sup>234</sup> U	3.0E-05 ± 1.8E-05			<sup>234</sup> U	1.6E-05 ± 1.0E-05	
	<sup>235</sup> U	5.5E-06 ± 5.8E-06			<sup>235</sup> U	4.2E-06 ± 6.4E-06	U
	<sup>238</sup> U	3.4E-05 ± 1.8E-05			<sup>238</sup> U	6.8E-06 ± 6.8E-06	U

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

Table 2-4. Near-Facility Air Sampling Results, 2006 (pCi/m<sup>3</sup> ± total analytical uncertainty).  
(27 sheets total)

Location	Isotope	Result ± Uncertainty	RQ*	Location	Isotope	Result ± Uncertainty	RQ*
N981 (600 Area)	<sup>60</sup> Co	4.8E-05 ± 1.2E-04	U	N981 (600 Area)	<sup>60</sup> Co	1.4E-04 ± 6.3E-05	
Composite Period	<sup>134</sup> Cs	1.2E-04 ± 1.3E-04	U	Composite Period	<sup>134</sup> Cs	3.2E-06 ± 3.3E-05	U
12/20/05 to 06/20/06	<sup>137</sup> Cs	3.3E-05 ± 1.1E-04	U	06/20/06 to 01/03/07	<sup>137</sup> Cs	-4.0E-06 ± 4.0E-05	U
	<sup>152</sup> Eu	4.2E-05 ± 2.4E-04	U		<sup>152</sup> Eu	7.4E-06 ± 7.4E-05	U
	<sup>154</sup> Eu	5.8E-05 ± 2.9E-04	U		<sup>154</sup> Eu	-4.2E-05 ± 1.7E-04	U
	<sup>155</sup> Eu	1.2E-04 ± 1.9E-04	U		<sup>155</sup> Eu	-7.5E-06 ± 7.5E-05	U
	<sup>238</sup> Pu	4.0E-06 ± 1.7E-05	U		<sup>238</sup> Pu	5.5E-07 ± 5.7E-07	U
	<sup>239/240</sup> Pu	7.9E-07 ± 4.8E-06	U		<sup>239/240</sup> Pu	5.5E-07 ± 5.7E-07	U
	<sup>106</sup> Ru	-1.4E-04 ± 1.0E-03	U		<sup>106</sup> Ru	3.3E-04 ± 5.1E-04	U
	<sup>125</sup> Sb	-2.2E-05 ± 2.2E-04	U		<sup>125</sup> Sb	4.4E-05 ± 1.3E-04	U
	<sup>90</sup> Sr	-1.0E-04 ± 1.1E-04	U		<sup>90</sup> Sr	3.7E-05 ± 1.1E-04	U
	<sup>234</sup> U	1.2E-05 ± 7.3E-06			<sup>234</sup> U	2.7E-06 ± 3.4E-06	U
	<sup>235</sup> U	1.5E-06 ± 2.2E-06	U		<sup>235</sup> U	2.5E-06 ± 3.0E-06	
	<sup>238</sup> U	3.4E-06 ± 4.3E-06	U		<sup>238</sup> U	4.7E-06 ± 4.0E-06	

Table 2-5. Supplemental PNNL Air Sampling Results, 2006  
(pCi/m<sup>3</sup> ± total analytical uncertainty). (5 sheets total)

Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*	Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*
<b>100 B</b>	01/03/06 to 01/30/06	<sup>3</sup> H	2.0E+00 ± 9.2E-01		<b>100 B SE</b>	01/03/06 to 01/30/06	<sup>3</sup> H	1.2E+00 ± 5.5E-01	
	01/30/06 to 02/27/06	<sup>3</sup> H	2.7E+00 ± 7.1E-01			01/30/06 to 02/27/06	<sup>3</sup> H	1.1E+00 ± 3.4E-01	
	02/27/06 to 03/29/06	<sup>3</sup> H	3.2E+00 ± 1.2E+00			02/27/06 to 03/29/06	<sup>3</sup> H	3.3E+00 ± 6.2E-01	
	03/29/06 to 04/24/06	<sup>3</sup> H	3.3E+00 ± 1.2E+00			03/29/06 to 04/24/06	<sup>3</sup> H	6.1E-01 ± 5.4E-01	
	04/24/06 to 05/22/06	<sup>3</sup> H	1.5E+00 ± 9.7E-01			04/24/06 to 05/22/06	<sup>3</sup> H	9.8E+00 ± 1.1E+00	
	05/22/06 to 06/21/06	<sup>3</sup> H	1.9E+01 ± 3.7E+00			05/22/06 to 06/21/06	<sup>3</sup> H	7.0E-01 ± 7.4E-01	
	06/21/06 to 07/18/06	<sup>3</sup> H	3.5E+00 ± 8.8E-01			06/21/06 to 07/18/06	<sup>3</sup> H	1.1E+00 ± 7.4E-01	
	07/18/06 to 08/15/06	<sup>3</sup> H	2.2E+00 ± 1.2E+00			07/18/06 to 08/15/06	<sup>3</sup> H	4.6E+00 ± 1.1E+00	
	08/15/06 to 09/15/06	<sup>3</sup> H	1.5E+00 ± 9.4E-01			08/15/06 to 09/15/06	<sup>3</sup> H	2.3E+00 ± 9.4E-01	
	09/15/06 to 10/09/06	<sup>3</sup> H	6.4E+00 ± 1.9E+00			09/15/06 to 10/09/06	<sup>3</sup> H	7.0E+00 ± 1.6E+00	
	10/09/06 to 11/06/06	<sup>3</sup> H	2.5E+00 ± 1.3E+00			10/09/06 to 11/06/06	<sup>3</sup> H	5.8E+00 ± 1.2E+00	
	11/06/06 to 12/04/06	<sup>3</sup> H	1.2E+01 ± 2.6E+00			11/06/06 to 12/04/06	<sup>3</sup> H	9.7E+00 ± 1.8E+00	
	12/04/06 to 01/02/07	<sup>3</sup> H	6.7E+00 ± 1.7E+00			12/04/06 to 01/02/07	<sup>3</sup> H	3.5E+00 ± 8.5E-01	
<b>E 100 K Area</b>	03/30/06 to 05/08/06	<sup>3</sup> H	1.1E+00 ± 5.2E-01		<b>100 K Area</b>	12/19/05 to 01/17/06	<sup>3</sup> H	1.1E+00 ± 5.5E-01	
	05/08/06 to 06/06/06	<sup>3</sup> H	3.8E+00 ± 7.2E-01			01/17/06 to 02/14/06	<sup>3</sup> H	1.1E+00 ± 5.1E-01	
	06/06/06 to 07/05/06	<sup>3</sup> H	7.8E-01 ± 5.6E-01			02/14/06 to 03/15/06	<sup>3</sup> H	4.4E+00 ± 7.2E-01	
	07/05/06 to 08/01/06	<sup>3</sup> H	2.9E+00 ± 9.9E-01			03/15/06 to 04/10/06	<sup>3</sup> H	2.8E+00 ± 6.4E-01	
	08/01/06 to 08/28/06	<sup>3</sup> H	5.9E+00 ± 1.3E+00			04/10/06 to 04/24/06	<sup>3</sup> H	2.3E+00 ± 6.7E-01	
	08/28/06 to 09/22/06	<sup>3</sup> H	6.9E+00 ± 1.7E+00			04/24/06 to 05/08/06	<sup>3</sup> H	3.2E+01 ± 4.0E+00	
	09/22/06 to 10/23/06	<sup>3</sup> H	3.8E+00 ± 1.1E+00			05/08/06 to 06/06/06	<sup>3</sup> H	5.4E+00 ± 1.2E+00	
	10/23/06 to 11/20/06	<sup>3</sup> H	3.9E+00 ± 1.0E+00			06/06/06 to 07/05/06	<sup>3</sup> H	1.6E+00 ± 7.8E-01	
	11/20/06 to 12/18/06	<sup>3</sup> H	2.9E+00 ± 7.1E-01			07/05/06 to 08/01/06	<sup>3</sup> H	2.4E+00 ± 9.0E-01	
	12/18/06 to 01/15/07	<sup>3</sup> H	1.0E+01 ± 1.8E+00			08/01/06 to 08/28/06	<sup>3</sup> H	7.7E-01 ± 1.9E-01	
						08/28/06 to 09/22/06	<sup>3</sup> H	2.1E+00 ± 8.1E-01	
				09/22/06 to 10/23/06	<sup>3</sup> H	5.5E+00 ± 1.3E+00			
				10/23/06 to 11/20/06	<sup>3</sup> H	2.2E+00 ± 7.4E-01			
				11/20/06 to 12/18/06	<sup>3</sup> H	7.9E-01 ± 3.9E-01			
<b>200 W SE</b>	12/27/05 to 04/04/06	<sup>60</sup> Co	2.4E-05 ± 2.4E-04	U	<b>200 W SE</b>	04/05/06 to 06/27/06	<sup>60</sup> Co	1.8E-04 ± 9.9E-04	U
		<sup>134</sup> Cs	2.5E-04 ± 6.2E-04	U			<sup>134</sup> Cs	8.7E-05 ± 6.3E-04	U
		<sup>137</sup> Cs	2.6E-04 ± 4.4E-04	U			<sup>137</sup> Cs	1.7E-04 ± 4.8E-04	U
		<sup>152</sup> Eu	2.0E-04 ± 1.2E-03	U			<sup>152</sup> Eu	2.1E-04 ± 1.9E-03	U
		<sup>154</sup> Eu	1.6E-04 ± 1.6E-03	U			<sup>154</sup> Eu	8.2E-04 ± 1.9E-03	U
		<sup>155</sup> Eu	5.0E-04 ± 9.2E-04	U			<sup>155</sup> Eu	2.2E-04 ± 1.4E-03	U
		<sup>40</sup> K	4.3E-03 ± 1.3E-02	U			<sup>40</sup> K	7.4E-03 ± 1.6E-02	U
		<sup>238</sup> Pu	7.6E-07 ± 1.6E-06	U			<sup>238</sup> Pu	3.7E-07 ± 2.5E-06	U
		<sup>239/240</sup> Pu	1.5E-06 ± 1.9E-06	U			<sup>239/240</sup> Pu	3.4E-06 ± 3.5E-06	U
		<sup>106</sup> Ru	3.0E-03 ± 5.1E-03	U			<sup>106</sup> Ru	3.6E-03 ± 7.8E-03	U
		<sup>125</sup> Sb	5.5E-04 ± 1.2E-03	U			<sup>125</sup> Sb	4.7E-05 ± 4.7E-04	U
		<sup>234</sup> U	3.0E-05 ± 2.9E-04	U			<sup>90</sup> Sr	2.2E-05 ± 7.5E-05	U
		<sup>235</sup> U	3.4E-06 ± 1.6E-05	U			<sup>234</sup> U	3.0E-05 ± 2.8E-04	U
<sup>238</sup> U	1.1E-05 ± 6.5E-06		<sup>235</sup> U	3.1E-06 ± 1.6E-05	U				
<b>200 W SE</b>	06/27/06 to 10/02/06	<sup>60</sup> Co	1.3E-04 ± 7.0E-04	U	<b>200 W SE</b>	10/02/06 to 12/27/06	<sup>60</sup> Co	4.8E-04 ± 1.0E-03	U
		<sup>134</sup> Cs	3.5E-04 ± 5.5E-04	U			<sup>134</sup> Cs	3.1E-04 ± 9.6E-04	U
		<sup>137</sup> Cs	1.8E-04 ± 5.6E-04	U			<sup>137</sup> Cs	2.5E-04 ± 7.3E-04	U
		<sup>152</sup> Eu	8.7E-05 ± 8.7E-04	U			<sup>152</sup> Eu	9.1E-05 ± 9.1E-04	U
		<sup>154</sup> Eu	9.1E-05 ± 9.1E-04	U			<sup>154</sup> Eu	1.9E-03 ± 3.4E-03	U
		<sup>155</sup> Eu	1.3E-04 ± 8.8E-04	U			<sup>155</sup> Eu	4.0E-04 ± 1.3E-03	U
		<sup>40</sup> K	2.2E-03 ± 7.6E-03	U			<sup>40</sup> K	2.2E-03 ± 1.9E-02	U
		<sup>238</sup> Pu	3.2E-07 ± 2.6E-06	U			<sup>238</sup> Pu	1.1E-06 ± 2.6E-06	U
		<sup>239/240</sup> Pu	5.2E-06 ± 4.3E-06				<sup>239/240</sup> Pu	5.7E-07 ± 3.1E-06	U
		<sup>106</sup> Ru	1.2E-03 ± 4.6E-03	U			<sup>106</sup> Ru	1.5E-03 ± 8.4E-03	U
		<sup>125</sup> Sb	5.1E-04 ± 1.3E-03	U			<sup>125</sup> Sb	6.7E-04 ± 1.9E-03	U
		<sup>234</sup> U	8.6E-06 ± 8.6E-05	U			<sup>234</sup> U	1.8E-05 ± 1.8E-04	U
		<sup>235</sup> U	1.1E-06 ± 1.1E-05	U			<sup>235</sup> U	2.2E-06 ± 1.5E-05	U
<sup>238</sup> U	2.3E-05 ± 1.0E-05		<sup>238</sup> U	6.8E-06 ± 8.2E-06	U				

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

Table 2-5. Supplemental PNNL Air Sampling Results, 2006  
(pCi/m<sup>3</sup> ± total analytical uncertainty). (5 sheets total)

Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*	Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*
300 Area	01/04/06 to 03/30/06	<sup>60</sup> Co	2.0E-04 ± 2.4E-04	U	300 Area	03/30/06 to 07/06/06	<sup>60</sup> Co	7.0E-05 ± 2.4E-04	U
		<sup>134</sup> Cs	7.9E-05 ± 2.5E-04	U			<sup>134</sup> Cs	1.2E-04 ± 2.0E-04	U
		<sup>137</sup> Cs	2.9E-04 ± 3.6E-04	U			<sup>137</sup> Cs	1.9E-04 ± 2.6E-04	U
		<sup>152</sup> Eu	1.5E-04 ± 5.5E-04	U			<sup>152</sup> Eu	4.8E-04 ± 4.4E-04	U
		<sup>154</sup> Eu	3.1E-04 ± 7.6E-04	U			<sup>154</sup> Eu	6.9E-04 ± 7.2E-04	U
		<sup>155</sup> Eu	2.7E-04 ± 4.7E-04	U			<sup>155</sup> Eu	2.3E-05 ± 2.3E-04	U
		<sup>40</sup> K	9.3E-03 ± 5.8E-03	U			<sup>40</sup> K	4.7E-03 ± 4.4E-03	U
		<sup>238</sup> Pu	1.3E-07 ± 4.2E-07	U			<sup>238</sup> Pu	8.4E-07 ± 1.2E-06	U
		<sup>239/240</sup> Pu	1.9E-07 ± 7.6E-07	U			<sup>239/240</sup> Pu	2.6E-06 ± 2.0E-06	U
		<sup>106</sup> Ru	2.0E-04 ± 2.0E-03	U			<sup>106</sup> Ru	8.1E-05 ± 8.1E-04	U
		<sup>125</sup> Sb	9.7E-05 ± 4.8E-04	U			<sup>125</sup> Sb	3.2E-04 ± 4.5E-04	U
		<sup>90</sup> Sr	4.2E-06 ± 2.0E-05	U			<sup>90</sup> Sr	1.8E-06 ± 1.8E-05	U
		<sup>234</sup> U	2.3E-05 ± 1.0E-04	U			<sup>234</sup> U	4.3E-06 ± 4.3E-05	U
		<sup>235</sup> U	3.5E-08 ± 3.5E-07	U			<sup>235</sup> U	7.1E-07 ± 4.8E-06	U
		<sup>238</sup> U	1.8E-05 ± 5.2E-06	U			<sup>238</sup> U	1.4E-05 ± 4.9E-06	U
		300 Area	07/06/06 to 09/27/06	<sup>60</sup> Co			6.2E-05 ± 2.0E-04	U	300 Area
<sup>134</sup> Cs	1.0E-04 ± 3.1E-04			U	<sup>134</sup> Cs	2.0E-05 ± 2.0E-04	U		
<sup>137</sup> Cs	6.7E-05 ± 2.3E-04			U	<sup>137</sup> Cs	7.5E-05 ± 1.9E-04	U		
<sup>152</sup> Eu	3.0E-04 ± 6.6E-04			U	<sup>152</sup> Eu	2.1E-05 ± 2.1E-04	U		
<sup>154</sup> Eu	3.3E-04 ± 7.6E-04			U	<sup>154</sup> Eu	5.6E-04 ± 6.6E-04	U		
<sup>155</sup> Eu	7.0E-04 ± 5.3E-04			U	<sup>155</sup> Eu	4.3E-05 ± 3.3E-04	U		
<sup>40</sup> K	4.0E-04 ± 4.0E-03			U	<sup>40</sup> K	6.0E-03 ± 4.2E-03	U		
<sup>238</sup> Pu	4.3E+00 ± 4.3E-01			U	<sup>238</sup> Pu	7.4E+00 ± 7.4E-01	U		
<sup>239/240</sup> Pu	1.3E-07 ± 4.6E-07			U	<sup>239/240</sup> Pu	6.4E-07 ± 1.1E-06	U		
<sup>106</sup> Ru	1.2E-03 ± 3.5E-03			U	<sup>106</sup> Ru	1.9E-05 ± 1.9E-04	U		
<sup>125</sup> Sb	2.1E-06 ± 2.1E-05			U	<sup>125</sup> Sb	4.6E-05 ± 4.6E-04	U		
<sup>90</sup> Sr	1.1E-05 ± 1.8E-05			U	<sup>90</sup> Sr	1.7E-06 ± 1.7E-05	U		
<sup>234</sup> U	1.0E-05 ± 8.4E-05			U	<sup>234</sup> U	1.4E-05 ± 7.3E-05	U		
<sup>235</sup> U	1.3E-06 ± 4.8E-06			U	<sup>235</sup> U	4.9E+00 ± 4.9E-01	U		
<sup>238</sup> U	2.0E-05 ± 5.7E-06			U	<sup>238</sup> U	2.4E-05 ± 6.4E-06	U		
300 NE	01/04/06 to 03/30/06			<sup>60</sup> Co	7.5E-04 ± 8.1E-04	U	300 NE	03/30/06 to 07/06/06	
		<sup>134</sup> Cs	7.5E-04 ± 7.4E-04	U	<sup>134</sup> Cs	3.0E-04 ± 9.4E-04			U
		<sup>137</sup> Cs	1.4E-04 ± 8.3E-04	U	<sup>137</sup> Cs	2.2E-04 ± 6.9E-04			U
		<sup>152</sup> Eu	1.8E-03 ± 1.9E-03	U	<sup>152</sup> Eu	1.3E-04 ± 1.2E-03			U
		<sup>154</sup> Eu	8.7E-04 ± 3.1E-03	U	<sup>154</sup> Eu	9.1E-04 ± 1.9E-03			U
		<sup>155</sup> Eu	5.7E-04 ± 1.6E-03	U	<sup>155</sup> Eu	1.6E-04 ± 9.7E-04			U
		<sup>40</sup> K	1.0E-02 ± 2.1E-02	U	<sup>40</sup> K	1.2E-03 ± 1.2E-02			U
		<sup>238</sup> Pu	1.3E-07 ± 1.1E-06	U	<sup>238</sup> Pu	1.5E-06 ± 1.6E-06			U
		<sup>239/240</sup> Pu	1.5E-06 ± 2.4E-06	U	<sup>239/240</sup> Pu	1.6E-06 ± 2.5E-06			U
		<sup>106</sup> Ru	1.9E-03 ± 8.3E-03	U	<sup>106</sup> Ru	4.2E-04 ± 4.2E-03			U
		<sup>125</sup> Sb	8.7E-04 ± 1.6E-03	U	<sup>125</sup> Sb	5.5E-04 ± 1.8E-03			U
		<sup>90</sup> Sr	5.0E-05 ± 9.7E-05	U	<sup>90</sup> Sr	1.9E-05 ± 5.6E-05			U
		<sup>234</sup> U	2.7E-05 ± 2.7E-04	U	<sup>234</sup> U	1.0E-05 ± 1.0E-04			U
		<sup>235</sup> U	3.6E-06 ± 1.7E-05	U	<sup>235</sup> U	6.4E-06 ± 1.6E-05			U
		<sup>238</sup> U	1.5E-05 ± 8.2E-06	U	<sup>238</sup> U	1.2E-05 ± 7.0E-06			U
		300 NE	07/06/06 to 09/27/06	<sup>60</sup> Co	6.1E-04 ± 1.1E-03	U			300 NE
<sup>134</sup> Cs	4.0E-04 ± 9.3E-04			U	<sup>134</sup> Cs	1.2E-04 ± 9.4E-04	U		
<sup>137</sup> Cs	2.8E-04 ± 9.1E-04			U	<sup>137</sup> Cs	1.4E-04 ± 8.8E-04	U		
<sup>152</sup> Eu	1.2E-04 ± 1.2E-03			U	<sup>152</sup> Eu	6.8E-04 ± 1.8E-03	U		
<sup>154</sup> Eu	1.6E-03 ± 3.5E-03			U	<sup>154</sup> Eu	1.2E-03 ± 2.4E-03	U		
<sup>155</sup> Eu	1.1E-03 ± 1.8E-03			U	<sup>155</sup> Eu	4.0E-04 ± 1.2E-03	U		
<sup>40</sup> K	9.1E-04 ± 9.1E-03			U	<sup>40</sup> K	5.4E-04 ± 5.4E-03	U		
<sup>238</sup> Pu	2.3E-06 ± 4.5E-06			U	<sup>238</sup> Pu	1.3E-06 ± 2.5E-06	U		
<sup>239/240</sup> Pu	1.1E-06 ± 3.2E-06			U	<sup>239/240</sup> Pu	1.1E-07 ± 1.1E-06	U		
<sup>106</sup> Ru	4.3E-03 ± 8.5E-03			U	<sup>106</sup> Ru	2.4E-03 ± 7.3E-03	U		
<sup>125</sup> Sb	1.0E-04 ± 1.0E-03			U	<sup>125</sup> Sb	1.0E-03 ± 1.9E-03	U		
<sup>90</sup> Sr	8.2E-05 ± 7.2E-05			U	<sup>90</sup> Sr	3.6E-05 ± 5.8E-05	U		
<sup>234</sup> U	7.4E-06 ± 7.4E-05			U	<sup>234</sup> U	4.8E-06 ± 4.8E-05	U		
<sup>235</sup> U	1.6E-06 ± 1.6E-05			U	<sup>235</sup> U	1.7E-06 ± 1.4E-05	U		
<sup>238</sup> U	2.4E-05 ± 1.0E-05			U	<sup>238</sup> U	2.2E-05 ± 1.1E-05	U		

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



Table 2-5. Supplemental PNNL Air Sampling Results, 2006  
(pCi/m<sup>3</sup> ± total analytical uncertainty). (5 sheets total)

Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*	Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*
300 NE	01/04/06 to 01/18/06	<sup>3</sup> H	1.1E+01 ± 2.2E+00		300 South Gate	12/20/06 to 01/18/06	<sup>3</sup> H	8.0E+00 ± 1.2E+00	
	01/31/06 to 02/15/06	<sup>3</sup> H	6.9E+00 ± 1.1E+00			12/20/06 to 01/18/06	<sup>3</sup> H	7.5E+00 ± 9.0E-01	
	03/01/06 to 03/16/06	<sup>3</sup> H	4.9E+01 ± 6.0E+00			01/18/06 to 02/15/06	<sup>3</sup> H	7.8E+00 ± 1.2E+00	
	03/30/06 to 04/11/06	<sup>3</sup> H	1.3E+01 ± 2.4E+00			01/18/06 to 02/15/06	<sup>3</sup> H	6.2E+00 ± 7.7E-01	
	04/25/06 to 05/11/06	<sup>3</sup> H	5.0E+00 ± 8.4E-01			02/15/06 to 03/16/06	<sup>3</sup> H	4.5E+01 ± 5.6E+00	
	05/23/06 to 06/07/06	<sup>3</sup> H	6.7E+00 ± 1.3E+00			02/15/06 to 03/16/06	<sup>3</sup> H	2.5E+01 ± 1.9E+00	
	06/23/06 to 07/06/06	<sup>3</sup> H	7.2E+00 ± 1.7E+00			03/16/06 to 04/11/06	<sup>3</sup> H	5.6E+00 ± 1.1E+00	
	07/19/06 to 08/02/06	<sup>3</sup> H	4.2E+00 ± 1.1E+00			03/16/06 to 04/11/06	<sup>3</sup> H	1.3E+01 ± 1.3E+00	
	08/17/06 to 08/30/06	<sup>3</sup> H	6.0E+00 ± 1.4E+00			04/11/06 to 05/11/06	<sup>3</sup> H	3.7E+00 ± 6.6E-01	
	09/18/06 to 09/27/06	<sup>3</sup> H	6.0E+00 ± 1.5E+00			04/11/06 to 05/11/06	<sup>3</sup> H	1.8E+01 ± 2.3E+00	
	10/10/06 to 10/26/06	<sup>3</sup> H	8.0E+00 ± 1.8E+00			05/11/06 to 06/07/06	<sup>3</sup> H	2.2E+01 ± 3.0E+00	
	11/09/06 to 11/22/06	<sup>3</sup> H	1.5E+01 ± 2.7E+00			05/11/06 to 06/07/06	<sup>3</sup> H	4.9E+00 ± 1.0E+00	
	12/05/06 to 12/21/06	<sup>3</sup> H	6.6E+00 ± 1.3E+00			06/07/06 to 07/06/06	<sup>3</sup> H	1.0E+01 ± 2.3E+00	
						06/07/06 to 07/06/06	<sup>3</sup> H	6.9E+00 ± 1.6E+00	
300 South West	01/04/06 to 01/18/06	<sup>3</sup> H	7.1E+00 ± 1.2E+00		07/06/06 to 08/02/06	<sup>3</sup> H	6.5E+00 ± 1.5E+00		
	01/31/06 to 02/15/06	<sup>3</sup> H	5.9E+00 ± 1.0E+00		07/06/06 to 08/02/06	<sup>3</sup> H	4.6E+00 ± 1.1E+00		
	03/01/06 to 03/16/06	<sup>3</sup> H	5.2E+01 ± 6.3E+00		08/02/06 to 08/30/06	<sup>3</sup> H	7.4E+00 ± 1.4E+00		
	03/30/06 to 04/11/06	<sup>3</sup> H	6.5E+00 ± 1.2E+00		08/02/06 to 08/30/06	<sup>3</sup> H	6.1E+00 ± 1.3E+00		
	04/25/06 to 05/11/06	<sup>3</sup> H	6.6E+00 ± 1.0E+00		08/30/06 to 09/27/06	<sup>3</sup> H	7.6E+00 ± 1.8E+00		
	05/23/06 to 06/07/06	<sup>3</sup> H	5.0E+00 ± 1.2E+00		08/30/06 to 09/27/06	<sup>3</sup> H	4.9E+00 ± 1.3E+00		
	06/23/06 to 07/06/06	<sup>3</sup> H	1.0E+01 ± 2.2E+00		09/27/06 to 10/26/06	<sup>3</sup> H	8.7E+00 ± 2.0E+00		
	07/19/06 to 08/02/06	<sup>3</sup> H	4.3E+00 ± 1.2E+00		09/27/06 to 10/26/06	<sup>3</sup> H	6.8E+00 ± 1.5E+00		
	08/17/06 to 08/30/06	<sup>3</sup> H	6.7E+00 ± 1.4E+00		10/26/06 to 11/22/06	<sup>3</sup> H	2.4E+01 ± 4.1E+00		
	09/18/06 to 09/27/06	<sup>3</sup> H	5.9E+00 ± 1.5E+00		10/26/06 to 11/22/06	<sup>3</sup> H	2.6E+01 ± 3.7E+00		
	10/10/06 to 10/26/06	<sup>3</sup> H	8.6E+00 ± 1.9E+00		11/22/06 to 12/21/06	<sup>3</sup> H	6.3E+00 ± 1.3E+00		
	11/09/06 to 11/22/06	<sup>3</sup> H	1.8E+01 ± 3.2E+00		11/22/06 to 12/21/06	<sup>3</sup> H	5.5E+00 ± 9.5E-01		
	12/05/06 to 12/21/06	<sup>3</sup> H	3.5E+00 ± 8.9E-01						
	300 Trench	01/04/06 to 03/30/06	<sup>60</sup> Co	2.1E-04 ± 5.9E-04	U	300 Trench	03/30/06 to 07/06/06	<sup>60</sup> Co	3.4E-05 ± 3.4E-04
<sup>134</sup> Cs			6.7E-04 ± 7.3E-04	U	<sup>134</sup> Cs			6.7E-04 ± 5.1E-04	U
<sup>137</sup> Cs			3.1E-05 ± 3.1E-04	U	<sup>137</sup> Cs			1.2E-04 ± 4.6E-04	U
<sup>152</sup> Eu			1.5E-04 ± 1.5E-03	U	<sup>152</sup> Eu			1.0E-03 ± 1.3E-03	U
<sup>154</sup> Eu			5.3E-04 ± 1.9E-03	U	<sup>154</sup> Eu			2.1E-03 ± 1.7E-03	U
<sup>155</sup> Eu			5.9E-04 ± 1.2E-03	U	<sup>155</sup> Eu			5.2E-04 ± 1.1E-03	U
<sup>40</sup> K			2.4E-03 ± 1.0E-02	U	<sup>40</sup> K			7.8E-03 ± 9.8E-03	U
<sup>238</sup> Pu			4.0E-07 ± 1.5E-06	U	<sup>238</sup> Pu			4.7E-07 ± 2.9E-06	U
<sup>239/240</sup> Pu			1.1E-05 ± 5.1E-06	U	<sup>239/240</sup> Pu			1.5E-05 ± 9.2E-06	U
<sup>106</sup> Ru			1.2E-03 ± 6.0E-03	U	<sup>106</sup> Ru			4.7E-03 ± 5.8E-03	U
<sup>125</sup> Sb			1.2E-03 ± 1.5E-03	U	<sup>125</sup> Sb			6.6E-04 ± 1.2E-03	U
<sup>90</sup> Sr			4.4E-06 ± 4.4E-05	U	<sup>90</sup> Sr			3.1E-05 ± 5.9E-05	U
<sup>234</sup> U			3.4E-05 ± 3.1E-04	U	<sup>234</sup> U			8.0E-06 ± 8.0E-05	U
<sup>235</sup> U			1.6E-06 ± 1.6E-05	U	<sup>235</sup> U			7.0E-07 ± 7.0E-06	U
<sup>238</sup> U	5.9E-05 ± 1.7E-05	U	<sup>238</sup> U	3.6E-05 ± 1.3E-05	U				
300 Trench	07/06/06 to 09/27/06	<sup>60</sup> Co	3.2E-04 ± 8.6E-04	U	300 Trench	09/27/06 to 01/03/07	<sup>60</sup> Co	1.4E-04 ± 8.2E-04	U
		<sup>134</sup> Cs	2.4E-04 ± 7.0E-04	U			<sup>134</sup> Cs	4.2E-04 ± 8.5E-04	U
		<sup>137</sup> Cs	3.9E-04 ± 7.8E-04	U			<sup>137</sup> Cs	5.0E-04 ± 7.9E-04	U
		<sup>152</sup> Eu	5.7E-04 ± 1.9E-03	U			<sup>152</sup> Eu	7.9E-04 ± 1.4E-03	U
		<sup>154</sup> Eu	5.3E-04 ± 3.0E-03	U			<sup>154</sup> Eu	1.1E-05 ± 1.1E-04	U
		<sup>155</sup> Eu	8.3E-04 ± 1.8E-03	U			<sup>155</sup> Eu	2.1E-04 ± 1.2E-03	U
		<sup>40</sup> K	3.8E-03 ± 1.9E-02	U			<sup>40</sup> K	5.0E-03 ± 1.5E-02	U
		<sup>238</sup> Pu	1.6E-06 ± 2.6E-06	U			<sup>238</sup> Pu	6.9E-07 ± 1.8E-06	U
		<sup>239/240</sup> Pu	1.2E-06 ± 2.4E-06	U			<sup>239/240</sup> Pu	3.6E-07 ± 3.2E-06	U
		<sup>106</sup> Ru	3.4E-03 ± 6.2E-03	U			<sup>106</sup> Ru	2.9E-03 ± 5.3E-03	U
		<sup>125</sup> Sb	8.0E-04 ± 1.9E-03	U			<sup>125</sup> Sb	7.2E-04 ± 1.5E-03	U
		<sup>90</sup> Sr	4.4E-05 ± 5.1E-05	U			<sup>90</sup> Sr	4.1E-06 ± 4.1E-05	U
		<sup>234</sup> U	6.5E-06 ± 6.4E-05	U			<sup>234</sup> U	9.8E-06 ± 9.8E-05	U
		<sup>235</sup> U	1.3E-06 ± 1.3E-05	U			<sup>235</sup> U	1.8E-06 ± 1.3E-05	U
<sup>238</sup> U	2.7E-05 ± 1.0E-05	U	<sup>238</sup> U	3.6E-05 ± 1.3E-05	U				

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

Table 2-5. Supplemental PNNL Air Sampling Results, 2006  
(pCi/m<sup>3</sup> ± total analytical uncertainty). (5 sheets total)

Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*	Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*
300 Trench	12/20/06 to 01/18/06	<sup>3</sup> H	6.2E+00 ± 1.0E+00		300 Water Intake	12/20/06 to 01/18/06	<sup>3</sup> H	4.7E+00 ± 8.3E-01	
	01/18/06 to 02/15/06	<sup>3</sup> H	7.1E+00 ± 1.1E+00			01/18/06 to 02/15/06	<sup>3</sup> H	5.1E+00 ± 9.0E-01	
	02/15/06 to 03/16/06	<sup>3</sup> H	2.8E+01 ± 3.5E+00			02/15/06 to 03/16/06	<sup>3</sup> H	3.5E+01 ± 4.3E+00	
	03/16/06 to 04/11/06	<sup>3</sup> H	5.2E+00 ± 9.7E-01			03/16/06 to 04/11/06	<sup>3</sup> H	3.8E+00 ± 8.4E-01	
	04/11/06 to 05/11/06	<sup>3</sup> H	3.6E+00 ± 6.5E-01			04/11/06 to 05/11/06	<sup>3</sup> H	3.2E+00 ± 6.2E-01	
	05/11/06 to 06/07/06	<sup>3</sup> H	5.0E+00 ± 1.2E+00			05/11/06 to 06/07/06	<sup>3</sup> H	3.1E+00 ± 9.6E-01	
	06/07/06 to 07/06/06	<sup>3</sup> H	6.3E+00 ± 1.5E+00			06/07/06 to 07/06/06	<sup>3</sup> H	5.0E+00 ± 1.4E+00	
	07/06/06 to 08/02/06	<sup>3</sup> H	3.6E+00 ± 1.0E+00			07/06/06 to 08/02/06	<sup>3</sup> H	6.6E+00 ± 1.4E+00	
	08/02/06 to 08/30/06	<sup>3</sup> H	6.2E+00 ± 1.3E+00			08/02/06 to 08/30/06	<sup>3</sup> H	6.6E+00 ± 1.5E+00	
	08/30/06 to 09/27/06	<sup>3</sup> H	1.4E+01 ± 2.7E+00			08/30/06 to 09/27/06	<sup>3</sup> H	3.6E+00 ± 1.2E+00	
	09/27/06 to 10/26/06	<sup>3</sup> H	5.9E+00 ± 1.4E+00			09/27/06 to 10/26/06	<sup>3</sup> H	6.3E+00 ± 1.5E+00	
	10/26/06 to 11/22/06	<sup>3</sup> H	1.0E+01 ± 2.0E+00			10/26/06 to 11/22/06	<sup>3</sup> H	1.7E+01 ± 3.0E+00	
	11/22/06 to 12/21/06	<sup>3</sup> H	2.9E+00 ± 7.2E-01			11/22/06 to 12/21/06	<sup>3</sup> H	4.3E+00 ± 9.4E-01	
300 Water Intake	01/03/06 to 03/29/06	<sup>60</sup> Co	2.8E-04 ± 7.3E-04	U	300 Water Intake	03/29/06 to 07/05/06	<sup>60</sup> Co	3.3E-04 ± 8.4E-04	U
		<sup>134</sup> Cs	3.0E-04 ± 4.1E-04	U			<sup>134</sup> Cs	7.7E-05 ± 7.4E-04	U
		<sup>137</sup> Cs	1.5E-04 ± 4.1E-04	U			<sup>137</sup> Cs	1.0E-04 ± 6.4E-04	U
		<sup>152</sup> Eu	1.6E-03 ± 1.5E-03	U			<sup>152</sup> Eu	2.8E-04 ± 1.6E-03	U
		<sup>154</sup> Eu	5.9E-04 ± 1.4E-03	U			<sup>154</sup> Eu	1.9E-03 ± 2.0E-03	U
		<sup>155</sup> Eu	1.0E-04 ± 8.6E-04	U			<sup>155</sup> Eu	6.5E-06 ± 6.5E-05	U
		<sup>40</sup> K	5.7E-03 ± 1.3E-02	U			<sup>40</sup> K	8.2E-04 ± 8.2E-03	U
		<sup>238</sup> Pu	4.0E-07 ± 1.3E-06	U			<sup>238</sup> Pu	3.5E-06 ± 5.5E-06	U
		<sup>239/240</sup> Pu	2.1E-06 ± 2.1E-06	U			<sup>239/240</sup> Pu	1.6E-06 ± 4.8E-06	U
		<sup>106</sup> Ru	3.3E-03 ± 5.1E-03	U			<sup>106</sup> Ru	4.1E-04 ± 4.1E-03	U
		<sup>125</sup> Sb	9.9E-05 ± 9.9E-04	U			<sup>125</sup> Sb	4.3E-06 ± 4.3E-05	U
		<sup>90</sup> Sr	2.4E-06 ± 2.4E-05	U			<sup>90</sup> Sr	2.6E-05 ± 5.0E-05	U
		<sup>234</sup> U	3.6E-05 ± 3.1E-04	U			<sup>234</sup> U	2.8E-05 ± 2.7E-04	U
		<sup>235</sup> U	3.6E-06 ± 1.7E-05	U			<sup>235</sup> U	1.7E-06 ± 1.5E-05	U
		<sup>238</sup> U	8.1E-06 ± 6.3E-06	U			<sup>238</sup> U	5.1E-06 ± 5.6E-06	U
300 Water Intake	07/05/06 to 09/22/06	<sup>60</sup> Co	3.0E-04 ± 8.7E-04	U	300 Water Intake	09/22/06 to 01/02/07	<sup>60</sup> Co	1.3E-05 ± 1.3E-04	U
		<sup>134</sup> Cs	4.3E-04 ± 8.7E-04	U			<sup>134</sup> Cs	1.0E-05 ± 1.0E-04	U
		<sup>137</sup> Cs	1.2E-04 ± 7.5E-04	U			<sup>137</sup> Cs	3.9E-04 ± 5.6E-04	U
		<sup>152</sup> Eu	4.4E-04 ± 1.7E-03	U			<sup>152</sup> Eu	6.4E-04 ± 1.2E-03	U
		<sup>154</sup> Eu	4.5E-05 ± 4.5E-04	U			<sup>154</sup> Eu	1.4E-03 ± 1.9E-03	U
		<sup>155</sup> Eu	2.4E-04 ± 1.1E-03	U			<sup>155</sup> Eu	3.4E-04 ± 9.0E-04	U
		<sup>40</sup> K	1.4E-02 ± 1.6E-02	U			<sup>40</sup> K	9.1E-03 ± 1.5E-02	U
		<sup>238</sup> Pu	1.1E+02 ± 1.1E+01	U			<sup>238</sup> Pu	1.9E-07 ± 1.4E-06	U
		<sup>239/240</sup> Pu	1.8E-06 ± 2.4E-06	U			<sup>239/240</sup> Pu	4.9E-07 ± 1.8E-06	U
		<sup>106</sup> Ru	3.7E-03 ± 6.7E-03	U			<sup>106</sup> Ru	4.2E-03 ± 6.0E-03	U
		<sup>125</sup> Sb	1.3E-03 ± 1.7E-03	U			<sup>125</sup> Sb	5.2E-04 ± 1.5E-03	U
		<sup>90</sup> Sr	1.8E-05 ± 5.3E-05	U			<sup>90</sup> Sr	2.6E-05 ± 5.2E-05	U
		<sup>234</sup> U	2.3E-05 ± 2.2E-04	U			<sup>234</sup> U	5.2E-06 ± 5.2E-05	U
		<sup>235</sup> U	1.3E-06 ± 1.3E-05	U			<sup>235</sup> U	1.0E-06 ± 1.0E-05	U
		<sup>238</sup> U	4.8E-06 ± 5.2E-06	U			<sup>238</sup> U	1.9E-05 ± 7.6E-06	U
WYE Barricade	01/03/06 to 03/29/06	<sup>60</sup> Co	2.8E-04 ± 7.3E-04	U	WYE Barricade	03/29/06 to 07/05/06	<sup>60</sup> Co	3.3E-04 ± 8.4E-04	U
		<sup>134</sup> Cs	3.0E-04 ± 4.1E-04	U			<sup>134</sup> Cs	7.7E-05 ± 7.4E-04	U
		<sup>137</sup> Cs	1.5E-04 ± 4.1E-04	U			<sup>137</sup> Cs	1.0E-04 ± 6.4E-04	U
		<sup>152</sup> Eu	1.6E-03 ± 1.5E-03	U			<sup>152</sup> Eu	2.8E-04 ± 1.6E-03	U
		<sup>154</sup> Eu	5.9E-04 ± 1.4E-03	U			<sup>154</sup> Eu	1.9E-03 ± 2.0E-03	U
		<sup>155</sup> Eu	1.0E-04 ± 8.6E-04	U			<sup>155</sup> Eu	6.5E-06 ± 6.5E-05	U
		<sup>40</sup> K	5.7E-03 ± 1.3E-02	U			<sup>40</sup> K	8.2E-04 ± 8.2E-03	U
		<sup>238</sup> Pu	4.0E-07 ± 1.3E-06	U			<sup>238</sup> Pu	3.5E-06 ± 5.5E-06	U
		<sup>239/240</sup> Pu	2.1E-06 ± 2.1E-06	U			<sup>239/240</sup> Pu	1.6E-06 ± 4.8E-06	U
		<sup>106</sup> Ru	3.3E-03 ± 5.1E-03	U			<sup>106</sup> Ru	4.1E-04 ± 4.1E-03	U
		<sup>125</sup> Sb	9.9E-05 ± 9.9E-04	U			<sup>125</sup> Sb	4.3E-06 ± 4.3E-05	U
		<sup>90</sup> Sr	2.4E-06 ± 2.4E-05	U			<sup>90</sup> Sr	2.6E-05 ± 5.0E-05	U
		<sup>234</sup> U	3.6E-05 ± 3.1E-04	U			<sup>234</sup> U	2.8E-05 ± 2.7E-04	U
		<sup>235</sup> U	3.6E-06 ± 1.7E-05	U			<sup>235</sup> U	1.7E-06 ± 1.5E-05	U
		<sup>238</sup> U	8.1E-06 ± 6.3E-06	U			<sup>238</sup> U	5.1E-06 ± 5.6E-06	U

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

Table 2-5. Supplemental PNNL Air Sampling Results, 2006  
(pCi/m<sup>3</sup> ± total analytical uncertainty). (5 sheets total)

Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*	Sampling Station	Sample Period	Isotope	Result ± Uncertainty	RQ*
WYE Barricade	07/05/06 to 09/22/06	<sup>60</sup> Co	3.0E-04 ± 8.7E-04	U	WYE Barricade	09/22/06 to 01/02/07	<sup>60</sup> Co	1.3E-05 ± 1.3E-04	U
		<sup>134</sup> Cs	4.3E-04 ± 8.7E-04	U			<sup>134</sup> Cs	1.0E-05 ± 1.0E-04	U
		<sup>137</sup> Cs	1.2E-04 ± 7.5E-04	U			<sup>137</sup> Cs	3.9E-04 ± 5.6E-04	U
		<sup>152</sup> Eu	4.4E-04 ± 1.7E-03	U			<sup>152</sup> Eu	6.4E-04 ± 1.2E-03	U
		<sup>154</sup> Eu	4.5E-05 ± 4.5E-04	U			<sup>154</sup> Eu	1.4E-03 ± 1.9E-03	U
		<sup>155</sup> Eu	2.4E-04 ± 1.1E-03	U			<sup>155</sup> Eu	3.4E-04 ± 9.0E-04	U
		<sup>40</sup> K	1.4E-02 ± 1.6E-02	U			<sup>40</sup> K	9.1E-03 ± 1.5E-02	U
		<sup>238</sup> Pu	1.1E+02 ± 1.1E+01	U			<sup>238</sup> Pu	1.9E-07 ± 1.4E-06	U
		<sup>239/240</sup> Pu	1.8E-06 ± 2.4E-06	U			<sup>239/240</sup> Pu	4.9E-07 ± 1.8E-06	U
		<sup>106</sup> Ru	3.7E-03 ± 6.7E-03	U			<sup>106</sup> Ru	4.2E-03 ± 6.0E-03	U
		<sup>125</sup> Sb	1.3E-03 ± 1.7E-03	U			<sup>125</sup> Sb	5.2E-04 ± 1.5E-03	U
		<sup>90</sup> Sr	1.8E-05 ± 5.3E-05	U			<sup>90</sup> Sr	2.6E-05 ± 5.2E-05	U
		<sup>234</sup> U	2.3E-05 ± 2.2E-04	U			<sup>234</sup> U	5.2E-06 ± 5.2E-05	U
		<sup>235</sup> U	1.3E-06 ± 1.3E-05	U			<sup>235</sup> U	1.0E-06 ± 1.0E-05	U
		<sup>238</sup> U	4.8E-06 ± 5.2E-06	U			<sup>238</sup> U	1.9E-05 ± 7.6E-06	U
		Yakima Barricade	01/06/06 to 03/31/06	<sup>60</sup> Co			2.8E-04 ± 3.7E-04	U	Yakima Barricade
<sup>134</sup> Cs	1.5E-04 ± 2.9E-04			U	<sup>134</sup> Cs	1.7E-04 ± 4.7E-04	U		
<sup>137</sup> Cs	9.4E-05 ± 3.5E-04			U	<sup>137</sup> Cs	1.0E-04 ± 3.7E-04	U		
<sup>152</sup> Eu	2.7E-04 ± 5.9E-04			U	<sup>152</sup> Eu	1.5E-03 ± 1.1E-03	U		
<sup>154</sup> Eu	2.0E-04 ± 7.7E-04			U	<sup>154</sup> Eu	4.6E-04 ± 1.3E-03	U		
<sup>155</sup> Eu	9.9E-05 ± 5.0E-04			U	<sup>155</sup> Eu	1.7E-04 ± 1.1E-03	U		
<sup>40</sup> K	2.4E-03 ± 6.0E-03			U	<sup>40</sup> K	1.2E-02 ± 1.4E-02	U		
<sup>238</sup> Pu	3.9E+00 ± 3.9E-01			U	<sup>238</sup> Pu	2.5E-07 ± 5.1E-07	U		
<sup>239/240</sup> Pu	3.4E-07 ± 7.8E-07			U	<sup>239/240</sup> Pu	1.9E+00 ± 1.9E-01	U		
<sup>106</sup> Ru	9.8E-04 ± 2.6E-03			U	<sup>106</sup> Ru	1.9E-05 ± 1.9E-04	U		
<sup>125</sup> Sb	1.7E-04 ± 6.2E-04			U	<sup>125</sup> Sb	2.5E-04 ± 1.0E-03	U		
<sup>90</sup> Sr	9.7E-06 ± 1.8E-05	U	<sup>90</sup> Sr	1.4E-05 ± 3.5E-05	U				
Yakima Barricade	07/07/06 to 09/28/06	<sup>60</sup> Co	1.5E-04 ± 3.9E-04	U	Yakima Barricade	09/28/06 to 01/04/07	<sup>60</sup> Co	6.6E-05 ± 3.1E-04	U
		<sup>134</sup> Cs	1.4E-04 ± 4.7E-04	U			<sup>134</sup> Cs	1.0E-04 ± 3.2E-04	U
		<sup>137</sup> Cs	4.7E-04 ± 3.9E-04	U			<sup>137</sup> Cs	1.8E-04 ± 3.3E-04	U
		<sup>152</sup> Eu	4.5E-04 ± 8.7E-04	U			<sup>152</sup> Eu	2.0E-04 ± 6.9E-04	U
		<sup>154</sup> Eu	1.1E-03 ± 9.6E-04	U			<sup>154</sup> Eu	9.1E-04 ± 9.6E-04	U
		<sup>155</sup> Eu	2.1E-04 ± 6.0E-04	U			<sup>155</sup> Eu	1.7E-04 ± 5.0E-04	U
		<sup>40</sup> K	7.1E-04 ± 5.3E-03	U			<sup>40</sup> K	4.3E-03 ± 6.5E-03	U
		<sup>238</sup> Pu	7.7E+00 ± 7.7E-01	U			<sup>238</sup> Pu	9.3E+00 ± 9.3E-01	U
		<sup>239/240</sup> Pu	3.1E-07 ± 8.0E-07	U			<sup>239/240</sup> Pu	1.3E-07 ± 7.8E-07	U
		<sup>106</sup> Ru	1.3E-03 ± 3.6E-03	U			<sup>106</sup> Ru	2.1E-03 ± 3.6E-03	U
		<sup>125</sup> Sb	5.5E-04 ± 9.6E-04	U			<sup>125</sup> Sb	8.4E-05 ± 8.2E-04	U
<sup>90</sup> Sr	1.1E-05 ± 1.8E-05	U	<sup>90</sup> Sr	4.2E-06 ± 1.4E-05	U				

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 2006 and their locations are shown in Table 3-1.

Table 3-1. Soil Samples Collected During 2006.

Number of Samples	Operational Area									
	100 D	100 F	100 K	100 N	200-West	200-East <sup>a</sup>	600 <sup>a</sup>	300 <sup>a</sup>	400	ERDF <sup>b</sup>
97	4	9	2	7	26	15	16	16	1	1

<sup>a</sup> Number of samples includes one or more Replicate Samples.

<sup>b</sup> Environmental Restoration Disposal Facility in the 200-West Area.

Soil sampling locations are illustrated in Figures 3-1 through 3-9. Radionuclide analyses indicated that strontium-90, cesium-137, plutonium-239/240, and uranium were detectable in soil samples in 2006. 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 2006 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 2006 soil sampling results for all areas are provided in Table 3-4.

Additional discussion of the 2006 soil sampling results can be found in Section 10.9.1 of PNNL-16623 (PNNL 2007).

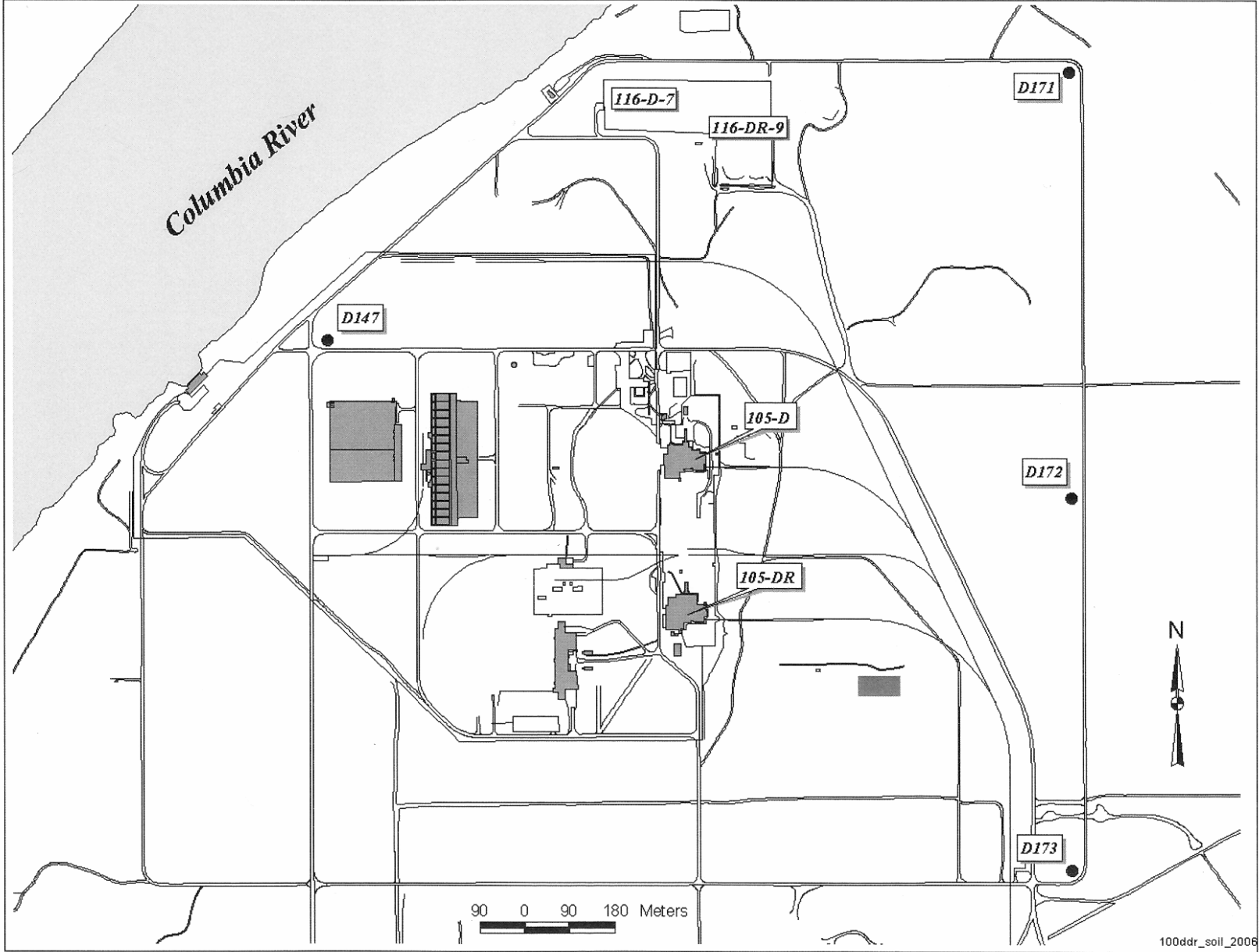
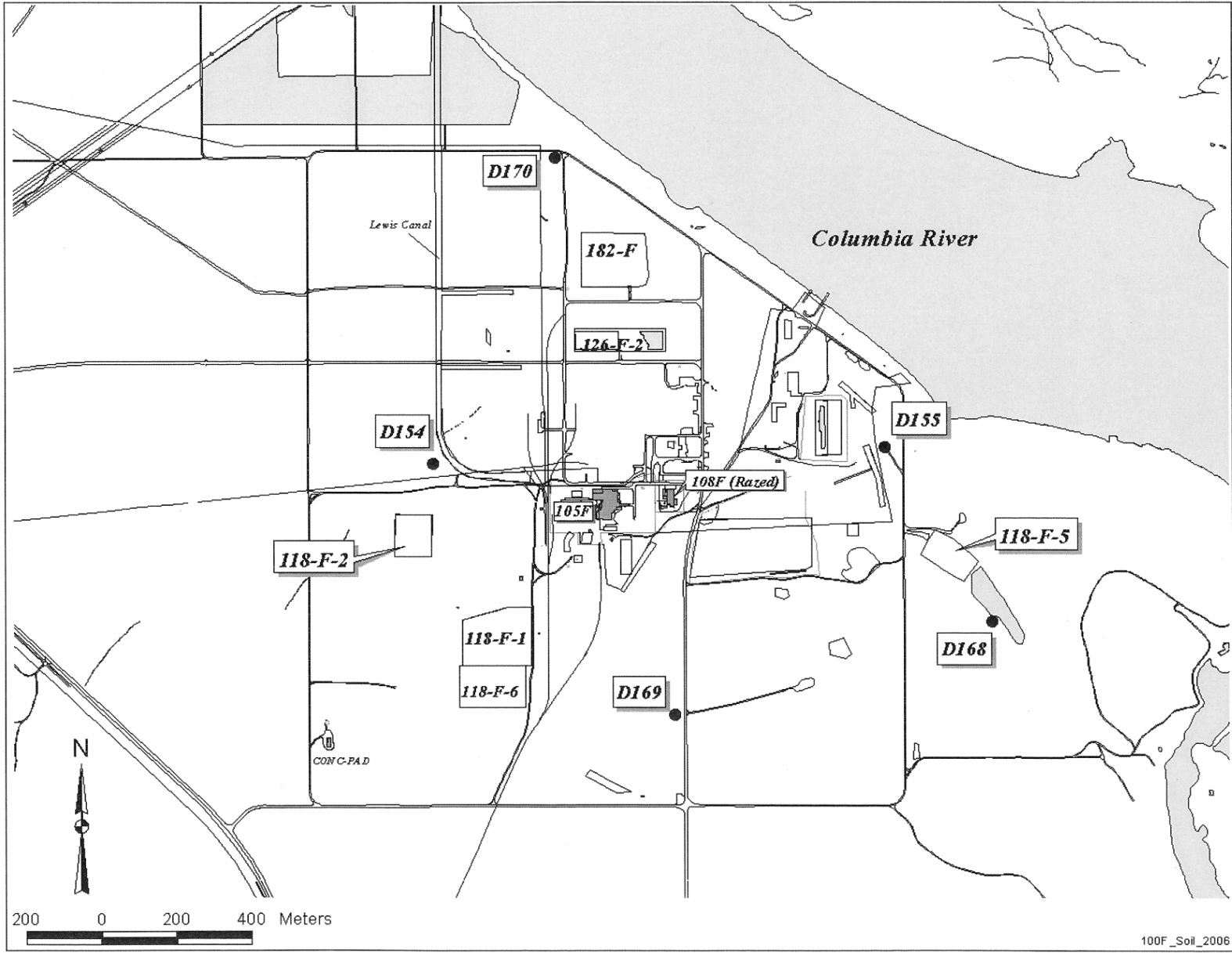


Figure 3-1. 2006 Soil Sampling Locations, 100-D Area.



100F\_Soil\_2006

Figure 3-2. 2006 Soil Sampling Locations, 100-F Area.

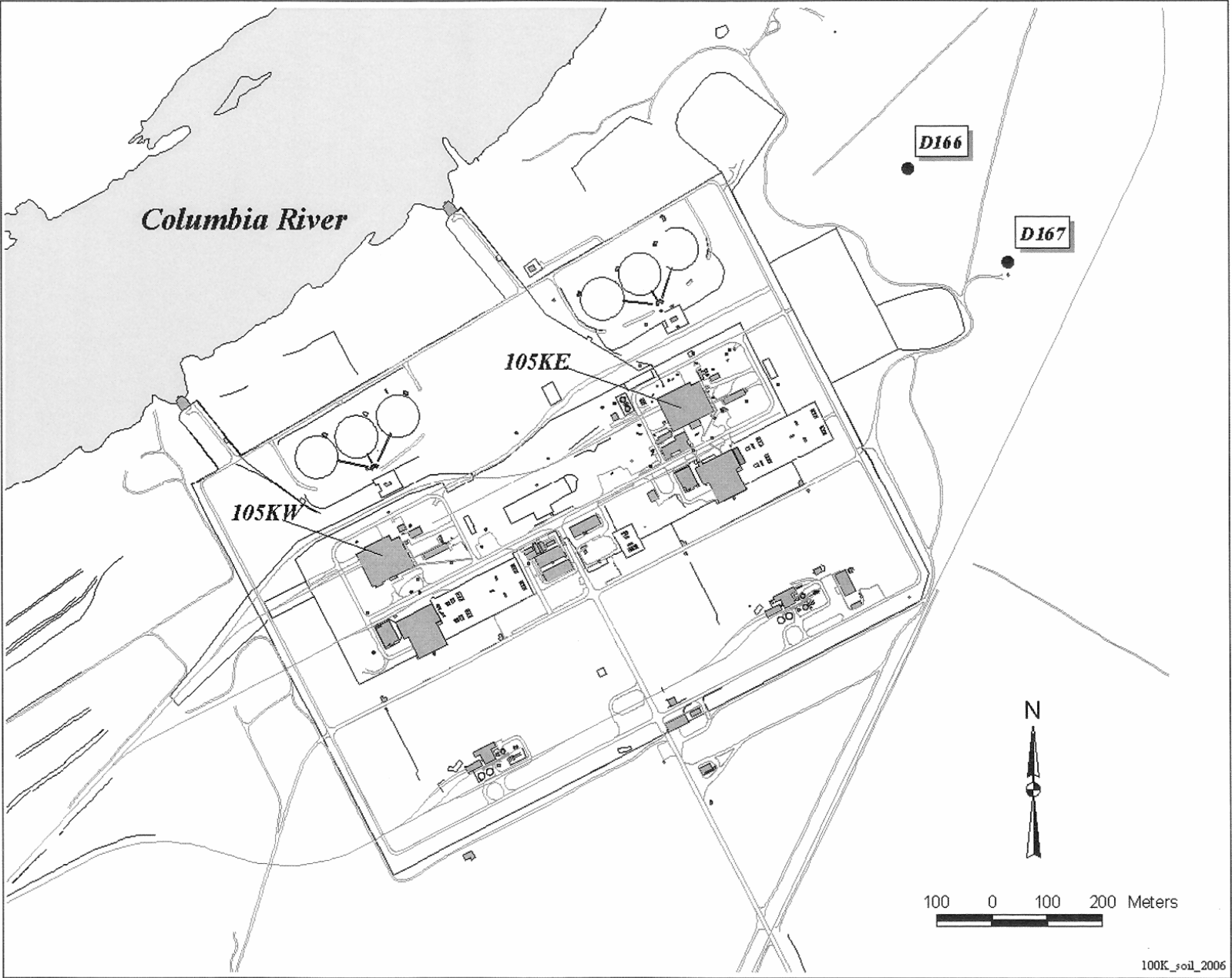


Figure 3-3. 2006 Soil Sampling Locations, 100-K Area.



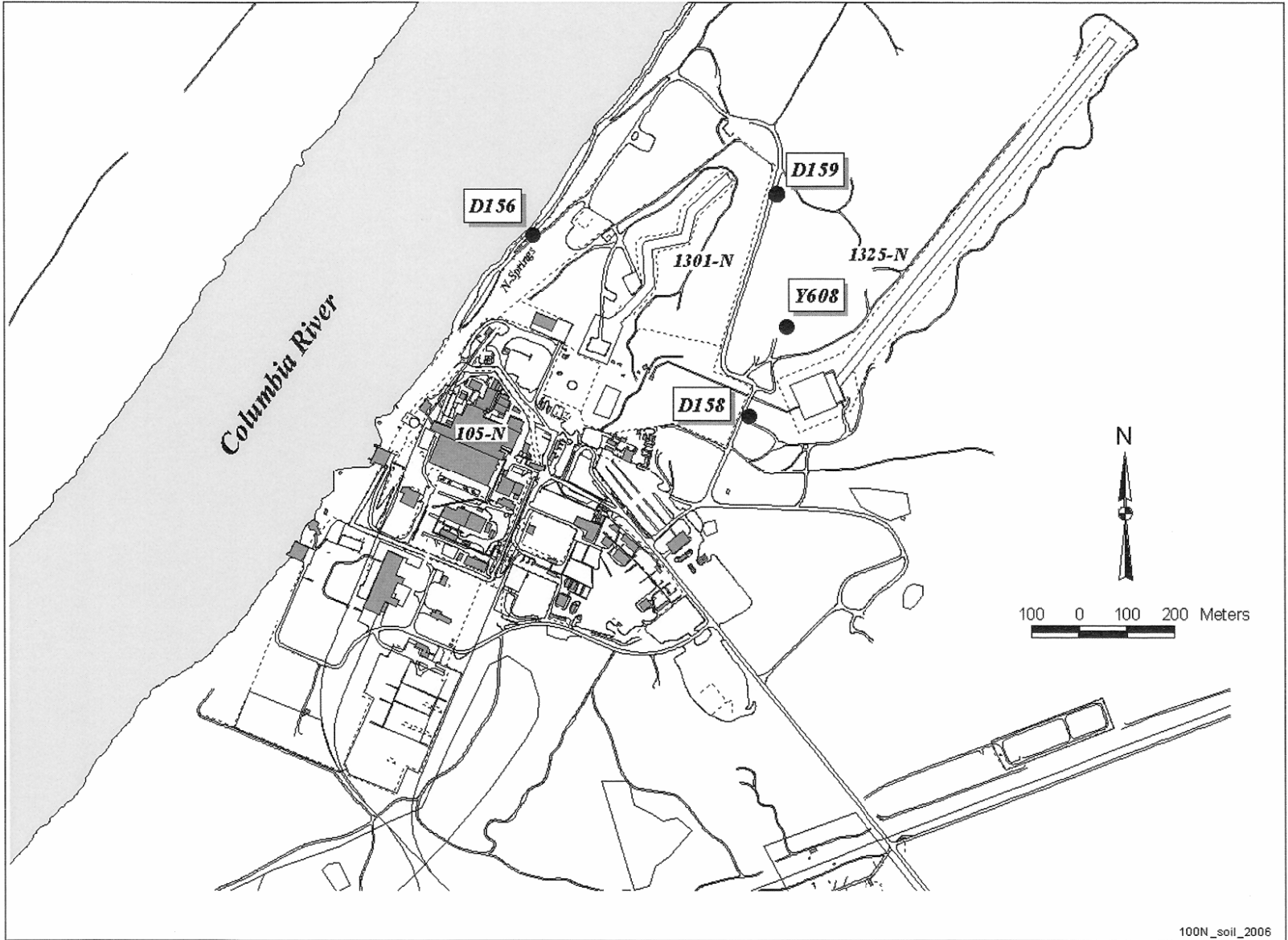


Figure 3-4. 2006 Soil Sampling Locations, 100-N Area.

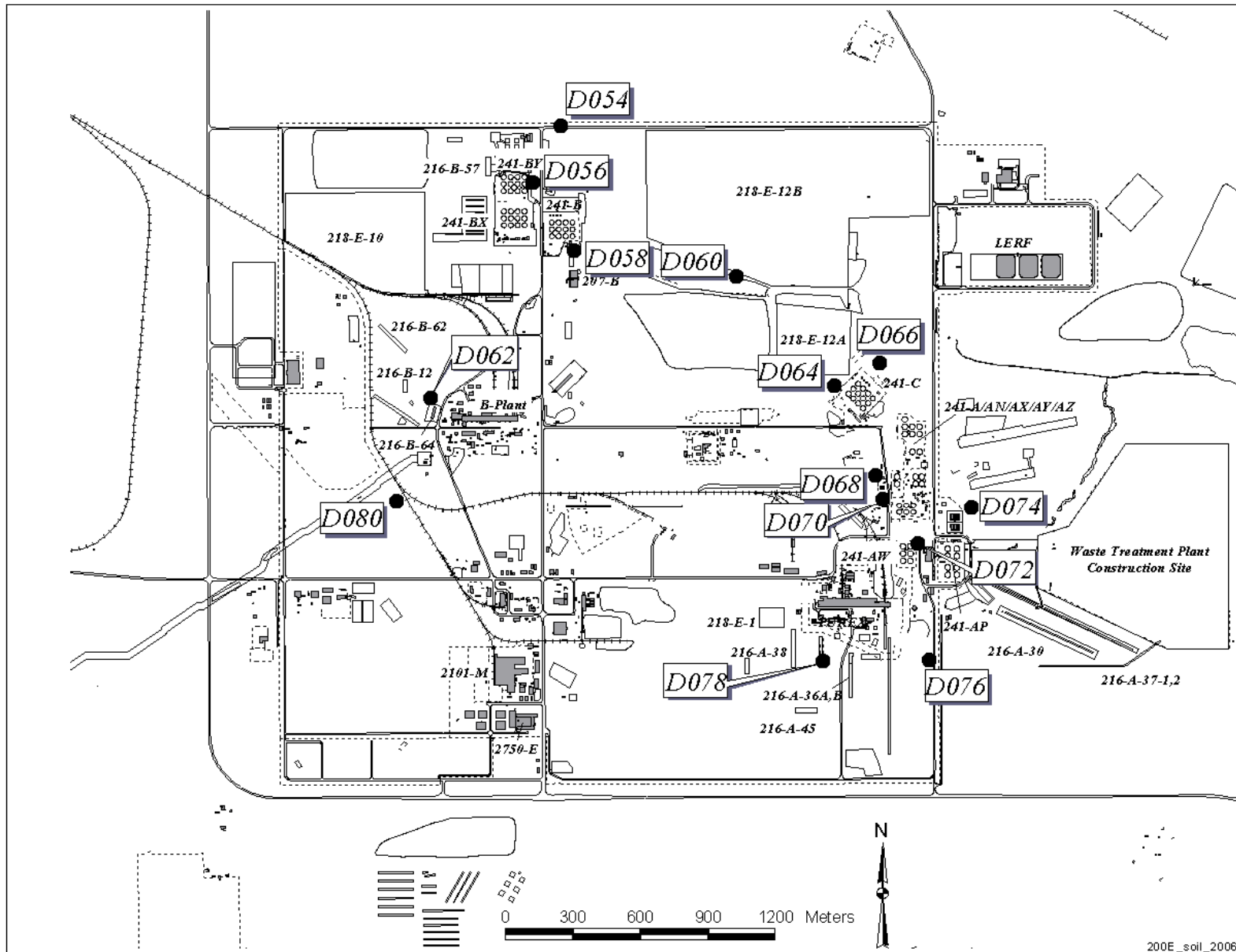


Figure 3-5. 2006 Soil Sampling Locations, 200 East Area.

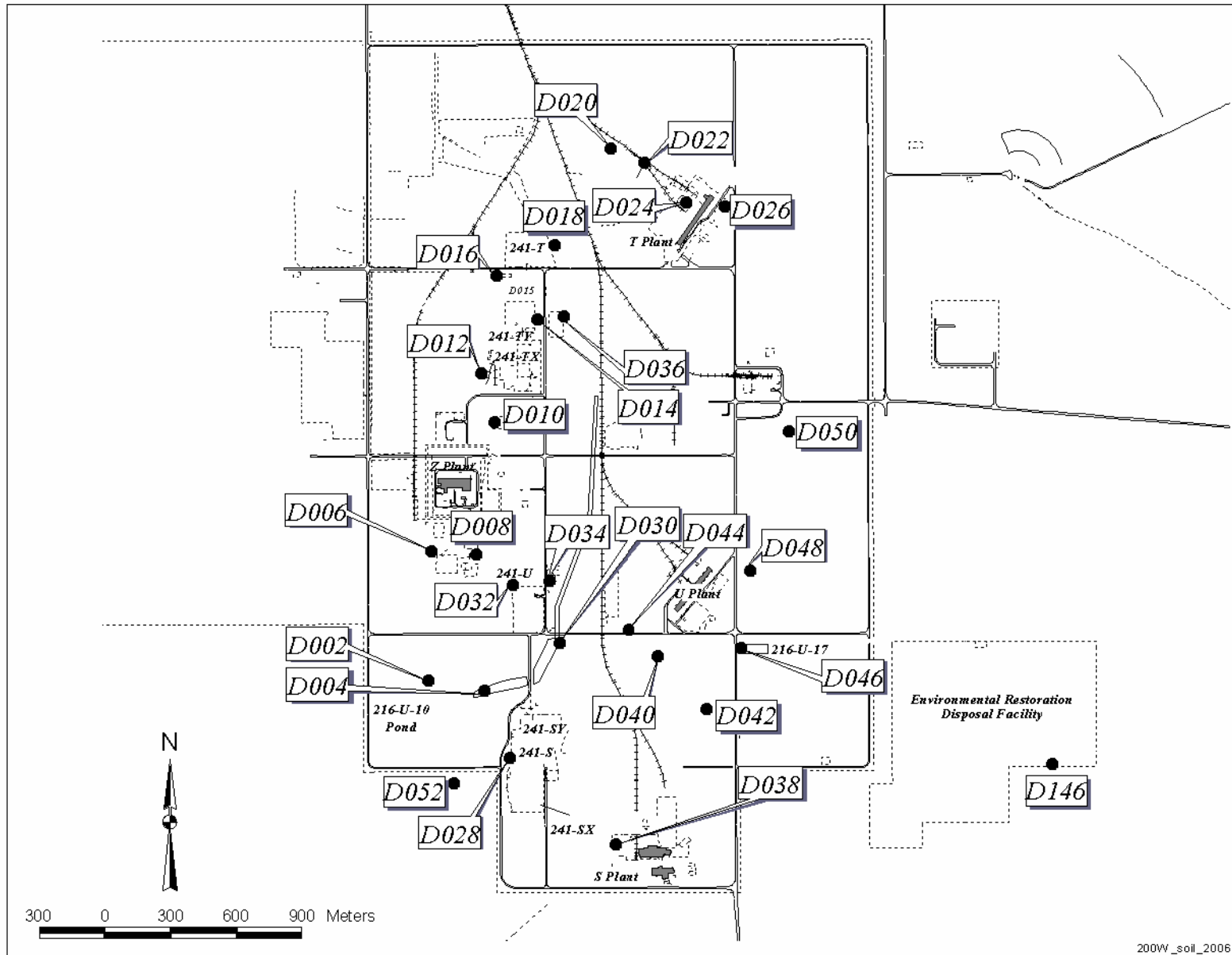


Figure 3-6. 2006 Soil Sampling Locations, 200 West Area.

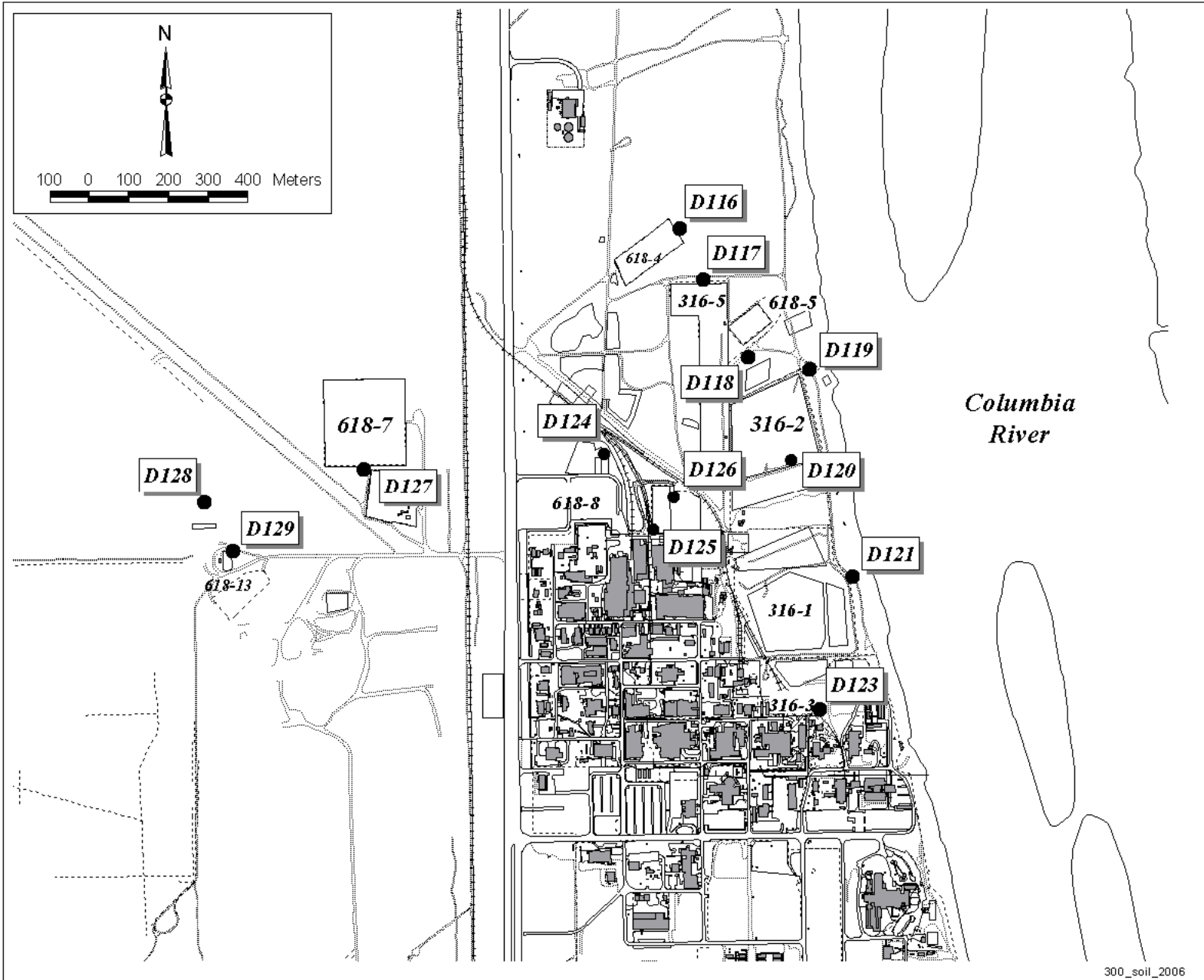


Figure 3-7. 2006 Soil Sampling Locations, 300 Area.

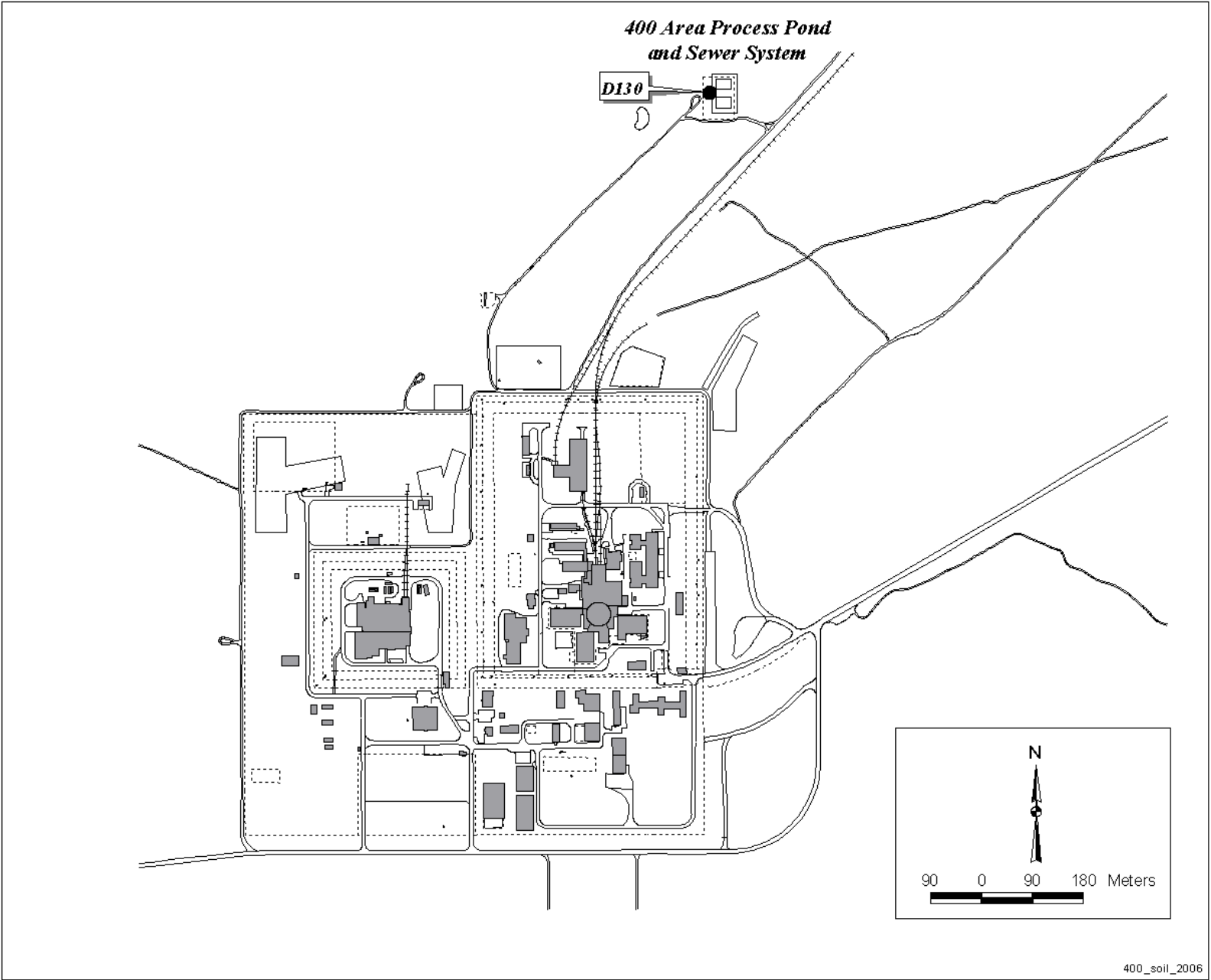


Figure 3-8. 2006 Soil Sampling Locations, 400 Area.

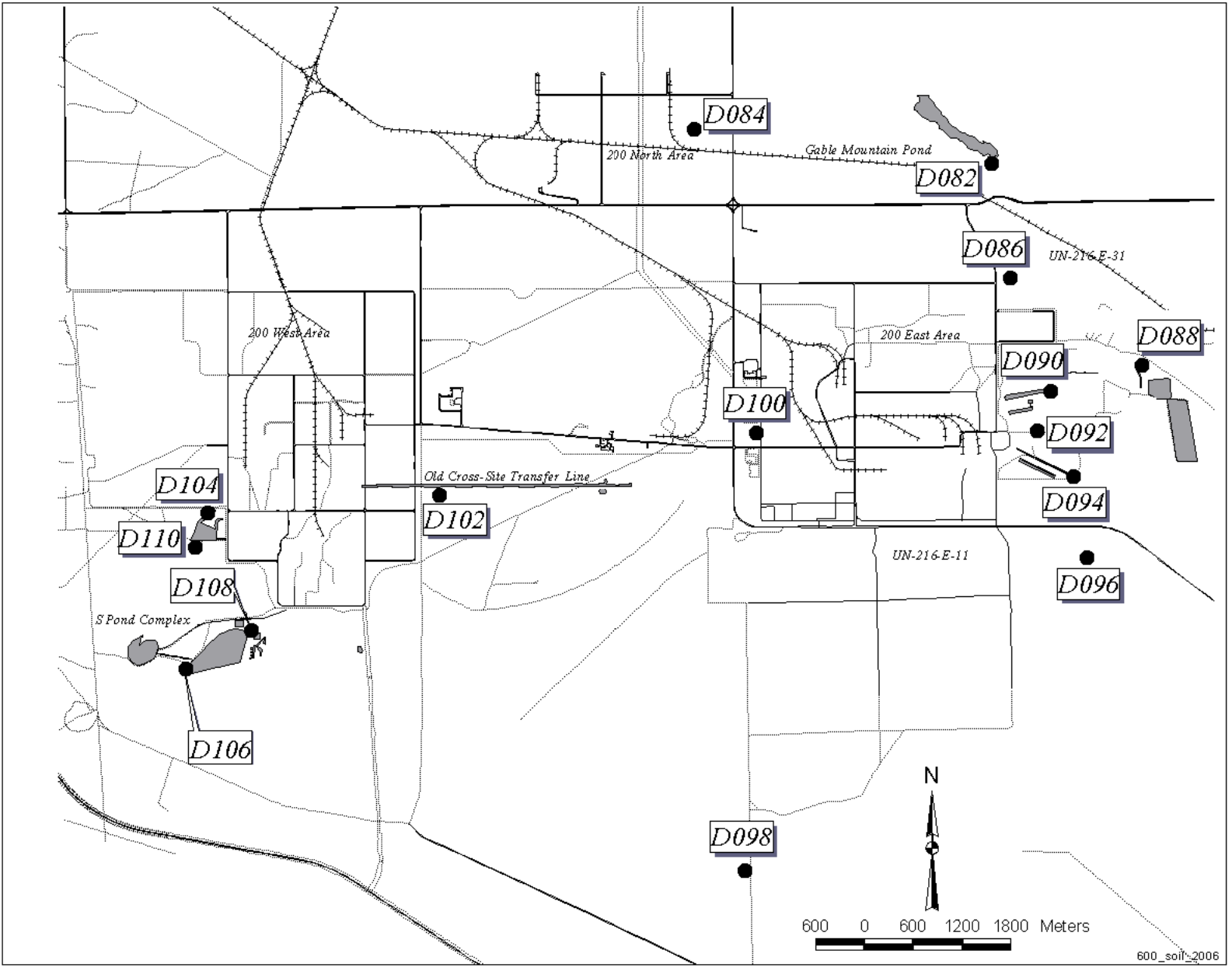


Figure 3-9. 2006 Soil Sampling Locations, 600 Area.

Table 3-2. Summary of Near-Facility Soil Sampling Results (pCi/g)<sup>a</sup> for Selected Radionuclides, 2006.

Isotope	Number of		Average <sup>c</sup>	Maximum <sup>d</sup>	Location	
	Samples <sup>b</sup>	Detects			Area	Site ID
<sup>60</sup> Co	97	8	1.7E-01 ± 3.3E+00	1.6E+01 ± 1.5E+00	100 N	Y608
<sup>134</sup> Cs	97	96	4.8E-01 ± 8.7E+00	4.3E+01 ± 1.1E+01	100 F	D154
<sup>137</sup> Cs	97	96	2.4E+00 ± 2.9E+01	1.4E+02 ± 2.6E+01	100 F	D154
<sup>238</sup> Pu	97	1	6.8E-03 ± 3.6E-02	1.0E-01 ± 4.8E-02	200 West	D008
<sup>239/240</sup> Pu	97	48	6.1E-02 ± 4.1E-01	1.8E+00 ± 4.7E-01	200 West	D008
<sup>106</sup> Ru	97	0	1.6E-03 ± 3.2E-01	1.5E+00 ± 1.5E+01	100 F	D154
<sup>125</sup> Sb	97	0	5.6E-02 ± 1.1E+00	5.2E+00 ± 1.7E+01	100 F	D154
<sup>113</sup> Sn	92	0	4.1E-01 ± 7.8E+00	3.8E+01 ± 6.5E+01	100 F	D154
<sup>90</sup> Sr	97	11	1.7E-01 ± 1.7E+00	8.1E+00 ± 1.6E+00	200 West	D020
<sup>234</sup> U	96	96	3.5E-01 ± 1.6E+00	5.3E+00 ± 1.4E+00	300 Area	D120
<sup>235</sup> U	94	66	2.7E-02 ± 1.0E-01	3.5E-01 ± 1.0E-01	300 Area	D120
<sup>238</sup> U	97	97	3.5E-01 ± 1.7E+00	5.3E+00 ± 1.4E+00	300 Area	D120

<sup>a</sup> 1 pCi = 0.037 Bq.

<sup>b</sup> Includes replicate samples and/or multiple samples collected at some locations

<sup>c</sup> Average ± two standard deviations

<sup>d</sup> Maximum ± analytical uncertainty

Table 3-3. Average Radionuclide Concentrations (pCi/g)<sup>a</sup>  
in Hanford Soils, 1995 through 2006.

<u>100 Areas</u>						
Year	<sup>60</sup> Co	<sup>90</sup> Sr	<sup>137</sup> Cs	<sup>234</sup> U	<sup>238</sup> U	<sup>239,240</sup> 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
2006	7.3E-01 ± 6.8E+00	Not Detected	7.0E+00 ± 6.0E+01	1.3E-01 ± 9.5E-02	1.3E-01 ± 8.6E-02	1.1E-02 ± 2.0E-02

<u>200/600 Areas</u>						
Year	<sup>60</sup> Co	<sup>90</sup> Sr	<sup>137</sup> Cs	<sup>234</sup> U	<sup>238</sup> U	<sup>239,240</sup> 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
2006	Not Detected	2.6E-01 ± 2.1E+00	1.3E+00 ± 4.3E+00	1.7E-01 ± 2.3E-01	1.7E-01 ± 2.2E-01	9.3E-02 ± 5.2E-01

<u>300/400 Areas</u>						
Year	<sup>60</sup> Co	<sup>90</sup> Sr	<sup>137</sup> Cs	<sup>234</sup> U	<sup>238</sup> U	<sup>239,240</sup> 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
2006	Not Detected	6.5E-02 ± 5.6E-01	9.4E-02 ± 1.4E-01	1.2E+00 ± 3.3E+00	1.2E+00 ± 3.4E+00	1.8E-02 ± 4.9E-02

<sup>a</sup> ± 2 standard deviations



Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D147 (100-D)	<sup>144</sup> Ce	-7.4E-02 ± 1.4E-01	U	D171 (100-D)	<sup>144</sup> Ce	3.6E-02 ± 1.9E-01	U
	<sup>60</sup> Co	9.4E-03 ± 9.2E-03	U		<sup>60</sup> Co	8.4E-03 ± 8.5E-03	U
	<sup>134</sup> Cs	5.0E-02 ± 1.8E-02			<sup>134</sup> Cs	4.7E-02 ± 1.8E-02	
	<sup>137</sup> Cs	3.9E-01 ± 6.7E-02			<sup>137</sup> Cs	6.4E-01 ± 1.1E-01	
	<sup>152</sup> Eu	4.1E-02 ± 2.9E-02	U		<sup>152</sup> Eu	6.7E-02 ± 2.4E-02	
	<sup>154</sup> Eu	-3.6E-02 ± 3.6E-02	U		<sup>154</sup> Eu	-1.1E-02 ± 3.1E-02	U
	<sup>155</sup> Eu	2.0E-02 ± 3.3E-02	U		<sup>155</sup> Eu	5.3E-02 ± 4.5E-02	U
	<sup>238</sup> Pu	-1.7E-02 ± 3.9E-02	U		<sup>238</sup> Pu	3.2E-02 ± 4.3E-02	U
	<sup>239/240</sup> Pu	2.1E-02 ± 1.6E-02			<sup>239/240</sup> Pu	1.5E-02 ± 1.6E-02	U
	<sup>103</sup> Ru	9.2E-03 ± 1.1E-02	U		<sup>103</sup> Ru	3.0E-03 ± 1.2E-02	U
	<sup>106</sup> Ru	-1.7E-03 ± 1.7E-02	U		<sup>106</sup> Ru	-2.2E-02 ± 8.1E-02	U
	<sup>125</sup> Sb	1.5E-02 ± 2.3E-02	U		<sup>125</sup> Sb	6.8E-04 ± 6.8E-03	U
	<sup>113</sup> Sn	-1.2E-02 ± 1.2E-02	U		<sup>113</sup> Sn	-9.8E-03 ± 1.3E-02	U
	<sup>90</sup> Sr	3.2E-01 ± 2.9E-01	U		<sup>90</sup> Sr	4.6E-02 ± 2.8E-01	U
	<sup>234</sup> U	1.6E-01 ± 5.6E-02			<sup>234</sup> U	1.2E-01 ± 4.3E-02	
	<sup>235</sup> U	4.6E-03 ± 6.6E-03	U		<sup>235</sup> U	1.5E-02 ± 1.2E-02	
	<sup>238</sup> U	1.6E-01 ± 5.6E-02			<sup>238</sup> U	1.4E-01 ± 4.9E-02	
	<sup>65</sup> Zn	1.4E-02 ± 2.4E-02	U		<sup>65</sup> Zn	-1.9E-02 ± 3.8E-02	U
	D172 (100-D)	<sup>144</sup> Ce	9.9E-02 ± 1.3E-01		U	D173 (100-D)	<sup>144</sup> Ce
<sup>60</sup> Co		1.0E-03 ± 6.5E-03	U	<sup>60</sup> Co	-3.3E-03 ± 8.8E-03		U
<sup>134</sup> Cs		4.1E-02 ± 1.3E-02		<sup>134</sup> Cs	4.2E-02 ± 1.3E-02		
<sup>137</sup> Cs		1.5E-01 ± 3.0E-02		<sup>137</sup> Cs	9.7E-02 ± 2.1E-02		
<sup>152</sup> Eu		2.7E-03 ± 2.4E-02	U	<sup>152</sup> Eu	1.4E-03 ± 1.4E-02		U
<sup>154</sup> Eu		-1.3E-02 ± 2.0E-02	U	<sup>154</sup> Eu	-1.5E-02 ± 2.8E-02		U
<sup>155</sup> Eu		6.2E-02 ± 4.1E-02		<sup>155</sup> Eu	2.8E-02 ± 3.3E-02		U
<sup>238</sup> Pu		-1.1E-02 ± 3.0E-02	U	<sup>238</sup> Pu	-5.4E-02 ± 5.4E-02		U
<sup>239/240</sup> Pu		1.1E-02 ± 1.2E-02	U	<sup>239/240</sup> Pu	7.6E-03 ± 9.5E-03		U
<sup>103</sup> Ru		7.9E-04 ± 7.9E-03	U	<sup>103</sup> Ru	-4.3E-03 ± 1.0E-02		U
<sup>106</sup> Ru		3.7E-02 ± 5.8E-02	U	<sup>106</sup> Ru	2.3E-03 ± 2.3E-02		U
<sup>125</sup> Sb		8.9E-03 ± 1.9E-02	U	<sup>125</sup> Sb	-2.5E-03 ± 2.3E-02		U
<sup>113</sup> Sn		-3.8E-03 ± 9.8E-03	U	<sup>113</sup> Sn	-4.1E-03 ± 1.1E-02		U
<sup>90</sup> Sr		-1.9E-01 ± 2.6E-01	U	<sup>90</sup> Sr	-3.5E-02 ± 2.9E-01		U
<sup>234</sup> U		9.7E-02 ± 3.6E-02		<sup>234</sup> U	1.1E-01 ± 3.8E-02		
<sup>235</sup> U		1.6E-02 ± 1.2E-02		<sup>235</sup> U	8.5E-03 ± 7.9E-03		
<sup>238</sup> U		9.7E-02 ± 3.6E-02		<sup>238</sup> U	8.5E-02 ± 3.1E-02		
<sup>65</sup> Zn		-1.7E-02 ± 2.0E-02	U	<sup>65</sup> Zn	3.1E-02 ± 2.5E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D154 (100-F, 01/04/07)	<sup>144</sup> Ce	-1.2E+01 ± 1.2E+02	U	D155 (100-F, 06/01/06)	<sup>144</sup> Ce	2.1E-01 ± 4.3E-01	U
	<sup>60</sup> Co	-8.4E-01 ± 4.9E+00	U		<sup>60</sup> Co	2.2E-03 ± 1.2E-02	U
	<sup>134</sup> Cs	4.3E+01 ± 1.1E+01			<sup>134</sup> Cs	3.8E-02 ± 2.3E-02	
	<sup>137</sup> Cs	1.4E+02 ± 2.6E+01			<sup>137</sup> Cs	1.4E-01 ± 3.3E-02	
	<sup>152</sup> Eu	-1.3E+01 ± 2.4E+01	U		<sup>152</sup> Eu	1.1E-01 ± 5.1E-02	
	<sup>154</sup> Eu	-5.7E+00 ± 1.7E+01	U		<sup>154</sup> Eu	-8.4E-03 ± 4.3E-02	U
	<sup>155</sup> Eu	-9.8E+00 ± 3.2E+01	U		<sup>155</sup> Eu	2.3E-02 ± 4.2E-02	U
	<sup>238</sup> Pu	1.6E-02 ± 3.6E-02	U		<sup>238</sup> Pu	-1.8E-03 ± 1.1E-02	U
	<sup>239/240</sup> Pu	1.7E-02 ± 1.3E-02			<sup>239/240</sup> Pu	1.1E-02 ± 1.1E-02	U
	<sup>103</sup> Ru	-4.4E-04 ± 1.4E-03			<sup>103</sup> Ru	-9.7E-07 ± 4.4E-06	U
	<sup>106</sup> Ru	1.5E+00 ± 1.5E+01	U		<sup>106</sup> Ru	-1.0E-01 ± 1.9E-01	U
	<sup>125</sup> Sb	5.2E+00 ± 1.7E+01	U		<sup>125</sup> Sb	-9.7E-03 ± 3.6E-02	U
	<sup>113</sup> Sn	3.8E+01 ± 6.5E+01	U		<sup>113</sup> Sn	1.1E-02 ± 1.1E-01	U
	<sup>90</sup> Sr	-2.1E-02 ± 2.1E-01	U		<sup>90</sup> Sr	2.3E-01 ± 2.6E-01	U
	<sup>234</sup> U	1.5E-01 ± 5.4E-02			<sup>234</sup> U	9.2E-02 ± 3.7E-02	
	<sup>235</sup> U	1.2E-02 ± 1.1E-02			<sup>235</sup> U	6.2E-03 ± 9.3E-03	U
	<sup>238</sup> U	1.0E-01 ± 4.0E-02			<sup>238</sup> U	8.6E-02 ± 3.4E-02	
<sup>65</sup> Zn	-2.1E+01 ± 3.1E+01	U	<sup>65</sup> Zn	-1.1E-01 ± 1.1E-01	U		
D155 (100-F, 01/04/07)	<sup>144</sup> Ce	-3.0E-02 ± 1.1E-01	U	D168 (100-F, 06/01/06)	<sup>144</sup> Ce	1.8E-01 ± 1.5E-01	U
	<sup>60</sup> Co	3.3E-03 ± 7.0E-03	U		<sup>60</sup> Co	5.5E-03 ± 7.5E-03	U
	<sup>134</sup> Cs	3.2E-02 ± 1.1E-02			<sup>134</sup> Cs	2.6E-02 ± 1.2E-02	
	<sup>137</sup> Cs	1.0E-01 ± 2.0E-02			<sup>137</sup> Cs	1.5E-01 ± 3.0E-02	
	<sup>152</sup> Eu	4.4E-02 ± 2.1E-02			<sup>152</sup> Eu	3.2E-02 ± 2.6E-02	U
	<sup>154</sup> Eu	2.8E-03 ± 2.2E-02	U		<sup>154</sup> Eu	-2.6E-02 ± 2.6E-02	U
	<sup>155</sup> Eu	2.1E-02 ± 2.9E-02	U		<sup>155</sup> Eu	6.1E-02 ± 4.6E-02	
	<sup>238</sup> Pu	2.1E-03 ± 2.1E-03	U		<sup>238</sup> Pu	-5.3E-03 ± 1.1E-02	U
	<sup>239/240</sup> Pu	2.1E-02 ± 1.6E-02			<sup>239/240</sup> Pu	8.8E-03 ± 8.1E-03	
	<sup>103</sup> Ru	-1.6E-03 ± 6.1E-03	U		<sup>103</sup> Ru	-1.1E-02 ± 1.1E-02	U
	<sup>106</sup> Ru	7.4E-03 ± 5.3E-02	U		<sup>106</sup> Ru	1.9E-02 ± 6.6E-02	U
	<sup>125</sup> Sb	3.4E-03 ± 1.8E-02	U		<sup>125</sup> Sb	4.2E-03 ± 2.0E-02	U
	<sup>113</sup> Sn	1.4E-03 ± 8.2E-03	U		<sup>113</sup> Sn	-5.1E-03 ± 1.1E-02	U
	<sup>90</sup> Sr	-1.1E-01 ± 2.6E-01	U		<sup>90</sup> Sr	-7.2E-02 ± 2.2E-01	U
	<sup>234</sup> U	3.2E-01 ± 9.9E-02			<sup>234</sup> U	1.1E-01 ± 4.0E-02	
	<sup>235</sup> U	2.4E-02 ± 1.7E-02			<sup>235</sup> U	1.4E-02 ± 1.1E-02	
	<sup>238</sup> U	2.9E-01 ± 9.3E-02			<sup>238</sup> U	1.1E-01 ± 4.0E-02	
<sup>65</sup> Zn	-2.5E-02 ± 2.5E-02	U	<sup>65</sup> Zn	4.2E-04 ± 4.2E-03	U		

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D168 (100-F, 01/04/07)	<sup>144</sup> Ce	-2.0E-02 ± 1.6E-01	U	D169 (100-F, 06/01/06)	<sup>144</sup> Ce	5.3E-03 ± 5.3E-02	U
	<sup>60</sup> Co	-3.1E-03 ± 1.0E-02	U		<sup>60</sup> Co	3.5E-03 ± 5.1E-03	U
	<sup>134</sup> Cs	3.0E-02 ± 1.4E-02			<sup>134</sup> Cs	3.3E-02 ± 1.1E-02	
	<sup>137</sup> Cs	9.8E-02 ± 2.8E-02			<sup>137</sup> Cs	2.3E-01 ± 3.8E-02	
	<sup>152</sup> Eu	2.8E-02 ± 3.6E-02	U		<sup>152</sup> Eu	-6.3E-03 ± 1.8E-02	U
	<sup>154</sup> Eu	-1.0E-02 ± 3.3E-02	U		<sup>154</sup> Eu	3.0E-03 ± 1.8E-02	U
	<sup>155</sup> Eu	2.8E-02 ± 3.6E-02	U		<sup>155</sup> Eu	3.8E-02 ± 3.1E-02	U
	<sup>238</sup> Pu	2.6E-02 ± 3.2E-02	U		<sup>238</sup> Pu	1.6E-03 ± 1.2E-02	U
	<sup>239/240</sup> Pu	1.5E-02 ± 1.5E-02	U		<sup>239/240</sup> Pu	9.5E-03 ± 8.1E-03	
	<sup>103</sup> Ru	-1.3E-03 ± 9.4E-03	U		<sup>103</sup> Ru	-7.9E-04 ± 7.7E-03	U
	<sup>106</sup> Ru	2.4E-02 ± 1.0E-01	U		<sup>106</sup> Ru	-1.8E-02 ± 4.9E-02	U
	<sup>125</sup> Sb	-3.1E-02 ± 3.1E-02	U		<sup>125</sup> Sb	-5.9E-03 ± 1.5E-02	U
	<sup>113</sup> Sn	-7.3E-03 ± 1.3E-02	U		<sup>113</sup> Sn	2.3E-03 ± 8.2E-03	U
	<sup>90</sup> Sr	-8.1E-02 ± 2.5E-01	U		<sup>90</sup> Sr	-2.7E-01 ± 2.7E-01	U
	<sup>234</sup> U	9.9E-02 ± 4.0E-02			<sup>234</sup> U	1.4E-01 ± 5.0E-02	
	<sup>235</sup> U	1.9E-02 ± 1.6E-02			<sup>235</sup> U	1.1E-02 ± 9.9E-03	
	<sup>238</sup> U	1.3E-01 ± 4.8E-02			<sup>238</sup> U	1.2E-01 ± 4.8E-02	
<sup>65</sup> Zn	-1.5E-02 ± 2.8E-02	U	<sup>65</sup> Zn	-1.3E-02 ± 1.6E-02	U		
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D169 (100-F, 01/04/07)	<sup>144</sup> Ce	1.4E-01 ± 1.3E-01	U	D170 (100-F, 06/01/06)	<sup>144</sup> Ce	1.6E-01 ± 2.4E-01	U
	<sup>60</sup> Co	3.5E-03 ± 7.6E-03	U		<sup>60</sup> Co	-3.8E-03 ± 7.1E-03	U
	<sup>134</sup> Cs	2.9E-02 ± 1.1E-02			<sup>134</sup> Cs	5.4E-02 ± 1.4E-02	
	<sup>137</sup> Cs	1.8E-01 ± 3.5E-02			<sup>137</sup> Cs	3.2E-02 ± 1.3E-02	
	<sup>152</sup> Eu	-3.0E-03 ± 2.6E-02	U		<sup>152</sup> Eu	-4.5E-03 ± 3.0E-02	U
	<sup>154</sup> Eu	3.3E-03 ± 2.9E-02	U		<sup>154</sup> Eu	-4.6E-03 ± 2.7E-02	U
	<sup>155</sup> Eu	4.0E-02 ± 3.4E-02	U		<sup>155</sup> Eu	5.1E-02 ± 4.3E-02	U
	<sup>238</sup> Pu	2.3E-02 ± 4.0E-02	U		<sup>238</sup> Pu	-7.2E-03 ± 1.3E-02	U
	<sup>239/240</sup> Pu	1.3E-02 ± 1.3E-02	U		<sup>239/240</sup> Pu	1.8E-03 ± 1.8E-03	U
	<sup>103</sup> Ru	-1.6E-03 ± 7.2E-03	U		<sup>103</sup> Ru	3.0E-04 ± 3.0E-03	U
	<sup>106</sup> Ru	-5.6E-02 ± 6.9E-02	U		<sup>106</sup> Ru	-2.0E-02 ± 6.9E-02	U
	<sup>125</sup> Sb	1.3E-02 ± 2.0E-02	U		<sup>125</sup> Sb	-2.7E-03 ± 2.1E-02	U
	<sup>113</sup> Sn	-4.7E-03 ± 9.4E-03	U		<sup>113</sup> Sn	-1.5E-04 ± 1.5E-03	U
	<sup>90</sup> Sr	-1.9E-01 ± 2.1E-01	U		<sup>90</sup> Sr	2.9E-02 ± 2.5E-01	U
	<sup>234</sup> U	8.4E-02 ± 3.4E-02			<sup>234</sup> U	1.5E-01 ± 5.3E-02	
	<sup>235</sup> U	1.6E-02 ± 1.3E-02			<sup>235</sup> U	1.7E-02 ± 1.2E-02	
	<sup>238</sup> U	1.1E-01 ± 4.2E-02			<sup>238</sup> U	1.4E-01 ± 4.9E-02	
<sup>65</sup> Zn	3.5E-02 ± 2.2E-02		<sup>65</sup> Zn	-1.8E-03 ± 1.8E-02	U		

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>D170</b> (100-F, 01/04/07)	<sup>144</sup> Ce	-7.1E-02 ± 1.8E-01	U	<b>D166</b> (118-K-1)	<sup>60</sup> Co	-4.4E-03 ± 9.8E-03	U
	<sup>60</sup> Co	-6.5E-03 ± 1.2E-02	U		<sup>134</sup> Cs	4.0E-02 ± 1.5E-02	
	<sup>134</sup> Cs	5.6E-02 ± 1.6E-02			<sup>137</sup> Cs	1.6E-01 ± 3.2E-02	
	<sup>137</sup> Cs	1.0E-01 ± 2.5E-02			<sup>152</sup> Eu	4.9E-02 ± 2.5E-02	
	<sup>152</sup> Eu	3.4E-03 ± 3.4E-02	U		<sup>154</sup> Eu	-2.4E-02 ± 3.2E-02	U
	<sup>154</sup> Eu	-1.3E-02 ± 3.7E-02	U		<sup>155</sup> Eu	5.7E-02 ± 5.5E-02	U
	<sup>155</sup> Eu	3.4E-02 ± 4.5E-02	U		<sup>238</sup> Pu	1.9E-03 ± 1.9E-02	U
	<sup>238</sup> Pu	9.7E-03 ± 3.6E-02	U		<sup>239/240</sup> Pu	9.3E-03 ± 1.0E-02	U
	<sup>239/240</sup> Pu	-3.9E-03 ± 9.6E-03	U		<sup>106</sup> Ru	-1.6E-02 ± 8.7E-02	U
	<sup>103</sup> Ru	-8.3E-03 ± 1.1E-02	U		<sup>125</sup> Sb	-4.3E-04 ± 4.4E-03	U
	<sup>106</sup> Ru	3.2E-02 ± 9.9E-02	U		<sup>90</sup> Sr	-5.8E-02 ± 1.9E-01	U
	<sup>125</sup> Sb	5.8E-03 ± 3.0E-02	U		<sup>234</sup> U	1.4E-01 ± 5.2E-02	
	<sup>113</sup> Sn	-6.2E-03 ± 1.4E-02	U		<sup>238</sup> U	1.4E-01 ± 5.0E-02	
	<sup>90</sup> Sr	7.5E-02 ± 2.6E-01	U				
	<sup>234</sup> U	1.3E-01 ± 4.8E-02					
	<sup>235</sup> U	1.2E-02 ± 1.1E-02					
	<sup>238</sup> U	1.7E-01 ± 5.8E-02					
	<sup>65</sup> Zn	1.8E-02 ± 3.2E-02	U				
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<b>D167</b> (118-K-1)	<sup>60</sup> Co	3.4E-02 ± 1.1E-02		<b>Y608</b> (100-N)	<sup>144</sup> Ce	-7.2E-02 ± 3.0E-01	U
	<sup>134</sup> Cs	4.1E-02 ± 1.4E-02			<sup>60</sup> Co	1.6E+01 ± 1.5E+00	
	<sup>137</sup> Cs	4.7E-01 ± 8.1E-02			<sup>134</sup> Cs	6.8E-02 ± 4.0E-02	
	<sup>152</sup> Eu	2.1E-01 ± 3.1E-02			<sup>137</sup> Cs	3.5E+00 ± 5.8E-01	
	<sup>154</sup> Eu	1.4E-02 ± 3.1E-02	U		<sup>152</sup> Eu	-3.0E-03 ± 3.0E-02	U
	<sup>155</sup> Eu	7.2E-02 ± 5.6E-02			<sup>154</sup> Eu	5.1E-02 ± 5.7E-02	U
	<sup>238</sup> Pu	6.9E-03 ± 7.1E-03			<sup>155</sup> Eu	5.2E-02 ± 6.7E-02	U
	<sup>239/240</sup> Pu	1.4E-02 ± 1.0E-02			<sup>238</sup> Pu	-1.1E-02 ± 1.1E-02	U
	<sup>106</sup> Ru	-5.6E-02 ± 8.0E-02	U		<sup>239/240</sup> Pu	4.4E-02 ± 2.2E-02	
	<sup>125</sup> Sb	-6.8E-03 ± 2.6E-02	U		<sup>103</sup> Ru	5.5E-03 ± 2.8E-02	U
	<sup>90</sup> Sr	1.2E-01 ± 2.4E-01	U		<sup>106</sup> Ru	4.1E-02 ± 2.1E-01	U
<sup>234</sup> U	1.6E-01 ± 6.0E-02		<sup>125</sup> Sb	-3.2E-02 ± 5.9E-02	U		
<sup>238</sup> U	1.3E-01 ± 5.2E-02		<sup>113</sup> Sn	5.8E-03 ± 2.8E-02	U		
			<sup>90</sup> Sr	-4.1E-01 ± 4.1E-01	U		
			<sup>234</sup> U	1.1E-01 ± 4.0E-02			
			<sup>235</sup> U	1.2E-02 ± 1.0E-02			
			<sup>238</sup> U	1.2E-01 ± 4.3E-02			
			<sup>65</sup> Zn	-5.0E-03 ± 5.0E-02	U		

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D156 (100-N, 01/11/06)	<sup>60</sup> Co	5.3E-02 ± 1.1E-02		D156 (100-N, 06/06/06)	<sup>144</sup> Ce	9.4E-02 ± 1.2E-01	U
	<sup>134</sup> Cs	3.9E-02 ± 1.2E-02			<sup>60</sup> Co	1.9E-02 ± 8.9E-03	
	<sup>137</sup> Cs	2.2E-01 ± 3.8E-02			<sup>134</sup> Cs	2.7E-02 ± 1.1E-02	
	<sup>152</sup> Eu	-1.1E-03 ± 1.1E-02	U		<sup>137</sup> Cs	7.9E-02 ± 1.8E-02	
	<sup>154</sup> Eu	-1.2E-02 ± 2.4E-02	U		<sup>152</sup> Eu	-2.8E-02 ± 2.8E-02	U
	<sup>155</sup> Eu	3.2E-02 ± 3.1E-02	U		<sup>154</sup> Eu	7.7E-03 ± 2.8E-02	U
	<sup>238</sup> Pu	-1.2E-02 ± 3.0E-02	U		<sup>155</sup> Eu	7.0E-02 ± 5.3E-02	
	<sup>239/240</sup> Pu	2.4E-03 ± 2.4E-02	U		<sup>238</sup> Pu	1.1E-02 ± 3.8E-02	U
	<sup>106</sup> Ru	-6.5E-02 ± 5.7E-02	U		<sup>239/240</sup> Pu	-3.7E-03 ± 7.4E-03	U
	<sup>125</sup> Sb	2.1E-02 ± 2.0E-02	U		<sup>103</sup> Ru	-8.6E-03 ± 1.0E-02	U
	<sup>90</sup> Sr	-1.2E-02 ± 1.2E-01	U		<sup>106</sup> Ru	-3.5E-02 ± 6.5E-02	U
	<sup>234</sup> U	1.5E-01 ± 5.4E-02			<sup>125</sup> Sb	8.7E-03 ± 2.0E-02	U
	<sup>235</sup> U	1.5E-02 ± 1.5E-02	U		<sup>113</sup> Sn	-5.8E-03 ± 1.0E-02	U
	<sup>238</sup> U	1.4E-01 ± 5.1E-02			<sup>90</sup> Sr	-1.3E-01 ± 2.6E-01	U
<hr/>				<hr/>			
D158 (100-N, 01/11/06)	<sup>60</sup> Co	5.1E-02 ± 1.1E-02		D158 (100-N, 06/06/06)	<sup>144</sup> Ce	-4.2E-02 ± 1.6E-01	U
	<sup>134</sup> Cs	3.4E-02 ± 1.0E-02			<sup>60</sup> Co	1.0E-01 ± 1.4E-02	
	<sup>137</sup> Cs	1.7E-01 ± 3.0E-02			<sup>134</sup> Cs	3.3E-02 ± 1.2E-02	
	<sup>152</sup> Eu	1.4E-02 ± 2.2E-02	U		<sup>137</sup> Cs	1.7E-01 ± 3.2E-02	
	<sup>154</sup> Eu	-1.4E-04 ± 1.4E-03	U		<sup>152</sup> Eu	-1.7E-02 ± 3.1E-02	U
	<sup>155</sup> Eu	4.1E-02 ± 3.7E-02	U		<sup>154</sup> Eu	-1.9E-03 ± 1.9E-02	U
	<sup>238</sup> Pu	-7.4E-03 ± 3.6E-02	U		<sup>155</sup> Eu	-3.5E-03 ± 3.5E-02	U
	<sup>239/240</sup> Pu	1.8E-03 ± 1.1E-02	U		<sup>238</sup> Pu	3.9E-02 ± 3.9E-02	U
	<sup>106</sup> Ru	-1.6E-02 ± 5.3E-02	U		<sup>239/240</sup> Pu	5.8E-03 ± 1.0E-02	U
	<sup>125</sup> Sb	1.2E-02 ± 1.8E-02	U		<sup>103</sup> Ru	-3.0E-03 ± 9.5E-03	U
	<sup>90</sup> Sr	2.8E-01 ± 4.6E-01	U		<sup>106</sup> Ru	6.4E-02 ± 6.8E-02	U
	<sup>234</sup> U	1.2E-01 ± 4.5E-02			<sup>125</sup> Sb	7.6E-04 ± 7.6E-03	U
	<sup>235</sup> U	1.9E-02 ± 1.4E-02			<sup>113</sup> Sn	2.4E-03 ± 1.1E-02	U
	<sup>238</sup> U	1.1E-01 ± 4.1E-02			<sup>90</sup> Sr	-2.4E-01 ± 2.7E-01	U
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				<sup>234</sup> U	1.3E-01 ± 4.4E-02		
				<sup>235</sup> U	1.6E-02 ± 1.2E-02		
				<sup>238</sup> U	1.1E-01 ± 4.0E-02		
				<sup>65</sup> Zn	2.1E-03 ± 2.0E-02	U	

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D159 (100-N, 01/11/06)	<sup>60</sup> Co	1.6E-01 ± 2.1E-02		D159 (100-N, 06/06/06)	<sup>144</sup> Ce	3.1E-02 ± 1.5E-01	U
	<sup>134</sup> Cs	3.0E-02 ± 1.5E-02			<sup>60</sup> Co	1.1E-01 ± 1.6E-02	
	<sup>137</sup> Cs	8.8E-01 ± 1.5E-01			<sup>134</sup> Cs	4.5E-02 ± 1.5E-02	
	<sup>152</sup> Eu	-1.1E-04 ± 1.1E-03	U		<sup>137</sup> Cs	1.7E+00 ± 2.7E-01	
	<sup>154</sup> Eu	-2.5E-02 ± 2.5E-02	U		<sup>152</sup> Eu	6.8E-03 ± 3.0E-02	U
	<sup>155</sup> Eu	5.6E-02 ± 5.5E-02	U		<sup>154</sup> Eu	-3.0E-03 ± 2.7E-02	U
	<sup>238</sup> Pu	-5.7E-03 ± 3.5E-02	U		<sup>155</sup> Eu	5.9E-02 ± 4.5E-02	U
	<sup>239/240</sup> Pu	1.9E-03 ± 1.1E-02	U		<sup>238</sup> Pu	1.1E-02 ± 3.3E-02	U
	<sup>106</sup> Ru	-4.1E-02 ± 7.5E-02	U		<sup>239/240</sup> Pu	1.5E-02 ± 1.2E-02	
	<sup>125</sup> Sb	1.3E-02 ± 2.6E-02	U		<sup>103</sup> Ru	-1.1E-02 ± 1.2E-02	U
	<sup>90</sup> Sr	2.0E-01 ± 4.9E-01	U		<sup>106</sup> Ru	-8.4E-04 ± 8.4E-03	U
	<sup>238</sup> U	9.8E-02 ± 3.9E-02			<sup>125</sup> Sb	6.4E-04 ± 6.4E-03	U
					<sup>113</sup> Sn	-9.2E-03 ± 1.3E-02	U
			<sup>90</sup> Sr	2.4E-01 ± 2.9E-01	U		
			<sup>234</sup> U	1.4E-01 ± 4.8E-02			
			<sup>235</sup> U	1.8E-02 ± 1.3E-02			
			<sup>238</sup> U	1.6E-01 ± 5.3E-02			
			<sup>65</sup> Zn	-6.9E-03 ± 2.0E-02	U		
<hr/>				<hr/>			
D002 (200-W)	<sup>144</sup> Ce	9.9E-02 ± 1.3E-01	U	D004 (200-W)	<sup>144</sup> Ce	5.3E-02 ± 1.9E-01	U
	<sup>60</sup> Co	-1.7E-03 ± 5.8E-03	U		<sup>60</sup> Co	-8.5E-03 ± 1.1E-02	U
	<sup>134</sup> Cs	2.5E-02 ± 1.3E-02			<sup>134</sup> Cs	4.5E-02 ± 2.1E-02	
	<sup>137</sup> Cs	1.9E-01 ± 3.2E-02			<sup>137</sup> Cs	6.2E-01 ± 9.7E-02	
	<sup>152</sup> Eu	8.2E-03 ± 2.2E-02	U		<sup>152</sup> Eu	-4.0E-02 ± 4.0E-02	U
	<sup>154</sup> Eu	8.3E-03 ± 2.0E-02	U		<sup>154</sup> Eu	-1.7E-02 ± 3.5E-02	U
	<sup>155</sup> Eu	1.2E-02 ± 2.9E-02	U		<sup>155</sup> Eu	5.0E-02 ± 4.8E-02	U
	<sup>238</sup> Pu	9.8E-03 ± 1.6E-02	U		<sup>238</sup> Pu	5.9E-03 ± 1.5E-02	U
	<sup>239/240</sup> Pu	2.2E-02 ± 1.5E-02			<sup>239/240</sup> Pu	5.9E-02 ± 2.5E-02	
	<sup>103</sup> Ru	9.1E-04 ± 7.6E-03	U		<sup>103</sup> Ru	-3.2E-03 ± 1.5E-02	U
	<sup>106</sup> Ru	1.3E-02 ± 5.5E-02	U		<sup>106</sup> Ru	-9.1E-02 ± 1.0E-01	U
	<sup>125</sup> Sb	7.3E-03 ± 1.8E-02	U		<sup>125</sup> Sb	-1.0E-02 ± 3.3E-02	U
	<sup>113</sup> Sn	5.1E-04 ± 5.1E-03	U		<sup>113</sup> Sn	-8.7E-04 ± 8.7E-03	U
	<sup>90</sup> Sr	-1.8E-01 ± 2.7E-01	U		<sup>90</sup> Sr	-2.6E-01 ± 2.7E-01	U
	<sup>234</sup> U	9.7E-02 ± 3.9E-02			<sup>234</sup> U	1.7E-01 ± 6.1E-02	
	<sup>235</sup> U	3.2E-02 ± 1.9E-02			<sup>235</sup> U	8.4E-03 ± 1.3E-02	U
	<sup>238</sup> U	1.2E-01 ± 4.6E-02			<sup>238</sup> U	1.3E-01 ± 5.1E-02	
<sup>65</sup> Zn	1.4E-03 ± 1.4E-02	U	<sup>65</sup> Zn	-2.4E-02 ± 3.1E-02	U		

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D006 (200-W)	<sup>144</sup> Ce	4.0E-02 ± 1.3E-01	U	D008 (200-W)	<sup>144</sup> Ce	2.6E-02 ± 1.2E-01	U
	<sup>60</sup> Co	-2.7E-03 ± 6.1E-03	U		<sup>60</sup> Co	-3.9E-04 ± 3.9E-03	U
	<sup>134</sup> Cs	3.0E-02 ± 1.0E-02			<sup>134</sup> Cs	3.5E-02 ± 1.2E-02	
	<sup>137</sup> Cs	9.0E-02 ± 2.5E-02			<sup>137</sup> Cs	4.0E-01 ± 6.6E-02	
	<sup>152</sup> Eu	-2.2E-03 ± 2.2E-02	U		<sup>152</sup> Eu	-3.1E-03 ± 2.1E-02	U
	<sup>154</sup> Eu	3.2E-03 ± 2.4E-02	U		<sup>154</sup> Eu	-1.1E-03 ± 1.1E-02	U
	<sup>155</sup> Eu	3.1E-02 ± 3.7E-02	U		<sup>155</sup> Eu	1.1E-02 ± 2.9E-02	U
	<sup>238</sup> Pu	2.1E-03 ± 2.1E-02	U		<sup>238</sup> Pu	1.0E-01 ± 4.8E-02	
	<sup>239/240</sup> Pu	2.1E-03 ± 2.1E-02	U		<sup>239/240</sup> Pu	1.8E+00 ± 4.7E-01	
	<sup>103</sup> Ru	-3.1E-03 ± 7.4E-03	U		<sup>103</sup> Ru	-4.5E-05 ± 4.4E-04	U
	<sup>106</sup> Ru	-2.0E-02 ± 5.9E-02	U		<sup>106</sup> Ru	-8.6E-03 ± 5.8E-02	U
	<sup>125</sup> Sb	1.5E-02 ± 1.6E-02	U		<sup>125</sup> Sb	1.1E-03 ± 1.1E-02	U
	<sup>113</sup> Sn	-9.9E-03 ± 9.9E-03	U		<sup>113</sup> Sn	5.3E-03 ± 9.9E-03	U
	<sup>90</sup> Sr	2.7E-01 ± 2.8E-01	U		<sup>90</sup> Sr	6.2E-02 ± 2.4E-01	U
	<sup>234</sup> U	1.2E-01 ± 4.3E-02			<sup>234</sup> U	1.2E-01 ± 4.3E-02	
	<sup>235</sup> U	2.0E-02 ± 1.6E-02			<sup>235</sup> U	9.5E-03 ± 8.8E-03	
	<sup>238</sup> U	1.1E-01 ± 4.1E-02			<sup>238</sup> U	1.5E-01 ± 4.9E-02	
	<sup>65</sup> Zn	-2.1E-04 ± 2.1E-03	U		<sup>65</sup> Zn	-5.1E-03 ± 1.6E-02	U
D010 (200-W)	<sup>144</sup> Ce	1.7E-01 ± 1.6E-01	U	D012 (200-W)	<sup>144</sup> Ce	8.8E-02 ± 1.4E-01	U
	<sup>60</sup> Co	-2.2E-03 ± 7.8E-03	U		<sup>60</sup> Co	-1.4E-03 ± 7.5E-03	U
	<sup>134</sup> Cs	3.0E-02 ± 1.3E-02			<sup>134</sup> Cs	5.2E-02 ± 1.4E-02	
	<sup>137</sup> Cs	1.6E+00 ± 2.6E-01			<sup>137</sup> Cs	3.1E+00 ± 5.0E-01	
	<sup>152</sup> Eu	2.1E-02 ± 4.2E-02	U		<sup>152</sup> Eu	-7.7E-03 ± 2.8E-02	U
	<sup>154</sup> Eu	-1.8E-02 ± 2.5E-02	U		<sup>154</sup> Eu	7.6E-03 ± 2.4E-02	U
	<sup>155</sup> Eu	3.9E-02 ± 4.4E-02	U		<sup>155</sup> Eu	3.4E-02 ± 3.3E-02	U
	<sup>238</sup> Pu	2.2E-02 ± 2.4E-02	U		<sup>238</sup> Pu	5.3E-03 ± 1.5E-02	U
	<sup>239/240</sup> Pu	2.5E-01 ± 7.8E-02			<sup>239/240</sup> Pu	3.4E-02 ± 1.8E-02	
	<sup>103</sup> Ru	5.2E-03 ± 1.1E-02	U		<sup>103</sup> Ru	-5.4E-04 ± 5.4E-03	U
	<sup>106</sup> Ru	-3.8E-02 ± 7.7E-02	U		<sup>106</sup> Ru	-5.9E-02 ± 7.4E-02	U
	<sup>125</sup> Sb	-3.4E-03 ± 2.6E-02	U		<sup>125</sup> Sb	1.7E-02 ± 2.7E-02	U
	<sup>113</sup> Sn	-1.6E-04 ± 1.5E-03	U		<sup>113</sup> Sn	-1.3E-03 ± 1.3E-02	U
	<sup>90</sup> Sr	-1.5E-02 ± 1.5E-01	U		<sup>90</sup> Sr	2.6E-01 ± 2.6E-01	U
	<sup>234</sup> U	1.0E-01 ± 3.8E-02			<sup>234</sup> U	1.2E-01 ± 4.3E-02	
	<sup>235</sup> U	1.1E-02 ± 1.2E-02	U		<sup>235</sup> U	8.2E-03 ± 8.2E-03	
	<sup>238</sup> U	1.1E-01 ± 4.2E-02			<sup>238</sup> U	1.3E-01 ± 4.5E-02	
	<sup>65</sup> Zn	2.0E-02 ± 2.1E-02	U		<sup>65</sup> Zn	9.9E-03 ± 2.0E-02	U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D014 (200-W)	<sup>144</sup> Ce	-7.6E-03 ± 7.6E-02	U	D016 (200-W)	<sup>144</sup> Ce	-8.3E-02 ± 1.4E-01	U
	<sup>60</sup> Co	-5.2E-03 ± 6.7E-03	U		<sup>60</sup> Co	-6.7E-03 ± 7.3E-03	U
	<sup>134</sup> Cs	2.0E-02 ± 1.3E-02			<sup>134</sup> Cs	4.5E-02 ± 1.5E-02	
	<sup>137</sup> Cs	2.0E-02 ± 1.0E-02			<sup>137</sup> Cs	7.2E-01 ± 1.2E-01	
	<sup>152</sup> Eu	1.8E-02 ± 2.5E-02	U		<sup>152</sup> Eu	-2.2E-02 ± 2.6E-02	U
	<sup>154</sup> Eu	-6.8E-03 ± 2.1E-02	U		<sup>154</sup> Eu	-4.9E-03 ± 2.7E-02	U
	<sup>155</sup> Eu	2.3E-02 ± 3.0E-02	U		<sup>155</sup> Eu	5.0E-02 ± 3.6E-02	U
	<sup>238</sup> Pu	5.5E-02 ± 8.8E-02	U		<sup>238</sup> Pu	4.1E-03 ± 2.7E-02	U
	<sup>239/240</sup> Pu	2.0E-02 ± 2.4E-02	U		<sup>239/240</sup> Pu	5.0E-01 ± 1.4E-01	
	<sup>103</sup> Ru	-8.2E-03 ± 8.3E-03	U		<sup>103</sup> Ru	2.5E-03 ± 1.1E-02	U
	<sup>106</sup> Ru	4.2E-02 ± 5.9E-02	U		<sup>106</sup> Ru	-3.4E-02 ± 6.7E-02	U
	<sup>125</sup> Sb	-2.7E-03 ± 1.8E-02	U		<sup>125</sup> Sb	8.9E-03 ± 2.3E-02	U
	<sup>113</sup> Sn	-4.7E-03 ± 9.1E-03	U		<sup>113</sup> Sn	-1.3E-02 ± 1.3E-02	U
	<sup>90</sup> Sr	-1.4E-01 ± 2.4E-01	U		<sup>90</sup> Sr	-7.4E-02 ± 2.4E-01	U
	<sup>234</sup> U	1.6E-01 ± 7.5E-02			<sup>234</sup> U	1.6E-01 ± 5.4E-02	
	<sup>235</sup> U	5.9E-03 ± 2.1E-02	U		<sup>235</sup> U	2.3E-02 ± 1.5E-02	
	<sup>238</sup> U	1.1E-01 ± 5.8E-02			<sup>238</sup> U	1.3E-01 ± 4.7E-02	
	<sup>65</sup> Zn	1.0E-02 ± 1.8E-02	U		<sup>65</sup> Zn	-8.8E-03 ± 2.1E-02	U
	D018 (200-W)	<sup>144</sup> Ce	1.6E-02 ± 1.4E-01		U	D020 (200-W)	<sup>144</sup> Ce
<sup>60</sup> Co		-1.4E-03 ± 6.4E-03	U	<sup>60</sup> Co	9.8E-03 ± 1.2E-02		U
<sup>134</sup> Cs		3.1E-02 ± 1.1E-02		<sup>134</sup> Cs	4.7E-02 ± 2.1E-02		
<sup>137</sup> Cs		2.4E-01 ± 4.2E-02		<sup>137</sup> Cs	2.2E-01 ± 4.3E-02		
<sup>152</sup> Eu		-4.3E-03 ± 2.4E-02	U	<sup>152</sup> Eu	-1.7E-03 ± 1.7E-02		U
<sup>154</sup> Eu		7.5E-03 ± 2.2E-02	U	<sup>154</sup> Eu	-3.2E-02 ± 3.3E-02		U
<sup>155</sup> Eu		4.3E-02 ± 3.7E-02	U	<sup>155</sup> Eu	5.3E-02 ± 4.5E-02		U
<sup>238</sup> Pu		-9.0E-03 ± 2.0E-02	U	<sup>238</sup> Pu	7.2E-03 ± 3.7E-02		U
<sup>239/240</sup> Pu		2.2E-03 ± 9.9E-03	U	<sup>239/240</sup> Pu	4.8E-03 ± 1.5E-02		U
<sup>103</sup> Ru		2.5E-03 ± 8.3E-03	U	<sup>103</sup> Ru	5.8E-03 ± 1.3E-02		U
<sup>106</sup> Ru		-5.8E-03 ± 5.8E-02	U	<sup>106</sup> Ru	-2.4E-02 ± 9.1E-02		U
<sup>125</sup> Sb		-1.0E-02 ± 2.0E-02	U	<sup>125</sup> Sb	-3.0E-02 ± 3.3E-02		U
<sup>113</sup> Sn		-1.2E-02 ± 1.2E-02	U	<sup>113</sup> Sn	-6.1E-03 ± 1.4E-02		U
<sup>90</sup> Sr		-7.1E-02 ± 2.5E-01	U	<sup>90</sup> Sr	8.1E+00 ± 1.6E+00		
<sup>234</sup> U		1.0E-01 ± 3.8E-02		<sup>234</sup> U	8.8E-02 ± 3.5E-02		
<sup>235</sup> U		1.9E-03 ± 1.9E-02	U	<sup>235</sup> U	4.4E-03 ± 8.8E-03		U
<sup>238</sup> U		8.5E-02 ± 3.3E-02		<sup>238</sup> U	1.1E-01 ± 4.2E-02		
<sup>65</sup> Zn		-4.3E-03 ± 1.8E-02	U	<sup>65</sup> Zn	5.3E-03 ± 2.7E-02		U

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



Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*		
<b>D022</b> (200-W)	<sup>144</sup> Ce	6.9E-03 ± 6.9E-02	U	<b>D024</b> (200-W)	<sup>144</sup> Ce	6.4E-02 ± 1.9E-01	U		
	<sup>60</sup> Co	1.1E-03 ± 9.7E-03	U		<sup>60</sup> Co	-4.1E-03 ± 7.9E-03	U		
	<sup>134</sup> Cs	4.5E-02 ± 1.7E-02			<sup>134</sup> Cs	5.3E-02 ± 1.6E-02			
	<sup>137</sup> Cs	1.5E+00 ± 2.5E-01			<sup>137</sup> Cs	3.2E-01 ± 5.9E-02			
	<sup>152</sup> Eu	-7.8E-03 ± 3.1E-02	U		<sup>152</sup> Eu	1.5E-02 ± 4.4E-02	U		
	<sup>154</sup> Eu	-5.0E-02 ± 5.0E-02	U		<sup>154</sup> Eu	4.6E-03 ± 2.9E-02	U		
	<sup>155</sup> Eu	6.0E-02 ± 5.6E-02	U		<sup>155</sup> Eu	2.3E-02 ± 4.4E-02	U		
	<sup>238</sup> Pu	2.5E-02 ± 3.5E-02	U		<sup>238</sup> Pu	4.6E-02 ± 3.8E-02	U		
	<sup>239/240</sup> Pu	5.4E-02 ± 2.7E-02			<sup>239/240</sup> Pu	8.1E-02 ± 3.6E-02			
	<sup>103</sup> Ru	-9.9E-03 ± 1.3E-02	U		<sup>103</sup> Ru	-3.0E-03 ± 1.2E-02	U		
	<sup>106</sup> Ru	-1.2E-01 ± 1.2E-01	U		<sup>106</sup> Ru	-1.0E-02 ± 7.8E-02	U		
	<sup>125</sup> Sb	-1.9E-03 ± 1.9E-02	U		<sup>125</sup> Sb	2.2E-02 ± 2.5E-02	U		
	<sup>113</sup> Sn	1.1E-02 ± 1.4E-02	U		<sup>113</sup> Sn	-1.8E-02 ± 1.8E-02	U		
	<sup>90</sup> Sr	1.1E-01 ± 2.1E-01	U		<sup>90</sup> Sr	1.6E-02 ± 1.6E-01	U		
	<sup>234</sup> U	1.2E-01 ± 4.4E-02			<sup>234</sup> U	1.5E-01 ± 5.4E-02			
	<sup>235</sup> U	1.8E-02 ± 1.3E-02			<sup>235</sup> U	1.2E-02 ± 1.1E-02			
	<sup>238</sup> U	1.4E-01 ± 4.9E-02			<sup>238</sup> U	1.3E-01 ± 4.8E-02			
	<sup>65</sup> Zn	1.0E-02 ± 2.4E-02	U		<sup>65</sup> Zn	-2.8E-02 ± 2.8E-02	U		
	<b>D026</b> (200-W)	<sup>144</sup> Ce	5.7E-02 ± 1.8E-01		U	<b>D028</b> (200-W)	<sup>144</sup> Ce	7.9E-03 ± 7.9E-02	U
		<sup>60</sup> Co	-5.1E-03 ± 9.0E-03		U		<sup>60</sup> Co	2.8E-03 ± 6.8E-03	U
<sup>134</sup> Cs		3.4E-02 ± 1.6E-02		<sup>134</sup> Cs	3.0E-02 ± 1.0E-02				
<sup>137</sup> Cs		2.1E+00 ± 3.5E-01		<sup>137</sup> Cs	8.7E-01 ± 1.4E-01				
<sup>152</sup> Eu		-5.3E-03 ± 3.8E-02	U	<sup>152</sup> Eu	-2.0E-02 ± 2.3E-02		U		
<sup>154</sup> Eu		1.1E-02 ± 3.1E-02	U	<sup>154</sup> Eu	-1.2E-03 ± 1.2E-02		U		
<sup>155</sup> Eu		4.6E-02 ± 4.1E-02	U	<sup>155</sup> Eu	5.6E-02 ± 3.7E-02				
<sup>238</sup> Pu		4.6E-02 ± 4.0E-02	U	<sup>238</sup> Pu	4.0E-03 ± 3.6E-02		U		
<sup>239/240</sup> Pu		7.3E-01 ± 2.0E-01		<sup>239/240</sup> Pu	3.0E-02 ± 1.9E-02				
<sup>103</sup> Ru		-3.0E-03 ± 1.3E-02	U	<sup>103</sup> Ru	-2.1E-04 ± 2.1E-03		U		
<sup>106</sup> Ru		-3.9E-02 ± 9.0E-02	U	<sup>106</sup> Ru	3.5E-04 ± 3.5E-03		U		
<sup>125</sup> Sb		3.7E-05 ± 3.7E-04	U	<sup>125</sup> Sb	-1.7E-03 ± 1.7E-02		U		
<sup>113</sup> Sn		-7.7E-03 ± 1.4E-02	U	<sup>113</sup> Sn	-2.0E-03 ± 1.1E-02		U		
<sup>90</sup> Sr		3.6E-01 ± 2.3E-01		<sup>90</sup> Sr	4.8E-01 ± 2.4E-01				
<sup>234</sup> U		1.2E-01 ± 4.3E-02		<sup>234</sup> U	8.8E-02 ± 3.3E-02				
<sup>235</sup> U		1.2E-02 ± 1.0E-02		<sup>235</sup> U	1.1E-02 ± 1.2E-02		U		
<sup>238</sup> U	1.8E-01 ± 5.9E-02		<sup>238</sup> U	1.1E-01 ± 4.0E-02					
<sup>65</sup> Zn	4.5E-03 ± 2.4E-02	U	<sup>65</sup> Zn	-9.9E-03 ± 1.9E-02	U				

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*		
D030 (200-W)	<sup>144</sup> Ce	-3.7E-02 ± 1.8E-01	U	D032 (200-W)	<sup>144</sup> Ce	1.8E-02 ± 1.4E-01	U		
	<sup>60</sup> Co	5.0E-03 ± 7.5E-03	U		<sup>60</sup> Co	-1.5E-03 ± 6.2E-03	U		
	<sup>134</sup> Cs	3.2E-02 ± 1.6E-02			<sup>134</sup> Cs	4.4E-02 ± 1.3E-02			
	<sup>137</sup> Cs	3.4E+00 ± 5.4E-01			<sup>137</sup> Cs	1.7E+00 ± 2.8E-01			
	<sup>152</sup> Eu	2.9E-02 ± 3.3E-02	U		<sup>152</sup> Eu	-1.5E-02 ± 2.6E-02	U		
	<sup>154</sup> Eu	-1.5E-02 ± 2.4E-02	U		<sup>154</sup> Eu	-4.7E-03 ± 2.0E-02	U		
	<sup>155</sup> Eu	4.0E-02 ± 4.7E-02	U		<sup>155</sup> Eu	5.8E-02 ± 4.4E-02			
	<sup>238</sup> Pu	5.0E-03 ± 4.7E-02	U		<sup>238</sup> Pu	2.0E-03 ± 2.0E-02	U		
	<sup>239/240</sup> Pu	5.0E-02 ± 3.2E-02			<sup>239/240</sup> Pu	1.8E-02 ± 1.5E-02	U		
	<sup>103</sup> Ru	3.9E-03 ± 1.4E-02	U		<sup>103</sup> Ru	7.1E-03 ± 9.5E-03	U		
	<sup>106</sup> Ru	-2.6E-03 ± 2.6E-02	U		<sup>106</sup> Ru	-3.1E-02 ± 6.1E-02	U		
	<sup>125</sup> Sb	5.5E-03 ± 3.0E-02	U		<sup>125</sup> Sb	7.7E-03 ± 2.3E-02	U		
	<sup>113</sup> Sn	2.5E-03 ± 1.5E-02	U		<sup>113</sup> Sn	-1.3E-02 ± 1.3E-02	U		
	<sup>90</sup> Sr	6.1E-01 ± 2.7E-01			<sup>90</sup> Sr	-2.4E-01 ± 2.6E-01	U		
	<sup>234</sup> U	3.0E-01 ± 9.0E-02			<sup>234</sup> U	1.2E-01 ± 4.2E-02			
	<sup>235</sup> U	1.8E-02 ± 1.3E-02			<sup>235</sup> U	9.5E-03 ± 1.0E-02	U		
	<sup>238</sup> U	3.0E-01 ± 9.0E-02			<sup>238</sup> U	1.3E-01 ± 4.4E-02			
	<sup>65</sup> Zn	-2.8E-03 ± 2.2E-02	U		<sup>65</sup> Zn	1.3E-02 ± 2.6E-02	U		
	D034 (200-W)	<sup>144</sup> Ce	-1.6E-03 ± 1.6E-02		U	D036 (200-W)	<sup>144</sup> Ce	7.7E-02 ± 1.9E-01	U
		<sup>60</sup> Co	7.4E-04 ± 7.4E-03		U		<sup>60</sup> Co	-4.4E-03 ± 7.3E-03	U
<sup>134</sup> Cs		4.8E-02 ± 2.0E-02		<sup>134</sup> Cs	3.0E-02 ± 1.1E-02				
<sup>137</sup> Cs		1.2E+00 ± 1.8E-01		<sup>137</sup> Cs	4.9E+00 ± 8.8E-01				
<sup>152</sup> Eu		-5.5E-02 ± 5.5E-02	U	<sup>152</sup> Eu	5.5E-03 ± 4.6E-02		U		
<sup>154</sup> Eu		-1.8E-02 ± 3.3E-02	U	<sup>154</sup> Eu	-4.2E-02 ± 4.2E-02		U		
<sup>155</sup> Eu		3.7E-02 ± 4.6E-02	U	<sup>155</sup> Eu	3.9E-02 ± 4.2E-02		U		
<sup>238</sup> Pu		1.5E-02 ± 3.3E-02	U	<sup>238</sup> Pu	3.4E-03 ± 1.2E-02		U		
<sup>239/240</sup> Pu		4.4E-01 ± 1.3E-01		<sup>239/240</sup> Pu	6.7E-02 ± 2.6E-02				
<sup>103</sup> Ru		-1.6E-02 ± 1.6E-02	U	<sup>103</sup> Ru	4.2E-03 ± 1.3E-02		U		
<sup>106</sup> Ru		-6.3E-02 ± 9.5E-02	U	<sup>106</sup> Ru	-1.2E-01 ± 1.2E-01		U		
<sup>125</sup> Sb		-2.2E-02 ± 3.2E-02	U	<sup>125</sup> Sb	-4.2E-03 ± 3.3E-02		U		
<sup>113</sup> Sn		7.1E-03 ± 1.5E-02	U	<sup>113</sup> Sn	-4.3E-03 ± 1.6E-02		U		
<sup>90</sup> Sr		-3.2E-01 ± 3.2E-01	U	<sup>90</sup> Sr	2.5E-02 ± 2.0E-01		U		
<sup>234</sup> U		1.7E-01 ± 5.6E-02		<sup>234</sup> U	1.4E-01 ± 4.6E-02				
<sup>235</sup> U		7.8E-03 ± 9.4E-03	U	<sup>235</sup> U	1.2E-02 ± 9.6E-03				
<sup>238</sup> U	1.5E-01 ± 5.1E-02		<sup>238</sup> U	1.0E-01 ± 3.5E-02					
<sup>65</sup> Zn	-7.4E-03 ± 2.7E-02	U	<sup>65</sup> Zn	4.5E-03 ± 2.1E-02	U				

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D038 (200-W)	<sup>144</sup> Ce	-8.3E-02 ± 1.7E-01	U	D040 (200-W)	<sup>144</sup> Ce	-7.4E-03 ± 7.3E-02	U
	<sup>60</sup> Co	2.7E-03 ± 9.2E-03	U		<sup>60</sup> Co	-4.3E-03 ± 8.0E-03	U
	<sup>134</sup> Cs	3.1E-02 ± 1.7E-02			<sup>134</sup> Cs	4.3E-02 ± 1.5E-02	
	<sup>137</sup> Cs	9.6E-01 ± 1.6E-01			<sup>137</sup> Cs	2.6E-01 ± 4.7E-02	
	<sup>152</sup> Eu	-1.2E-02 ± 3.7E-02	U		<sup>152</sup> Eu	7.3E-03 ± 2.6E-02	U
	<sup>154</sup> Eu	-5.2E-02 ± 5.2E-02	U		<sup>154</sup> Eu	1.4E-01 ± 7.6E-02	
	<sup>155</sup> Eu	5.8E-02 ± 4.1E-02	U		<sup>155</sup> Eu	5.8E-02 ± 4.7E-02	
	<sup>238</sup> Pu	-1.6E-02 ± 3.7E-02	U		<sup>238</sup> Pu	-8.6E-03 ± 2.2E-02	U
	<sup>239/240</sup> Pu	8.2E-03 ± 1.6E-02	U		<sup>239/240</sup> Pu	2.4E-02 ± 1.6E-02	
	<sup>103</sup> Ru	5.0E-04 ± 5.0E-03	U		<sup>103</sup> Ru	-2.0E-03 ± 9.2E-03	U
	<sup>106</sup> Ru	7.8E-02 ± 8.9E-02	U		<sup>106</sup> Ru	2.9E-02 ± 6.7E-02	U
	<sup>125</sup> Sb	-6.8E-03 ± 2.7E-02	U		<sup>125</sup> Sb	1.8E-02 ± 2.1E-02	U
	<sup>113</sup> Sn	5.2E-03 ± 1.3E-02	U		<sup>113</sup> Sn	-2.5E-03 ± 1.0E-02	U
	<sup>90</sup> Sr	2.7E-01 ± 2.5E-01	U		<sup>90</sup> Sr	-1.4E-01 ± 2.4E-01	U
	<sup>234</sup> U	5.1E-01 ± 1.4E-01			<sup>234</sup> U	1.7E-01 ± 5.6E-02	
	<sup>235</sup> U	5.4E-02 ± 2.4E-02			<sup>235</sup> U	1.8E-02 ± 1.2E-02	
	<sup>238</sup> U	5.3E-01 ± 1.5E-01			<sup>238</sup> U	1.6E-01 ± 5.3E-02	
	<sup>65</sup> Zn	2.6E-02 ± 2.5E-02	U		<sup>65</sup> Zn	2.1E-02 ± 2.1E-02	U
	D042 (200-W)	<sup>144</sup> Ce	-2.7E-02 ± 1.8E-01		U	D044 (200-W)	<sup>144</sup> Ce
<sup>60</sup> Co		-1.4E-03 ± 7.2E-03	U	<sup>60</sup> Co	7.8E-03 ± 7.9E-03		U
<sup>134</sup> Cs		4.9E-02 ± 1.7E-02		<sup>134</sup> Cs	2.8E-02 ± 1.3E-02		
<sup>137</sup> Cs		8.6E-01 ± 1.5E-01		<sup>137</sup> Cs	4.0E+00 ± 7.2E-01		
<sup>152</sup> Eu		-2.6E-02 ± 3.5E-02	U	<sup>152</sup> Eu	1.1E-02 ± 3.9E-02		U
<sup>154</sup> Eu		3.6E-03 ± 2.6E-02	U	<sup>154</sup> Eu	1.1E-02 ± 2.6E-02		U
<sup>155</sup> Eu		6.1E-02 ± 5.1E-02	U	<sup>155</sup> Eu	1.4E-02 ± 4.2E-02		U
<sup>238</sup> Pu		2.0E-03 ± 2.0E-03	U	<sup>238</sup> Pu	1.3E-02 ± 3.4E-02		U
<sup>239/240</sup> Pu		5.5E-02 ± 2.7E-02		<sup>239/240</sup> Pu	3.4E-01 ± 1.0E-01		
<sup>103</sup> Ru		-2.6E-03 ± 9.9E-03	U	<sup>103</sup> Ru	-1.3E-03 ± 1.3E-02		U
<sup>106</sup> Ru		4.1E-02 ± 7.4E-02	U	<sup>106</sup> Ru	2.0E-02 ± 9.1E-02		U
<sup>125</sup> Sb		4.1E-03 ± 2.5E-02	U	<sup>125</sup> Sb	-3.4E-02 ± 3.4E-02		U
<sup>113</sup> Sn		-1.3E-03 ± 1.2E-02	U	<sup>113</sup> Sn	7.2E-03 ± 1.5E-02		U
<sup>90</sup> Sr		-1.6E-01 ± 2.3E-01	U	<sup>90</sup> Sr	1.8E-01 ± 2.3E-01		U
<sup>234</sup> U		1.8E-01 ± 5.8E-02		<sup>234</sup> U	3.2E-01 ± 9.6E-02		
<sup>235</sup> U		1.6E-02 ± 1.2E-02		<sup>235</sup> U	2.2E-02 ± 1.4E-02		
<sup>238</sup> U		2.0E-01 ± 6.2E-02		<sup>238</sup> U	3.4E-01 ± 9.9E-02		
<sup>65</sup> Zn		-9.2E-03 ± 2.1E-02	U	<sup>65</sup> Zn	9.0E-03 ± 2.2E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D046 (200-W)	<sup>144</sup> Ce	-6.0E-02 ± 1.3E-01	U	D048 (200-W)	<sup>144</sup> Ce	-3.4E-02 ± 1.4E-01	U
	<sup>60</sup> Co	-2.0E-03 ± 6.6E-03	U		<sup>60</sup> Co	1.8E-03 ± 6.7E-03	U
	<sup>134</sup> Cs	3.8E-02 ± 1.2E-02			<sup>134</sup> Cs	4.0E-02 ± 1.5E-02	
	<sup>137</sup> Cs	4.6E-01 ± 7.5E-02			<sup>137</sup> Cs	1.1E+00 ± 1.8E-01	
	<sup>152</sup> Eu	-1.4E-02 ± 2.5E-02	U		<sup>152</sup> Eu	-2.4E-02 ± 2.5E-02	U
	<sup>154</sup> Eu	-1.4E-02 ± 2.1E-02	U		<sup>154</sup> Eu	-1.2E-02 ± 2.1E-02	U
	<sup>155</sup> Eu	4.7E-02 ± 4.2E-02	U		<sup>155</sup> Eu	4.1E-02 ± 3.6E-02	U
	<sup>238</sup> Pu	2.2E-03 ± 2.2E-02	U		<sup>238</sup> Pu	4.0E-03 ± 2.5E-02	U
	<sup>239/240</sup> Pu	2.0E-02 ± 1.4E-02			<sup>239/240</sup> Pu	2.2E-02 ± 1.7E-02	U
	<sup>103</sup> Ru	-3.0E-03 ± 8.3E-03	U		<sup>103</sup> Ru	5.8E-03 ± 9.2E-03	U
	<sup>106</sup> Ru	7.1E-03 ± 5.8E-02	U		<sup>106</sup> Ru	-3.2E-03 ± 3.2E-02	U
	<sup>125</sup> Sb	1.5E-02 ± 2.0E-02	U		<sup>125</sup> Sb	-7.2E-03 ± 2.3E-02	U
	<sup>113</sup> Sn	2.7E-03 ± 9.7E-03	U		<sup>113</sup> Sn	2.3E-03 ± 1.1E-02	U
	<sup>90</sup> Sr	1.0E-01 ± 2.1E-01	U		<sup>90</sup> Sr	-5.6E-02 ± 2.5E-01	U
	<sup>234</sup> U	1.5E-01 ± 5.1E-02			<sup>234</sup> U	2.0E-01 ± 6.6E-02	
	<sup>235</sup> U	1.2E-02 ± 1.2E-02	U		<sup>235</sup> U	3.2E-02 ± 2.1E-02	
	<sup>238</sup> U	1.8E-01 ± 5.8E-02			<sup>238</sup> U	2.1E-01 ± 6.9E-02	
	<sup>65</sup> Zn	1.3E-03 ± 1.3E-02	U		<sup>65</sup> Zn	1.1E-02 ± 1.8E-02	U
	D050 (200-W)	<sup>144</sup> Ce	4.9E-03 ± 4.9E-02		U	D052 (200-W)	<sup>144</sup> Ce
<sup>60</sup> Co		8.4E-03 ± 6.7E-03	U	<sup>60</sup> Co	7.2E-03 ± 8.5E-03		U
<sup>134</sup> Cs		4.7E-02 ± 1.5E-02		<sup>134</sup> Cs	4.4E-02 ± 1.5E-02		
<sup>137</sup> Cs		1.9E-01 ± 3.5E-02		<sup>137</sup> Cs	3.6E-01 ± 6.2E-02		
<sup>152</sup> Eu		1.5E-02 ± 3.6E-02	U	<sup>152</sup> Eu	9.1E-03 ± 2.6E-02		U
<sup>154</sup> Eu		-9.0E-03 ± 2.4E-02	U	<sup>154</sup> Eu	5.9E-03 ± 2.6E-02		U
<sup>155</sup> Eu		2.7E-02 ± 4.2E-02	U	<sup>155</sup> Eu	3.3E-02 ± 3.4E-02		U
<sup>238</sup> Pu		1.1E-02 ± 3.8E-02	U	<sup>238</sup> Pu	3.4E-02 ± 3.4E-02		U
<sup>239/240</sup> Pu		9.7E-02 ± 3.6E-02		<sup>239/240</sup> Pu	6.2E-02 ± 2.8E-02		
<sup>103</sup> Ru		-7.8E-04 ± 7.8E-03	U	<sup>103</sup> Ru	-6.4E-03 ± 9.1E-03		U
<sup>106</sup> Ru		1.7E-02 ± 6.4E-02	U	<sup>106</sup> Ru	3.0E-02 ± 6.3E-02		U
<sup>125</sup> Sb		3.6E-03 ± 2.0E-02	U	<sup>125</sup> Sb	-2.0E-03 ± 2.0E-02		U
<sup>113</sup> Sn		-7.4E-03 ± 9.9E-03	U	<sup>113</sup> Sn	-5.5E-03 ± 1.1E-02		U
<sup>90</sup> Sr		2.4E-01 ± 2.2E-01	U	<sup>90</sup> Sr	-6.0E-03 ± 6.0E-02		U
<sup>234</sup> U		1.4E-01 ± 4.8E-02		<sup>234</sup> U	1.1E-01 ± 4.0E-02		
<sup>235</sup> U		1.3E-02 ± 1.0E-02		<sup>235</sup> U	9.5E-03 ± 8.8E-03		
<sup>238</sup> U		1.3E-01 ± 4.5E-02		<sup>238</sup> U	1.1E-01 ± 4.0E-02		
<sup>65</sup> Zn		-9.2E-03 ± 1.9E-02	U	<sup>65</sup> Zn	-2.2E-02 ± 2.2E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D054 (200-E)	<sup>144</sup> Ce	-1.7E-01 ± 2.1E-01	U	D056 (200-E)	<sup>144</sup> Ce	-9.3E-02 ± 1.7E-01	U
	<sup>60</sup> Co	-4.4E-04 ± 4.4E-03	U		<sup>60</sup> Co	-3.1E-03 ± 8.1E-03	U
	<sup>134</sup> Cs	4.2E-02 ± 2.2E-02			<sup>134</sup> Cs	4.7E-02 ± 1.5E-02	
	<sup>137</sup> Cs	5.0E+00 ± 7.4E-01			<sup>137</sup> Cs	7.5E-01 ± 1.4E-01	
	<sup>152</sup> Eu	-1.2E-02 ± 5.4E-02	U		<sup>152</sup> Eu	-4.5E-02 ± 4.5E-02	U
	<sup>154</sup> Eu	-3.5E-03 ± 3.5E-02	U		<sup>154</sup> Eu	-7.4E-04 ± 7.4E-03	U
	<sup>155</sup> Eu	4.7E-02 ± 4.7E-02	U		<sup>155</sup> Eu	5.9E-02 ± 4.9E-02	U
	<sup>238</sup> Pu	-2.4E-02 ± 3.6E-02	U		<sup>238</sup> Pu	1.8E-03 ± 1.8E-02	U
	<sup>239/240</sup> Pu	1.7E-02 ± 1.6E-02	U		<sup>239/240</sup> Pu	5.4E-03 ± 6.5E-03	
	<sup>103</sup> Ru	1.9E-03 ± 1.9E-02	U		<sup>103</sup> Ru	1.6E-03 ± 9.6E-03	U
	<sup>106</sup> Ru	9.1E-02 ± 1.2E-01	U		<sup>106</sup> Ru	-7.4E-02 ± 7.9E-02	U
	<sup>125</sup> Sb	-1.4E-02 ± 4.8E-02	U		<sup>125</sup> Sb	3.0E-03 ± 2.4E-02	U
	<sup>113</sup> Sn	1.7E-02 ± 2.2E-02	U		<sup>113</sup> Sn	-3.6E-03 ± 1.2E-02	U
	<sup>90</sup> Sr	2.1E-01 ± 2.2E-01	U		<sup>90</sup> Sr	-1.1E-01 ± 2.0E-01	U
	<sup>234</sup> U	1.8E-01 ± 5.9E-02			<sup>234</sup> U	2.4E-01 ± 7.4E-02	
	<sup>235</sup> U	1.5E-02 ± 1.2E-02			<sup>235</sup> U	1.7E-02 ± 1.2E-02	
	<sup>238</sup> U	1.9E-01 ± 6.3E-02			<sup>238</sup> U	2.6E-01 ± 7.8E-02	
	<sup>65</sup> Zn	9.4E-03 ± 3.2E-02	U		<sup>65</sup> Zn	-1.3E-02 ± 2.2E-02	U
	<hr/>				<hr/>		
D058 (200-E)	<sup>144</sup> Ce	3.8E-02 ± 2.4E-01	U	D060 (200-E)	<sup>144</sup> Ce	8.5E-02 ± 1.2E-01	U
	<sup>60</sup> Co	1.9E-03 ± 8.0E-03	U		<sup>60</sup> Co	1.2E-03 ± 7.1E-03	U
	<sup>134</sup> Cs	5.3E-02 ± 1.9E-02			<sup>134</sup> Cs	3.0E-02 ± 1.1E-02	
	<sup>137</sup> Cs	1.3E+01 ± 2.2E+00			<sup>137</sup> Cs	5.3E-01 ± 8.8E-02	
	<sup>152</sup> Eu	1.9E-02 ± 4.8E-02	U		<sup>152</sup> Eu	8.8E-03 ± 2.4E-02	U
	<sup>154</sup> Eu	-3.2E-02 ± 3.2E-02	U		<sup>154</sup> Eu	-1.7E-02 ± 2.4E-02	U
	<sup>155</sup> Eu	4.0E-02 ± 5.3E-02	U		<sup>155</sup> Eu	3.0E-02 ± 3.6E-02	U
	<sup>238</sup> Pu	2.8E-02 ± 4.2E-02	U		<sup>238</sup> Pu	7.8E-03 ± 3.7E-02	U
	<sup>239/240</sup> Pu	1.9E-02 ± 1.4E-02			<sup>239/240</sup> Pu	7.8E-03 ± 7.8E-03	
	<sup>103</sup> Ru	1.3E-02 ± 1.9E-02	U		<sup>103</sup> Ru	5.5E-03 ± 8.5E-03	U
	<sup>106</sup> Ru	-2.3E-02 ± 1.2E-01	U		<sup>106</sup> Ru	-6.4E-02 ± 6.4E-02	U
	<sup>125</sup> Sb	-1.7E-02 ± 4.8E-02	U		<sup>125</sup> Sb	4.9E-03 ± 2.1E-02	U
	<sup>113</sup> Sn	-7.1E-03 ± 2.1E-02	U		<sup>113</sup> Sn	-1.5E-03 ± 9.7E-03	U
	<sup>90</sup> Sr	3.4E-01 ± 2.0E-01			<sup>90</sup> Sr	1.7E-01 ± 2.2E-01	U
	<sup>234</sup> U	1.1E-01 ± 3.8E-02			<sup>234</sup> U	1.2E-01 ± 4.3E-02	
	<sup>235</sup> U	1.2E-02 ± 9.6E-03			<sup>235</sup> U	9.5E-03 ± 1.0E-02	U
	<sup>238</sup> U	1.1E-01 ± 3.8E-02			<sup>238</sup> U	9.2E-02 ± 3.6E-02	
	<sup>65</sup> Zn	2.5E-02 ± 2.4E-02	U		<sup>65</sup> Zn	1.3E-03 ± 1.3E-02	U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D062 (200-E)	<sup>144</sup> Ce	6.8E-02 ± 1.5E-01	U	D064 (200-E)	<sup>144</sup> Ce	-1.2E-01 ± 1.3E-01	U
	<sup>60</sup> Co	5.8E-03 ± 5.7E-03	U		<sup>60</sup> Co	-5.1E-04 ± 5.1E-03	U
	<sup>134</sup> Cs	3.0E-02 ± 1.2E-02			<sup>134</sup> Cs	4.9E-02 ± 1.5E-02	
	<sup>137</sup> Cs	1.9E+00 ± 3.3E-01			<sup>137</sup> Cs	1.6E+00 ± 2.5E-01	
	<sup>152</sup> Eu	-1.9E-02 ± 2.8E-02	U		<sup>152</sup> Eu	2.0E-02 ± 2.5E-02	U
	<sup>154</sup> Eu	-6.1E-03 ± 1.8E-02	U		<sup>154</sup> Eu	1.2E-02 ± 2.2E-02	U
	<sup>155</sup> Eu	3.8E-02 ± 3.0E-02	U		<sup>155</sup> Eu	9.9E-02 ± 4.9E-02	
	<sup>238</sup> Pu	1.6E-03 ± 3.2E-03	U		<sup>238</sup> Pu	-3.3E-03 ± 4.6E-03	U
	<sup>239/240</sup> Pu	2.1E-02 ± 1.3E-02			<sup>239/240</sup> Pu	1.3E-02 ± 9.6E-03	
	<sup>103</sup> Ru	2.1E-03 ± 8.5E-03	U		<sup>103</sup> Ru	2.2E-03 ± 8.9E-03	U
	<sup>106</sup> Ru	-4.9E-02 ± 6.2E-02	U		<sup>106</sup> Ru	-2.7E-02 ± 6.0E-02	U
	<sup>125</sup> Sb	-7.5E-04 ± 7.5E-03	U		<sup>125</sup> Sb	1.5E-03 ± 1.5E-02	U
	<sup>113</sup> Sn	-8.4E-03 ± 1.0E-02	U		<sup>113</sup> Sn	-5.7E-03 ± 1.0E-02	U
	<sup>90</sup> Sr	3.9E-01 ± 2.7E-01	U		<sup>90</sup> Sr	1.3E+00 ± 3.2E-01	
	<sup>234</sup> U	2.6E-01 ± 8.1E-02			<sup>234</sup> U	1.3E-01 ± 4.8E-02	
	<sup>235</sup> U	2.6E-02 ± 1.6E-02			<sup>235</sup> U	1.4E-02 ± 1.2E-02	
	<sup>238</sup> U	2.3E-01 ± 7.1E-02			<sup>238</sup> U	1.7E-01 ± 5.9E-02	
	<sup>65</sup> Zn	-1.5E-02 ± 1.6E-02	U		<sup>65</sup> Zn	1.3E-02 ± 1.7E-02	U
	D066 (200-E)	<sup>144</sup> Ce	-1.3E-01 ± 1.7E-01		U	D068 (200-E)	<sup>144</sup> Ce
<sup>60</sup> Co		6.7E-03 ± 8.7E-03	U	<sup>60</sup> Co	-1.7E-03 ± 7.0E-03		U
<sup>134</sup> Cs		2.4E-02 ± 1.2E-02		<sup>134</sup> Cs	3.8E-02 ± 1.3E-02		
<sup>137</sup> Cs		7.0E+00 ± 1.0E+00		<sup>137</sup> Cs	1.1E-01 ± 2.8E-02		
<sup>152</sup> Eu		3.5E-02 ± 4.7E-02	U	<sup>152</sup> Eu	-1.3E-02 ± 2.4E-02		U
<sup>154</sup> Eu		2.3E-02 ± 2.9E-02	U	<sup>154</sup> Eu	-5.4E-03 ± 2.3E-02		U
<sup>155</sup> Eu		3.5E-02 ± 4.0E-02	U	<sup>155</sup> Eu	1.8E-02 ± 3.7E-02		U
<sup>238</sup> Pu		3.8E-03 ± 5.3E-03	U	<sup>238</sup> Pu	1.7E-03 ± 3.4E-03		U
<sup>239/240</sup> Pu		7.5E-03 ± 7.5E-03		<sup>239/240</sup> Pu	-3.4E-03 ± 4.8E-03		U
<sup>103</sup> Ru		4.9E-03 ± 1.6E-02	U	<sup>103</sup> Ru	-5.3E-05 ± 5.3E-04		U
<sup>106</sup> Ru		-3.6E-02 ± 1.0E-01	U	<sup>106</sup> Ru	-6.9E-03 ± 6.6E-02		U
<sup>125</sup> Sb		-6.3E-03 ± 4.3E-02	U	<sup>125</sup> Sb	-9.4E-04 ± 9.4E-03		U
<sup>113</sup> Sn		-3.6E-03 ± 1.9E-02	U	<sup>113</sup> Sn	-8.8E-04 ± 8.5E-03		U
<sup>90</sup> Sr		9.3E-01 ± 2.9E-01		<sup>90</sup> Sr	1.3E-01 ± 2.5E-01		U
<sup>234</sup> U		8.4E-01 ± 2.8E-01		<sup>234</sup> U	3.2E-01 ± 9.6E-02		
<sup>235</sup> U		8.9E-03 ± 8.9E-02	U	<sup>235</sup> U	1.0E-02 ± 1.1E-02		U
<sup>238</sup> U		7.7E-01 ± 2.6E-01		<sup>238</sup> U	3.0E-01 ± 9.3E-02		
<sup>65</sup> Zn		7.7E-03 ± 2.4E-02	U	<sup>65</sup> Zn	2.6E-03 ± 1.9E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D070 (200-E)	<sup>144</sup> Ce	-1.1E-01 ± 1.3E-01	U	D072 (200-E)	<sup>144</sup> Ce	8.5E-03 ± 8.5E-02	U
	<sup>60</sup> Co	3.2E-03 ± 6.9E-03	U		<sup>60</sup> Co	8.0E-05 ± 8.0E-04	U
	<sup>134</sup> Cs	2.8E-02 ± 1.2E-02			<sup>134</sup> Cs	2.1E-02 ± 9.6E-03	
	<sup>137</sup> Cs	2.4E-01 ± 4.2E-02			<sup>137</sup> Cs	2.0E-01 ± 3.6E-02	
	<sup>152</sup> Eu	-1.4E-02 ± 2.6E-02	U		<sup>152</sup> Eu	-1.1E-02 ± 1.8E-02	U
	<sup>154</sup> Eu	-1.9E-02 ± 2.3E-02	U		<sup>154</sup> Eu	2.7E-03 ± 1.9E-02	U
	<sup>155</sup> Eu	4.4E-03 ± 3.0E-02	U		<sup>155</sup> Eu	3.9E-02 ± 2.5E-02	U
	<sup>238</sup> Pu	1.9E-03 ± 3.8E-03	U		<sup>238</sup> Pu	1.8E-03 ± 1.8E-02	U
	<sup>239/240</sup> Pu	1.9E-03 ± 3.8E-03	U		<sup>239/240</sup> Pu	8.9E-03 ± 8.3E-03	
	<sup>103</sup> Ru	-3.2E-03 ± 7.5E-03	U		<sup>103</sup> Ru	-2.6E-03 ± 6.5E-03	U
	<sup>106</sup> Ru	-5.5E-04 ± 5.5E-03	U		<sup>106</sup> Ru	3.0E-02 ± 5.1E-02	U
	<sup>125</sup> Sb	8.4E-03 ± 1.9E-02	U		<sup>125</sup> Sb	3.9E-03 ± 1.6E-02	U
	<sup>113</sup> Sn	-8.1E-03 ± 9.0E-03	U		<sup>113</sup> Sn	4.5E-04 ± 4.5E-03	U
	<sup>90</sup> Sr	4.4E-01 ± 2.7E-01			<sup>90</sup> Sr	1.9E-01 ± 2.3E-01	U
	<sup>234</sup> U	1.3E-01 ± 4.5E-02			<sup>234</sup> U	1.3E-01 ± 4.4E-02	
	<sup>235</sup> U	1.9E-02 ± 1.4E-02			<sup>235</sup> U	8.6E-03 ± 8.0E-03	
	<sup>238</sup> U	1.4E-01 ± 4.8E-02			<sup>238</sup> U	1.3E-01 ± 4.4E-02	
	<sup>65</sup> Zn	6.6E-03 ± 1.9E-02	U		<sup>65</sup> Zn	-9.9E-04 ± 9.9E-03	U
	D074 (200-E)	<sup>144</sup> Ce	-1.1E-01 ± 1.5E-01		U	D076 (200-E)	<sup>144</sup> Ce
<sup>60</sup> Co		5.6E-03 ± 8.0E-03	U	<sup>60</sup> Co	-3.6E-03 ± 7.6E-03		U
<sup>134</sup> Cs		3.1E-02 ± 1.5E-02		<sup>134</sup> Cs	3.1E-02 ± 1.1E-02		
<sup>137</sup> Cs		2.4E-01 ± 4.2E-02		<sup>137</sup> Cs	2.2E-01 ± 4.1E-02		
<sup>152</sup> Eu		-4.3E-03 ± 3.0E-02	U	<sup>152</sup> Eu	-1.2E-02 ± 2.1E-02		U
<sup>154</sup> Eu		-2.8E-02 ± 2.8E-02	U	<sup>154</sup> Eu	-3.2E-02 ± 3.2E-02		U
<sup>155</sup> Eu		3.8E-02 ± 3.5E-02	U	<sup>155</sup> Eu	4.3E-02 ± 3.8E-02		U
<sup>238</sup> Pu		2.1E-03 ± 7.3E-03	U	<sup>238</sup> Pu	5.5E-03 ± 1.2E-02		U
<sup>239/240</sup> Pu		4.6E-02 ± 2.3E-02		<sup>239/240</sup> Pu	1.8E-02 ± 1.2E-02		
<sup>103</sup> Ru		6.8E-03 ± 8.5E-03	U	<sup>103</sup> Ru	1.3E-03 ± 7.6E-03		U
<sup>106</sup> Ru		2.5E-02 ± 7.3E-02	U	<sup>106</sup> Ru	5.4E-03 ± 5.4E-02		U
<sup>125</sup> Sb		1.3E-02 ± 2.1E-02	U	<sup>125</sup> Sb	1.0E-02 ± 1.9E-02		U
<sup>113</sup> Sn		-8.1E-03 ± 1.0E-02	U	<sup>113</sup> Sn	-1.1E-03 ± 9.2E-03		U
<sup>90</sup> Sr		-1.4E-02 ± 1.4E-01	U	<sup>90</sup> Sr	2.7E-01 ± 2.7E-01		U
<sup>234</sup> U		1.5E-01 ± 5.1E-02		<sup>234</sup> U	1.3E-01 ± 4.5E-02		
<sup>235</sup> U		1.2E-02 ± 1.0E-02		<sup>235</sup> U	7.9E-03 ± 7.9E-03		
<sup>238</sup> U		1.2E-01 ± 4.3E-02		<sup>238</sup> U	1.2E-01 ± 4.2E-02		
<sup>65</sup> Zn		1.6E-02 ± 2.2E-02	U	<sup>65</sup> Zn	-1.6E-02 ± 2.0E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D078 (200-E)	<sup>144</sup> Ce	1.1E-01 ± 1.4E-01	U	D080 (200-E)	<sup>144</sup> Ce	-5.7E-02 ± 1.3E-01	U
	<sup>60</sup> Co	3.3E-04 ± 3.2E-03	U		<sup>60</sup> Co	1.4E-05 ± 1.4E-04	U
	<sup>134</sup> Cs	4.1E-02 ± 1.4E-02			<sup>134</sup> Cs	4.5E-02 ± 1.4E-02	
	<sup>137</sup> Cs	4.0E-01 ± 7.0E-02			<sup>137</sup> Cs	7.9E-02 ± 1.6E-02	
	<sup>152</sup> Eu	-1.4E-03 ± 1.4E-02	U		<sup>152</sup> Eu	2.4E-03 ± 2.1E-02	U
	<sup>154</sup> Eu	-6.0E-03 ± 1.9E-02	U		<sup>154</sup> Eu	1.2E-02 ± 2.1E-02	U
	<sup>155</sup> Eu	9.2E-03 ± 3.3E-02	U		<sup>155</sup> Eu	3.1E-02 ± 3.5E-02	U
	<sup>238</sup> Pu	4.1E-03 ± 1.0E-02	U		<sup>238</sup> Pu	5.0E-03 ± 2.4E-02	U
	<sup>239/240</sup> Pu	1.4E-02 ± 1.1E-02			<sup>239/240</sup> Pu	-2.5E-03 ± 5.0E-03	U
	<sup>103</sup> Ru	-1.0E-03 ± 7.0E-03	U		<sup>103</sup> Ru	-1.3E-03 ± 7.8E-03	U
	<sup>106</sup> Ru	-7.6E-03 ± 5.8E-02	U		<sup>106</sup> Ru	9.2E-03 ± 5.4E-02	U
	<sup>125</sup> Sb	9.0E-03 ± 1.8E-02	U		<sup>125</sup> Sb	3.2E-03 ± 1.7E-02	U
	<sup>113</sup> Sn	4.4E-03 ± 8.7E-03	U		<sup>113</sup> Sn	4.3E-03 ± 8.7E-03	U
	<sup>90</sup> Sr	-2.4E-02 ± 2.4E-01	U		<sup>90</sup> Sr	-1.8E-01 ± 2.4E-01	U
	<sup>234</sup> U	1.4E-01 ± 4.9E-02			<sup>234</sup> U	8.4E-02 ± 3.4E-02	
	<sup>235</sup> U	1.0E-02 ± 1.1E-02	U		<sup>235</sup> U	1.8E-03 ± 8.1E-03	U
	<sup>238</sup> U	1.4E-01 ± 4.9E-02			<sup>238</sup> U	8.7E-02 ± 3.5E-02	
	<sup>65</sup> Zn	2.8E-03 ± 1.6E-02	U		<sup>65</sup> Zn	-1.4E-02 ± 1.7E-02	U
	D082 (600 Area)	<sup>144</sup> Ce	5.1E-02 ± 1.3E-01		U	D084 (600 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		5.0E-04 ± 5.0E-03	U	<sup>60</sup> Co	4.1E-03 ± 6.3E-03		U
<sup>134</sup> Cs		2.5E-02 ± 9.7E-03		<sup>134</sup> Cs	4.2E-02 ± 1.4E-02		
<sup>137</sup> Cs		4.6E-02 ± 1.6E-02		<sup>137</sup> Cs	6.7E-01 ± 1.1E-01		
<sup>152</sup> Eu		-5.6E-03 ± 2.5E-02	U	<sup>152</sup> Eu	-8.9E-03 ± 2.5E-02		U
<sup>154</sup> Eu		3.2E-03 ± 2.5E-02	U	<sup>154</sup> Eu	3.6E-03 ± 2.2E-02		U
<sup>155</sup> Eu		4.3E-02 ± 3.5E-02	U	<sup>155</sup> Eu	4.1E-02 ± 3.5E-02		U
<sup>238</sup> Pu		2.1E-03 ± 1.1E-02	U	<sup>238</sup> Pu	-3.6E-03 ± 1.0E-02		U
<sup>239/240</sup> Pu		4.2E-03 ± 5.9E-03	U	<sup>239/240</sup> Pu	1.4E-02 ± 1.1E-02		
<sup>103</sup> Ru		3.2E-03 ± 7.0E-03	U	<sup>103</sup> Ru	-9.6E-04 ± 7.7E-03		U
<sup>106</sup> Ru		-9.5E-02 ± 9.5E-02	U	<sup>106</sup> Ru	-9.5E-04 ± 9.5E-03		U
<sup>125</sup> Sb		9.4E-03 ± 1.8E-02	U	<sup>125</sup> Sb	1.0E-02 ± 2.0E-02		U
<sup>113</sup> Sn		1.2E-03 ± 8.7E-03	U	<sup>113</sup> Sn	-4.2E-03 ± 9.8E-03		U
<sup>90</sup> Sr		-4.3E-02 ± 2.4E-01	U	<sup>90</sup> Sr	2.7E-01 ± 2.6E-01		U
<sup>234</sup> U		1.5E-01 ± 5.3E-02		<sup>234</sup> U	1.4E-01 ± 5.3E-02		
<sup>235</sup> U		9.2E-03 ± 1.1E-02	U	<sup>235</sup> U	1.1E-02 ± 1.1E-02		
<sup>238</sup> U		1.2E-01 ± 4.6E-02		<sup>238</sup> U	1.3E-01 ± 4.9E-02		
<sup>65</sup> Zn		-1.7E-02 ± 1.8E-02	U	<sup>65</sup> Zn	7.7E-03 ± 1.7E-02		U

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



Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>D086</b> (600 Area)	<sup>144</sup> Ce	-3.7E-02 ± 1.7E-01	U	<b>D088</b> (600 Area)	<sup>144</sup> Ce	1.3E-01 ± 2.9E-01	U
	<sup>60</sup> Co	-6.3E-03 ± 7.4E-03	U		<sup>60</sup> Co	-1.8E-03 ± 1.6E-02	U
	<sup>134</sup> Cs	4.6E-02 ± 1.8E-02			<sup>134</sup> Cs	4.3E-02 ± 2.4E-02	
	<sup>137</sup> Cs	4.0E+00 ± 6.4E-01			<sup>137</sup> Cs	9.5E-02 ± 3.8E-02	
	<sup>152</sup> Eu	-9.0E-04 ± 9.0E-03	U		<sup>152</sup> Eu	2.9E-03 ± 2.9E-02	U
	<sup>154</sup> Eu	-9.3E-03 ± 2.4E-02	U		<sup>154</sup> Eu	-2.1E-02 ± 5.4E-02	U
	<sup>155</sup> Eu	5.5E-02 ± 4.0E-02	U		<sup>155</sup> Eu	8.6E-02 ± 6.3E-02	U
	<sup>238</sup> Pu	6.7E-03 ± 1.2E-02	U		<sup>238</sup> Pu	1.8E-02 ± 3.2E-02	U
	<sup>239/240</sup> Pu	1.8E-02 ± 1.2E-02			<sup>239/240</sup> Pu	1.0E-02 ± 1.1E-02	U
	<sup>103</sup> Ru	-6.1E-03 ± 1.1E-02	U		<sup>103</sup> Ru	9.0E-03 ± 1.9E-02	U
	<sup>106</sup> Ru	4.9E-02 ± 7.8E-02	U		<sup>106</sup> Ru	-1.5E-01 ± 1.6E-01	U
	<sup>125</sup> Sb	9.8E-03 ± 3.2E-02	U		<sup>125</sup> Sb	1.0E-02 ± 4.6E-02	U
	<sup>113</sup> Sn	-1.1E-02 ± 1.4E-02	U		<sup>113</sup> Sn	-6.8E-03 ± 2.3E-02	U
	<sup>90</sup> Sr	7.3E-02 ± 2.1E-01	U		<sup>90</sup> Sr	3.3E-01 ± 2.1E-01	
	<sup>234</sup> U	1.3E-01 ± 4.7E-02			<sup>234</sup> U	1.6E-01 ± 5.4E-02	
	<sup>235</sup> U	4.5E-02 ± 2.3E-02			<sup>235</sup> U	1.5E-02 ± 1.3E-02	U
	<sup>238</sup> U	1.2E-01 ± 4.3E-02			<sup>238</sup> U	1.7E-01 ± 5.4E-02	
	<sup>65</sup> Zn	-3.6E-03 ± 1.9E-02	U		<sup>65</sup> Zn	-3.5E-02 ± 4.9E-02	U
	<b>D090</b> (600 Area)	<sup>144</sup> Ce	2.1E-01 ± 2.1E-01		U	<b>D092</b> (600 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		-3.2E-03 ± 1.1E-02	U	<sup>60</sup> Co	2.4E-03 ± 1.0E-02		U
<sup>134</sup> Cs		2.3E-02 ± 1.5E-02	U	<sup>134</sup> Cs	4.7E-02 ± 1.8E-02		
<sup>137</sup> Cs		2.1E-01 ± 4.8E-02		<sup>137</sup> Cs	2.0E+00 ± 3.1E-01		
<sup>152</sup> Eu		1.7E-02 ± 4.6E-02	U	<sup>152</sup> Eu	-6.5E-03 ± 5.1E-02		U
<sup>154</sup> Eu		-1.4E-02 ± 3.6E-02	U	<sup>154</sup> Eu	-7.2E-03 ± 3.3E-02		U
<sup>155</sup> Eu		4.1E-02 ± 5.1E-02	U	<sup>155</sup> Eu	3.0E-02 ± 4.4E-02		U
<sup>238</sup> Pu		-2.2E-03 ± 2.2E-02	U	<sup>238</sup> Pu	-3.5E-03 ± 1.7E-02		U
<sup>239/240</sup> Pu		9.0E-03 ± 1.6E-02	U	<sup>239/240</sup> Pu	4.8E-02 ± 2.2E-02		
<sup>103</sup> Ru		3.5E-04 ± 3.5E-03	U	<sup>103</sup> Ru	3.5E-04 ± 3.5E-03		U
<sup>106</sup> Ru		3.9E-02 ± 9.5E-02	U	<sup>106</sup> Ru	-3.6E-02 ± 1.0E-01		U
<sup>125</sup> Sb		8.7E-03 ± 3.0E-02	U	<sup>125</sup> Sb	1.9E-02 ± 3.5E-02		U
<sup>113</sup> Sn		-7.5E-04 ± 7.5E-03	U	<sup>113</sup> Sn	-5.6E-03 ± 1.6E-02		U
<sup>90</sup> Sr		-6.6E-02 ± 2.2E-01	U	<sup>90</sup> Sr	3.5E-01 ± 2.4E-01		U
<sup>234</sup> U		1.4E-01 ± 4.9E-02		<sup>234</sup> U	1.9E-01 ± 6.1E-02		
<sup>235</sup> U		1.2E-02 ± 1.0E-02		<sup>235</sup> U	2.2E-02 ± 1.5E-02		
<sup>238</sup> U		1.6E-01 ± 5.4E-02		<sup>238</sup> U	1.6E-01 ± 5.3E-02		
<sup>65</sup> Zn		-2.3E-02 ± 3.0E-02	U	<sup>65</sup> Zn	-1.6E-02 ± 2.8E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>D094</b> (600 Area)	<sup>144</sup> Ce	1.5E-02 ± 1.2E-01	U	<b>D096</b> (600 Area)	<sup>144</sup> Ce	1.0E-02 ± 1.0E-01	U
	<sup>60</sup> Co	-1.4E-03 ± 5.8E-03	U		<sup>60</sup> Co	-3.6E-03 ± 6.9E-03	U
	<sup>134</sup> Cs	4.0E-02 ± 1.3E-02			<sup>134</sup> Cs	3.5E-02 ± 1.7E-02	
	<sup>137</sup> Cs	5.8E-01 ± 9.5E-02			<sup>137</sup> Cs	3.8E-01 ± 6.4E-02	
	<sup>152</sup> Eu	-1.1E-02 ± 2.1E-02	U		<sup>152</sup> Eu	-1.8E-02 ± 3.4E-02	U
	<sup>154</sup> Eu	-5.1E-04 ± 5.1E-03	U		<sup>154</sup> Eu	-3.2E-02 ± 3.2E-02	U
	<sup>155</sup> Eu	6.1E-02 ± 4.0E-02			<sup>155</sup> Eu	3.3E-03 ± 2.9E-02	U
	<sup>238</sup> Pu	-1.4E-02 ± 3.1E-02	U		<sup>238</sup> Pu	1.3E-02 ± 3.1E-02	U
	<sup>239/240</sup> Pu	1.7E-02 ± 1.3E-02			<sup>239/240</sup> Pu	7.4E-03 ± 8.9E-03	U
	<sup>103</sup> Ru	2.6E-03 ± 7.0E-03	U		<sup>103</sup> Ru	1.4E-03 ± 6.8E-03	U
	<sup>106</sup> Ru	-6.7E-03 ± 6.0E-02	U		<sup>106</sup> Ru	2.2E-02 ± 6.0E-02	U
	<sup>125</sup> Sb	2.1E-02 ± 2.1E-02	U		<sup>125</sup> Sb	-1.9E-03 ± 1.8E-02	U
	<sup>113</sup> Sn	-8.9E-03 ± 8.9E-03	U		<sup>113</sup> Sn	-1.8E-03 ± 8.6E-03	U
	<sup>90</sup> Sr	-6.4E-02 ± 7.0E-02	U		<sup>90</sup> Sr	5.0E-02 ± 2.4E-01	U
	<sup>234</sup> U	1.7E-01 ± 5.6E-02			<sup>234</sup> U	1.3E-01 ± 4.7E-02	
	<sup>235</sup> U	2.1E-02 ± 1.4E-02			<sup>235</sup> U	2.0E-02 ± 1.4E-02	
	<sup>238</sup> U	1.8E-01 ± 5.8E-02			<sup>238</sup> U	1.1E-01 ± 4.2E-02	
	<sup>65</sup> Zn	-5.8E-03 ± 1.6E-02	U		<sup>65</sup> Zn	1.3E-02 ± 1.8E-02	U
	<b>D098</b> (600 Area)	<sup>144</sup> Ce	-1.9E-02 ± 1.1E-01		U	<b>D100</b> (600 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		-3.6E-03 ± 7.2E-03	U	<sup>60</sup> Co	-3.3E-03 ± 6.2E-03		U
<sup>134</sup> Cs		4.0E-02 ± 1.4E-02		<sup>134</sup> Cs	4.6E-02 ± 1.7E-02		
<sup>137</sup> Cs		2.1E-01 ± 3.8E-02		<sup>137</sup> Cs	8.5E-02 ± 1.7E-02		
<sup>152</sup> Eu		-2.2E-02 ± 2.3E-02	U	<sup>152</sup> Eu	-2.6E-02 ± 2.6E-02		U
<sup>154</sup> Eu		-2.5E-02 ± 2.5E-02	U	<sup>154</sup> Eu	-2.3E-02 ± 2.3E-02		U
<sup>155</sup> Eu		4.1E-02 ± 4.3E-02	U	<sup>155</sup> Eu	3.5E-02 ± 3.2E-02		U
<sup>238</sup> Pu		1.8E-03 ± 1.8E-02	U	<sup>238</sup> Pu	-9.8E-03 ± 3.3E-02		U
<sup>239/240</sup> Pu		1.1E-02 ± 1.1E-02	U	<sup>239/240</sup> Pu	6.6E-03 ± 7.9E-03		U
<sup>103</sup> Ru		8.5E-04 ± 7.3E-03	U	<sup>103</sup> Ru	-5.1E-03 ± 6.8E-03		U
<sup>106</sup> Ru		5.1E-03 ± 5.1E-02	U	<sup>106</sup> Ru	-2.3E-02 ± 5.5E-02		U
<sup>125</sup> Sb		9.7E-03 ± 1.9E-02	U	<sup>125</sup> Sb	1.2E-02 ± 1.8E-02		U
<sup>113</sup> Sn		-4.7E-03 ± 8.8E-03	U	<sup>113</sup> Sn	-2.9E-03 ± 8.6E-03		U
<sup>90</sup> Sr		2.9E-01 ± 2.0E-01	U	<sup>90</sup> Sr	-5.6E-02 ± 1.9E-01		U
<sup>234</sup> U		1.9E-01 ± 6.3E-02		<sup>234</sup> U	3.2E-01 ± 9.3E-02		
<sup>235</sup> U		2.4E-02 ± 1.6E-02		<sup>235</sup> U	1.8E-02 ± 1.2E-02		
<sup>238</sup> U		1.6E-01 ± 5.4E-02		<sup>238</sup> U	2.9E-01 ± 8.7E-02		
<sup>65</sup> Zn		1.2E-03 ± 1.2E-02	U	<sup>65</sup> Zn	-1.2E-03 ± 1.2E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*		
<b>D102</b> (600 Area)	<sup>144</sup> Ce	8.7E-02 ± 1.4E-01	U	<b>D104</b> (600 Area)	<sup>144</sup> Ce	3.1E-02 ± 3.3E-02	U		
	<sup>60</sup> Co	-2.4E-03 ± 7.0E-03	U		<sup>60</sup> Co	1.4E-03 ± 2.8E-03	U		
	<sup>134</sup> Cs	4.5E-02 ± 1.4E-02			<sup>134</sup> Cs	1.1E-02 ± 4.5E-03			
	<sup>137</sup> Cs	3.3E-01 ± 6.2E-02			<sup>137</sup> Cs	3.0E-02 ± 6.9E-03			
	<sup>152</sup> Eu	-2.6E-03 ± 2.5E-02	U		<sup>152</sup> Eu	-6.3E-03 ± 7.9E-03	U		
	<sup>154</sup> Eu	-1.9E-02 ± 2.2E-02	U		<sup>154</sup> Eu	-4.2E-03 ± 9.0E-03	U		
	<sup>155</sup> Eu	2.9E-02 ± 3.3E-02	U		<sup>155</sup> Eu	5.8E-03 ± 6.5E-03	U		
	<sup>238</sup> Pu	-3.4E-03 ± 3.4E-02	U		<sup>238</sup> Pu	2.1E-03 ± 2.1E-03	U		
	<sup>239/240</sup> Pu	3.6E-02 ± 2.0E-02			<sup>239/240</sup> Pu	1.0E-02 ± 1.4E-02	U		
	<sup>103</sup> Ru	-4.2E-03 ± 7.7E-03	U		<sup>103</sup> Ru	-1.2E-03 ± 2.4E-03	U		
	<sup>106</sup> Ru	-8.2E-02 ± 8.2E-02	U		<sup>106</sup> Ru	6.1E-03 ± 2.2E-02	U		
	<sup>125</sup> Sb	-1.6E-02 ± 2.0E-02	U		<sup>125</sup> Sb	-3.5E-03 ± 6.3E-03	U		
	<sup>113</sup> Sn	3.9E-04 ± 3.9E-03	U		<sup>113</sup> Sn	6.2E-04 ± 3.0E-03	U		
	<sup>90</sup> Sr	-6.4E-02 ± 2.1E-01	U		<sup>90</sup> Sr	1.1E-01 ± 2.1E-01	U		
	<sup>234</sup> U	1.5E-01 ± 4.9E-02			<sup>234</sup> U	2.0E-01 ± 6.4E-02			
	<sup>235</sup> U	1.7E-02 ± 1.3E-02			<sup>235</sup> U	7.9E-03 ± 9.5E-03	U		
	<sup>238</sup> U	1.3E-01 ± 4.5E-02			<sup>238</sup> U	2.1E-01 ± 6.7E-02			
	<sup>65</sup> Zn	-1.4E-03 ± 1.4E-02	U		<sup>65</sup> Zn	-1.2E-03 ± 7.3E-03	U		
	<b>D106</b> (600 Area)	<sup>144</sup> Ce	-2.5E-02 ± 1.3E-01		U	<b>D108</b> (600 Area)	<sup>144</sup> Ce	-7.5E-02 ± 1.2E-01	U
		<sup>60</sup> Co	-1.0E-03 ± 5.9E-03		U		<sup>60</sup> Co	-2.1E-03 ± 6.3E-03	U
<sup>134</sup> Cs		3.6E-02 ± 1.3E-02		<sup>134</sup> Cs	2.7E-02 ± 1.1E-02				
<sup>137</sup> Cs		6.3E-02 ± 1.7E-02		<sup>137</sup> Cs	2.3E-01 ± 4.0E-02				
<sup>152</sup> Eu		-1.7E-02 ± 2.1E-02	U	<sup>152</sup> Eu	3.9E-03 ± 2.4E-02		U		
<sup>154</sup> Eu		-1.4E-04 ± 1.4E-03	U	<sup>154</sup> Eu	-1.8E-02 ± 2.1E-02		U		
<sup>155</sup> Eu		4.6E-02 ± 3.7E-02	U	<sup>155</sup> Eu	3.4E-02 ± 3.4E-02		U		
<sup>238</sup> Pu		8.4E-03 ± 3.0E-02	U	<sup>238</sup> Pu	2.2E-02 ± 3.3E-02		U		
<sup>239/240</sup> Pu		2.2E-02 ± 1.5E-02		<sup>239/240</sup> Pu	1.0E-01 ± 3.6E-02				
<sup>103</sup> Ru		-2.7E-03 ± 6.0E-03	U	<sup>103</sup> Ru	3.8E-03 ± 7.4E-03		U		
<sup>106</sup> Ru		-2.6E-03 ± 2.6E-02	U	<sup>106</sup> Ru	1.5E-02 ± 5.6E-02		U		
<sup>125</sup> Sb		-8.7E-03 ± 1.7E-02	U	<sup>125</sup> Sb	-6.3E-03 ± 1.7E-02		U		
<sup>113</sup> Sn		-1.9E-03 ± 7.2E-03	U	<sup>113</sup> Sn	-2.0E-03 ± 8.1E-03		U		
<sup>90</sup> Sr		9.2E-02 ± 2.1E-01		<sup>90</sup> Sr	-9.6E-02 ± 1.9E-01		U		
<sup>234</sup> U		1.0E-01 ± 3.7E-02		<sup>234</sup> U	1.3E-01 ± 4.4E-02				
<sup>235</sup> U		1.5E-02 ± 1.1E-02		<sup>235</sup> U	1.4E-02 ± 1.0E-02				
<sup>238</sup> U		1.3E-01 ± 4.4E-02		<sup>238</sup> U	1.3E-01 ± 4.5E-02				
<sup>65</sup> Zn		1.5E-02 ± 2.6E-02	U	<sup>65</sup> Zn	8.7E-03 ± 1.7E-02		U		

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>D110</b> (600 Area)	<sup>144</sup> Ce	-3.1E-02 ± 1.0E-01	U	<b>D112</b> (Replicate of D072, 200 East)	<sup>144</sup> Ce	2.7E-02 ± 1.0E-01	U
	<sup>60</sup> Co	2.0E-04 ± 2.0E-03	U		<sup>60</sup> Co	5.2E-03 ± 5.5E-03	U
	<sup>134</sup> Cs	4.2E-02 ± 1.5E-02			<sup>134</sup> Cs	2.5E-02 ± 8.5E-03	
	<sup>137</sup> Cs	4.8E-02 ± 1.4E-02			<sup>137</sup> Cs	2.0E-01 ± 3.5E-02	
	<sup>152</sup> Eu	6.4E-04 ± 6.4E-03	U		<sup>152</sup> Eu	8.1E-04 ± 8.1E-03	U
	<sup>154</sup> Eu	-2.3E-03 ± 2.1E-02	U		<sup>154</sup> Eu	-1.2E-04 ± 1.2E-03	U
	<sup>155</sup> Eu	5.2E-02 ± 3.9E-02			<sup>155</sup> Eu	2.4E-02 ± 2.8E-02	U
	<sup>238</sup> Pu	1.9E-02 ± 3.4E-02	U		<sup>238</sup> Pu	-7.0E-03 ± 3.8E-02	U
	<sup>239/240</sup> Pu	8.7E-03 ± 8.1E-03			<sup>239/240</sup> Pu	1.2E-02 ± 1.2E-02	U
	<sup>103</sup> Ru	-3.0E-04 ± 3.0E-03	U		<sup>103</sup> Ru	8.1E-04 ± 5.7E-03	U
	<sup>106</sup> Ru	-2.6E-02 ± 5.2E-02	U		<sup>106</sup> Ru	1.5E-02 ± 5.7E-02	U
	<sup>125</sup> Sb	7.1E-03 ± 1.6E-02	U		<sup>125</sup> Sb	-4.7E-03 ± 1.6E-02	U
	<sup>113</sup> Sn	-6.4E-03 ± 7.7E-03	U		<sup>113</sup> Sn	-4.3E-04 ± 4.3E-03	U
	<sup>90</sup> Sr	-3.6E-02 ± 2.0E-01	U		<sup>90</sup> Sr	2.7E-01 ± 1.9E-01	U
	<sup>234</sup> U	1.6E-01 ± 5.3E-02			<sup>234</sup> U	1.2E-01 ± 4.3E-02	
	<sup>235</sup> U	2.0E-02 ± 1.4E-02			<sup>235</sup> U	1.8E-02 ± 1.3E-02	
	<sup>238</sup> U	1.9E-01 ± 6.1E-02			<sup>238</sup> U	1.1E-01 ± 4.1E-02	
	<sup>65</sup> Zn	3.3E-03 ± 1.7E-02	U		<sup>65</sup> Zn	-8.0E-03 ± 1.4E-02	U
<b>D114</b> (Replicate of D092, 600 Area)	<sup>144</sup> Ce	-8.3E-03 ± 8.3E-02	U	<b>D116</b> (300 Area)	<sup>144</sup> Ce	1.4E-01 ± 1.6E-01	U
	<sup>60</sup> Co	-3.8E-03 ± 7.6E-03	U		<sup>60</sup> Co	-4.9E-03 ± 1.0E-02	U
	<sup>134</sup> Cs	3.8E-02 ± 1.7E-02			<sup>134</sup> Cs	4.2E-02 ± 1.7E-02	
	<sup>137</sup> Cs	2.0E+00 ± 3.2E-01			<sup>137</sup> Cs	-1.2E-02 ± 1.2E-02	U
	<sup>152</sup> Eu	-1.5E-02 ± 3.4E-02	U		<sup>152</sup> Eu	-3.4E-02 ± 3.5E-02	U
	<sup>154</sup> Eu	-2.5E-02 ± 2.5E-02	U		<sup>154</sup> Eu	-1.0E-02 ± 3.9E-02	U
	<sup>155</sup> Eu	5.9E-02 ± 4.5E-02	U		<sup>155</sup> Eu	9.7E-04 ± 9.7E-03	U
	<sup>238</sup> Pu	-1.1E-02 ± 3.6E-02	U		<sup>238</sup> Pu	1.0E-02 ± 1.9E-02	U
	<sup>239/240</sup> Pu	8.1E-02 ± 3.2E-02			<sup>239/240</sup> Pu	2.1E-03 ± 7.3E-03	U
	<sup>103</sup> Ru	7.2E-03 ± 9.3E-03	U		<sup>103</sup> Ru	-8.2E-03 ± 9.4E-03	U
	<sup>106</sup> Ru	1.6E-02 ± 7.6E-02	U		<sup>106</sup> Ru	-9.3E-02 ± 9.3E-02	U
	<sup>125</sup> Sb	5.8E-03 ± 2.5E-02	U		<sup>125</sup> Sb	2.1E-02 ± 3.0E-02	U
	<sup>113</sup> Sn	5.8E-03 ± 1.2E-02	U		<sup>113</sup> Sn	5.1E-03 ± 1.3E-02	U
	<sup>90</sup> Sr	4.5E-01 ± 2.2E-01			<sup>90</sup> Sr	1.9E-01 ± 2.6E-01	U
	<sup>234</sup> U	1.6E-01 ± 5.3E-02			<sup>234</sup> U	6.9E-02 ± 2.8E-02	
	<sup>235</sup> U	5.3E-03 ± 7.9E-03	U		<sup>235</sup> U	1.4E-02 ± 1.1E-02	
	<sup>238</sup> U	1.3E-01 ± 4.4E-02			<sup>238</sup> U	1.2E-01 ± 4.3E-02	
	<sup>65</sup> Zn	7.1E-03 ± 2.2E-02	U		<sup>65</sup> Zn	-5.9E-04 ± 5.9E-03	U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D117 (300 Area)	<sup>144</sup> Ce	8.2E-02 ± 1.9E-01	U	D118 (300 Area)	<sup>144</sup> Ce	-8.0E-02 ± 9.3E-02	U
	<sup>60</sup> Co	-3.9E-03 ± 1.0E-02	U		<sup>60</sup> Co	-2.1E-03 ± 6.4E-03	U
	<sup>134</sup> Cs	2.4E-02 ± 1.2E-02			<sup>134</sup> Cs	3.0E-02 ± 1.3E-02	
	<sup>137</sup> Cs	1.4E-01 ± 3.1E-02			<sup>137</sup> Cs	1.5E-02 ± 8.8E-03	
	<sup>152</sup> Eu	-4.2E-03 ± 4.2E-02	U		<sup>152</sup> Eu	-2.8E-03 ± 1.8E-02	U
	<sup>154</sup> Eu	-2.0E-02 ± 3.6E-02	U		<sup>154</sup> Eu	-1.4E-02 ± 2.1E-02	U
	<sup>155</sup> Eu	4.5E-03 ± 4.5E-02	U		<sup>155</sup> Eu	2.4E-02 ± 2.4E-02	U
	<sup>238</sup> Pu	1.3E-02 ± 2.3E-02	U		<sup>238</sup> Pu	-4.9E-03 ± 2.6E-02	U
	<sup>239/240</sup> Pu	9.2E-03 ± 1.0E-02	U		<sup>239/240</sup> Pu	2.4E-03 ± 2.4E-02	U
	<sup>103</sup> Ru	-9.5E-04 ± 9.5E-03	U		<sup>103</sup> Ru	-4.9E-04 ± 4.9E-03	U
	<sup>106</sup> Ru	-1.3E-01 ± 1.3E-01	U		<sup>106</sup> Ru	-2.8E-02 ± 5.1E-02	U
	<sup>125</sup> Sb	1.3E-03 ± 1.3E-02	U		<sup>125</sup> Sb	-1.9E-02 ± 1.9E-02	U
	<sup>113</sup> Sn	-2.6E-03 ± 1.2E-02	U		<sup>113</sup> Sn	-3.8E-03 ± 8.3E-03	U
	<sup>90</sup> Sr	1.0E+00 ± 3.5E-01			<sup>90</sup> Sr	-3.0E-02 ± 2.1E-01	U
	<sup>234</sup> U	3.2E-01 ± 9.6E-02			<sup>234</sup> U	2.7E-01 ± 8.4E-02	
	<sup>235</sup> U	3.9E-02 ± 2.2E-02			<sup>235</sup> U	1.8E-02 ± 1.4E-02	
	<sup>238</sup> U	3.6E-01 ± 1.1E-01			<sup>238</sup> U	2.3E-01 ± 7.1E-02	
	<sup>65</sup> Zn	2.2E-02 ± 2.6E-02	U		<sup>65</sup> Zn	-3.9E-04 ± 3.9E-03	U
	D119 (300 Area)	<sup>144</sup> Ce	1.7E-02 ± 1.4E-01		U	D120 (300 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		-3.5E-03 ± 6.6E-03	U	<sup>60</sup> Co	2.1E-03 ± 5.8E-03		U
<sup>134</sup> Cs		3.4E-02 ± 1.2E-02		<sup>134</sup> Cs	3.8E-02 ± 1.4E-02		
<sup>137</sup> Cs		1.0E-01 ± 2.4E-02		<sup>137</sup> Cs	1.3E-01 ± 2.6E-02		
<sup>152</sup> Eu		6.4E-03 ± 2.6E-02	U	<sup>152</sup> Eu	1.7E-02 ± 2.4E-02		U
<sup>154</sup> Eu		1.2E-03 ± 1.2E-02	U	<sup>154</sup> Eu	2.8E-03 ± 2.1E-02		U
<sup>155</sup> Eu		4.2E-02 ± 4.1E-02	U	<sup>155</sup> Eu	3.7E-02 ± 4.1E-02		U
<sup>238</sup> Pu		-8.4E-03 ± 2.8E-02	U	<sup>238</sup> Pu	1.8E-03 ± 1.8E-02		U
<sup>239/240</sup> Pu		6.7E-02 ± 2.9E-02		<sup>239/240</sup> Pu	3.7E-02 ± 1.9E-02		
<sup>103</sup> Ru		1.0E-02 ± 8.7E-03	U	<sup>103</sup> Ru	-4.4E-03 ± 5.8E-03		U
<sup>106</sup> Ru		-1.6E-02 ± 5.9E-02	U	<sup>106</sup> Ru	-9.0E-03 ± 5.4E-02		U
<sup>125</sup> Sb		2.5E-03 ± 1.8E-02	U	<sup>125</sup> Sb	6.6E-03 ± 1.7E-02		U
<sup>113</sup> Sn		-2.6E-04 ± 2.6E-03	U	<sup>113</sup> Sn	-7.4E-03 ± 7.9E-03		U
<sup>90</sup> Sr		-6.4E-02 ± 2.2E-01	U	<sup>90</sup> Sr	2.8E-01 ± 2.0E-01		U
<sup>234</sup> U		4.2E+00 ± 1.1E+00		<sup>234</sup> U	5.3E+00 ± 1.4E+00		
<sup>235</sup> U		2.3E-01 ± 7.4E-02		<sup>235</sup> U	3.5E-01 ± 1.0E-01		
<sup>238</sup> U		4.6E+00 ± 1.2E+00		<sup>238</sup> U	5.3E+00 ± 1.4E+00		
<sup>65</sup> Zn		-8.1E-03 ± 1.9E-02	U	<sup>65</sup> Zn	-7.4E-03 ± 1.5E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D121 (300 Area)	<sup>144</sup> Ce	-4.6E-02 ± 1.1E-01	U	D123 (300 Area)	<sup>144</sup> Ce	4.1E-02 ± 9.8E-02	U
	<sup>60</sup> Co	3.1E-03 ± 5.6E-03	U		<sup>60</sup> Co	-5.3E-03 ± 7.5E-03	U
	<sup>134</sup> Cs	3.0E-02 ± 1.1E-02			<sup>134</sup> Cs	3.5E-02 ± 1.2E-02	
	<sup>137</sup> Cs	1.7E-01 ± 3.1E-02			<sup>137</sup> Cs	2.1E-02 ± 9.6E-03	
	<sup>152</sup> Eu	-6.4E-03 ± 1.9E-02	U		<sup>152</sup> Eu	-4.3E-03 ± 1.9E-02	U
	<sup>154</sup> Eu	5.0E-03 ± 1.9E-02	U		<sup>154</sup> Eu	-4.5E-03 ± 2.1E-02	U
	<sup>155</sup> Eu	2.9E-02 ± 3.0E-02	U		<sup>155</sup> Eu	4.9E-02 ± 3.4E-02	
	<sup>238</sup> Pu	2.1E-02 ± 3.2E-02	U		<sup>238</sup> Pu	-4.6E-03 ± 2.8E-02	U
	<sup>239/240</sup> Pu	6.2E-02 ± 2.9E-02			<sup>239/240</sup> Pu	6.9E-03 ± 1.4E-02	U
	<sup>103</sup> Ru	3.3E-03 ± 5.6E-03	U		<sup>103</sup> Ru	2.5E-03 ± 5.6E-03	U
	<sup>106</sup> Ru	-1.4E-03 ± 1.4E-02	U		<sup>106</sup> Ru	1.8E-02 ± 5.1E-02	U
	<sup>125</sup> Sb	-3.3E-05 ± 3.3E-04	U		<sup>125</sup> Sb	-4.6E-03 ± 1.7E-02	U
	<sup>113</sup> Sn	-3.6E-03 ± 7.7E-03	U		<sup>113</sup> Sn	3.9E-03 ± 8.4E-03	U
	<sup>90</sup> Sr	-3.3E-01 ± 3.3E-01	U		<sup>90</sup> Sr	-9.5E-02 ± 2.5E-01	U
	<sup>234</sup> U	1.6E+00 ± 4.3E-01			<sup>234</sup> U	1.6E-01 ± 5.4E-02	
	<sup>235</sup> U	7.5E-02 ± 3.2E-02			<sup>235</sup> U	1.6E-02 ± 1.4E-02	U
	<sup>238</sup> U	1.7E+00 ± 4.6E-01			<sup>238</sup> U	1.7E-01 ± 5.6E-02	
	<sup>65</sup> Zn	-8.8E-03 ± 1.6E-02	U		<sup>65</sup> Zn	-1.1E-02 ± 1.7E-02	U
	D124 (300 Area)	<sup>144</sup> Ce	8.0E-02 ± 1.5E-01		U	D125 (300 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		-2.9E-03 ± 7.5E-03	U	<sup>60</sup> Co	-1.3E-03 ± 6.1E-03		U
<sup>134</sup> Cs		2.5E-02 ± 1.1E-02		<sup>134</sup> Cs	2.9E-02 ± 1.3E-02		
<sup>137</sup> Cs		1.2E-01 ± 2.9E-02		<sup>137</sup> Cs	2.1E-01 ± 3.8E-02		
<sup>152</sup> Eu		1.1E-02 ± 2.7E-02	U	<sup>152</sup> Eu	-1.0E-02 ± 2.7E-02		U
<sup>154</sup> Eu		-3.2E-02 ± 3.2E-02	U	<sup>154</sup> Eu	-2.1E-02 ± 2.1E-02		U
<sup>155</sup> Eu		3.2E-02 ± 3.4E-02	U	<sup>155</sup> Eu	2.5E-02 ± 3.3E-02		U
<sup>238</sup> Pu		9.0E-03 ± 2.5E-02	U	<sup>238</sup> Pu	1.5E-02 ± 3.3E-02		U
<sup>239/240</sup> Pu		3.6E-03 ± 9.0E-03	U	<sup>239/240</sup> Pu	2.2E-03 ± 7.7E-03		U
<sup>103</sup> Ru		6.6E-03 ± 7.6E-03	U	<sup>103</sup> Ru	-2.8E-03 ± 7.0E-03		U
<sup>106</sup> Ru		2.2E-02 ± 6.6E-02	U	<sup>106</sup> Ru	-3.2E-02 ± 5.9E-02		U
<sup>125</sup> Sb		4.7E-03 ± 2.0E-02	U	<sup>125</sup> Sb	7.8E-03 ± 1.8E-02		U
<sup>113</sup> Sn		3.8E-03 ± 1.1E-02	U	<sup>113</sup> Sn	-1.2E-02 ± 1.2E-02		U
<sup>90</sup> Sr		-1.4E-01 ± 2.0E-01	U	<sup>90</sup> Sr	-2.4E-01 ± 2.4E-01		U
<sup>234</sup> U		2.2E-01 ± 6.8E-02		<sup>234</sup> U	7.1E-01 ± 2.0E-01		
<sup>235</sup> U		1.0E-02 ± 9.8E-03	U	<sup>235</sup> U	5.8E-02 ± 2.7E-02		
<sup>238</sup> U	2.2E-01 ± 6.8E-02		<sup>238</sup> U	6.2E-01 ± 1.7E-01			
<sup>65</sup> Zn	8.8E-03 ± 2.0E-02	U	<sup>65</sup> Zn	5.5E-03 ± 1.7E-02	U		

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
D126 (300 Area)	<sup>144</sup> Ce	3.6E-02 ± 1.8E-01	U	D127 (300 Area)	<sup>144</sup> Ce	9.5E-02 ± 1.5E-01	U
	<sup>60</sup> Co	4.8E-03 ± 1.1E-02	U		<sup>60</sup> Co	-4.0E-04 ± 4.0E-03	U
	<sup>134</sup> Cs	3.6E-02 ± 1.8E-02			<sup>134</sup> Cs	4.3E-02 ± 1.4E-02	
	<sup>137</sup> Cs	1.4E-01 ± 2.9E-02			<sup>137</sup> Cs	1.9E-01 ± 3.4E-02	
	<sup>152</sup> Eu	-6.1E-04 ± 6.1E-03	U		<sup>152</sup> Eu	-3.1E-02 ± 3.1E-02	U
	<sup>154</sup> Eu	1.9E-02 ± 3.6E-02	U		<sup>154</sup> Eu	-8.0E-03 ± 2.1E-02	U
	<sup>155</sup> Eu	6.5E-02 ± 4.8E-02			<sup>155</sup> Eu	6.2E-02 ± 4.4E-02	
	<sup>238</sup> Pu	-9.0E-03 ± 2.9E-02	U		<sup>238</sup> Pu	1.3E-02 ± 3.6E-02	U
	<sup>239/240</sup> Pu	3.6E-03 ± 9.0E-03	U		<sup>239/240</sup> Pu	1.8E-03 ± 9.5E-03	U
	<sup>103</sup> Ru	9.8E-03 ± 1.2E-02	U		<sup>103</sup> Ru	4.5E-04 ± 4.5E-03	U
	<sup>106</sup> Ru	1.4E-02 ± 9.9E-02	U		<sup>106</sup> Ru	1.0E-03 ± 1.0E-02	U
	<sup>125</sup> Sb	1.4E-02 ± 3.0E-02	U		<sup>125</sup> Sb	1.0E-02 ± 1.9E-02	U
	<sup>113</sup> Sn	-9.5E-03 ± 1.4E-02	U		<sup>113</sup> Sn	-7.2E-03 ± 9.1E-03	U
	<sup>90</sup> Sr	1.2E-01 ± 2.3E-01	U		<sup>90</sup> Sr	-2.3E-02 ± 2.1E-01	U
	<sup>234</sup> U	2.1E+00 ± 5.5E-01			<sup>234</sup> U	2.2E-01 ± 7.0E-02	
	<sup>235</sup> U	2.0E-01 ± 6.4E-02			<sup>235</sup> U	2.9E-02 ± 1.8E-02	
	<sup>238</sup> U	1.9E+00 ± 4.9E-01			<sup>238</sup> U	2.2E-01 ± 7.0E-02	
	<sup>65</sup> Zn	3.4E-04 ± 3.4E-03	U		<sup>65</sup> Zn	7.1E-03 ± 1.8E-02	U
	D128 (300 Area)	<sup>144</sup> Ce	1.4E-01 ± 1.7E-01		U	D129 (300 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		2.9E-03 ± 1.1E-02	U	<sup>60</sup> Co	-2.4E-03 ± 6.6E-03		U
<sup>134</sup> Cs		3.2E-02 ± 1.5E-02		<sup>134</sup> Cs	3.3E-02 ± 9.6E-03		
<sup>137</sup> Cs		1.6E-01 ± 3.5E-02		<sup>137</sup> Cs	3.9E-02 ± 1.7E-02		
<sup>152</sup> Eu		-4.2E-03 ± 4.2E-02	U	<sup>152</sup> Eu	2.2E-03 ± 2.2E-02		U
<sup>154</sup> Eu		-1.4E-02 ± 3.2E-02	U	<sup>154</sup> Eu	-3.1E-02 ± 3.1E-02		U
<sup>155</sup> Eu		2.5E-02 ± 3.8E-02	U	<sup>155</sup> Eu	7.0E-02 ± 4.6E-02		
<sup>238</sup> Pu		1.8E-02 ± 3.6E-02	U	<sup>238</sup> Pu	1.4E-02 ± 3.9E-02		U
<sup>239/240</sup> Pu		2.0E-02 ± 1.4E-02		<sup>239/240</sup> Pu	7.8E-03 ± 7.8E-03		
<sup>103</sup> Ru		8.0E-04 ± 8.0E-03	U	<sup>103</sup> Ru	1.6E-03 ± 6.2E-03		U
<sup>106</sup> Ru		-7.3E-02 ± 9.4E-02	U	<sup>106</sup> Ru	-7.7E-03 ± 5.7E-02		U
<sup>125</sup> Sb		3.5E-03 ± 2.9E-02	U	<sup>125</sup> Sb	5.6E-03 ± 1.8E-02		U
<sup>113</sup> Sn		2.9E-03 ± 1.3E-02	U	<sup>113</sup> Sn	-2.8E-03 ± 8.2E-03		U
<sup>90</sup> Sr		3.4E-02 ± 2.1E-01	U	<sup>90</sup> Sr	-5.4E-02 ± 1.9E-01		U
<sup>234</sup> U		2.2E-01 ± 7.0E-02		<sup>234</sup> U	3.3E-01 ± 9.9E-02		
<sup>235</sup> U		1.9E-02 ± 1.5E-02		<sup>235</sup> U	1.4E-02 ± 1.1E-02		
<sup>238</sup> U		2.3E-01 ± 7.4E-02		<sup>238</sup> U	2.8E-01 ± 8.4E-02		
<sup>65</sup> Zn		-4.5E-03 ± 2.8E-02	U	<sup>65</sup> Zn	2.5E-03 ± 1.7E-02		U

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

Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>D130</b> (400 Area)	<sup>144</sup> Ce	-7.2E-02 ± 1.3E-01	U	<b>D131</b> (Replicate of D119, 300 Area)	<sup>144</sup> Ce	-2.3E-02 ± 1.4E-01	U
	<sup>60</sup> Co	5.2E-03 ± 6.9E-03	U		<sup>60</sup> Co	-7.5E-03 ± 7.5E-03	U
	<sup>134</sup> Cs	4.1E-02 ± 1.6E-02			<sup>134</sup> Cs	2.9E-02 ± 1.2E-02	
	<sup>137</sup> Cs	2.7E-02 ± 1.1E-02			<sup>137</sup> Cs	1.1E-01 ± 2.2E-02	
	<sup>152</sup> Eu	-1.6E-02 ± 2.6E-02	U		<sup>152</sup> Eu	2.2E-03 ± 2.2E-02	U
	<sup>154</sup> Eu	-1.3E-02 ± 2.3E-02	U		<sup>154</sup> Eu	-1.8E-02 ± 2.4E-02	U
	<sup>155</sup> Eu	9.6E-03 ± 3.2E-02	U		<sup>155</sup> Eu	6.8E-02 ± 4.1E-02	
	<sup>238</sup> Pu	1.1E-02 ± 3.8E-02	U		<sup>238</sup> Pu	1.1E-02 ± 3.5E-02	U
	<sup>239/240</sup> Pu	3.6E-03 ± 7.2E-03	U		<sup>239/240</sup> Pu	7.2E-02 ± 3.0E-02	
	<sup>103</sup> Ru	-2.8E-03 ± 6.4E-03	U		<sup>103</sup> Ru	-2.3E-03 ± 7.2E-03	U
	<sup>106</sup> Ru	4.0E-02 ± 5.9E-02	U		<sup>106</sup> Ru	3.1E-02 ± 6.4E-02	U
	<sup>125</sup> Sb	7.7E-04 ± 7.7E-03	U		<sup>125</sup> Sb	8.3E-03 ± 1.9E-02	U
	<sup>113</sup> Sn	1.4E-03 ± 8.4E-03	U		<sup>113</sup> Sn	-1.3E-02 ± 1.3E-02	U
	<sup>90</sup> Sr	1.0E-01 ± 2.0E-01	U		<sup>90</sup> Sr	2.3E-01 ± 2.3E-01	U
	<sup>234</sup> U	1.6E-01 ± 5.6E-02			<sup>234</sup> U	4.3E+00 ± 1.1E+00	
	<sup>235</sup> U	1.2E-02 ± 1.3E-02	U		<sup>235</sup> U	2.6E-01 ± 8.1E-02	
	<sup>238</sup> U	1.5E-01 ± 5.3E-02			<sup>238</sup> U	4.3E+00 ± 1.1E+00	
<sup>65</sup> Zn	2.0E-02 ± 1.8E-02	U	<sup>65</sup> Zn	3.0E-03 ± 1.9E-02	U		
<b>D139</b> (Replicate of D118, 300 Area)	<sup>144</sup> Ce	-8.8E-02 ± 9.9E-02	U	<b>D140</b> (Replicate of D123, 300 Area)	<sup>144</sup> Ce	3.3E-02 ± 1.6E-01	U
	<sup>60</sup> Co	-2.5E-03 ± 6.3E-03	U		<sup>60</sup> Co	-4.1E-03 ± 1.0E-02	U
	<sup>134</sup> Cs	2.2E-02 ± 8.9E-03			<sup>134</sup> Cs	3.8E-02 ± 1.5E-02	
	<sup>137</sup> Cs	2.0E-02 ± 8.6E-03			<sup>137</sup> Cs	2.9E-02 ± 1.4E-02	
	<sup>152</sup> Eu	-1.8E-02 ± 1.8E-02	U		<sup>152</sup> Eu	1.2E-02 ± 4.8E-02	U
	<sup>154</sup> Eu	9.3E-03 ± 2.4E-02	U		<sup>154</sup> Eu	-3.2E-02 ± 3.4E-02	U
	<sup>155</sup> Eu	4.7E-02 ± 3.3E-02			<sup>155</sup> Eu	2.7E-02 ± 3.5E-02	U
	<sup>238</sup> Pu	-1.6E-02 ± 3.8E-02	U		<sup>238</sup> Pu	1.9E-02 ± 4.2E-02	U
	<sup>239/240</sup> Pu	-1.8E-03 ± 8.1E-03	U		<sup>239/240</sup> Pu	1.9E-03 ± 1.0E-02	U
	<sup>103</sup> Ru	2.5E-03 ± 5.9E-03	U		<sup>103</sup> Ru	-5.3E-03 ± 9.8E-03	U
	<sup>106</sup> Ru	-1.8E-02 ± 5.2E-02	U		<sup>106</sup> Ru	-6.1E-02 ± 9.1E-02	U
	<sup>125</sup> Sb	2.6E-03 ± 1.7E-02	U		<sup>125</sup> Sb	-1.5E-04 ± 1.5E-03	U
	<sup>113</sup> Sn	-7.0E-03 ± 7.4E-03	U		<sup>113</sup> Sn	-3.8E-03 ± 1.2E-02	U
	<sup>90</sup> Sr	1.8E-02 ± 1.6E-01	U		<sup>90</sup> Sr	1.1E-01 ± 2.0E-01	U
	<sup>234</sup> U	2.5E-01 ± 7.8E-02			<sup>234</sup> U	1.5E-01 ± 5.1E-02	
	<sup>235</sup> U	2.5E-02 ± 1.6E-02			<sup>235</sup> U	2.1E-02 ± 1.7E-02	
	<sup>238</sup> U	2.2E-01 ± 7.0E-02			<sup>238</sup> U	1.6E-01 ± 5.4E-02	
<sup>65</sup> Zn	7.9E-03 ± 1.7E-02	U	<sup>65</sup> Zn	-1.6E-02 ± 2.8E-02	U		

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



Table 3-4. 2006 Soil Sampling Results (pCi/g ± total analytical uncertainty). (25 sheets total)

<b>Location</b>	<b>Isotope</b>	<b>Result ± Error</b>	<b>RQ*</b>
<b>D146</b> (ERDF)	<sup>144</sup> Ce	2.2E-02 ± 9.6E-02	U
	<sup>60</sup> Co	7.4E-03 ± 8.4E-03	U
	<sup>134</sup> Cs	3.5E-02 ± 1.1E-02	
	<sup>137</sup> Cs	2.1E-02 ± 1.4E-02	
	<sup>152</sup> Eu	4.4E-03 ± 1.7E-02	U
	<sup>154</sup> Eu	1.1E-02 ± 2.1E-02	U
	<sup>155</sup> Eu	5.4E-02 ± 3.2E-02	
	<sup>238</sup> Pu	3.0E-02 ± 3.3E-02	U
	<sup>239/240</sup> Pu	9.6E-03 ± 9.4E-03	U
	<sup>103</sup> Ru	3.1E-03 ± 5.7E-03	U
	<sup>106</sup> Ru	-2.2E-02 ± 4.9E-02	U
	<sup>125</sup> Sb	-7.7E-03 ± 1.5E-02	U
	<sup>113</sup> Sn	-1.0E-02 ± 1.0E-02	U
	<sup>90</sup> Sr	2.4E-02 ± 1.8E-01	U
	<sup>234</sup> U	1.5E-01 ± 4.9E-02	
	<sup>235</sup> U	1.8E-02 ± 1.2E-02	
	<sup>238</sup> U	1.7E-01 ± 5.4E-02	
	<sup>65</sup> Zn	3.6E-03 ± 1.5E-02	U

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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 2006 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 2006.

Number of Samples	Operational Area					
	100-N	200-East	200-West <sup>a</sup>	300 <sup>a</sup>	400	600 <sup>a</sup>
69	4	10	23	15	1	16

<sup>a</sup> Number of samples includes one or more Replicate Samples.

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 2006. 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 2006 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 2006 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 2006 vegetation results can be found in Section 10.10.2 of PNNL-16623 (PNNL 2007).

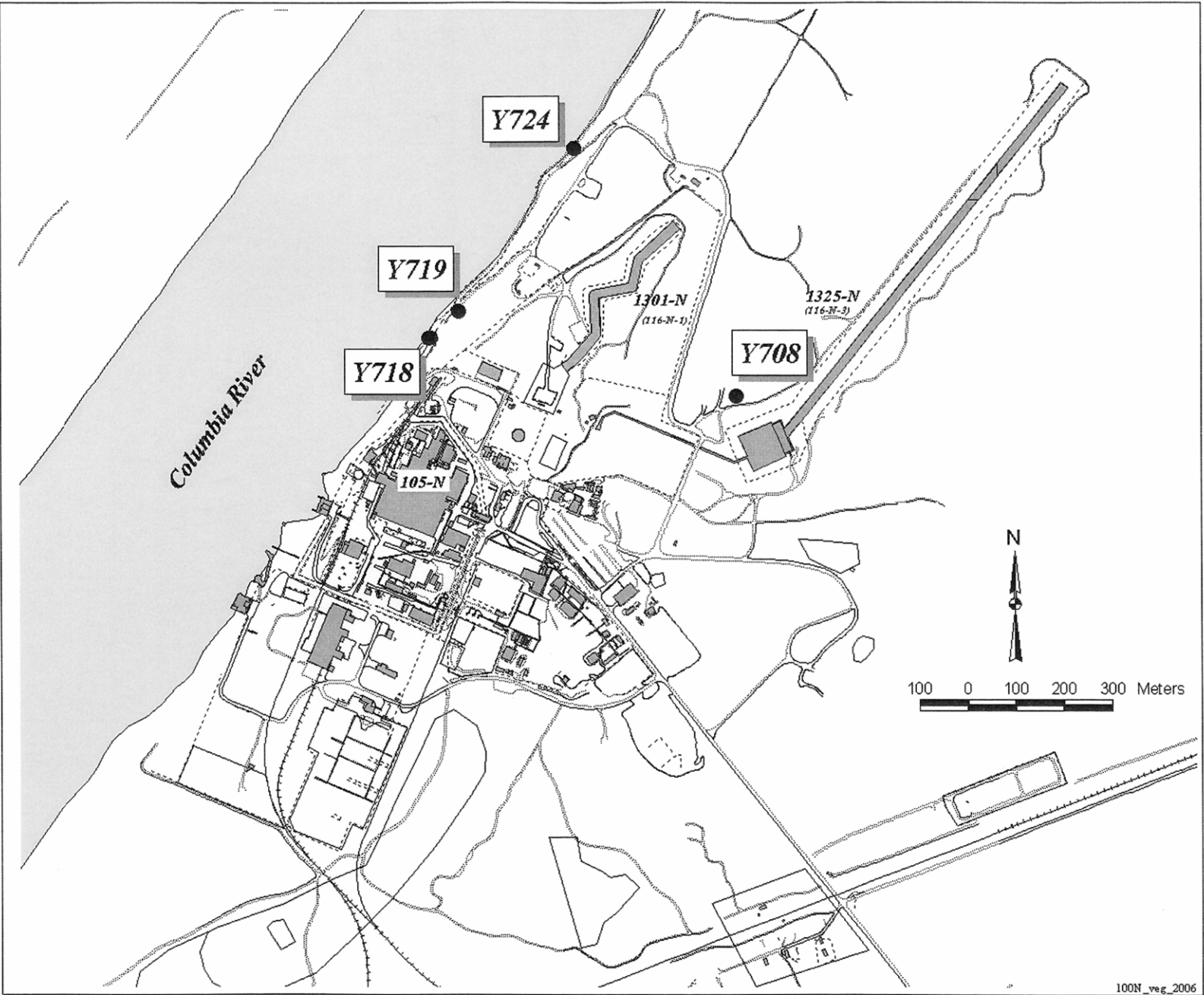


Figure 4-1. 2006 Vegetation Sampling Locations, 100-N Area.

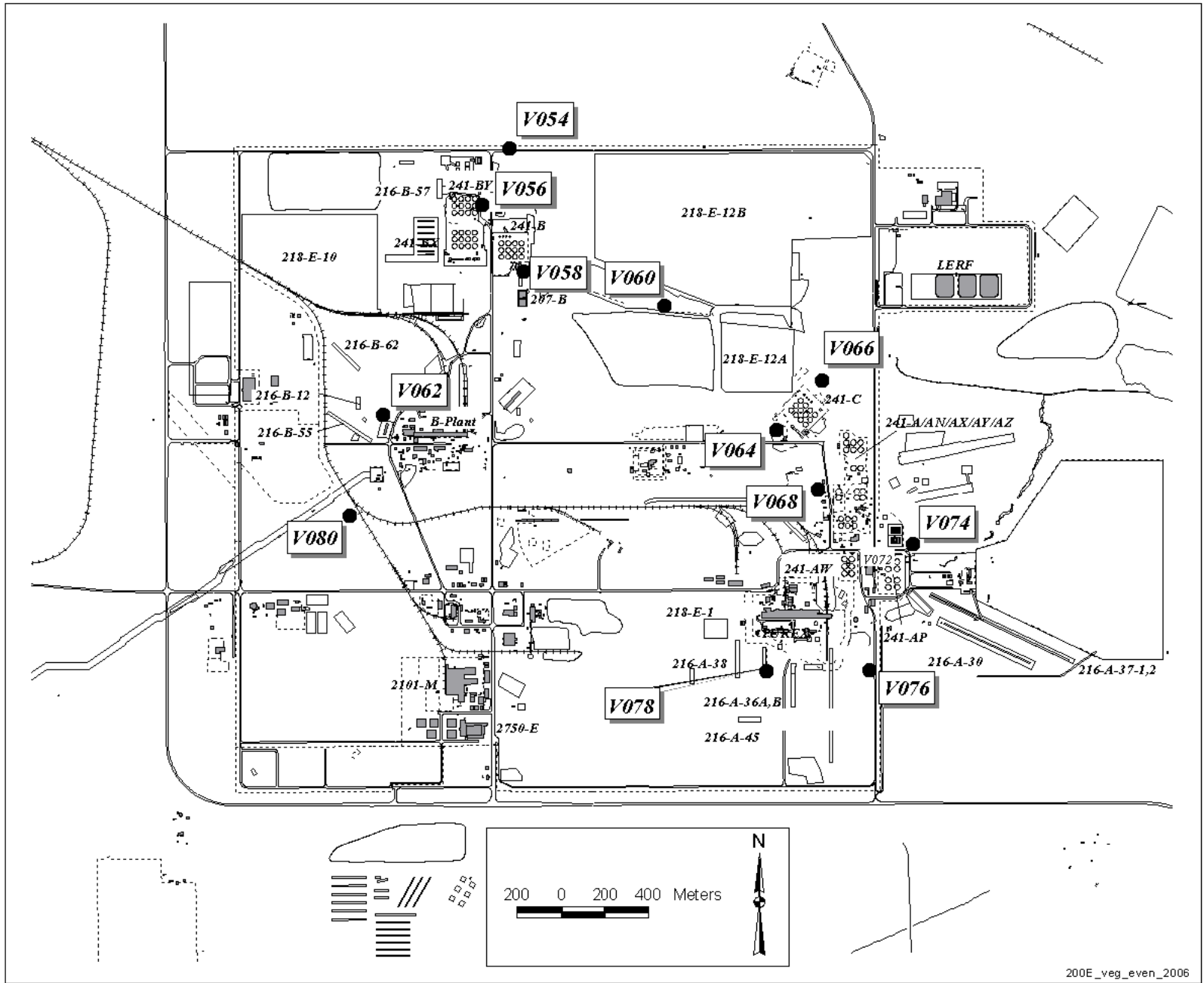
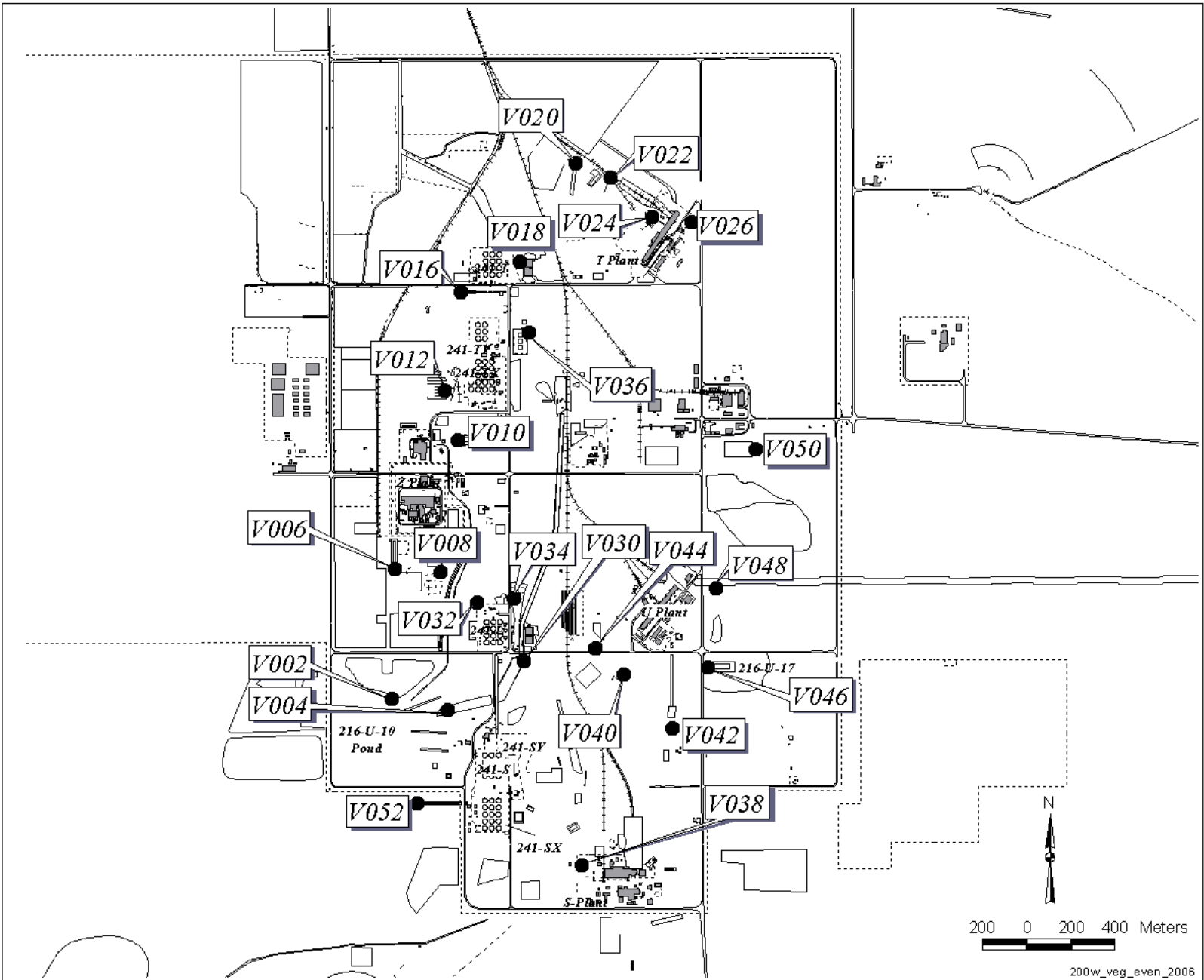


Figure 4-2. 2006 Vegetation Sampling Locations, 200 East Area.

Figure 4-3. 2006 Vegetation Sampling Locations, 200 West Area.



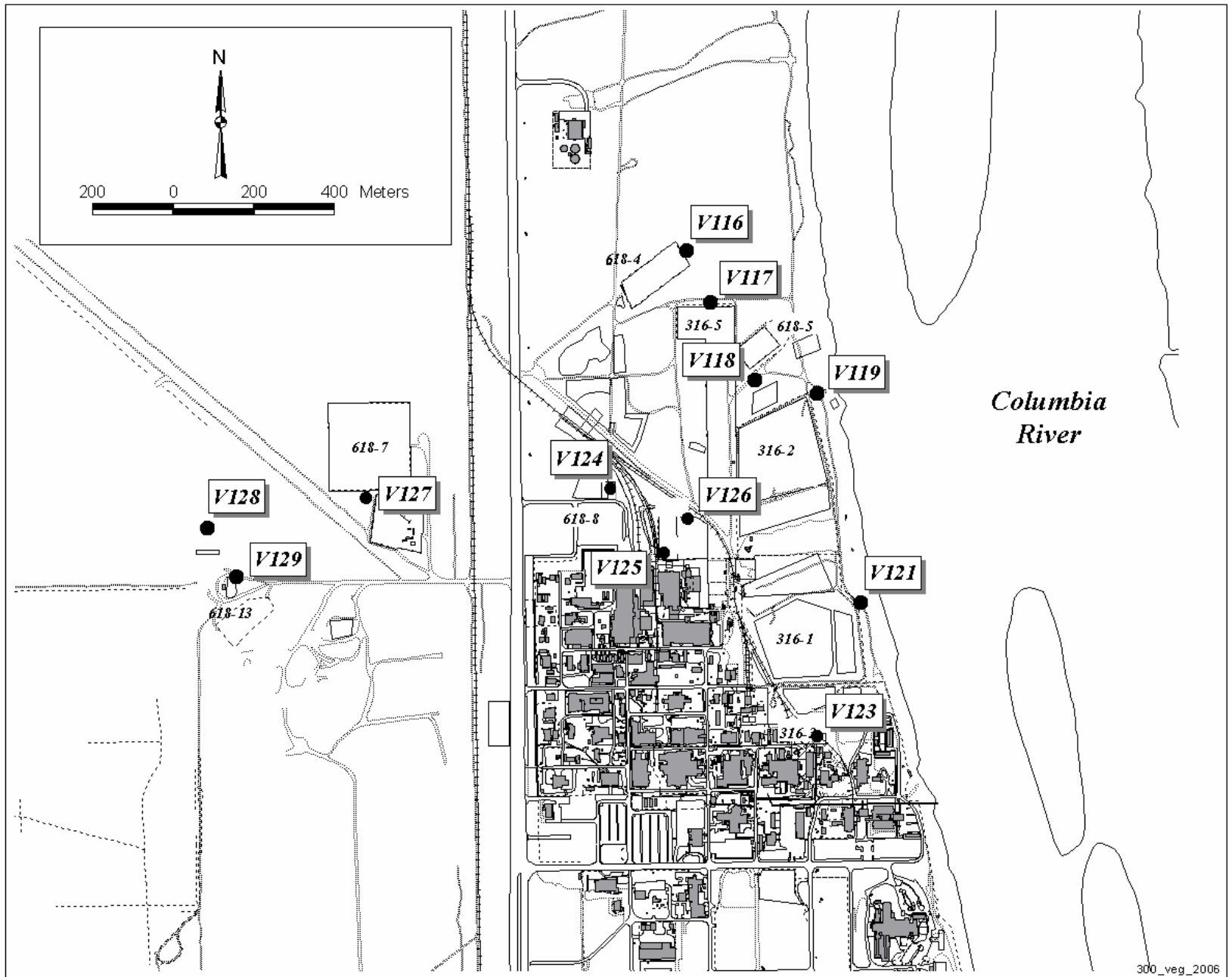


Figure 4-4. 2006 Vegetation Sampling Locations, 300 Area.

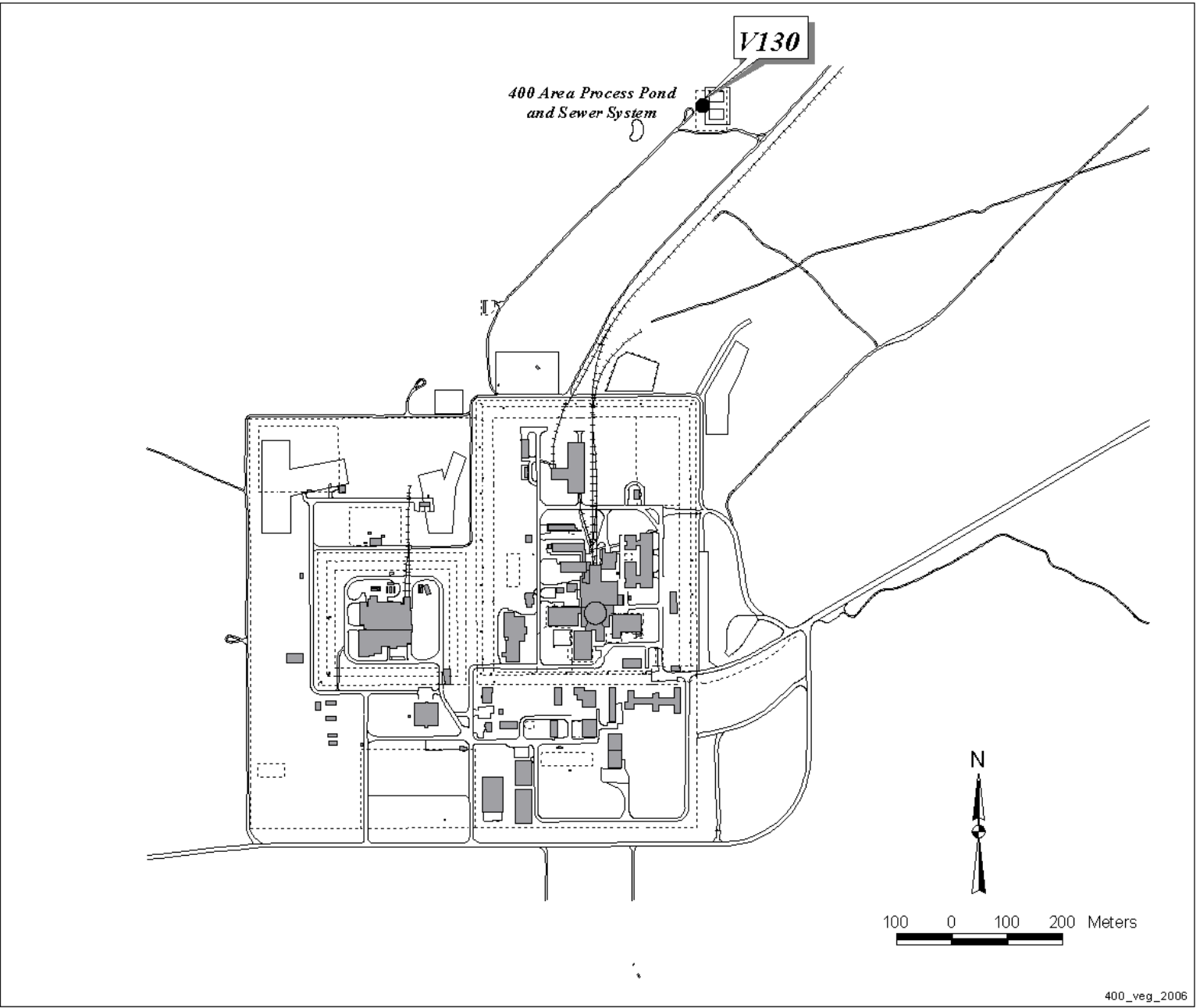


Figure 4-5. 2006 Vegetation Sampling Locations, 400 Area.



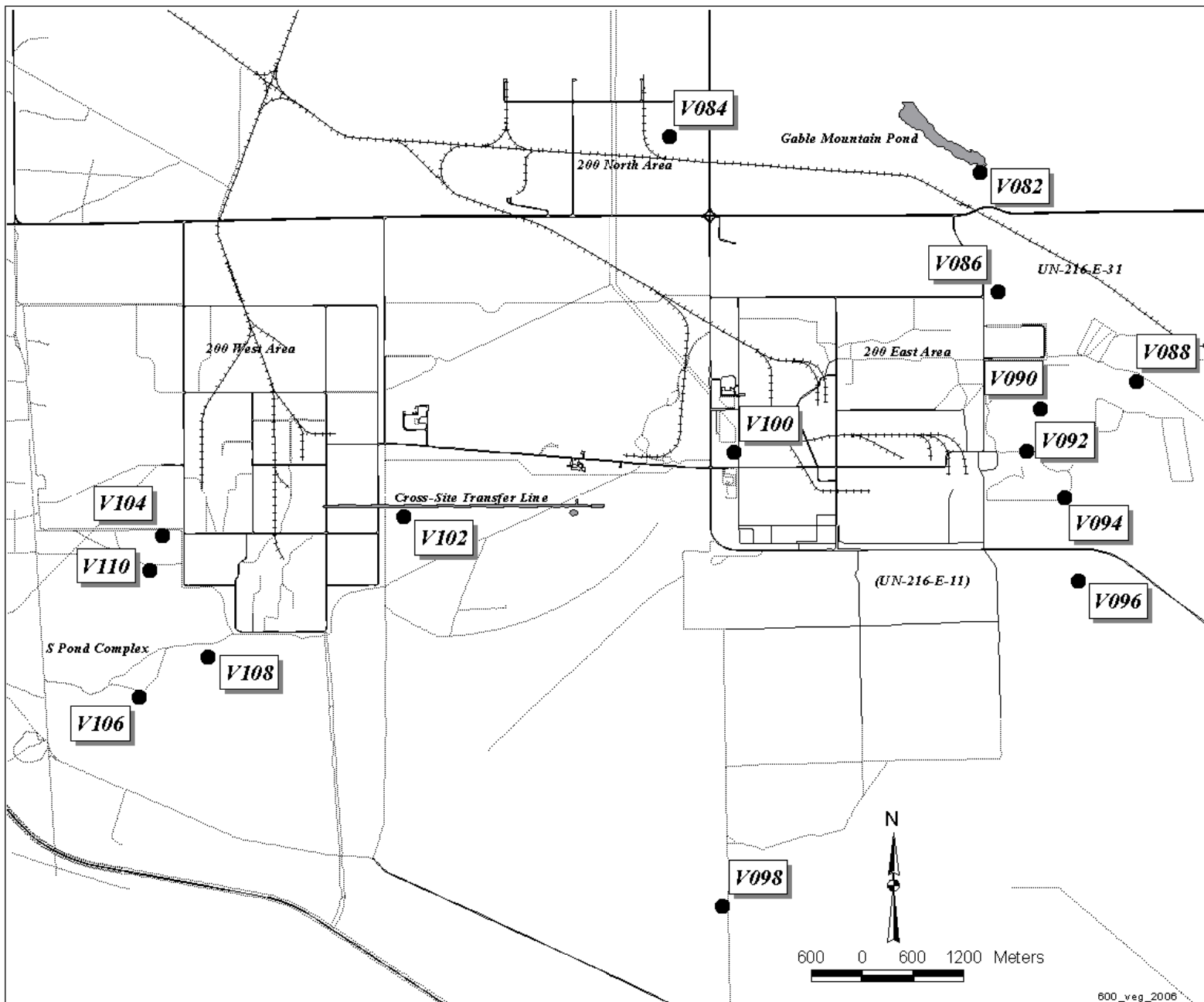


Figure 4-6. 2006 Vegetation Sampling Locations, 600 Area.

Table 4-2. Summary of Near-Facility Vegetation Sampling Results (pCi/g)<sup>a</sup> for Selected Radionuclides, 2006.

Isotope	Number of		Average <sup>c</sup>	Maximum <sup>d</sup>	Location	
	Samples <sup>b</sup>	Detects			Area	Site
<sup>144</sup> Ce	69	0	7.4E-02 ± 3.3E+00	1.2E+01 ± 2.7E+01	600 Area	V102
<sup>60</sup> Co	69	0	-1.4E-02 ± 1.8E-01	1.0E-01 ± 1.1E-01	200 West	V024
<sup>134</sup> Cs	69	0	1.2E-02 ± 1.5E-01	5.7E-01 ± 2.5E+00	300 Area	V132
<sup>137</sup> Cs	69	5	2.3E-02 ± 5.2E-01	1.7E+00 ± 2.2E+00	600 Area	V102
<sup>152</sup> Eu	69	0	5.3E-02 ± 6.0E-01	1.9E+00 ± 6.6E+00	300 Area	V132
<sup>154</sup> Eu	69	0	-4.3E-02 ± 5.5E-01	9.2E-01 ± 7.0E+00	300 Area	V132
<sup>155</sup> Eu	69	0	-3.5E-02 ± 5.4E-01	2.5E-01 ± 3.2E-01	600 Area	V082
<sup>238</sup> Pu	69	2	3.1E-03 ± 2.2E-02	6.4E-02 ± 2.9E-02	200 West	V004
<sup>239/240</sup> Pu	69	11	6.2E-03 ± 3.7E-02	1.5E-01 ± 4.5E-02	200 West	V004
<sup>103</sup> Ru	69	0	-4.6E-02 ± 5.0E-01	1.6E-01 ± 2.0E-01	600 Area	V114
<sup>106</sup> Ru	69	1	-1.1E-01 ± 2.3E+00	4.3E+00 ± 3.1E+00	200 West	V024
<sup>125</sup> Sb	69	0	3.0E-02 ± 3.3E-01	1.1E+00 ± 6.0E+00	300 Area	V132
<sup>113</sup> Sn	69	0	-4.4E-02 ± 4.7E-01	1.1E-01 ± 1.6E-01	600 Area	V110
<sup>90</sup> Sr	69	8	2.1E-01 ± 2.2E+00	9.0E+00 ± 1.4E+00	100 N	Y724
<sup>234</sup> U	69	62	2.1E-02 ± 6.0E-02	2.4E-01 ± 6.7E-02	300 Area	V119
<sup>235</sup> U	69	27	5.1E-03 ± 5.7E-03	1.6E-02 ± 9.3E-03	200 East	V076
<sup>238</sup> U	69	55	1.6E-02 ± 5.4E-02	2.1E-01 ± 5.9E-02	300 Area	V119
<sup>65</sup> Zn	69	0	-4.2E-02 ± 1.6E+00	4.5E+00 ± 5.4E+00	600 Area	V102

<sup>a</sup>1 pCi = 0.037 Bq.

<sup>b</sup>Includes replicate samples

<sup>c</sup>Average ± two standard deviations

<sup>d</sup>Maximum ± analytical uncertainty

Table 4-3. Average Radionuclide Concentrations (pCi/g)<sup>a</sup> in Hanford Vegetation, 1995 through 2006.

<u>100-N Area</u>						
Year	<sup>60</sup> Co	<sup>90</sup> Sr	<sup>137</sup> Cs	<sup>234</sup> U	<sup>238</sup> U	<sup>239,240</sup> 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
2006	Not Detected	2.8E+00 ± 7.4E+00	Not Detected	1.2E-02 ± 1.3E-02	7.7E-03 ± 9.9E-03	Not Detected

<u>200/600 Areas</u>						
Year	<sup>60</sup> Co	<sup>90</sup> Sr	<sup>137</sup> Cs	<sup>234</sup> U	<sup>238</sup> U	<sup>239,240</sup> 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
2006	Not Detected	3.2E-01 ± 1.1E+00	5.7E-02 ± 5.0E-01	1.6E-02 ± 1.6E-02	1.4E-02 ± 1.5E-02	8.8E-03 ± 2.4E-02

<u>300/400 Areas</u>						
Year	<sup>60</sup> Co	<sup>90</sup> Sr	<sup>137</sup> Cs	<sup>234</sup> U	<sup>238</sup> U	<sup>239,240</sup> 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
2006	Not Detected	Not Detected	Not Detected	4.2E-02 ± 1.1E-01	3.6E-02 ± 1.0E-01	2.8E-03 ± 6.6E-03

(a) ± 2 standard deviations

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>Y708</b> (100-N)	<sup>144</sup> Ce	-5.4E-02 ± 5.0E-01	U	<b>Y718</b> (N Springs Shoreline)	<sup>144</sup> Ce	-2.5E-01 ± 7.0E-01	U
	<sup>60</sup> Co	-1.2E-02 ± 6.0E-02	U		<sup>60</sup> Co	2.5E-02 ± 5.3E-02	U
	<sup>134</sup> Cs	5.5E-03 ± 5.5E-02	U		<sup>134</sup> Cs	3.9E-02 ± 6.0E-02	U
	<sup>137</sup> Cs	4.6E-02 ± 5.0E-02	U		<sup>137</sup> Cs	-3.5E-02 ± 5.9E-02	U
	<sup>152</sup> Eu	-2.9E-02 ± 1.2E-01	U		<sup>152</sup> Eu	1.0E-01 ± 1.6E-01	U
	<sup>154</sup> Eu	1.2E-01 ± 2.0E-01	U		<sup>154</sup> Eu	1.2E-02 ± 1.2E-01	U
	<sup>155</sup> Eu	5.6E-02 ± 1.3E-01	U		<sup>155</sup> Eu	-1.0E-02 ± 1.0E-01	U
	<sup>238</sup> Pu	-7.0E-03 ± 2.1E-02	U		<sup>238</sup> Pu	7.4E-03 ± 2.1E-02	U
	<sup>239/240</sup> Pu	-1.0E-03 ± 4.5E-03	U		<sup>239/240</sup> Pu	3.2E-03 ± 5.8E-03	U
	<sup>103</sup> Ru	-2.9E-03 ± 2.9E-02	U		<sup>103</sup> Ru	-7.6E-04 ± 7.6E-03	U
	<sup>106</sup> Ru	-3.6E-01 ± 4.5E-01	U		<sup>106</sup> Ru	-2.6E-01 ± 5.3E-01	U
	<sup>125</sup> Sb	-2.2E-02 ± 1.2E-01	U		<sup>125</sup> Sb	1.0E-01 ± 1.6E-01	U
	<sup>113</sup> Sn	1.3E-02 ± 5.8E-02	U		<sup>113</sup> Sn	1.6E-02 ± 7.4E-02	U
	<sup>90</sup> Sr	5.7E-02 ± 1.2E-01	U		<sup>90</sup> Sr	-1.1E-01 ± 1.4E-01	U
	<sup>234</sup> U	2.8E-03 ± 5.0E-03	U		<sup>234</sup> U	9.3E-03 ± 8.3E-03	U
	<sup>235</sup> U	3.1E-03 ± 4.7E-03	U		<sup>235</sup> U	5.1E-03 ± 4.7E-03	U
	<sup>238</sup> U	2.8E-03 ± 3.4E-03	U		<sup>238</sup> U	2.8E-03 ± 4.2E-03	U
<sup>65</sup> Zn	1.0E-01 ± 1.5E-01	U	<sup>65</sup> Zn	8.3E-02 ± 1.5E-01	U		
<b>Y719</b> (N Springs Shoreline)	<sup>144</sup> Ce	-2.3E-01 ± 5.1E-01	U	<b>Y724</b> (N Springs Shoreline)	<sup>144</sup> Ce	8.8E-02 ± 8.2E-01	U
	<sup>60</sup> Co	-2.5E-02 ± 3.8E-02	U		<sup>60</sup> Co	2.0E-02 ± 7.5E-02	U
	<sup>134</sup> Cs	-2.0E-02 ± 4.2E-02	U		<sup>134</sup> Cs	-5.3E-02 ± 7.6E-02	U
	<sup>137</sup> Cs	2.1E-02 ± 4.6E-02	U		<sup>137</sup> Cs	3.9E-02 ± 7.4E-02	U
	<sup>152</sup> Eu	-5.5E-03 ± 5.5E-02	U		<sup>152</sup> Eu	1.3E-01 ± 2.0E-01	U
	<sup>154</sup> Eu	-1.2E-01 ± 1.2E-01	U		<sup>154</sup> Eu	2.4E-02 ± 2.3E-01	U
	<sup>155</sup> Eu	5.2E-02 ± 1.2E-01	U		<sup>155</sup> Eu	-1.7E-01 ± 2.6E-01	U
	<sup>238</sup> Pu	1.2E-02 ± 2.4E-02	U		<sup>238</sup> Pu	6.6E-03 ± 1.6E-02	U
	<sup>239/240</sup> Pu	3.5E-03 ± 4.2E-03	U		<sup>239/240</sup> Pu	1.9E-03 ± 4.7E-03	U
	<sup>103</sup> Ru	-8.8E-03 ± 5.7E-02	U		<sup>103</sup> Ru	2.4E-02 ± 8.5E-02	U
	<sup>106</sup> Ru	2.8E-01 ± 4.3E-01	U		<sup>106</sup> Ru	-3.7E-01 ± 7.1E-01	U
	<sup>125</sup> Sb	-3.6E-02 ± 1.1E-01	U		<sup>125</sup> Sb	-2.5E-02 ± 1.8E-01	U
	<sup>113</sup> Sn	1.8E-02 ± 6.0E-02	U		<sup>113</sup> Sn	1.1E-02 ± 9.1E-02	U
	<sup>90</sup> Sr	2.3E+00 ± 4.6E-01	U		<sup>90</sup> Sr	9.0E+00 ± 1.4E+00	U
	<sup>234</sup> U	1.3E-02 ± 8.2E-03	U		<sup>234</sup> U	2.1E-02 ± 1.1E-02	U
	<sup>235</sup> U	6.1E-03 ± 5.2E-03	U		<sup>235</sup> U	4.1E-03 ± 5.7E-03	U
	<sup>238</sup> U	1.1E-02 ± 7.5E-03	U		<sup>238</sup> U	1.4E-02 ± 8.1E-03	U
<sup>65</sup> Zn	-6.3E-02 ± 1.1E-01	U	<sup>65</sup> Zn	7.7E-02 ± 1.9E-01	U		

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V002</b> (200-W)	<sup>144</sup> Ce	-1.9E+00 ± 1.9E+00	U	<b>V004</b> (200-W)	<sup>144</sup> Ce	-4.9E-02 ± 4.9E-01	U
	<sup>60</sup> Co	2.4E-02 ± 1.7E-01	U		<sup>60</sup> Co	-4.4E-03 ± 4.3E-02	U
	<sup>134</sup> Cs	-4.8E-02 ± 1.9E-01	U		<sup>134</sup> Cs	1.6E-03 ± 1.6E-02	U
	<sup>137</sup> Cs	-1.3E-01 ± 1.8E-01	U		<sup>137</sup> Cs	5.0E-02 ± 1.0E-01	U
	<sup>152</sup> Eu	3.5E-01 ± 5.2E-01	U		<sup>152</sup> Eu	1.2E-02 ± 1.2E-01	U
	<sup>154</sup> Eu	-1.3E-01 ± 5.3E-01	U		<sup>154</sup> Eu	-8.2E-03 ± 8.2E-02	U
	<sup>155</sup> Eu	-2.4E-02 ± 2.4E-01	U		<sup>155</sup> Eu	4.5E-02 ± 2.1E-01	U
	<sup>238</sup> Pu	8.4E-03 ± 8.4E-02	U		<sup>238</sup> Pu	6.4E-02 ± 2.9E-02	
	<sup>239/240</sup> Pu	4.2E-03 ± 4.6E-03	U		<sup>239/240</sup> Pu	1.5E-01 ± 4.5E-02	
	<sup>103</sup> Ru	-1.2E-03 ± 1.2E-02	U		<sup>103</sup> Ru	2.8E-04 ± 2.8E-03	U
	<sup>106</sup> Ru	2.0E-01 ± 1.5E+00	U		<sup>106</sup> Ru	5.0E-01 ± 6.8E-01	U
	<sup>125</sup> Sb	4.6E-01 ± 4.9E-01	U		<sup>125</sup> Sb	-4.3E-02 ± 1.8E-01	U
	<sup>113</sup> Sn	-4.6E-02 ± 2.4E-01	U		<sup>113</sup> Sn	3.6E-02 ± 9.5E-02	U
	<sup>90</sup> Sr	7.4E-02 ± 1.1E-01	U		<sup>90</sup> Sr	8.7E-02 ± 1.2E-01	U
	<sup>234</sup> U	6.6E-03 ± 5.3E-03			<sup>234</sup> U	9.0E-03 ± 6.7E-03	
	<sup>235</sup> U	4.1E-03 ± 4.9E-03	U		<sup>235</sup> U	4.9E-03 ± 5.4E-03	U
	<sup>238</sup> U	9.4E-04 ± 4.2E-03	U		<sup>238</sup> U	4.5E-03 ± 4.9E-03	U
	<sup>65</sup> Zn	5.6E-01 ± 4.0E-01	U		<sup>65</sup> Zn	-9.4E-02 ± 1.9E-01	U
<b>V006</b> (200-W)	<sup>144</sup> Ce	3.7E-01 ± 7.0E-01	U	<b>V008</b> (200-W)	<sup>144</sup> Ce	-4.7E-01 ± 5.3E-01	U
	<sup>60</sup> Co	1.0E-02 ± 6.9E-02	U		<sup>60</sup> Co	2.7E-02 ± 5.4E-02	U
	<sup>134</sup> Cs	-1.4E-02 ± 5.9E-02	U		<sup>134</sup> Cs	2.6E-02 ± 5.2E-02	U
	<sup>137</sup> Cs	8.5E-03 ± 6.0E-02	U		<sup>137</sup> Cs	2.8E-03 ± 2.8E-02	U
	<sup>152</sup> Eu	-1.9E-01 ± 1.9E-01	U		<sup>152</sup> Eu	1.7E-01 ± 1.5E-01	U
	<sup>154</sup> Eu	-2.5E-02 ± 1.6E-01	U		<sup>154</sup> Eu	-6.2E-02 ± 1.5E-01	U
	<sup>155</sup> Eu	8.1E-02 ± 1.6E-01	U		<sup>155</sup> Eu	-2.3E-02 ± 1.3E-01	U
	<sup>238</sup> Pu	2.4E-03 ± 4.8E-03	U		<sup>238</sup> Pu	8.0E-03 ± 1.4E-02	U
	<sup>239/240</sup> Pu	1.6E-02 ± 8.0E-03			<sup>239/240</sup> Pu	3.4E-02 ± 1.6E-02	
	<sup>103</sup> Ru	6.4E-03 ± 6.4E-02	U		<sup>103</sup> Ru	-1.2E-02 ± 7.0E-02	U
	<sup>106</sup> Ru	4.0E-01 ± 5.6E-01	U		<sup>106</sup> Ru	1.8E-02 ± 1.8E-01	U
	<sup>125</sup> Sb	-9.0E-02 ± 1.6E-01	U		<sup>125</sup> Sb	6.6E-02 ± 1.2E-01	U
	<sup>113</sup> Sn	-2.3E-02 ± 8.3E-02	U		<sup>113</sup> Sn	-4.2E-02 ± 6.4E-02	U
	<sup>90</sup> Sr	1.0E-01 ± 1.2E-01	U		<sup>90</sup> Sr	1.2E-01 ± 1.2E-01	U
	<sup>234</sup> U	8.8E-03 ± 7.4E-03	U		<sup>234</sup> U	9.7E-03 ± 6.8E-03	
	<sup>235</sup> U	5.7E-03 ± 4.9E-03			<sup>235</sup> U	2.9E-03 ± 5.2E-03	U
	<sup>238</sup> U	1.1E-02 ± 7.1E-03			<sup>238</sup> U	8.8E-03 ± 6.5E-03	
	<sup>65</sup> Zn	8.5E-03 ± 8.5E-02	U		<sup>65</sup> Zn	1.3E-01 ± 1.3E-01	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

<b>Location</b>	<b>Isotope</b>	<b>Result ± Error</b>	<b>RQ*</b>	<b>Location</b>	<b>Isotope</b>	<b>Result ± Error</b>	<b>RQ*</b>
<b>V010</b> (200-W)	<sup>144</sup> Ce	-5.5E-01 ± 6.5E-01	U	<b>V012</b> (200-W)	<sup>144</sup> Ce	-1.4E-01 ± 8.5E-01	U
	<sup>60</sup> Co	4.1E-02 ± 5.8E-02	U		<sup>60</sup> Co	-3.3E-02 ± 6.0E-02	U
	<sup>134</sup> Cs	-4.7E-03 ± 4.7E-02	U		<sup>134</sup> Cs	-4.0E-02 ± 6.6E-02	U
	<sup>137</sup> Cs	-5.1E-02 ± 5.6E-02	U		<sup>137</sup> Cs	-1.6E-02 ± 6.8E-02	U
	<sup>152</sup> Eu	-1.3E-01 ± 1.7E-01	U		<sup>152</sup> Eu	1.0E-02 ± 1.0E-01	U
	<sup>154</sup> Eu	4.6E-02 ± 1.5E-01	U		<sup>154</sup> Eu	-1.3E-02 ± 1.3E-01	U
	<sup>155</sup> Eu	3.0E-02 ± 1.6E-01	U		<sup>155</sup> Eu	-1.7E-02 ± 1.7E-01	U
	<sup>238</sup> Pu	-1.9E-03 ± 1.1E-02	U		<sup>238</sup> Pu	3.4E-03 ± 7.1E-03	U
	<sup>239/240</sup> Pu	6.7E-03 ± 6.6E-03	U		<sup>239/240</sup> Pu	1.9E-02 ± 8.9E-03	
	<sup>103</sup> Ru	1.6E-03 ± 1.6E-02	U		<sup>103</sup> Ru	-1.7E-02 ± 8.5E-02	U
	<sup>106</sup> Ru	2.3E-02 ± 2.3E-01	U		<sup>106</sup> Ru	1.8E-01 ± 5.4E-01	U
	<sup>125</sup> Sb	7.2E-02 ± 1.3E-01	U		<sup>125</sup> Sb	6.0E-02 ± 1.9E-01	U
	<sup>113</sup> Sn	-1.6E-02 ± 6.8E-02	U		<sup>113</sup> Sn	6.2E-02 ± 1.0E-01	U
	<sup>90</sup> Sr	1.1E-01 ± 1.2E-01	U		<sup>90</sup> Sr	7.0E-03 ± 7.0E-02	U
	<sup>234</sup> U	1.2E-02 ± 8.6E-03			<sup>234</sup> U	9.3E-03 ± 8.3E-03	U
	<sup>235</sup> U	6.3E-03 ± 6.2E-03	U		<sup>235</sup> U	5.1E-03 ± 4.7E-03	
	<sup>238</sup> U	5.8E-03 ± 5.0E-03			<sup>238</sup> U	9.3E-03 ± 6.9E-03	
<sup>65</sup> Zn	1.2E-01 ± 1.3E-01	U	<sup>65</sup> Zn	2.1E-01 ± 1.6E-01	U		
<b>V016</b> (200-W)	<sup>144</sup> Ce	-7.9E-01 ± 1.2E+00	U	<b>V020</b> (200-W)	<sup>144</sup> Ce	5.0E-02 ± 5.0E-01	U
	<sup>60</sup> Co	7.6E-02 ± 1.1E-01	U		<sup>60</sup> Co	1.7E-02 ± 5.0E-02	U
	<sup>134</sup> Cs	-3.5E-02 ± 1.2E-01	U		<sup>134</sup> Cs	-4.1E-02 ± 5.4E-02	U
	<sup>137</sup> Cs	3.0E-02 ± 1.2E-01	U		<sup>137</sup> Cs	-7.1E-03 ± 7.1E-02	U
	<sup>152</sup> Eu	3.0E-03 ± 3.0E-02	U		<sup>152</sup> Eu	-5.2E-02 ± 1.3E-01	U
	<sup>154</sup> Eu	1.9E-02 ± 1.9E-01	U		<sup>154</sup> Eu	6.1E-02 ± 1.4E-01	U
	<sup>155</sup> Eu	9.0E-02 ± 2.7E-01	U		<sup>155</sup> Eu	-3.0E-02 ± 1.4E-01	U
	<sup>238</sup> Pu	1.3E-02 ± 2.3E-02	U		<sup>238</sup> Pu	1.3E-02 ± 1.7E-02	U
	<sup>239/240</sup> Pu	4.0E-03 ± 4.8E-03			<sup>239/240</sup> Pu	1.2E-02 ± 9.5E-03	
	<sup>103</sup> Ru	-4.9E-03 ± 4.9E-02	U		<sup>103</sup> Ru	-4.5E-02 ± 6.9E-02	U
	<sup>106</sup> Ru	-5.1E-01 ± 1.0E+00	U		<sup>106</sup> Ru	2.9E-02 ± 2.9E-01	U
	<sup>125</sup> Sb	1.3E-01 ± 2.9E-01	U		<sup>125</sup> Sb	-5.5E-02 ± 1.3E-01	U
	<sup>113</sup> Sn	5.6E-02 ± 1.5E-01	U		<sup>113</sup> Sn	-1.3E-02 ± 6.3E-02	U
	<sup>90</sup> Sr	6.3E-02 ± 1.2E-01	U		<sup>90</sup> Sr	1.1E-01 ± 1.2E-01	U
	<sup>234</sup> U	1.7E-02 ± 9.5E-03			<sup>234</sup> U	2.0E-02 ± 1.0E-02	
	<sup>235</sup> U	9.3E-04 ± 9.3E-04	U		<sup>235</sup> U	2.0E-03 ± 2.8E-03	U
	<sup>238</sup> U	4.6E-03 ± 4.3E-03			<sup>238</sup> U	1.3E-02 ± 7.9E-03	
<sup>65</sup> Zn	-4.8E-01 ± 4.8E-01	U	<sup>65</sup> Zn	-2.0E-01 ± 2.0E-01	U		

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V022</b> (200-W)	<sup>144</sup> Ce	6.0E-01 ± 6.8E-01	U	<b>V024</b> (200-W)	<sup>144</sup> Ce	1.7E-01 ± 1.1E+00	U
	<sup>60</sup> Co	-2.9E-02 ± 6.3E-02	U		<sup>60</sup> Co	1.0E-01 ± 1.1E-01	U
	<sup>134</sup> Cs	3.5E-03 ± 3.5E-02	U		<sup>134</sup> Cs	2.9E-02 ± 1.1E-01	U
	<sup>137</sup> Cs	1.4E-02 ± 6.0E-02	U		<sup>137</sup> Cs	5.8E-02 ± 1.1E-01	U
	<sup>152</sup> Eu	7.5E-02 ± 1.7E-01	U		<sup>152</sup> Eu	3.9E-02 ± 2.8E-01	U
	<sup>154</sup> Eu	4.7E-02 ± 1.8E-01	U		<sup>154</sup> Eu	-1.3E-01 ± 3.0E-01	U
	<sup>155</sup> Eu	-1.1E-01 ± 2.1E-01	U		<sup>155</sup> Eu	1.1E-01 ± 2.5E-01	U
	<sup>238</sup> Pu	9.5E-04 ± 9.5E-03	U		<sup>238</sup> Pu	8.9E-03 ± 2.3E-02	U
	<sup>239/240</sup> Pu	9.5E-04 ± 3.3E-03	U		<sup>239/240</sup> Pu	2.0E-02 ± 1.2E-02	
	<sup>103</sup> Ru	-7.6E-02 ± 7.9E-02	U		<sup>103</sup> Ru	-3.2E-02 ± 1.3E-01	U
	<sup>106</sup> Ru	2.3E-01 ± 5.7E-01	U		<sup>106</sup> Ru	4.3E+00 ± 3.1E+00	
	<sup>125</sup> Sb	1.5E-01 ± 1.5E-01	U		<sup>125</sup> Sb	1.1E-02 ± 1.1E-01	U
	<sup>113</sup> Sn	-1.9E-02 ± 7.4E-02	U		<sup>113</sup> Sn	-5.0E-02 ± 1.3E-01	U
	<sup>90</sup> Sr	-5.1E-02 ± 9.4E-02	U		<sup>90</sup> Sr	5.2E-02 ± 1.1E-01	U
	<sup>234</sup> U	2.2E-02 ± 1.1E-02			<sup>234</sup> U	1.2E-02 ± 7.6E-03	
	<sup>235</sup> U	6.2E-03 ± 5.3E-03			<sup>235</sup> U	4.7E-03 ± 4.4E-03	
	<sup>238</sup> U	7.6E-03 ± 6.3E-03			<sup>238</sup> U	2.6E-03 ± 3.1E-03	
	<sup>65</sup> Zn	9.7E-02 ± 1.7E-01	U		<sup>65</sup> Zn	-4.4E-01 ± 4.4E-01	U
<b>V026</b> (200-W)	<sup>144</sup> Ce	2.1E-01 ± 4.5E-01	U	<b>V030</b> (200-W)	<sup>144</sup> Ce	-5.4E-01 ± 6.5E-01	U
	<sup>60</sup> Co	1.4E-02 ± 4.2E-02	U		<sup>60</sup> Co	1.5E-02 ± 5.6E-02	U
	<sup>134</sup> Cs	1.6E-03 ± 1.6E-02	U		<sup>134</sup> Cs	2.2E-02 ± 5.2E-02	U
	<sup>137</sup> Cs	-2.0E-02 ± 5.7E-02	U		<sup>137</sup> Cs	7.8E-02 ± 6.0E-02	U
	<sup>152</sup> Eu	-2.5E-02 ± 1.0E-01	U		<sup>152</sup> Eu	2.6E-02 ± 1.5E-01	U
	<sup>154</sup> Eu	2.9E-02 ± 1.3E-01	U		<sup>154</sup> Eu	-4.0E-02 ± 1.5E-01	U
	<sup>155</sup> Eu	-5.1E-02 ± 1.1E-01	U		<sup>155</sup> Eu	-9.4E-02 ± 1.5E-01	U
	<sup>238</sup> Pu	-1.3E-02 ± 2.3E-02	U		<sup>238</sup> Pu	-3.4E-03 ± 2.6E-02	U
	<sup>239/240</sup> Pu	3.4E-02 ± 1.8E-02			<sup>239/240</sup> Pu	8.4E-03 ± 9.2E-03	U
	<sup>103</sup> Ru	3.4E-02 ± 4.8E-02	U		<sup>103</sup> Ru	9.2E-03 ± 7.1E-02	U
	<sup>106</sup> Ru	-2.2E-01 ± 3.6E-01	U		<sup>106</sup> Ru	7.2E-02 ± 4.9E-01	U
	<sup>125</sup> Sb	-3.4E-02 ± 9.7E-02	U		<sup>125</sup> Sb	2.6E-02 ± 1.4E-01	U
	<sup>113</sup> Sn	2.5E-03 ± 2.5E-02	U		<sup>113</sup> Sn	4.4E-02 ± 7.5E-02	U
	<sup>90</sup> Sr	3.6E-01 ± 1.3E-01			<sup>90</sup> Sr	3.3E-02 ± 1.4E-01	U
	<sup>234</sup> U	8.3E-03 ± 7.0E-03	U		<sup>234</sup> U	9.7E-03 ± 7.2E-03	
	<sup>235</sup> U	4.0E-03 ± 4.0E-03			<sup>235</sup> U	6.3E-03 ± 5.4E-03	
	<sup>238</sup> U	4.6E-03 ± 5.1E-03	U		<sup>238</sup> U	7.7E-03 ± 6.4E-03	
	<sup>65</sup> Zn	9.3E-02 ± 9.5E-02	U		<sup>65</sup> Zn	1.5E-01 ± 1.3E-01	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

<b>Location</b>	<b>Isotope</b>	<b>Result ± Error</b>	<b>RQ*</b>	<b>Location</b>	<b>Isotope</b>	<b>Result ± Error</b>	<b>RQ*</b>
<b>V032</b> (200-W)	<sup>144</sup> Ce	1.6E-01 ± 5.2E-01	U	<b>V036</b> (200-W)	<sup>144</sup> Ce	4.3E-02 ± 4.3E-01	U
	<sup>60</sup> Co	5.7E-02 ± 4.2E-02	U		<sup>60</sup> Co	-4.3E-02 ± 6.7E-02	U
	<sup>134</sup> Cs	2.6E-02 ± 4.5E-02	U		<sup>134</sup> Cs	6.6E-02 ± 6.9E-02	U
	<sup>137</sup> Cs	-3.1E-03 ± 3.1E-02	U		<sup>137</sup> Cs	1.0E-01 ± 1.1E-01	U
	<sup>152</sup> Eu	-7.2E-03 ± 7.2E-02	U		<sup>152</sup> Eu	7.7E-02 ± 1.6E-01	U
	<sup>154</sup> Eu	1.2E-02 ± 1.2E-01	U		<sup>154</sup> Eu	-7.9E-02 ± 1.9E-01	U
	<sup>155</sup> Eu	1.6E-03 ± 1.6E-02	U		<sup>155</sup> Eu	1.0E-01 ± 1.6E-01	U
	<sup>238</sup> Pu	3.6E-03 ± 2.0E-02	U		<sup>238</sup> Pu	-1.2E-02 ± 2.8E-02	U
	<sup>239/240</sup> Pu	1.2E-02 ± 8.9E-03			<sup>239/240</sup> Pu	1.5E-03 ± 1.5E-02	U
	<sup>103</sup> Ru	-1.8E-02 ± 5.5E-02	U		<sup>103</sup> Ru	3.8E-03 ± 3.8E-02	U
	<sup>106</sup> Ru	2.0E-01 ± 4.1E-01	U		<sup>106</sup> Ru	2.6E-01 ± 5.8E-01	U
	<sup>125</sup> Sb	3.2E-02 ± 1.1E-01	U		<sup>125</sup> Sb	4.9E-02 ± 1.5E-01	U
	<sup>113</sup> Sn	6.6E-03 ± 5.5E-02	U		<sup>113</sup> Sn	2.3E-04 ± 2.3E-03	U
	<sup>90</sup> Sr	1.2E-01 ± 1.1E-01	U		<sup>90</sup> Sr	2.1E-02 ± 1.0E-01	U
	<sup>234</sup> U	1.5E-02 ± 8.5E-03			<sup>234</sup> U	1.7E-02 ± 9.3E-03	
	<sup>235</sup> U	5.6E-03 ± 4.8E-03			<sup>235</sup> U	2.8E-03 ± 4.2E-03	U
	<sup>238</sup> U	1.2E-02 ± 7.6E-03			<sup>238</sup> U	2.0E-02 ± 9.8E-03	
<sup>65</sup> Zn	6.8E-02 ± 1.0E-01	U	<sup>65</sup> Zn	-1.9E-01 ± 1.9E-01	U		
<b>V038</b> (200-W)	<sup>144</sup> Ce	-8.0E-02 ± 6.4E-01	U	<b>V040</b> (200-W)	<sup>144</sup> Ce	1.4E-01 ± 6.1E-01	U
	<sup>60</sup> Co	-9.2E-03 ± 4.5E-02	U		<sup>60</sup> Co	-6.3E-02 ± 6.3E-02	U
	<sup>134</sup> Cs	2.1E-02 ± 5.7E-02	U		<sup>134</sup> Cs	1.8E-02 ± 5.2E-02	U
	<sup>137</sup> Cs	3.0E-02 ± 5.3E-02	U		<sup>137</sup> Cs	2.8E-02 ± 5.2E-02	U
	<sup>152</sup> Eu	-5.9E-02 ± 1.5E-01	U		<sup>152</sup> Eu	-8.1E-02 ± 1.4E-01	U
	<sup>154</sup> Eu	-2.9E-02 ± 1.4E-01	U		<sup>154</sup> Eu	-5.2E-02 ± 1.4E-01	U
	<sup>155</sup> Eu	-3.0E-02 ± 1.6E-01	U		<sup>155</sup> Eu	9.5E-02 ± 1.4E-01	U
	<sup>238</sup> Pu	2.5E-03 ± 2.4E-02	U		<sup>238</sup> Pu	5.4E-03 ± 1.9E-02	U
	<sup>239/240</sup> Pu	5.0E-03 ± 6.0E-03	U		<sup>239/240</sup> Pu	3.2E-03 ± 5.8E-03	U
	<sup>103</sup> Ru	-4.3E-02 ± 7.3E-02	U		<sup>103</sup> Ru	-5.6E-02 ± 7.3E-02	U
	<sup>106</sup> Ru	-3.1E-01 ± 4.9E-01	U		<sup>106</sup> Ru	-1.7E-01 ± 4.3E-01	U
	<sup>125</sup> Sb	1.4E-02 ± 1.3E-01	U		<sup>125</sup> Sb	-1.4E-02 ± 1.3E-01	U
	<sup>113</sup> Sn	-4.9E-02 ± 6.6E-02	U		<sup>113</sup> Sn	-5.3E-02 ± 6.9E-02	U
	<sup>90</sup> Sr	1.2E-01 ± 1.3E-01	U		<sup>90</sup> Sr	-5.4E-01 ± 9.7E-01	U
	<sup>234</sup> U	1.4E-02 ± 9.7E-03			<sup>234</sup> U	1.8E-02 ± 9.7E-03	
	<sup>235</sup> U	3.0E-03 ± 3.6E-03			<sup>235</sup> U	1.8E-03 ± 2.5E-03	U
	<sup>238</sup> U	1.2E-02 ± 7.3E-03			<sup>238</sup> U	8.3E-03 ± 6.1E-03	
<sup>65</sup> Zn	-7.1E-02 ± 1.1E-01	U	<sup>65</sup> Zn	-4.2E-01 ± 4.2E-01	U		

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



Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V042</b> (200-W)	<sup>144</sup> Ce	-4.5E-01 ± 7.6E-01	U	<b>V044</b> (200-W)	<sup>144</sup> Ce	-4.4E-01 ± 6.7E-01	U
	<sup>60</sup> Co	1.5E-02 ± 7.2E-02	U		<sup>60</sup> Co	-2.7E-02 ± 7.2E-02	U
	<sup>134</sup> Cs	1.5E-02 ± 7.3E-02	U		<sup>134</sup> Cs	-1.7E-02 ± 6.9E-02	U
	<sup>137</sup> Cs	5.7E-02 ± 6.7E-02	U		<sup>137</sup> Cs	6.0E-02 ± 7.2E-02	U
	<sup>152</sup> Eu	9.7E-02 ± 1.8E-01	U		<sup>152</sup> Eu	-2.3E-02 ± 1.7E-01	U
	<sup>154</sup> Eu	-8.5E-02 ± 2.0E-01	U		<sup>154</sup> Eu	-6.2E-02 ± 1.9E-01	U
	<sup>155</sup> Eu	-5.0E-02 ± 2.4E-01	U		<sup>155</sup> Eu	-9.8E-02 ± 1.7E-01	U
	<sup>238</sup> Pu	-6.1E-03 ± 1.8E-02	U		<sup>238</sup> Pu	-6.3E-03 ± 1.9E-02	U
	<sup>239/240</sup> Pu	1.2E-03 ± 5.4E-03	U		<sup>239/240</sup> Pu	5.0E-03 ± 6.0E-03	U
	<sup>103</sup> Ru	2.0E-02 ± 8.7E-02	U		<sup>103</sup> Ru	-2.1E-02 ± 8.8E-02	U
	<sup>106</sup> Ru	-1.0E-01 ± 6.2E-01	U		<sup>106</sup> Ru	2.9E-01 ± 6.2E-01	U
	<sup>125</sup> Sb	1.6E-01 ± 1.8E-01	U		<sup>125</sup> Sb	-2.2E-02 ± 1.8E-01	U
	<sup>113</sup> Sn	-7.9E-02 ± 8.2E-02	U		<sup>113</sup> Sn	5.4E-03 ± 5.4E-02	U
	<sup>90</sup> Sr	-2.2E-02 ± 1.2E-01	U		<sup>90</sup> Sr	8.5E-02 ± 1.2E-01	U
	<sup>234</sup> U	2.6E-02 ± 1.2E-02			<sup>234</sup> U	1.7E-02 ± 9.3E-03	
	<sup>235</sup> U	6.4E-03 ± 5.5E-03			<sup>235</sup> U	2.9E-03 ± 4.4E-03	U
	<sup>238</sup> U	1.8E-02 ± 9.9E-03			<sup>238</sup> U	3.6E-03 ± 3.6E-03	
	<sup>65</sup> Zn	1.3E-01 ± 1.7E-01	U		<sup>65</sup> Zn	-1.4E-01 ± 1.8E-01	U
<b>V046</b> (200-W)	<sup>144</sup> Ce	-2.5E-01 ± 4.3E-01	U	<b>V048</b> (200-W)	<sup>144</sup> Ce	1.7E-01 ± 3.8E-01	U
	<sup>60</sup> Co	2.1E-02 ± 3.8E-02	U		<sup>60</sup> Co	-5.6E-03 ± 3.9E-02	U
	<sup>134</sup> Cs	1.9E-02 ± 4.1E-02	U		<sup>134</sup> Cs	5.4E-02 ± 4.4E-02	U
	<sup>137</sup> Cs	-1.0E-02 ± 3.7E-02	U		<sup>137</sup> Cs	4.7E-04 ± 4.7E-03	U
	<sup>152</sup> Eu	1.4E-02 ± 9.7E-02	U		<sup>152</sup> Eu	-2.9E-02 ± 9.3E-02	U
	<sup>154</sup> Eu	-3.7E-02 ± 1.2E-01	U		<sup>154</sup> Eu	-1.5E-01 ± 1.5E-01	U
	<sup>155</sup> Eu	-1.5E-02 ± 1.3E-01	U		<sup>155</sup> Eu	8.5E-03 ± 8.5E-02	U
	<sup>238</sup> Pu	1.1E-03 ± 1.1E-02	U		<sup>238</sup> Pu	1.1E-02 ± 2.0E-02	U
	<sup>239/240</sup> Pu	1.1E-03 ± 4.9E-03	U		<sup>239/240</sup> Pu	2.2E-03 ± 4.4E-03	U
	<sup>103</sup> Ru	2.8E-03 ± 2.8E-02	U		<sup>103</sup> Ru	-3.2E-02 ± 5.4E-02	U
	<sup>106</sup> Ru	4.1E-02 ± 3.6E-01	U		<sup>106</sup> Ru	2.8E-02 ± 2.8E-01	U
	<sup>125</sup> Sb	-8.2E-03 ± 8.2E-02	U		<sup>125</sup> Sb	-4.1E-02 ± 1.1E-01	U
	<sup>113</sup> Sn	4.4E-02 ± 4.4E-02	U		<sup>113</sup> Sn	-3.9E-03 ± 3.9E-02	U
	<sup>90</sup> Sr	4.3E-02 ± 1.1E-01	U		<sup>90</sup> Sr	-7.3E-02 ± 9.5E-02	U
	<sup>234</sup> U	1.8E-02 ± 9.7E-03			<sup>234</sup> U	1.8E-02 ± 1.0E-02	
	<sup>235</sup> U	4.7E-03 ± 5.2E-03	U		<sup>235</sup> U	7.2E-03 ± 5.4E-03	
	<sup>238</sup> U	2.1E-02 ± 1.0E-02			<sup>238</sup> U	1.5E-02 ± 8.1E-03	
	<sup>65</sup> Zn	-5.9E-02 ± 9.0E-02	U		<sup>65</sup> Zn	-4.8E-03 ± 4.8E-02	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V050</b> (200-W)	<sup>144</sup> Ce	2.2E-01 ± 5.4E-01	U	<b>V052</b> (200-W)	<sup>144</sup> Ce	2.2E-01 ± 4.0E-01	U
	<sup>60</sup> Co	-1.3E-02 ± 4.8E-02	U		<sup>60</sup> Co	-1.9E-02 ± 3.3E-02	U
	<sup>134</sup> Cs	5.5E-02 ± 4.9E-02	U		<sup>134</sup> Cs	1.7E-02 ± 3.4E-02	U
	<sup>137</sup> Cs	-4.1E-02 ± 6.9E-02	U		<sup>137</sup> Cs	2.0E-02 ± 3.4E-02	U
	<sup>152</sup> Eu	3.3E-02 ± 1.2E-01	U		<sup>152</sup> Eu	-5.6E-04 ± 5.6E-03	U
	<sup>154</sup> Eu	-6.0E-02 ± 1.7E-01	U		<sup>154</sup> Eu	-1.2E-02 ± 1.1E-01	U
	<sup>155</sup> Eu	1.2E-01 ± 1.4E-01	U		<sup>155</sup> Eu	-3.3E-02 ± 9.5E-02	U
	<sup>238</sup> Pu	-2.3E-03 ± 2.1E-02	U		<sup>238</sup> Pu	-8.5E-03 ± 8.5E-03	U
	<sup>239/240</sup> Pu	1.2E-03 ± 4.2E-03	U		<sup>239/240</sup> Pu	3.6E-03 ± 5.4E-03	U
	<sup>103</sup> Ru	-1.4E-02 ± 6.0E-02	U		<sup>103</sup> Ru	-1.3E-02 ± 4.1E-02	U
	<sup>106</sup> Ru	1.7E-01 ± 4.3E-01	U		<sup>106</sup> Ru	1.6E-01 ± 3.0E-01	U
	<sup>125</sup> Sb	5.8E-03 ± 5.8E-02	U		<sup>125</sup> Sb	5.1E-02 ± 8.6E-02	U
	<sup>113</sup> Sn	-7.7E-03 ± 5.8E-02	U		<sup>113</sup> Sn	4.4E-03 ± 4.4E-02	U
	<sup>90</sup> Sr	7.0E-03 ± 7.0E-02	U		<sup>90</sup> Sr	-3.4E-02 ± 1.1E-01	U
	<sup>234</sup> U	1.2E-02 ± 7.8E-03			<sup>234</sup> U	2.1E-02 ± 1.2E-02	
	<sup>235</sup> U	3.0E-03 ± 3.6E-03			<sup>235</sup> U	8.0E-03 ± 6.9E-03	
	<sup>238</sup> U	1.3E-02 ± 7.7E-03			<sup>238</sup> U	7.3E-03 ± 7.2E-03	U
<sup>65</sup> Zn	-1.0E-01 ± 1.2E-01	U	<sup>65</sup> Zn	5.7E-02 ± 8.0E-02	U		
<b>V054</b> (200-E)	<sup>144</sup> Ce	2.5E-01 ± 5.9E-01	U	<b>V058</b> (200-E)	<sup>144</sup> Ce	1.3E-01 ± 5.2E-01	U
	<sup>60</sup> Co	-4.7E-02 ± 4.7E-02	U		<sup>60</sup> Co	4.3E-03 ± 4.0E-02	U
	<sup>134</sup> Cs	-1.9E-02 ± 5.0E-02	U		<sup>134</sup> Cs	1.2E-02 ± 4.2E-02	U
	<sup>137</sup> Cs	1.3E-01 ± 8.6E-02			<sup>137</sup> Cs	1.6E-01 ± 6.6E-02	
	<sup>152</sup> Eu	1.8E-01 ± 1.4E-01	U		<sup>152</sup> Eu	3.2E-02 ± 1.3E-01	U
	<sup>154</sup> Eu	-3.8E-02 ± 1.3E-01	U		<sup>154</sup> Eu	2.1E-02 ± 1.3E-01	U
	<sup>155</sup> Eu	-2.2E-02 ± 1.4E-01	U		<sup>155</sup> Eu	7.4E-02 ± 1.2E-01	U
	<sup>238</sup> Pu	7.2E-03 ± 6.4E-03	U		<sup>238</sup> Pu	4.6E-03 ± 6.9E-03	U
	<sup>239/240</sup> Pu	5.2E-03 ± 5.7E-03	U		<sup>239/240</sup> Pu	1.8E-03 ± 2.5E-03	U
	<sup>103</sup> Ru	3.6E-02 ± 6.3E-02	U		<sup>103</sup> Ru	2.9E-02 ± 5.6E-02	U
	<sup>106</sup> Ru	-8.3E-02 ± 4.5E-01	U		<sup>106</sup> Ru	-7.9E-02 ± 3.7E-01	U
	<sup>125</sup> Sb	-3.8E-02 ± 1.3E-01	U		<sup>125</sup> Sb	-6.5E-02 ± 1.2E-01	U
	<sup>113</sup> Sn	-2.5E-04 ± 2.5E-03	U		<sup>113</sup> Sn	2.0E-02 ± 5.8E-02	U
	<sup>90</sup> Sr	3.0E-03 ± 3.0E-02	U		<sup>90</sup> Sr	-2.0E-02 ± 1.2E-01	U
	<sup>234</sup> U	2.1E-02 ± 1.0E-02			<sup>234</sup> U	1.7E-02 ± 9.3E-03	
	<sup>235</sup> U	8.8E-03 ± 6.6E-03			<sup>235</sup> U	6.5E-03 ± 5.6E-03	
	<sup>238</sup> U	9.1E-03 ± 6.5E-03			<sup>238</sup> U	9.9E-03 ± 6.7E-03	
<sup>65</sup> Zn	-1.2E-01 ± 1.2E-01	U	<sup>65</sup> Zn	1.0E-01 ± 9.6E-02	U		

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V060</b> (200-E)	<sup>144</sup> Ce	-6.5E-01 ± 1.1E+00	U	<b>V062</b> (200-E)	<sup>144</sup> Ce	-3.8E-01 ± 4.7E-01	U
	<sup>60</sup> Co	-1.3E-01 ± 1.3E-01	U		<sup>60</sup> Co	6.0E-03 ± 3.6E-02	U
	<sup>134</sup> Cs	-4.4E-02 ± 9.9E-02	U		<sup>134</sup> Cs	-8.7E-04 ± 8.7E-03	U
	<sup>137</sup> Cs	-5.0E-02 ± 1.3E-01	U		<sup>137</sup> Cs	3.1E-02 ± 3.8E-02	U
	<sup>152</sup> Eu	-5.1E-02 ± 2.4E-01	U		<sup>152</sup> Eu	3.1E-02 ± 1.1E-01	U
	<sup>154</sup> Eu	-1.9E-01 ± 2.6E-01	U		<sup>154</sup> Eu	1.9E-02 ± 1.1E-01	U
	<sup>155</sup> Eu	3.3E-02 ± 2.5E-01	U		<sup>155</sup> Eu	-4.4E-02 ± 1.1E-01	U
	<sup>238</sup> Pu	6.6E-03 ± 9.2E-03	U		<sup>238</sup> Pu	-9.4E-03 ± 1.2E-02	U
	<sup>239/240</sup> Pu	-1.1E-03 ± 2.2E-03	U		<sup>239/240</sup> Pu	-2.1E-03 ± 5.2E-03	U
	<sup>103</sup> Ru	-5.2E-02 ± 1.3E-01	U		<sup>103</sup> Ru	-1.5E-02 ± 5.4E-02	U
	<sup>106</sup> Ru	-3.9E-02 ± 3.9E-01	U		<sup>106</sup> Ru	-1.9E-01 ± 3.3E-01	U
	<sup>125</sup> Sb	1.6E-01 ± 2.2E-01	U		<sup>125</sup> Sb	8.3E-02 ± 1.0E-01	U
	<sup>113</sup> Sn	-1.4E-01 ± 1.4E-01	U		<sup>113</sup> Sn	1.9E-02 ± 5.2E-02	U
	<sup>90</sup> Sr	1.6E-01 ± 1.4E-01	U		<sup>90</sup> Sr	-4.5E-02 ± 1.1E-01	U
	<sup>234</sup> U	1.3E-02 ± 8.6E-03			<sup>234</sup> U	2.6E-02 ± 1.2E-02	
	<sup>235</sup> U	9.4E-03 ± 6.7E-03			<sup>235</sup> U	5.5E-03 ± 5.1E-03	
	<sup>238</sup> U	1.7E-02 ± 9.2E-03			<sup>238</sup> U	1.2E-02 ± 7.6E-03	
	<sup>65</sup> Zn	-4.5E-01 ± 4.5E-01	U		<sup>65</sup> Zn	2.6E-02 ± 1.0E-01	U
	<b>V064</b> (200-E)	<sup>144</sup> Ce	-4.3E-02 ± 4.3E-01		U	<b>V066</b> (200-E)	<sup>144</sup> Ce
<sup>60</sup> Co		2.9E-02 ± 7.7E-02	U	<sup>60</sup> Co	3.2E-03 ± 3.2E-02		U
<sup>134</sup> Cs		1.2E-01 ± 9.4E-02	U	<sup>134</sup> Cs	-2.6E-02 ± 5.0E-02		U
<sup>137</sup> Cs		8.0E-05 ± 8.0E-04	U	<sup>137</sup> Cs	9.7E-02 ± 8.7E-02		
<sup>152</sup> Eu		2.4E-05 ± 2.4E-04	U	<sup>152</sup> Eu	8.7E-02 ± 1.4E-01		U
<sup>154</sup> Eu		-9.8E-02 ± 2.5E-01	U	<sup>154</sup> Eu	7.4E-03 ± 7.4E-02		U
<sup>155</sup> Eu		8.2E-02 ± 1.8E-01	U	<sup>155</sup> Eu	7.6E-02 ± 1.5E-01		U
<sup>238</sup> Pu		-1.1E-03 ± 1.0E-02	U	<sup>238</sup> Pu	-3.0E-03 ± 4.2E-03		U
<sup>239/240</sup> Pu		5.4E-03 ± 5.0E-03		<sup>239/240</sup> Pu	7.6E-04 ± 7.6E-04		U
<sup>103</sup> Ru		-6.3E-02 ± 9.4E-02	U	<sup>103</sup> Ru	3.5E-04 ± 3.5E-03		U
<sup>106</sup> Ru		8.7E-02 ± 7.0E-01	U	<sup>106</sup> Ru	-7.5E-02 ± 4.9E-01		U
<sup>125</sup> Sb		7.9E-02 ± 2.0E-01	U	<sup>125</sup> Sb	-3.8E-02 ± 1.3E-01		U
<sup>113</sup> Sn		4.3E-03 ± 4.3E-02	U	<sup>113</sup> Sn	2.5E-02 ± 6.6E-02		U
<sup>90</sup> Sr		1.3E+00 ± 2.6E-01		<sup>90</sup> Sr	9.0E-03 ± 9.0E-02		U
<sup>234</sup> U		1.7E-02 ± 9.5E-03		<sup>234</sup> U	1.6E-02 ± 9.6E-03		
<sup>235</sup> U		6.8E-03 ± 5.8E-03		<sup>235</sup> U	2.8E-03 ± 4.2E-03		U
<sup>238</sup> U		1.7E-02 ± 1.0E-02		<sup>238</sup> U	1.2E-02 ± 8.3E-03		
<sup>65</sup> Zn		-3.0E-02 ± 2.2E-01	U	<sup>65</sup> Zn	5.1E-02 ± 1.3E-01		U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V068</b> (200-E)	<sup>144</sup> Ce	-1.6E-01 ± 4.5E-01	U	<b>V076</b> (200-E)	<sup>144</sup> Ce	5.1E-01 ± 7.9E-01	U
	<sup>60</sup> Co	-1.8E-02 ± 3.3E-02	U		<sup>60</sup> Co	-3.5E-02 ± 6.7E-02	U
	<sup>134</sup> Cs	8.2E-03 ± 3.5E-02	U		<sup>134</sup> Cs	-3.1E-02 ± 7.7E-02	U
	<sup>137</sup> Cs	6.2E-02 ± 5.6E-02	U		<sup>137</sup> Cs	-6.5E-03 ± 6.5E-02	U
	<sup>152</sup> Eu	-4.6E-02 ± 1.0E-01	U		<sup>152</sup> Eu	-2.2E-01 ± 2.3E-01	U
	<sup>154</sup> Eu	-1.5E-02 ± 1.1E-01	U		<sup>154</sup> Eu	3.4E-02 ± 2.1E-01	U
	<sup>155</sup> Eu	-4.3E-02 ± 1.0E-01	U		<sup>155</sup> Eu	2.7E-03 ± 2.7E-02	U
	<sup>238</sup> Pu	1.6E-03 ± 2.2E-03	U		<sup>238</sup> Pu	-1.5E-02 ± 2.1E-02	U
	<sup>239/240</sup> Pu	1.6E-03 ± 2.2E-03	U		<sup>239/240</sup> Pu	-1.6E-03 ± 5.6E-03	U
	<sup>103</sup> Ru	-1.6E-03 ± 1.6E-02	U		<sup>103</sup> Ru	-7.2E-02 ± 9.9E-02	U
	<sup>106</sup> Ru	-2.2E-01 ± 3.4E-01	U		<sup>106</sup> Ru	2.5E-01 ± 7.1E-01	U
	<sup>125</sup> Sb	-3.9E-02 ± 9.9E-02	U		<sup>125</sup> Sb	1.1E-01 ± 2.0E-01	U
	<sup>113</sup> Sn	-1.4E-02 ± 5.1E-02	U		<sup>113</sup> Sn	1.8E-02 ± 9.7E-02	U
	<sup>90</sup> Sr	1.1E-01 ± 1.3E-01	U		<sup>90</sup> Sr	5.3E-02 ± 1.2E-01	U
	<sup>234</sup> U	1.8E-02 ± 9.2E-03			<sup>234</sup> U	2.2E-02 ± 1.2E-02	
	<sup>235</sup> U	3.9E-03 ± 4.7E-03	U		<sup>235</sup> U	1.6E-02 ± 9.3E-03	
	<sup>238</sup> U	9.8E-03 ± 6.9E-03			<sup>238</sup> U	2.3E-02 ± 1.1E-02	
	<sup>65</sup> Zn	-9.6E-02 ± 9.9E-02	U		<sup>65</sup> Zn	1.9E-01 ± 1.9E-01	U
<b>V078</b> (200-E)	<sup>144</sup> Ce	-3.0E-01 ± 8.3E-01	U	<b>V080</b> (200-E)	<sup>144</sup> Ce	9.2E-01 ± 7.1E-01	U
	<sup>60</sup> Co	5.4E-03 ± 5.4E-02	U		<sup>60</sup> Co	-4.9E-02 ± 6.6E-02	U
	<sup>134</sup> Cs	2.2E-02 ± 8.2E-02	U		<sup>134</sup> Cs	6.1E-02 ± 6.7E-02	U
	<sup>137</sup> Cs	-7.6E-02 ± 8.3E-02	U		<sup>137</sup> Cs	-4.6E-02 ± 6.0E-02	U
	<sup>152</sup> Eu	1.6E-02 ± 1.6E-01	U		<sup>152</sup> Eu	2.6E-02 ± 1.6E-01	U
	<sup>154</sup> Eu	-2.1E-02 ± 2.1E-01	U		<sup>154</sup> Eu	3.5E-02 ± 1.9E-01	U
	<sup>155</sup> Eu	1.2E-02 ± 1.2E-01	U		<sup>155</sup> Eu	7.9E-02 ± 1.7E-01	U
	<sup>238</sup> Pu	7.6E-04 ± 1.5E-03	U		<sup>238</sup> Pu	1.1E-02 ± 1.9E-02	U
	<sup>239/240</sup> Pu	7.6E-04 ± 3.4E-03	U		<sup>239/240</sup> Pu	-4.0E-03 ± 4.0E-03	U
	<sup>103</sup> Ru	2.7E-03 ± 2.7E-02	U		<sup>103</sup> Ru	-3.5E-02 ± 7.4E-02	U
	<sup>106</sup> Ru	4.5E-02 ± 4.5E-01	U		<sup>106</sup> Ru	7.9E-02 ± 5.6E-01	U
	<sup>125</sup> Sb	-5.9E-02 ± 2.0E-01	U		<sup>125</sup> Sb	-8.4E-02 ± 1.7E-01	U
	<sup>113</sup> Sn	-4.5E-02 ± 9.6E-02	U		<sup>113</sup> Sn	-9.7E-04 ± 9.7E-03	U
	<sup>90</sup> Sr	1.5E-01 ± 1.3E-01			<sup>90</sup> Sr	-7.3E-02 ± 1.2E-01	U
	<sup>234</sup> U	2.4E-02 ± 1.2E-02			<sup>234</sup> U	2.2E-02 ± 1.0E-02	
	<sup>235</sup> U	6.9E-03 ± 5.5E-03			<sup>235</sup> U	3.5E-03 ± 3.5E-03	
	<sup>238</sup> U	1.6E-02 ± 8.6E-03			<sup>238</sup> U	7.2E-03 ± 6.0E-03	U
	<sup>65</sup> Zn	6.0E-02 ± 1.9E-01	U		<sup>65</sup> Zn	-4.8E-02 ± 1.7E-01	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V082</b> (600 Area)	<sup>144</sup> Ce	-3.4E-02 ± 3.4E-01	U	<b>V084</b> (600 Area)	<sup>144</sup> Ce	1.7E-02 ± 1.7E-01	U
	<sup>60</sup> Co	-3.1E-02 ± 1.0E-01	U		<sup>60</sup> Co	2.9E-03 ± 2.9E-02	U
	<sup>134</sup> Cs	5.4E-02 ± 1.2E-01	U		<sup>134</sup> Cs	-7.8E-03 ± 3.9E-02	U
	<sup>137</sup> Cs	1.3E-02 ± 1.1E-01	U		<sup>137</sup> Cs	3.7E-01 ± 9.6E-02	U
	<sup>152</sup> Eu	-1.3E-01 ± 3.0E-01	U		<sup>152</sup> Eu	-1.1E-01 ± 1.1E-01	U
	<sup>154</sup> Eu	-1.4E-01 ± 3.4E-01	U		<sup>154</sup> Eu	-6.4E-02 ± 1.3E-01	U
	<sup>155</sup> Eu	2.5E-01 ± 3.2E-01	U		<sup>155</sup> Eu	1.2E-01 ± 1.1E-01	U
	<sup>238</sup> Pu	1.5E-03 ± 3.0E-03	U		<sup>238</sup> Pu	7.4E-04 ± 7.4E-03	U
	<sup>239/240</sup> Pu	7.5E-04 ± 1.5E-03	U		<sup>239/240</sup> Pu	7.4E-04 ± 1.5E-03	U
	<sup>103</sup> Ru	6.2E-02 ± 1.4E-01	U		<sup>103</sup> Ru	9.5E-03 ± 4.4E-02	U
	<sup>106</sup> Ru	8.0E-01 ± 1.1E+00	U		<sup>106</sup> Ru	-2.8E-01 ± 3.8E-01	U
	<sup>125</sup> Sb	-3.7E-02 ± 2.9E-01	U		<sup>125</sup> Sb	4.4E-03 ± 4.4E-02	U
	<sup>113</sup> Sn	5.2E-02 ± 1.4E-01	U		<sup>113</sup> Sn	-1.3E-02 ± 4.4E-02	U
	<sup>90</sup> Sr	2.8E-02 ± 1.2E-01	U		<sup>90</sup> Sr	-3.0E-03 ± 3.0E-02	U
	<sup>234</sup> U	9.7E-03 ± 7.3E-03			<sup>234</sup> U	1.5E-02 ± 8.5E-03	
	<sup>235</sup> U	2.9E-03 ± 3.5E-03			<sup>235</sup> U	3.8E-03 ± 3.8E-03	
	<sup>238</sup> U	4.4E-03 ± 4.8E-03	U		<sup>238</sup> U	1.6E-02 ± 9.0E-03	
	<sup>65</sup> Zn	-7.2E-02 ± 2.8E-01	U		<sup>65</sup> Zn	7.6E-02 ± 1.1E-01	U
<b>V086</b> (600 Area)	<sup>144</sup> Ce	4.6E-01 ± 5.8E-01	U	<b>V088</b> (600 Area)	<sup>144</sup> Ce	-4.3E-01 ± 5.1E-01	U
	<sup>60</sup> Co	2.8E-02 ± 5.3E-02	U		<sup>60</sup> Co	-2.2E-02 ± 5.4E-02	U
	<sup>134</sup> Cs	-9.9E-03 ± 5.6E-02	U		<sup>134</sup> Cs	6.5E-03 ± 5.1E-02	U
	<sup>137</sup> Cs	-2.7E-02 ± 5.2E-02	U		<sup>137</sup> Cs	-3.4E-02 ± 5.1E-02	U
	<sup>152</sup> Eu	-4.5E-02 ± 1.4E-01	U		<sup>152</sup> Eu	1.1E-01 ± 1.3E-01	U
	<sup>154</sup> Eu	4.9E-02 ± 1.5E-01	U		<sup>154</sup> Eu	-3.7E-02 ± 1.6E-01	U
	<sup>155</sup> Eu	6.0E-02 ± 1.5E-01	U		<sup>155</sup> Eu	1.1E-02 ± 1.1E-01	U
	<sup>238</sup> Pu	-7.3E-03 ± 1.5E-02	U		<sup>238</sup> Pu	8.1E-04 ± 8.1E-03	U
	<sup>239/240</sup> Pu	1.0E-03 ± 3.5E-03	U		<sup>239/240</sup> Pu	4.0E-03 ± 4.4E-03	U
	<sup>103</sup> Ru	2.7E-02 ± 6.0E-02	U		<sup>103</sup> Ru	4.9E-03 ± 4.9E-02	U
	<sup>106</sup> Ru	5.5E-01 ± 4.9E-01	U		<sup>106</sup> Ru	7.6E-02 ± 4.4E-01	U
	<sup>125</sup> Sb	-1.9E-02 ± 1.7E-01	U		<sup>125</sup> Sb	-3.9E-02 ± 1.2E-01	U
	<sup>113</sup> Sn	-2.1E-02 ± 6.4E-02	U		<sup>113</sup> Sn	4.1E-02 ± 5.9E-02	U
	<sup>90</sup> Sr	-4.6E-02 ± 1.3E-01	U		<sup>90</sup> Sr	4.7E-02 ± 1.3E-01	U
	<sup>234</sup> U	1.7E-02 ± 1.1E-02			<sup>234</sup> U	1.0E-02 ± 7.5E-03	
	<sup>235</sup> U	1.0E-02 ± 7.8E-03			<sup>235</sup> U	6.9E-03 ± 6.2E-03	U
	<sup>238</sup> U	7.4E-03 ± 6.7E-03	U		<sup>238</sup> U	1.4E-02 ± 7.8E-03	
	<sup>65</sup> Zn	5.2E-02 ± 1.3E-01	U		<sup>65</sup> Zn	1.3E-01 ± 1.2E-01	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V090</b> (600 Area)	<sup>144</sup> Ce	-4.4E-01 ± 1.3E+00	U	<b>V092</b> (600 Area)	<sup>144</sup> Ce	-4.9E-01 ± 7.9E-01	U
	<sup>60</sup> Co	5.8E-02 ± 9.8E-02	U		<sup>60</sup> Co	2.7E-02 ± 7.2E-02	U
	<sup>134</sup> Cs	-3.5E-03 ± 3.5E-02	U		<sup>134</sup> Cs	3.4E-03 ± 3.4E-02	U
	<sup>137</sup> Cs	1.6E-01 ± 1.3E-01	U		<sup>137</sup> Cs	5.0E-02 ± 7.8E-02	U
	<sup>152</sup> Eu	-5.6E-02 ± 3.8E-01	U		<sup>152</sup> Eu	-1.2E-01 ± 2.0E-01	U
	<sup>154</sup> Eu	-8.5E-02 ± 2.9E-01	U		<sup>154</sup> Eu	-1.0E-01 ± 2.2E-01	U
	<sup>155</sup> Eu	-1.3E-01 ± 3.2E-01	U		<sup>155</sup> Eu	-2.7E-02 ± 1.8E-01	U
	<sup>238</sup> Pu	7.4E-04 ± 1.5E-03	U		<sup>238</sup> Pu	4.0E-03 ± 1.6E-02	U
	<sup>239/240</sup> Pu	3.0E-03 ± 3.0E-03			<sup>239/240</sup> Pu	9.9E-04 ± 9.9E-03	U
	<sup>103</sup> Ru	-7.5E-02 ± 1.3E-01	U		<sup>103</sup> Ru	9.2E-03 ± 8.7E-02	U
	<sup>106</sup> Ru	-3.0E-01 ± 9.7E-01	U		<sup>106</sup> Ru	3.9E-01 ± 6.4E-01	U
	<sup>125</sup> Sb	1.1E-01 ± 2.7E-01	U		<sup>125</sup> Sb	-3.8E-02 ± 1.9E-01	U
	<sup>113</sup> Sn	2.2E-02 ± 1.3E-01	U		<sup>113</sup> Sn	-1.1E-01 ± 1.1E-01	U
	<sup>90</sup> Sr	2.1E-01 ± 1.5E-01			<sup>90</sup> Sr	2.2E-01 ± 1.3E-01	
	<sup>234</sup> U	1.6E-02 ± 9.9E-03			<sup>234</sup> U	2.8E-02 ± 1.3E-02	
	<sup>235</sup> U	5.0E-03 ± 4.7E-03			<sup>235</sup> U	6.1E-03 ± 6.0E-03	U
	<sup>238</sup> U	1.3E-02 ± 7.7E-03			<sup>238</sup> U	1.8E-02 ± 1.0E-02	
	<sup>65</sup> Zn	1.6E-01 ± 2.6E-01	U		<sup>65</sup> Zn	-3.4E-01 ± 3.4E-01	U
	<b>V094</b> (600 Area)	<sup>144</sup> Ce	2.7E-01 ± 8.4E-01		U	<b>V096</b> (600 Area)	<sup>144</sup> Ce
<sup>60</sup> Co		6.0E-02 ± 7.5E-02	U	<sup>60</sup> Co	-1.0E-03 ± 1.0E-02		U
<sup>134</sup> Cs		1.8E-02 ± 7.8E-02	U	<sup>134</sup> Cs	-3.7E-03 ± 3.7E-02		U
<sup>137</sup> Cs		3.7E-02 ± 8.2E-02	U	<sup>137</sup> Cs	-1.1E-02 ± 3.3E-02		U
<sup>152</sup> Eu		9.2E-02 ± 2.1E-01	U	<sup>152</sup> Eu	-6.0E-02 ± 9.8E-02		U
<sup>154</sup> Eu		-4.2E-04 ± 4.2E-03	U	<sup>154</sup> Eu	7.7E-02 ± 1.4E-01		U
<sup>155</sup> Eu		-6.8E-03 ± 6.8E-02	U	<sup>155</sup> Eu	4.6E-02 ± 1.0E-01		U
<sup>238</sup> Pu		-4.2E-03 ± 1.3E-02	U	<sup>238</sup> Pu	1.6E-02 ± 1.8E-02		U
<sup>239/240</sup> Pu		1.0E-03 ± 3.5E-03	U	<sup>239/240</sup> Pu	4.2E-03 ± 5.9E-03		U
<sup>103</sup> Ru		-1.4E-02 ± 8.8E-02	U	<sup>103</sup> Ru	2.7E-02 ± 4.1E-02		U
<sup>106</sup> Ru		-3.2E-01 ± 6.8E-01	U	<sup>106</sup> Ru	-9.7E-02 ± 3.0E-01		U
<sup>125</sup> Sb		-1.4E-01 ± 1.9E-01	U	<sup>125</sup> Sb	8.1E-03 ± 8.1E-02		U
<sup>113</sup> Sn		4.3E-02 ± 9.2E-02	U	<sup>113</sup> Sn	-5.0E-03 ± 4.5E-02		U
<sup>90</sup> Sr		1.3E-01 ± 1.5E-01	U	<sup>90</sup> Sr	-1.3E-02 ± 1.3E-01		U
<sup>234</sup> U		1.7E-02 ± 9.3E-03		<sup>234</sup> U	1.6E-02 ± 9.9E-03		
<sup>235</sup> U		4.3E-03 ± 4.3E-03		<sup>235</sup> U	3.2E-03 ± 3.8E-03		
<sup>238</sup> U		9.8E-03 ± 6.7E-03		<sup>238</sup> U	6.9E-03 ± 6.2E-03		U
<sup>65</sup> Zn		1.9E-01 ± 1.9E-01	U	<sup>65</sup> Zn	3.5E-02 ± 8.1E-02		U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V098</b> (600 Area)	<sup>144</sup> Ce	1.8E-01 ± 1.1E+00	U	<b>V100</b> (600 Area)	<sup>144</sup> Ce	8.6E-02 ± 3.6E-01	U
	<sup>60</sup> Co	6.8E-03 ± 6.8E-02	U		<sup>60</sup> Co	1.9E-02 ± 2.8E-02	U
	<sup>134</sup> Cs	1.6E-02 ± 1.0E-01	U		<sup>134</sup> Cs	4.7E-03 ± 3.3E-02	U
	<sup>137</sup> Cs	1.3E-02 ± 1.0E-01	U		<sup>137</sup> Cs	-7.2E-03 ± 3.0E-02	U
	<sup>152</sup> Eu	-8.0E-02 ± 2.5E-01	U		<sup>152</sup> Eu	-4.9E-02 ± 8.2E-02	U
	<sup>154</sup> Eu	9.1E-02 ± 2.8E-01	U		<sup>154</sup> Eu	-6.8E-02 ± 9.1E-02	U
	<sup>155</sup> Eu	9.9E-02 ± 2.8E-01	U		<sup>155</sup> Eu	3.3E-02 ± 8.5E-02	U
	<sup>238</sup> Pu	9.7E-04 ± 9.7E-03	U		<sup>238</sup> Pu	-1.2E-02 ± 1.8E-02	U
	<sup>239/240</sup> Pu	-2.9E-03 ± 4.4E-03	U		<sup>239/240</sup> Pu	1.1E-03 ± 1.1E-02	U
	<sup>103</sup> Ru	4.5E-02 ± 1.1E-01	U		<sup>103</sup> Ru	-1.0E-02 ± 3.6E-02	U
	<sup>106</sup> Ru	-2.6E-01 ± 9.1E-01	U		<sup>106</sup> Ru	-1.4E-01 ± 2.6E-01	U
	<sup>125</sup> Sb	-1.5E-01 ± 2.5E-01	U		<sup>125</sup> Sb	-1.5E-02 ± 7.9E-02	U
	<sup>113</sup> Sn	-8.5E-03 ± 8.5E-02	U		<sup>113</sup> Sn	-1.8E-03 ± 1.8E-02	U
	<sup>90</sup> Sr	1.2E-01 ± 1.4E-01	U		<sup>90</sup> Sr	-1.9E-02 ± 1.3E-01	U
	<sup>234</sup> U	1.9E-02 ± 9.7E-03			<sup>234</sup> U	9.5E-03 ± 7.0E-03	
	<sup>235</sup> U	9.7E-03 ± 6.6E-03			<sup>235</sup> U	3.1E-03 ± 5.6E-03	U
	<sup>238</sup> U	1.3E-02 ± 8.3E-03			<sup>238</sup> U	8.5E-03 ± 6.1E-03	
	<sup>65</sup> Zn	-1.7E-01 ± 2.3E-01	U		<sup>65</sup> Zn	-1.7E-02 ± 7.9E-02	U
<b>V102</b> (600 Area)	<sup>144</sup> Ce	1.2E+01 ± 2.7E+01	U	<b>V104</b> (600 Area)	<sup>144</sup> Ce	-4.8E-01 ± 8.9E-01	U
	<sup>60</sup> Co	-3.9E-01 ± 1.9E+00	U		<sup>60</sup> Co	-2.9E-02 ± 9.0E-02	U
	<sup>134</sup> Cs	-1.7E-01 ± 1.7E+00	U		<sup>134</sup> Cs	-3.3E-03 ± 3.3E-02	U
	<sup>137</sup> Cs	1.7E+00 ± 2.2E+00	U		<sup>137</sup> Cs	-5.4E-02 ± 8.2E-02	U
	<sup>152</sup> Eu	1.6E+00 ± 6.2E+00	U		<sup>152</sup> Eu	1.0E-01 ± 2.0E-01	U
	<sup>154</sup> Eu	-2.0E+00 ± 6.4E+00	U		<sup>154</sup> Eu	6.2E-02 ± 2.8E-01	U
	<sup>155</sup> Eu	-1.4E+00 ± 5.9E+00	U		<sup>155</sup> Eu	5.1E-03 ± 5.1E-02	U
	<sup>238</sup> Pu	4.1E-03 ± 2.0E-02	U		<sup>238</sup> Pu	2.0E-02 ± 1.7E-02	U
	<sup>239/240</sup> Pu	-3.1E-03 ± 6.2E-03	U		<sup>239/240</sup> Pu	1.0E-03 ± 3.5E-03	U
	<sup>103</sup> Ru	-1.7E+00 ± 2.6E+00	U		<sup>103</sup> Ru	2.1E-02 ± 8.4E-02	U
	<sup>106</sup> Ru	-4.5E+00 ± 1.8E+01	U		<sup>106</sup> Ru	-4.6E-01 ± 7.5E-01	U
	<sup>125</sup> Sb	1.7E-01 ± 1.7E+00	U		<sup>125</sup> Sb	-1.3E-02 ± 1.3E-01	U
	<sup>113</sup> Sn	-1.7E+00 ± 2.8E+00	U		<sup>113</sup> Sn	-6.5E-02 ± 9.6E-02	U
	<sup>90</sup> Sr	-5.3E-02 ± 1.4E-01	U		<sup>90</sup> Sr	5.6E-01 ± 1.7E-01	
	<sup>234</sup> U	1.4E-02 ± 9.7E-03			<sup>234</sup> U	7.4E-03 ± 5.5E-03	
	<sup>235</sup> U	2.1E-03 ± 2.9E-03	U		<sup>235</sup> U	4.0E-03 ± 4.0E-03	
	<sup>238</sup> U	8.5E-03 ± 6.1E-03			<sup>238</sup> U	1.0E-02 ± 6.6E-03	
	<sup>65</sup> Zn	4.5E+00 ± 5.4E+00	U		<sup>65</sup> Zn	-3.9E-01 ± 3.9E-01	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V106</b> (600 Area)	<sup>144</sup> Ce	7.3E-02 ± 5.2E-01	U	<b>V108</b> (600 Area)	<sup>144</sup> Ce	2.2E-01 ± 6.6E-01	U
	<sup>60</sup> Co	-5.2E-03 ± 4.5E-02	U		<sup>60</sup> Co	-1.9E-02 ± 6.9E-02	U
	<sup>134</sup> Cs	2.0E-02 ± 4.7E-02	U		<sup>134</sup> Cs	2.0E-02 ± 7.1E-02	U
	<sup>137</sup> Cs	4.1E-03 ± 4.1E-02	U		<sup>137</sup> Cs	1.3E-02 ± 6.5E-02	U
	<sup>152</sup> Eu	-3.3E-02 ± 1.2E-01	U		<sup>152</sup> Eu	1.8E-02 ± 1.6E-01	U
	<sup>154</sup> Eu	6.0E-02 ± 1.2E-01	U		<sup>154</sup> Eu	3.5E-02 ± 2.2E-01	U
	<sup>155</sup> Eu	-1.9E-01 ± 1.9E-01	U		<sup>155</sup> Eu	4.6E-02 ± 1.5E-01	U
	<sup>238</sup> Pu	1.3E-02 ± 1.7E-02	U		<sup>238</sup> Pu	9.7E-03 ± 2.3E-02	U
	<sup>239/240</sup> Pu	1.1E-03 ± 4.9E-03	U		<sup>239/240</sup> Pu	2.8E-03 ± 5.6E-03	U
	<sup>103</sup> Ru	6.2E-03 ± 4.9E-02	U		<sup>103</sup> Ru	2.9E-02 ± 6.8E-02	U
	<sup>106</sup> Ru	-2.8E-01 ± 4.3E-01	U		<sup>106</sup> Ru	5.5E-02 ± 5.4E-01	U
	<sup>125</sup> Sb	3.2E-02 ± 1.1E-01	U		<sup>125</sup> Sb	5.9E-02 ± 1.6E-01	U
	<sup>113</sup> Sn	1.5E-02 ± 5.7E-02	U		<sup>113</sup> Sn	-4.6E-02 ± 7.4E-02	U
	<sup>90</sup> Sr	8.3E-02 ± 1.4E-01	U		<sup>90</sup> Sr	-4.3E-02 ± 1.1E-01	U
	<sup>234</sup> U	1.5E-02 ± 9.0E-03	U		<sup>234</sup> U	5.3E-03 ± 5.8E-03	U
	<sup>235</sup> U	1.2E-02 ± 7.6E-03	U		<sup>235</sup> U	9.6E-03 ± 7.1E-03	U
	<sup>238</sup> U	8.8E-03 ± 6.5E-03	U		<sup>238</sup> U	1.0E-02 ± 6.8E-03	U
<sup>65</sup> Zn	3.1E-02 ± 1.0E-01	U	<sup>65</sup> Zn	-3.5E-01 ± 3.5E-01	U		
<b>V110</b> (600 Area)	<sup>144</sup> Ce	1.2E-01 ± 1.1E+00	U	<b>V112</b> (Replicate of V032, 200 West)	<sup>144</sup> Ce	3.1E-01 ± 7.1E-01	U
	<sup>60</sup> Co	3.7E-02 ± 1.4E-01	U		<sup>60</sup> Co	-4.9E-03 ± 4.9E-02	U
	<sup>134</sup> Cs	-1.3E-02 ± 1.3E-01	U		<sup>134</sup> Cs	1.8E-02 ± 6.2E-02	U
	<sup>137</sup> Cs	2.1E-02 ± 1.4E-01	U		<sup>137</sup> Cs	2.0E-02 ± 5.9E-02	U
	<sup>152</sup> Eu	-4.5E-02 ± 3.7E-01	U		<sup>152</sup> Eu	-2.0E-01 ± 2.0E-01	U
	<sup>154</sup> Eu	-2.7E-01 ± 4.0E-01	U		<sup>154</sup> Eu	-2.3E-02 ± 1.7E-01	U
	<sup>155</sup> Eu	3.8E-02 ± 3.5E-01	U		<sup>155</sup> Eu	1.7E-01 ± 2.0E-01	U
	<sup>238</sup> Pu	-3.1E-03 ± 1.8E-02	U		<sup>238</sup> Pu	-3.3E-03 ± 2.0E-02	U
	<sup>239/240</sup> Pu	1.1E-03 ± 1.1E-02	U		<sup>239/240</sup> Pu	2.2E-03 ± 7.7E-03	U
	<sup>103</sup> Ru	-1.1E-01 ± 1.5E-01	U		<sup>103</sup> Ru	-2.9E-02 ± 6.1E-02	U
	<sup>106</sup> Ru	-3.4E-01 ± 1.3E+00	U		<sup>106</sup> Ru	-4.3E-01 ± 5.8E-01	U
	<sup>125</sup> Sb	1.3E-01 ± 3.3E-01	U		<sup>125</sup> Sb	9.9E-02 ± 1.5E-01	U
	<sup>113</sup> Sn	1.1E-01 ± 1.6E-01	U		<sup>113</sup> Sn	-3.6E-02 ± 7.5E-02	U
	<sup>90</sup> Sr	1.5E-01 ± 1.4E-01	U		<sup>90</sup> Sr	5.0E-02 ± 1.3E-01	U
	<sup>234</sup> U	9.5E-03 ± 6.3E-03	U		<sup>234</sup> U	1.7E-02 ± 1.0E-02	U
	<sup>235</sup> U	1.9E-03 ± 4.7E-03	U		<sup>235</sup> U	8.8E-03 ± 6.3E-03	U
	<sup>238</sup> U	5.2E-03 ± 4.5E-03	U		<sup>238</sup> U	1.2E-02 ± 7.1E-03	U
<sup>65</sup> Zn	-4.5E-01 ± 4.5E-01	U	<sup>65</sup> Zn	-1.3E-01 ± 1.4E-01	U		

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



Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
V114 (Replicate of V096, 600 Area)	<sup>144</sup> Ce	-4.5E-01 ± 2.0E+00	U	V116 (300 Area)	<sup>144</sup> Ce	-1.6E-01 ± 3.1E-01	U
	<sup>60</sup> Co	3.6E-02 ± 1.7E-01	U		<sup>60</sup> Co	-1.8E-03 ± 1.8E-02	U
	<sup>134</sup> Cs	1.9E-02 ± 1.9E-01	U		<sup>134</sup> Cs	-7.9E-03 ± 3.2E-02	U
	<sup>137</sup> Cs	-5.1E-02 ± 2.0E-01	U		<sup>137</sup> Cs	9.6E-04 ± 9.6E-03	U
	<sup>152</sup> Eu	-1.8E-01 ± 5.1E-01	U		<sup>152</sup> Eu	-9.5E-04 ± 9.5E-03	U
	<sup>154</sup> Eu	-1.5E-01 ± 5.1E-01	U		<sup>154</sup> Eu	-5.6E-02 ± 9.6E-02	U
	<sup>155</sup> Eu	2.1E-01 ± 4.3E-01	U		<sup>155</sup> Eu	-7.8E-04 ± 7.8E-03	U
	<sup>238</sup> Pu	1.0E-03 ± 1.0E-02	U		<sup>238</sup> Pu	1.4E-02 ± 2.2E-02	U
	<sup>239/240</sup> Pu	1.0E-03 ± 5.3E-03	U		<sup>239/240</sup> Pu	1.2E-03 ± 2.4E-03	U
	<sup>103</sup> Ru	1.6E-01 ± 2.0E-01	U		<sup>103</sup> Ru	2.3E-03 ± 2.3E-02	U
	<sup>106</sup> Ru	9.5E-01 ± 1.7E+00	U		<sup>106</sup> Ru	1.1E-01 ± 2.7E-01	U
	<sup>125</sup> Sb	-3.0E-01 ± 4.8E-01	U		<sup>125</sup> Sb	-4.7E-02 ± 7.4E-02	U
	<sup>113</sup> Sn	-6.9E-02 ± 2.2E-01	U		<sup>113</sup> Sn	9.0E-03 ± 3.4E-02	U
	<sup>90</sup> Sr	-3.4E-02 ± 1.2E-01	U		<sup>90</sup> Sr	-1.6E-02 ± 1.3E-01	U
	<sup>234</sup> U	1.4E-02 ± 7.7E-03			<sup>234</sup> U	1.2E-02 ± 8.3E-03	
	<sup>235</sup> U	6.5E-03 ± 5.8E-03	U		<sup>235</sup> U	1.8E-03 ± 2.5E-03	U
	<sup>238</sup> U	1.4E-02 ± 8.7E-03			<sup>238</sup> U	8.3E-03 ± 6.6E-03	
<sup>65</sup> Zn	3.3E-01 ± 4.5E-01	U	<sup>65</sup> Zn	-1.1E-01 ± 1.1E-01	U		
V117 (300 Area)	<sup>144</sup> Ce	1.0E+00 ± 8.6E-01	U	V118 (300 Area)	<sup>144</sup> Ce	1.4E-01 ± 5.5E-01	U
	<sup>60</sup> Co	-5.5E-02 ± 8.1E-02	U		<sup>60</sup> Co	-8.9E-03 ± 4.9E-02	U
	<sup>134</sup> Cs	-4.8E-02 ± 8.6E-02	U		<sup>134</sup> Cs	3.8E-02 ± 5.3E-02	U
	<sup>137</sup> Cs	-2.4E-03 ± 2.4E-02	U		<sup>137</sup> Cs	-2.3E-02 ± 5.5E-02	U
	<sup>152</sup> Eu	9.2E-02 ± 2.2E-01	U		<sup>152</sup> Eu	-3.1E-02 ± 1.3E-01	U
	<sup>154</sup> Eu	2.0E-01 ± 2.6E-01	U		<sup>154</sup> Eu	-8.6E-02 ± 1.7E-01	U
	<sup>155</sup> Eu	-2.3E-02 ± 1.9E-01	U		<sup>155</sup> Eu	-3.9E-03 ± 3.9E-02	U
	<sup>238</sup> Pu	-3.2E-03 ± 2.1E-02	U		<sup>238</sup> Pu	1.2E-02 ± 1.9E-02	U
	<sup>239/240</sup> Pu	2.1E-03 ± 4.2E-03	U		<sup>239/240</sup> Pu	3.0E-03 ± 5.4E-03	U
	<sup>103</sup> Ru	4.8E-02 ± 8.5E-02	U		<sup>103</sup> Ru	7.6E-03 ± 4.5E-02	U
	<sup>106</sup> Ru	-1.5E-01 ± 7.9E-01	U		<sup>106</sup> Ru	-2.4E-01 ± 4.3E-01	U
	<sup>125</sup> Sb	4.1E-02 ± 2.1E-01	U		<sup>125</sup> Sb	9.0E-02 ± 1.3E-01	U
	<sup>113</sup> Sn	-1.1E-02 ± 1.0E-01	U		<sup>113</sup> Sn	-5.0E-02 ± 5.5E-02	U
	<sup>90</sup> Sr	-7.0E-03 ± 7.0E-02	U		<sup>90</sup> Sr	-3.7E-02 ± 1.2E-01	U
	<sup>234</sup> U	1.5E-02 ± 9.0E-03			<sup>234</sup> U	2.0E-02 ± 9.8E-03	
	<sup>235</sup> U	1.9E-03 ± 4.7E-03	U		<sup>235</sup> U	1.9E-03 ± 2.7E-03	U
	<sup>238</sup> U	5.2E-03 ± 5.1E-03	U		<sup>238</sup> U	3.4E-02 ± 1.4E-02	
<sup>65</sup> Zn	-3.1E-01 ± 3.1E-01	U	<sup>65</sup> Zn	-3.8E-01 ± 3.8E-01	U		

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V119</b> (300 Area)	<sup>144</sup> Ce	1.1E-01 ± 4.0E-01	U	<b>V121</b> (300 Area)	<sup>144</sup> Ce	1.8E-01 ± 8.0E-01	U
	<sup>60</sup> Co	-2.2E-02 ± 3.1E-02	U		<sup>60</sup> Co	9.3E-03 ± 7.1E-02	U
	<sup>134</sup> Cs	1.8E-03 ± 1.8E-02	U		<sup>134</sup> Cs	-1.0E-02 ± 7.9E-02	U
	<sup>137</sup> Cs	-2.1E-02 ± 3.5E-02	U		<sup>137</sup> Cs	-5.1E-02 ± 7.9E-02	U
	<sup>152</sup> Eu	7.4E-03 ± 7.4E-02	U		<sup>152</sup> Eu	-3.1E-02 ± 2.1E-01	U
	<sup>154</sup> Eu	-2.9E-03 ± 2.9E-02	U		<sup>154</sup> Eu	-3.3E-02 ± 2.3E-01	U
	<sup>155</sup> Eu	4.1E-02 ± 1.0E-01	U		<sup>155</sup> Eu	-1.5E-01 ± 1.8E-01	U
	<sup>238</sup> Pu	4.5E-03 ± 1.6E-02	U		<sup>238</sup> Pu	-1.3E-02 ± 1.6E-02	U
	<sup>239/240</sup> Pu	8.9E-04 ± 8.9E-03	U		<sup>239/240</sup> Pu	1.0E-03 ± 3.5E-03	U
	<sup>103</sup> Ru	-1.7E-02 ± 3.5E-02	U		<sup>103</sup> Ru	4.9E-02 ± 7.5E-02	U
	<sup>106</sup> Ru	-3.8E-02 ± 3.0E-01	U		<sup>106</sup> Ru	-5.1E-01 ± 6.6E-01	U
	<sup>125</sup> Sb	1.0E-02 ± 9.3E-02	U		<sup>125</sup> Sb	-1.2E-02 ± 1.2E-01	U
	<sup>113</sup> Sn	-4.5E-02 ± 4.5E-02	U		<sup>113</sup> Sn	-7.5E-02 ± 8.8E-02	U
	<sup>90</sup> Sr	-2.0E-03 ± 2.0E-02	U		<sup>90</sup> Sr	-6.9E-02 ± 1.1E-01	U
	<sup>234</sup> U	2.4E-01 ± 6.7E-02			<sup>234</sup> U	1.3E-02 ± 8.6E-03	
	<sup>235</sup> U	9.4E-03 ± 8.4E-03	U		<sup>235</sup> U	9.7E-04 ± 3.4E-03	U
	<sup>238</sup> U	2.1E-01 ± 5.9E-02			<sup>238</sup> U	9.8E-03 ± 6.9E-03	
	<sup>65</sup> Zn	-3.6E-02 ± 9.1E-02	U		<sup>65</sup> Zn	-3.0E-01 ± 3.0E-01	U
<b>V123</b> (300 Area)	<sup>144</sup> Ce	3.9E-02 ± 3.7E-01	U	<b>V124</b> (300 Area)	<sup>144</sup> Ce	-9.2E-02 ± 4.6E-01	U
	<sup>60</sup> Co	-1.9E-02 ± 4.4E-02	U		<sup>60</sup> Co	2.8E-02 ± 3.9E-02	U
	<sup>134</sup> Cs	3.1E-02 ± 4.6E-02	U		<sup>134</sup> Cs	2.6E-02 ± 4.0E-02	U
	<sup>137</sup> Cs	-6.8E-04 ± 6.8E-03	U		<sup>137</sup> Cs	-4.5E-02 ± 4.5E-02	U
	<sup>152</sup> Eu	4.0E-02 ± 9.6E-02	U		<sup>152</sup> Eu	2.1E-02 ± 1.1E-01	U
	<sup>154</sup> Eu	-9.5E-03 ± 9.5E-02	U		<sup>154</sup> Eu	-7.7E-02 ± 1.0E-01	U
	<sup>155</sup> Eu	-5.2E-02 ± 9.7E-02	U		<sup>155</sup> Eu	-5.0E-02 ± 1.2E-01	U
	<sup>238</sup> Pu	9.9E-04 ± 9.9E-03	U		<sup>238</sup> Pu	2.3E-03 ± 2.3E-02	U
	<sup>239/240</sup> Pu	-3.0E-03 ± 4.5E-03	U		<sup>239/240</sup> Pu	-1.1E-03 ± 3.8E-03	U
	<sup>103</sup> Ru	-1.2E-02 ± 3.4E-02	U		<sup>103</sup> Ru	-2.9E-02 ± 4.2E-02	U
	<sup>106</sup> Ru	-1.8E-01 ± 3.4E-01	U		<sup>106</sup> Ru	-4.2E-02 ± 3.7E-01	U
	<sup>125</sup> Sb	-2.4E-02 ± 1.1E-01	U		<sup>125</sup> Sb	6.4E-02 ± 1.0E-01	U
	<sup>113</sup> Sn	-1.6E-02 ± 4.2E-02	U		<sup>113</sup> Sn	3.7E-02 ± 4.6E-02	U
	<sup>90</sup> Sr	-1.5E-01 ± 1.5E-01	U		<sup>90</sup> Sr	-6.0E-02 ± 1.1E-01	U
	<sup>234</sup> U	1.4E-02 ± 1.0E-02			<sup>234</sup> U	3.9E-02 ± 1.5E-02	
	<sup>235</sup> U	3.3E-03 ± 4.9E-03	U		<sup>235</sup> U	9.9E-03 ± 6.9E-03	U
	<sup>238</sup> U	1.0E-02 ± 7.4E-03			<sup>238</sup> U	2.5E-02 ± 1.1E-02	
	<sup>65</sup> Zn	-3.7E-02 ± 1.1E-01	U		<sup>65</sup> Zn	2.1E-02 ± 9.2E-02	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V125</b> (300 Area)	<sup>144</sup> Ce	-2.7E-01 ± 5.1E-01	U	<b>V126</b> (300 Area)	<sup>144</sup> Ce	1.8E-01 ± 3.7E-01	U
	<sup>60</sup> Co	5.5E-03 ± 5.0E-02	U		<sup>60</sup> Co	-1.6E-02 ± 2.9E-02	U
	<sup>134</sup> Cs	-4.3E-03 ± 4.3E-02	U		<sup>134</sup> Cs	2.2E-04 ± 2.2E-03	U
	<sup>137</sup> Cs	7.2E-02 ± 8.5E-02	U		<sup>137</sup> Cs	2.9E-03 ± 2.9E-02	U
	<sup>152</sup> Eu	4.1E-02 ± 1.3E-01	U		<sup>152</sup> Eu	5.3E-02 ± 8.9E-02	U
	<sup>154</sup> Eu	-1.4E-01 ± 1.6E-01	U		<sup>154</sup> Eu	7.3E-03 ± 7.3E-02	U
	<sup>155</sup> Eu	3.6E-02 ± 1.1E-01	U		<sup>155</sup> Eu	5.4E-03 ± 5.4E-02	U
	<sup>238</sup> Pu	1.0E-02 ± 1.8E-02	U		<sup>238</sup> Pu	-9.1E-03 ± 2.3E-02	U
	<sup>239/240</sup> Pu	4.2E-03 ± 4.6E-03	U		<sup>239/240</sup> Pu	7.9E-03 ± 7.7E-03	U
	<sup>103</sup> Ru	-5.3E-03 ± 4.7E-02	U		<sup>103</sup> Ru	7.6E-03 ± 3.2E-02	U
	<sup>106</sup> Ru	4.9E-02 ± 4.3E-01	U		<sup>106</sup> Ru	-1.2E-01 ± 2.8E-01	U
	<sup>125</sup> Sb	-9.4E-02 ± 1.3E-01	U		<sup>125</sup> Sb	-7.9E-03 ± 7.9E-02	U
	<sup>113</sup> Sn	1.4E-02 ± 5.7E-02	U		<sup>113</sup> Sn	-6.8E-03 ± 3.9E-02	U
	<sup>90</sup> Sr	-5.7E-02 ± 1.1E-01	U		<sup>90</sup> Sr	1.2E-01 ± 1.4E-01	U
	<sup>234</sup> U	4.4E-02 ± 1.7E-02			<sup>234</sup> U	1.1E-01 ± 3.5E-02	
	<sup>235</sup> U	5.6E-03 ± 4.8E-03			<sup>235</sup> U	5.9E-03 ± 5.8E-03	U
	<sup>238</sup> U	2.3E-02 ± 1.1E-02			<sup>238</sup> U	9.5E-02 ± 3.0E-02	
	<sup>65</sup> Zn	-9.7E-02 ± 1.1E-01	U		<sup>65</sup> Zn	-1.2E-01 ± 1.2E-01	U
<b>V127</b> (300 Area)	<sup>144</sup> Ce	1.5E-01 ± 5.3E-01	U	<b>V128</b> (300 Area)	<sup>144</sup> Ce	5.0E-02 ± 5.0E-01	U
	<sup>60</sup> Co	-1.9E-02 ± 4.3E-02	U		<sup>60</sup> Co	-3.2E-03 ± 3.2E-02	U
	<sup>134</sup> Cs	-4.2E-02 ± 4.5E-02	U		<sup>134</sup> Cs	-2.2E-02 ± 4.6E-02	U
	<sup>137</sup> Cs	-4.5E-02 ± 4.5E-02	U		<sup>137</sup> Cs	-8.1E-04 ± 8.1E-03	U
	<sup>152</sup> Eu	4.5E-02 ± 1.2E-01	U		<sup>152</sup> Eu	7.8E-02 ± 1.4E-01	U
	<sup>154</sup> Eu	-9.9E-02 ± 1.3E-01	U		<sup>154</sup> Eu	2.2E-02 ± 1.4E-01	U
	<sup>155</sup> Eu	-6.8E-02 ± 1.3E-01	U		<sup>155</sup> Eu	-9.8E-03 ± 9.8E-02	U
	<sup>238</sup> Pu	5.6E-03 ± 2.1E-02	U		<sup>238</sup> Pu	7.4E-04 ± 1.5E-03	U
	<sup>239/240</sup> Pu	1.1E-03 ± 3.8E-03	U		<sup>239/240</sup> Pu	7.4E-04 ± 7.4E-03	U
	<sup>103</sup> Ru	-9.5E-03 ± 4.5E-02	U		<sup>103</sup> Ru	1.8E-02 ± 4.5E-02	U
	<sup>106</sup> Ru	1.2E-01 ± 4.2E-01	U		<sup>106</sup> Ru	4.8E-03 ± 4.8E-02	U
	<sup>125</sup> Sb	9.7E-02 ± 1.1E-01	U		<sup>125</sup> Sb	2.5E-02 ± 1.2E-01	U
	<sup>113</sup> Sn	-3.2E-02 ± 5.0E-02	U		<sup>113</sup> Sn	-2.2E-02 ± 5.8E-02	U
	<sup>90</sup> Sr	-6.8E-02 ± 1.2E-01	U		<sup>90</sup> Sr	-1.6E-01 ± 1.6E-01	U
	<sup>234</sup> U	6.4E-02 ± 2.2E-02			<sup>234</sup> U	1.6E-02 ± 9.4E-03	
	<sup>235</sup> U	6.9E-03 ± 6.2E-03	U		<sup>235</sup> U	9.7E-04 ± 9.7E-03	U
	<sup>238</sup> U	6.0E-02 ± 2.2E-02			<sup>238</sup> U	8.7E-03 ± 6.8E-03	
	<sup>65</sup> Zn	5.6E-02 ± 1.0E-01	U		<sup>65</sup> Zn	-7.9E-03 ± 7.9E-02	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

Location	Isotope	Result ± Error	RQ*	Location	Isotope	Result ± Error	RQ*
<b>V129</b> (300 Area)	<sup>144</sup> Ce	7.6E-02 ± 5.0E-01	U	<b>V130</b> (400 Area)	<sup>144</sup> Ce	-1.9E-02 ± 1.9E-01	U
	<sup>60</sup> Co	-4.5E-02 ± 4.6E-02	U		<sup>60</sup> Co	8.3E-03 ± 4.5E-02	U
	<sup>134</sup> Cs	-4.9E-03 ± 4.3E-02	U		<sup>134</sup> Cs	5.1E-03 ± 4.2E-02	U
	<sup>137</sup> Cs	-3.5E-03 ± 3.5E-02	U		<sup>137</sup> Cs	-2.2E-02 ± 4.3E-02	U
	<sup>152</sup> Eu	-2.8E-02 ± 1.2E-01	U		<sup>152</sup> Eu	1.1E-01 ± 1.1E-01	U
	<sup>154</sup> Eu	-1.1E-01 ± 1.2E-01	U		<sup>154</sup> Eu	-8.3E-03 ± 8.3E-02	U
	<sup>155</sup> Eu	-6.0E-02 ± 1.1E-01	U		<sup>155</sup> Eu	-4.9E-02 ± 1.1E-01	U
	<sup>238</sup> Pu	9.6E-04 ± 9.6E-03	U		<sup>238</sup> Pu	2.3E-03 ± 4.1E-03	U
	<sup>239/240</sup> Pu	2.9E-03 ± 6.4E-03	U		<sup>239/240</sup> Pu	9.8E-03 ± 6.3E-03	U
	<sup>103</sup> Ru	-1.0E-02 ± 3.8E-02	U		<sup>103</sup> Ru	-3.4E-02 ± 3.7E-02	U
	<sup>106</sup> Ru	-8.3E-02 ± 3.8E-01	U		<sup>106</sup> Ru	5.1E-01 ± 3.9E-01	U
	<sup>125</sup> Sb	-5.1E-02 ± 1.1E-01	U		<sup>125</sup> Sb	-1.5E-01 ± 1.5E-01	U
	<sup>113</sup> Sn	4.3E-02 ± 4.7E-02	U		<sup>113</sup> Sn	-2.2E-02 ± 4.8E-02	U
	<sup>90</sup> Sr	-1.4E-01 ± 1.4E-01	U		<sup>90</sup> Sr	-3.1E-02 ± 1.1E-01	U
	<sup>234</sup> U	1.3E-02 ± 7.8E-03	U		<sup>234</sup> U	6.9E-03 ± 6.8E-03	U
	<sup>235</sup> U	2.0E-03 ± 2.8E-03	U		<sup>235</sup> U	2.1E-03 ± 2.9E-03	U
	<sup>238</sup> U	7.2E-03 ± 6.5E-03	U		<sup>238</sup> U	9.8E-03 ± 6.7E-03	U
	<sup>65</sup> Zn	5.2E-03 ± 5.2E-02	U		<sup>65</sup> Zn	-1.8E-01 ± 1.8E-01	U
<b>V131</b> (Replicate of V116, 300 Area)	<sup>144</sup> Ce	8.0E-02 ± 4.8E-01	U	<b>V132</b> (Replicate of V123, 300 Area)	<sup>144</sup> Ce	-4.9E+00 ± 2.7E+01	U
	<sup>60</sup> Co	3.2E-02 ± 4.1E-02	U		<sup>60</sup> Co	-6.0E-01 ± 2.2E+00	U
	<sup>134</sup> Cs	2.5E-02 ± 4.3E-02	U		<sup>134</sup> Cs	5.7E-01 ± 2.5E+00	U
	<sup>137</sup> Cs	-3.0E-02 ± 4.2E-02	U		<sup>137</sup> Cs	-1.2E+00 ± 2.4E+00	U
	<sup>152</sup> Eu	7.4E-03 ± 7.4E-02	U		<sup>152</sup> Eu	1.9E+00 ± 6.6E+00	U
	<sup>154</sup> Eu	8.2E-02 ± 1.2E-01	U		<sup>154</sup> Eu	9.2E-01 ± 7.0E+00	U
	<sup>155</sup> Eu	-3.9E-02 ± 1.3E-01	U		<sup>155</sup> Eu	-1.6E+00 ± 6.2E+00	U
	<sup>238</sup> Pu	8.2E-04 ± 2.9E-03	U		<sup>238</sup> Pu	2.6E-02 ± 1.6E-02	U
	<sup>239/240</sup> Pu	8.2E-03 ± 5.5E-03	U		<sup>239/240</sup> Pu	2.9E-03 ± 4.1E-03	U
	<sup>103</sup> Ru	2.4E-02 ± 4.0E-02	U		<sup>103</sup> Ru	-1.2E+00 ± 2.2E+00	U
	<sup>106</sup> Ru	-2.9E-01 ± 3.9E-01	U		<sup>106</sup> Ru	-6.9E+00 ± 1.9E+01	U
	<sup>125</sup> Sb	3.4E-02 ± 1.0E-01	U		<sup>125</sup> Sb	1.1E+00 ± 6.0E+00	U
	<sup>113</sup> Sn	1.2E-02 ± 4.8E-02	U		<sup>113</sup> Sn	-9.0E-01 ± 2.8E+00	U
	<sup>90</sup> Sr	-2.5E-02 ± 1.2E-01	U		<sup>90</sup> Sr	-4.0E-02 ± 1.2E-01	U
	<sup>234</sup> U	2.1E-02 ± 1.1E-02	U		<sup>234</sup> U	2.1E-02 ± 1.3E-02	U
	<sup>235</sup> U	4.2E-03 ± 4.2E-03	U		<sup>235</sup> U	3.3E-03 ± 4.6E-03	U
	<sup>238</sup> U	1.2E-02 ± 8.0E-03	U		<sup>238</sup> U	1.8E-02 ± 1.3E-02	U
	<sup>65</sup> Zn	4.5E-02 ± 1.0E-01	U		<sup>65</sup> Zn	-4.4E+00 ± 6.8E+00	U

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

Table 4-4. 2006 Vegetation Sampling Results (pCi/g ± total analytical uncertainty).  
(18 sheets total)

<b>Location</b>	<b>Isotope</b>	<b>Result ± Error</b>	<b>RQ*</b>
<b>V138</b>	<sup>144</sup> Ce	-1.7E-01 ± 5.2E-01	U
(Replicate	<sup>60</sup> Co	-1.2E-02 ± 4.7E-02	U
of V118,	<sup>134</sup> Cs	2.2E-02 ± 5.4E-02	U
300 Area)	<sup>137</sup> Cs	1.7E-02 ± 4.6E-02	U
	<sup>152</sup> Eu	3.8E-02 ± 1.2E-01	U
	<sup>154</sup> Eu	-1.9E-02 ± 1.5E-01	U
	<sup>155</sup> Eu	3.4E-02 ± 1.2E-01	U
	<sup>238</sup> Pu	2.4E-03 ± 6.2E-03	U
	<sup>239/240</sup> Pu	3.2E-03 ± 3.2E-03	
	<sup>103</sup> Ru	2.3E-02 ± 4.3E-02	U
	<sup>106</sup> Ru	6.4E-02 ± 4.3E-01	U
	<sup>125</sup> Sb	1.8E-03 ± 1.8E-02	U
	<sup>113</sup> Sn	2.0E-02 ± 5.1E-02	U
	<sup>90</sup> Sr	-2.1E-02 ± 1.2E-01	U
	<sup>234</sup> U	2.4E-02 ± 1.2E-02	
	<sup>235</sup> U	4.9E-03 ± 4.6E-03	
	<sup>238</sup> U	3.5E-02 ± 1.5E-02	
	<sup>65</sup> Zn	2.3E-02 ± 1.2E-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 2006, there were 134 TLD locations collecting external radiation information. The number of TLD locations in each operational area and a summary table comparing the 2005 and 2006 TLD results are provided in Table 5-1. Additional discussion of external radiation monitoring conducted near facilities and operations during 2006 can be found in Section 10.13 of PNNL-16623 (PNNL 2007).

Table 5-1. Thermoluminescent Dosimeter Results (mrem/year) for 2005 and 2006.

Operational Area	Number of Dosimeters	2005		2006		% Change <sup>c</sup>
		Maximum <sup>a</sup>	Mean <sup>b</sup>	Maximum <sup>a</sup>	Mean <sup>b</sup>	
100 BC	4	94 ± 10	88 ± 10	90 ± 9	84 ± 8	-4%
100 K	14	5,600 ± 3,600	1,300 ± 3,800	2,300 ± 5,800	483 ± 1,300	-51%
100-KR-1	5	159 ± 55	113 ± 52	109 ± 46	98 ± 17	-13%
100 N	11	229 ± 38	139 ± 96	176 ± 124	119 ± 59	-15%
200 East Area	42	312 ± 151	114 ± 95	338 ± 275	113 ± 106	0%
200 West Area	24	182 ± 13	105 ± 46	174 ± 120	104 ± 54	-1%
200 North (212-R) <sup>d</sup>	1	3,100 ± 470	2,700 ± 710	2,200 ± 329	2,100 ± 207	-22%
300 Area	8	113 ± 8	93 ± 23	113 ± 158	91 ± 24	-2%
300 TEDF <sup>e</sup>	6	91 ± 10	88 ± 4	87 ± 15	84 ± 4	-4%
300-FF-2 <sup>d</sup>	4	101 ± 44	85 ± 3	93 ± 14	88 ± 10	3%
400 Area	7	87 ± 5	84 ± 4	85 ± 9	81 ± 5	-2%
CVDF <sup>f</sup>	4	1,100 ± 916	560 ± 834	666 ± 939	337 ± 475	-39%
ERDF <sup>g</sup>	3	105 ± 51	100 ± 8	88 ± 16	86 ± 4	-13%
IDF <sup>d,h</sup>	1	90 ± 14	89 ± 2	93 ± 14	90 ± 5	1%

<sup>a</sup> maximum annual average ± 2 standard deviations

<sup>b</sup> ± 2 standard deviations

<sup>c</sup> Numbers indicate a decrease (-) or increase from the 2005 mean

<sup>d</sup> Maximum value represents highest quarterly value ± analytical uncertainty

<sup>e</sup> TEDF = 300 Area Treated Effluent Disposal Facility

<sup>f</sup> CVDF = Cold Vacuum Drying Facility (100 K Area)

<sup>g</sup> ERDF = Environmental Restoration Disposal Facility (200 West Area)

<sup>h</sup> IDF = Integrated Disposal Facility (200 East Area)

Observations in dose rate monitoring during 2006 included the following:

- The external radiation levels measured at several operational areas during 2006 were  $\pm 5\%$  compared to 2005 levels. These areas were: the 100-B/C Field Remediation project; both the 200 East and 200 West Areas; each of the 300 Area operational areas; the 400 Area; and the Integrated Disposal Facility (200 East Area).
- There were no significant increases observed in annual average dose rates at any of the operational areas during 2006.
- Cleanup activities at the 100-K Area fuel storage basins and adjacent retired reactor buildings continued in 2006, and overall average dose rates measured during the year decreased by approximately 50% relative to 2005 values. At nearly all monitoring locations, the 2006 decrease became noticeable during the last half of the year. A similar decrease was observed at dosimeter monitoring sites around the 100-K Area Cold Vacuum Drying Facility (CVDF) and at the adjacent 100-KR-1 field remediation project. Overall annual dose rates at the CVDF decreased approximately 40% in 2006 compared to 2005, and by approximately 13% at the 100-KR-1 site. In March 2006, three additional dosimeters were deployed at the 100-K Area to monitor the total dose during the transfer of radioactively contaminated basin sludge from the 105-KE fuel storage basin to the 105-KW fuel storage basin and then to the CVDF (known as the Hose-in-Hose project). Two of the new dosimeters, situated near the Columbia River shoreline, were at typical, site baseline levels throughout 2006. The third new dosimeter, located east of the 105-KE Facility, showed dose rates only slightly higher than baseline levels until the fourth quarter of the year. During that period, dose rate levels increased noticeably, likely in conjunction with sludge transfer activities that were initiated in October. Quarterly dose rate levels for each of the facilities/projects at 100-K Area are presented in graph form in Figure 5-1.
- Average dose rates observed in the 100-N Area continued to decrease in 2006 and were approximately 15% lower than those measured in 2005. This notable reduction was directly attributable to the continued removal of contaminated materials from the retired 116-N-1 (also known as 1301-N) and 116-N-3 (also known as 1325-N) liquid waste disposal trenches. Annual average dose rates at monitoring locations near the 116-N-1 trench showed a decrease of approximately 28% compared to levels measured at the same locations in 2005. The monitoring locations near the 116-N-3 Facility that had showed significant dose rate level decreases over the previous two years were removed in December 2005. Dose rates observed at the N Springs shoreline TLD location were approximately 25% lower in 2006 than in 2005 and averaged less than 100 mrem/yr. 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 during 2006 were very comparable to levels measured in 2005. Dose rates at the 212-R Facility, while again in 2006 some of the highest on site, were approximately 22% lower than those measured during 2005. Dose rates measured at the Environmental Restoration Disposal Facility



(ERDF) site in 2006 were approximately 13% lower than in 2005. 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 Treated Effluent Disposal Facility (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 showing the 2006 TLD locations are provided in Figures 5-5 through 5-12 and individual 2006 TLD results are provided in Table 5-2.

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

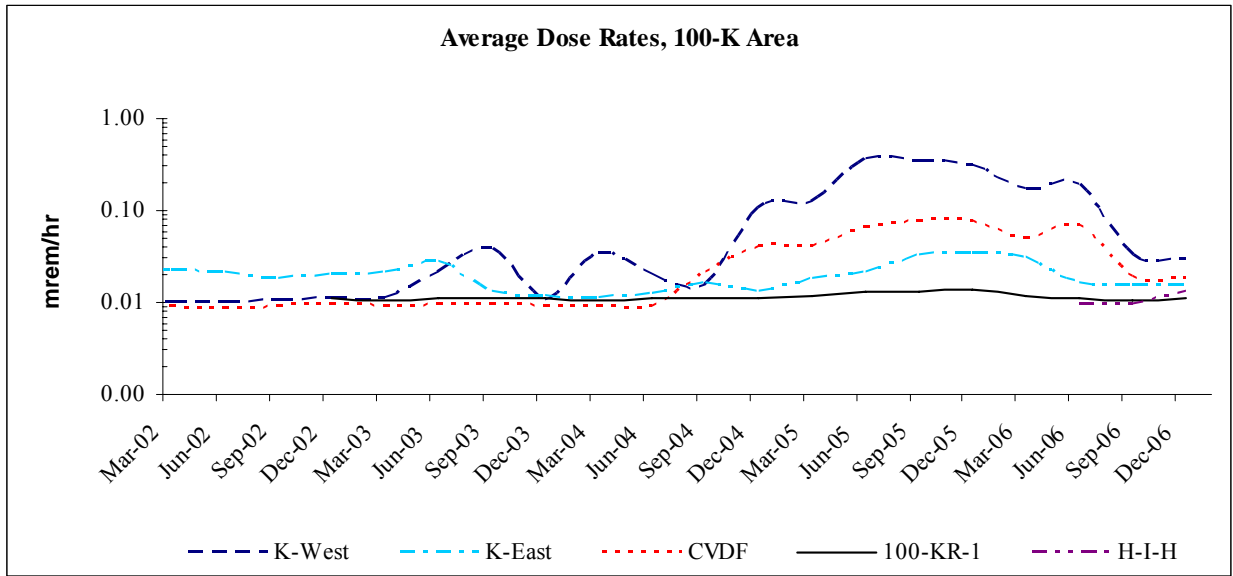


Figure 5-2. Average Quarterly Dose Rates, 100-N Area.

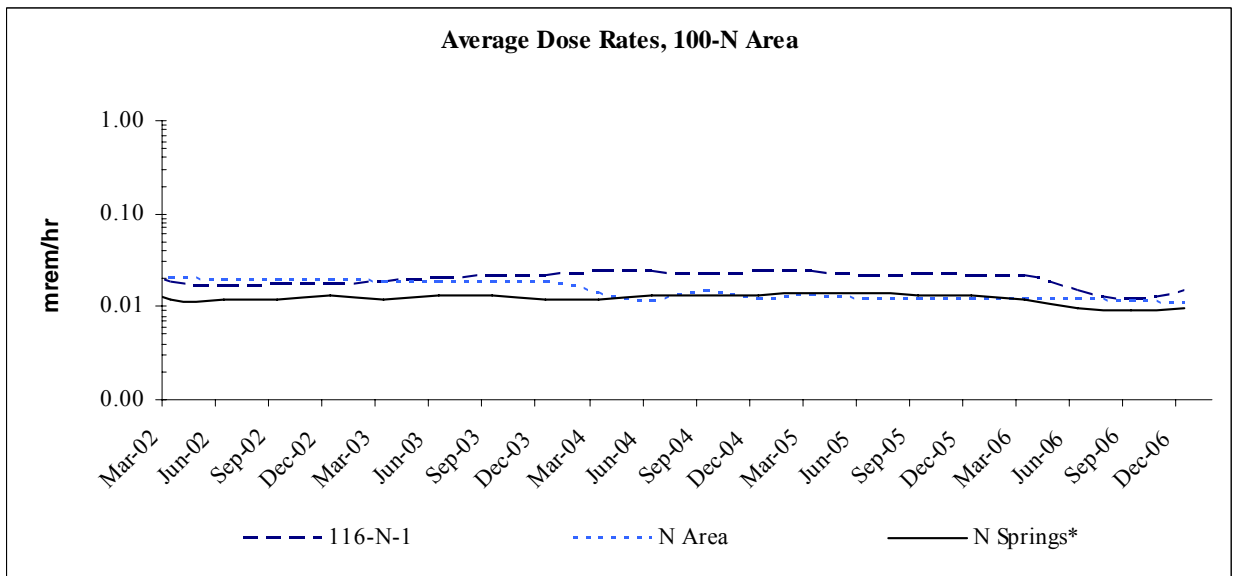


Figure 5-3. Average Quarterly Dose Rates, 200 Areas.

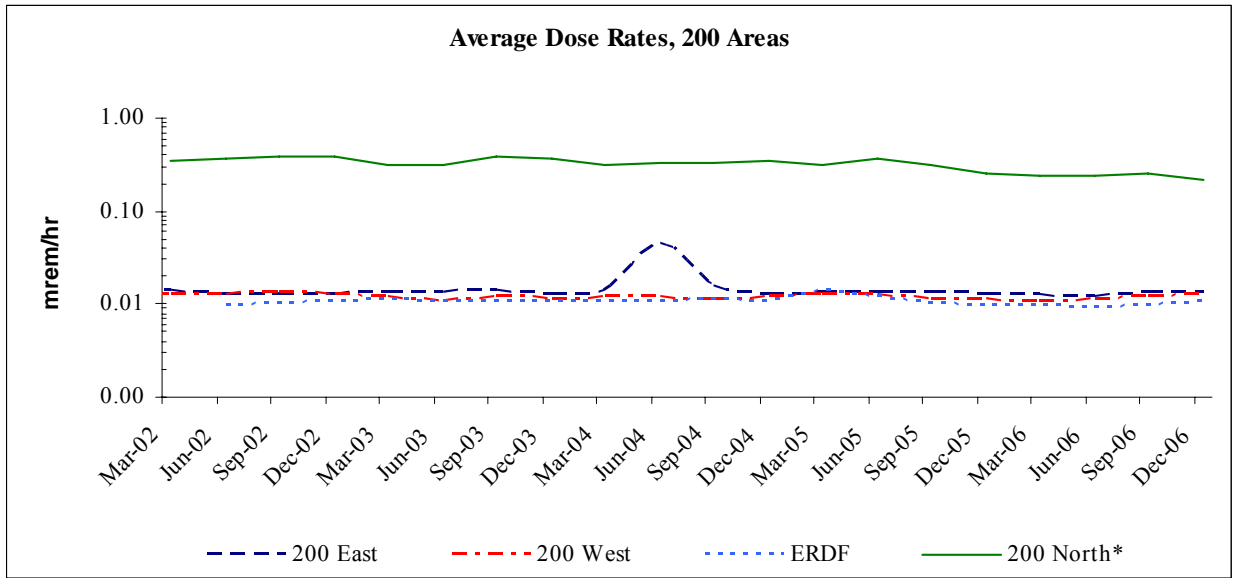
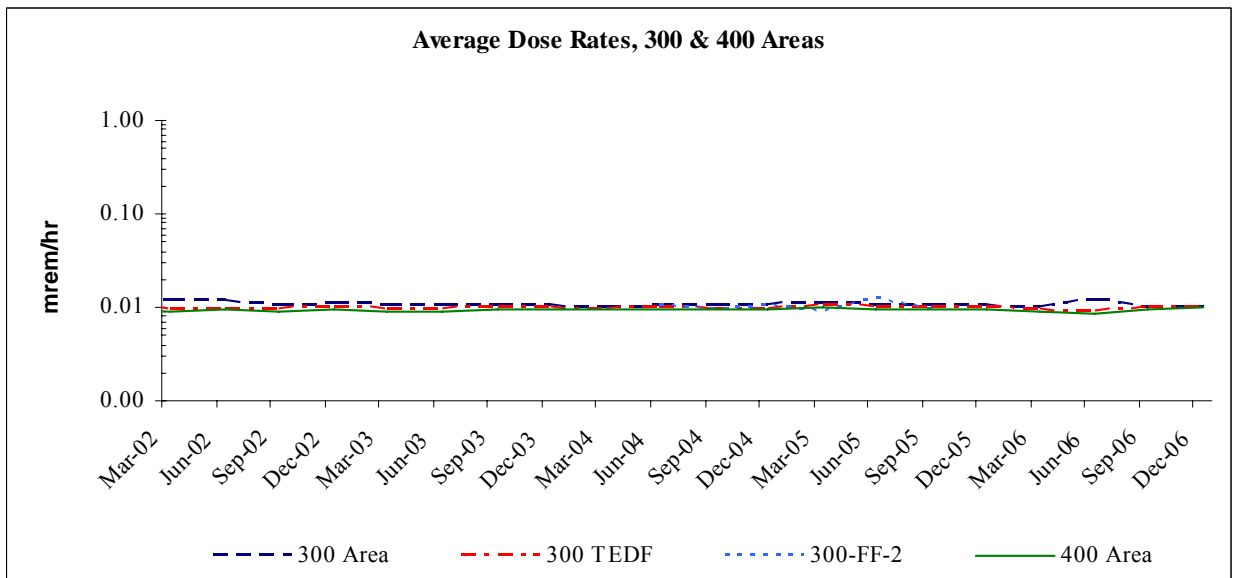


Figure 5-4. Average Quarterly Dose Rates, 300 and 400 Areas.



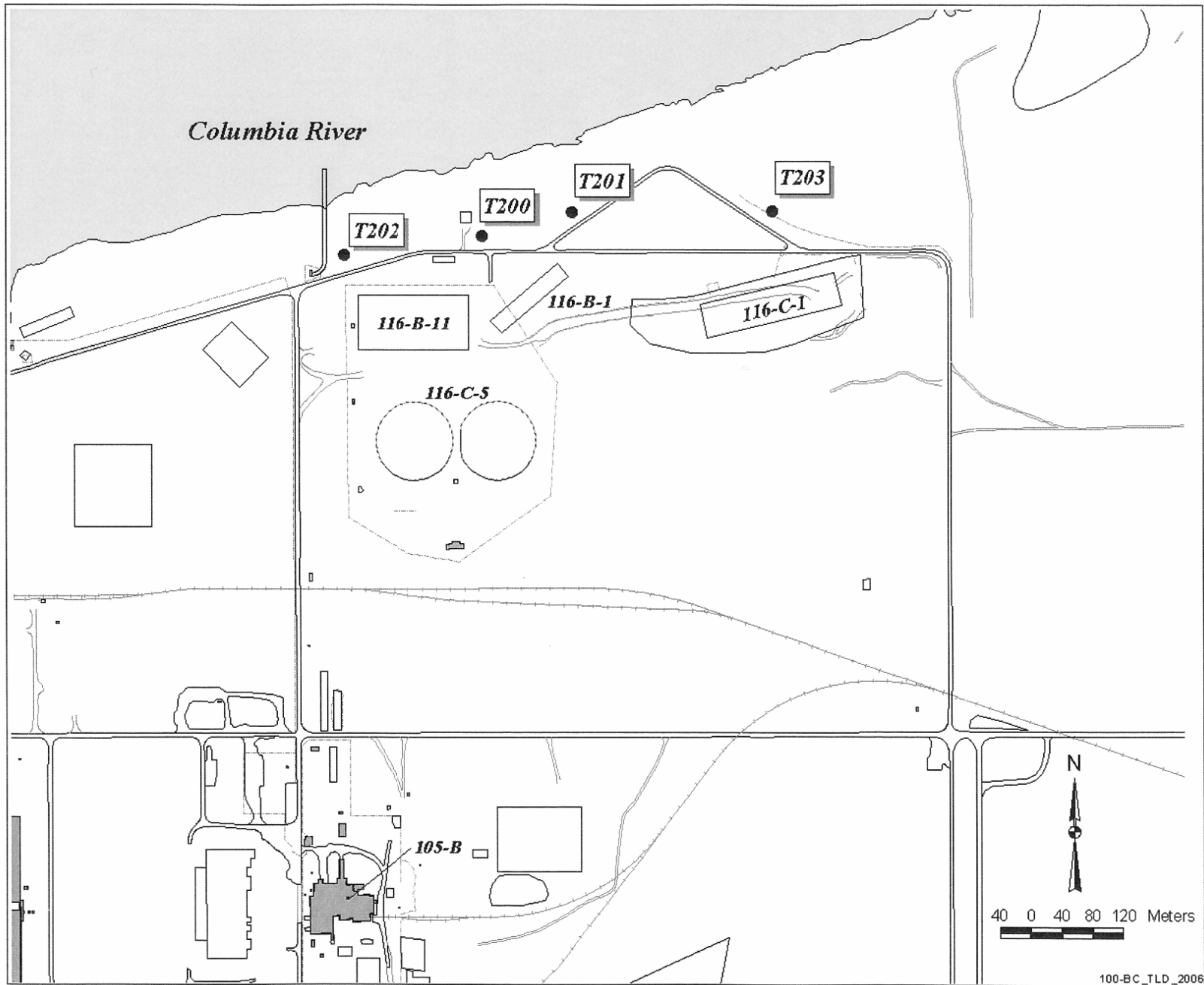


Figure 5-5. 100-B/C Area TLD Locations.

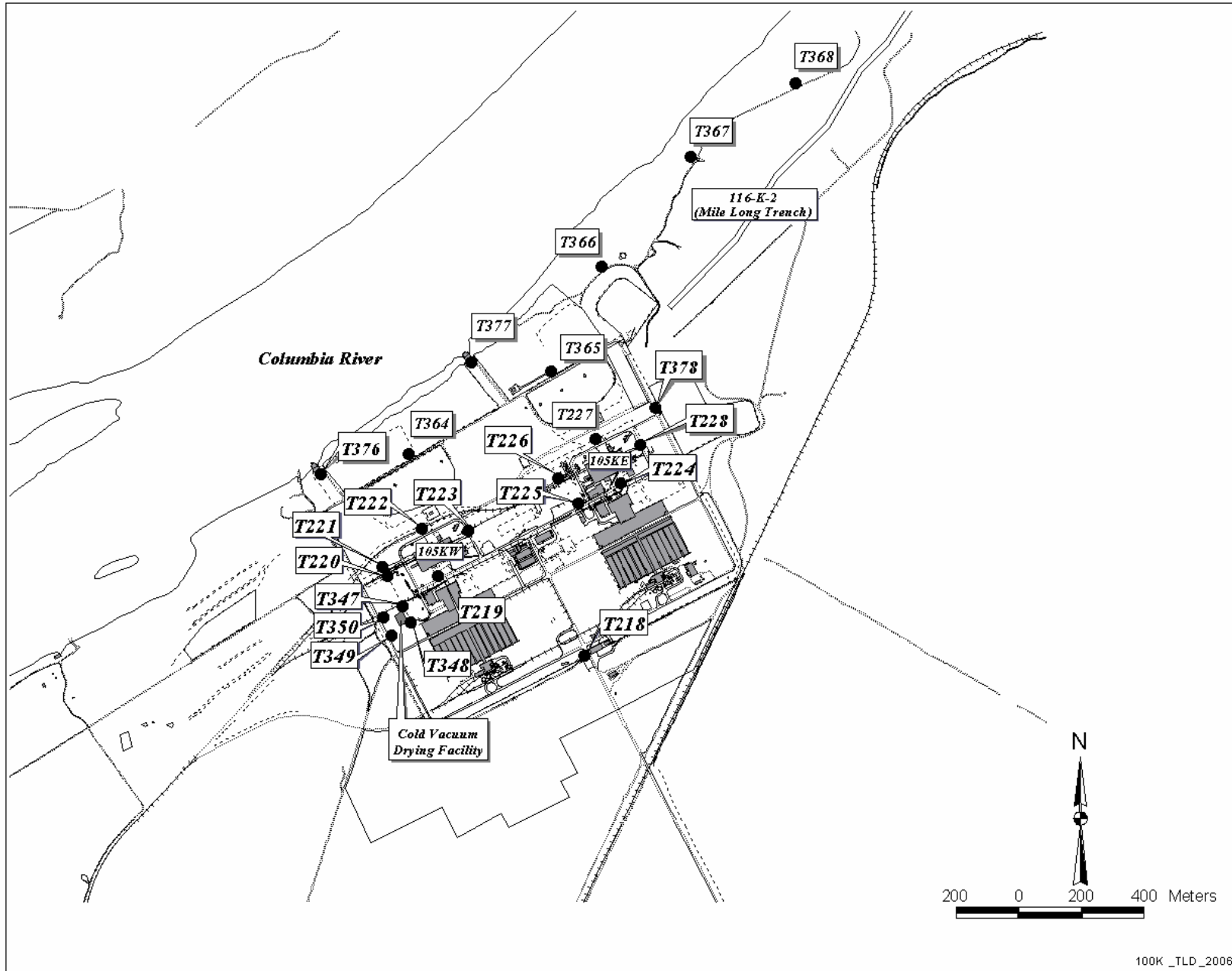


Figure 5-6. 100-K Area TLD Locations.

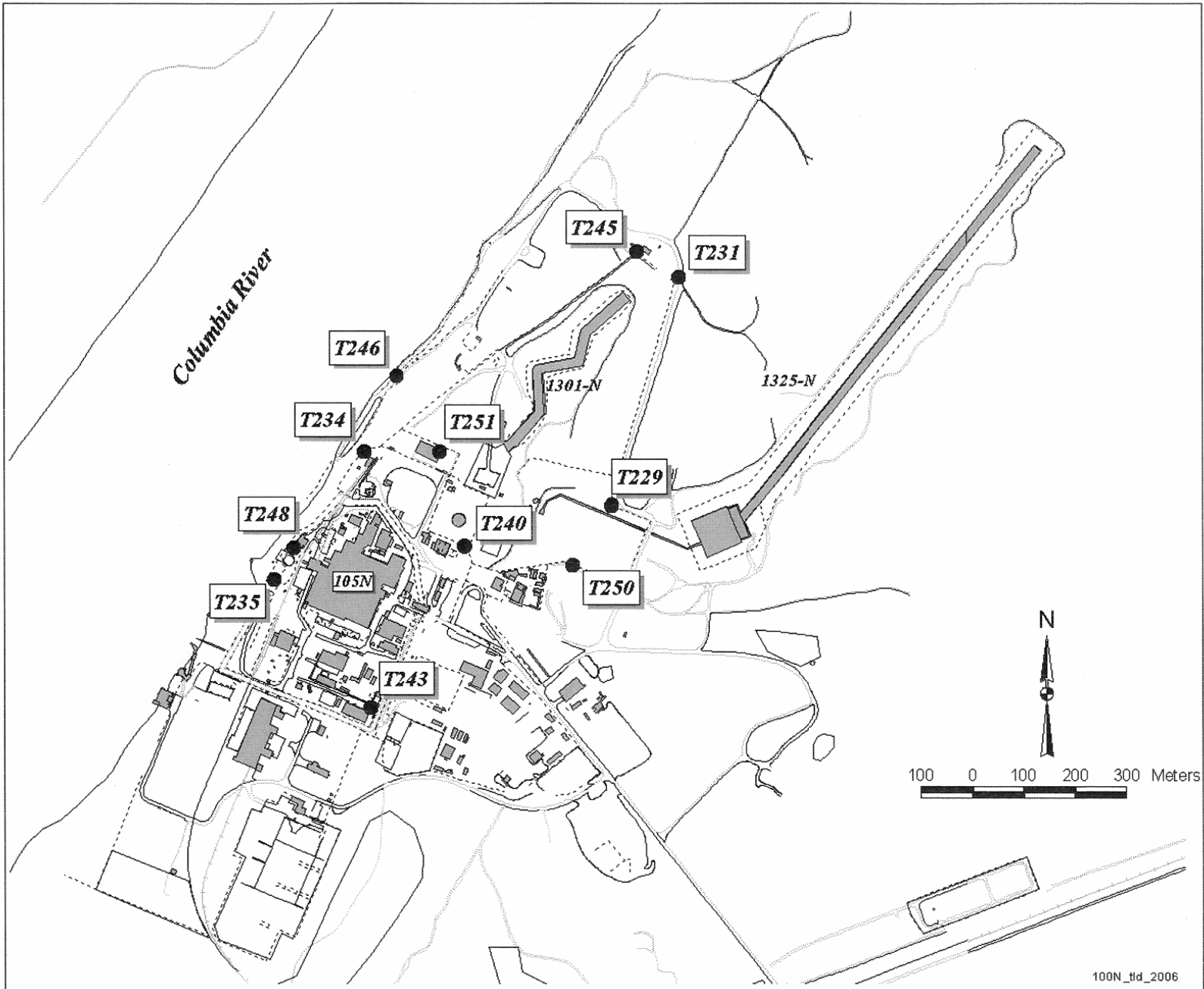


Figure 5-7. 100-N Area TLDD Locations.

100N\_tid\_2006

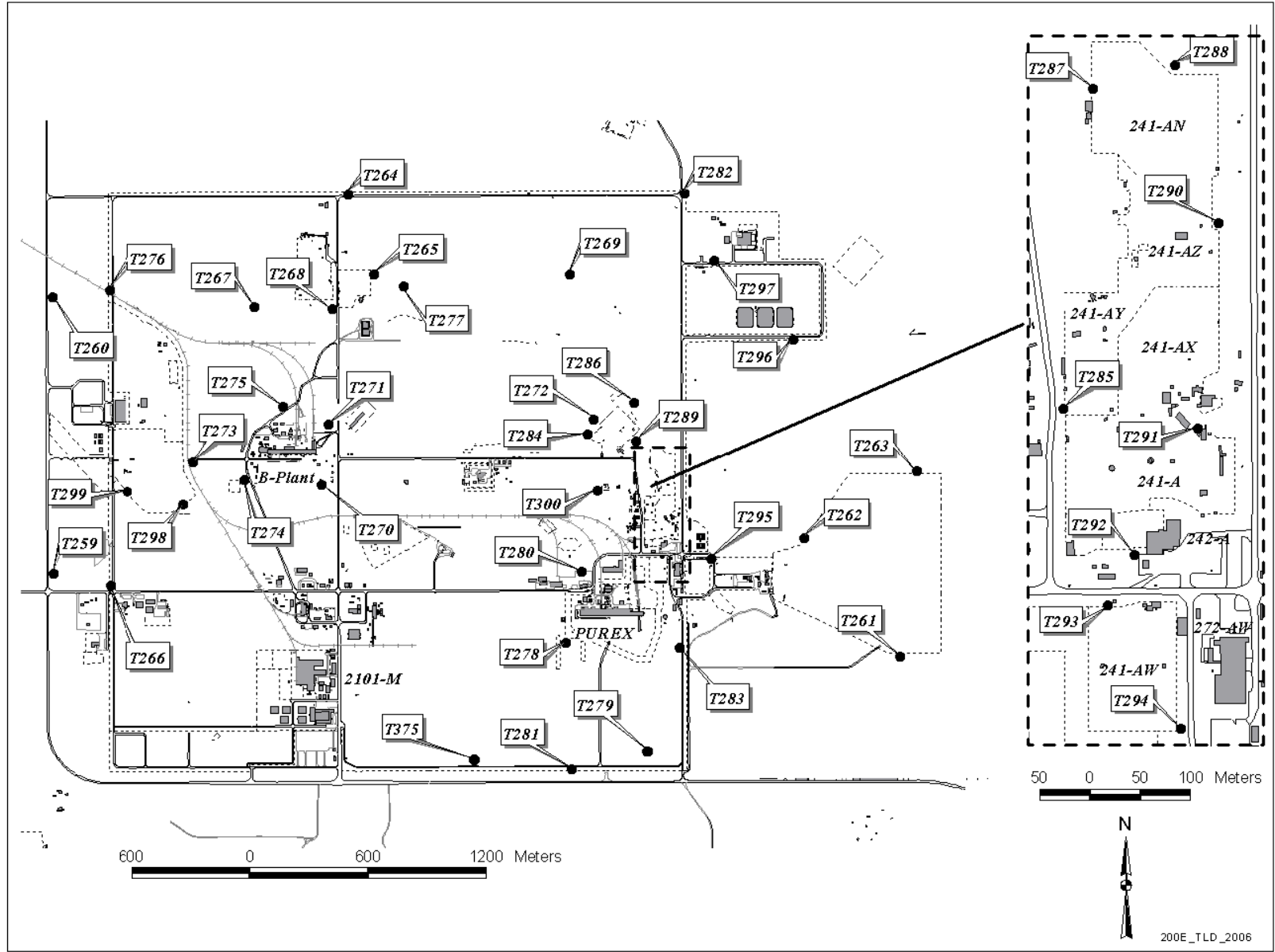


Figure 5-8. 200 East Area TLD Locations.

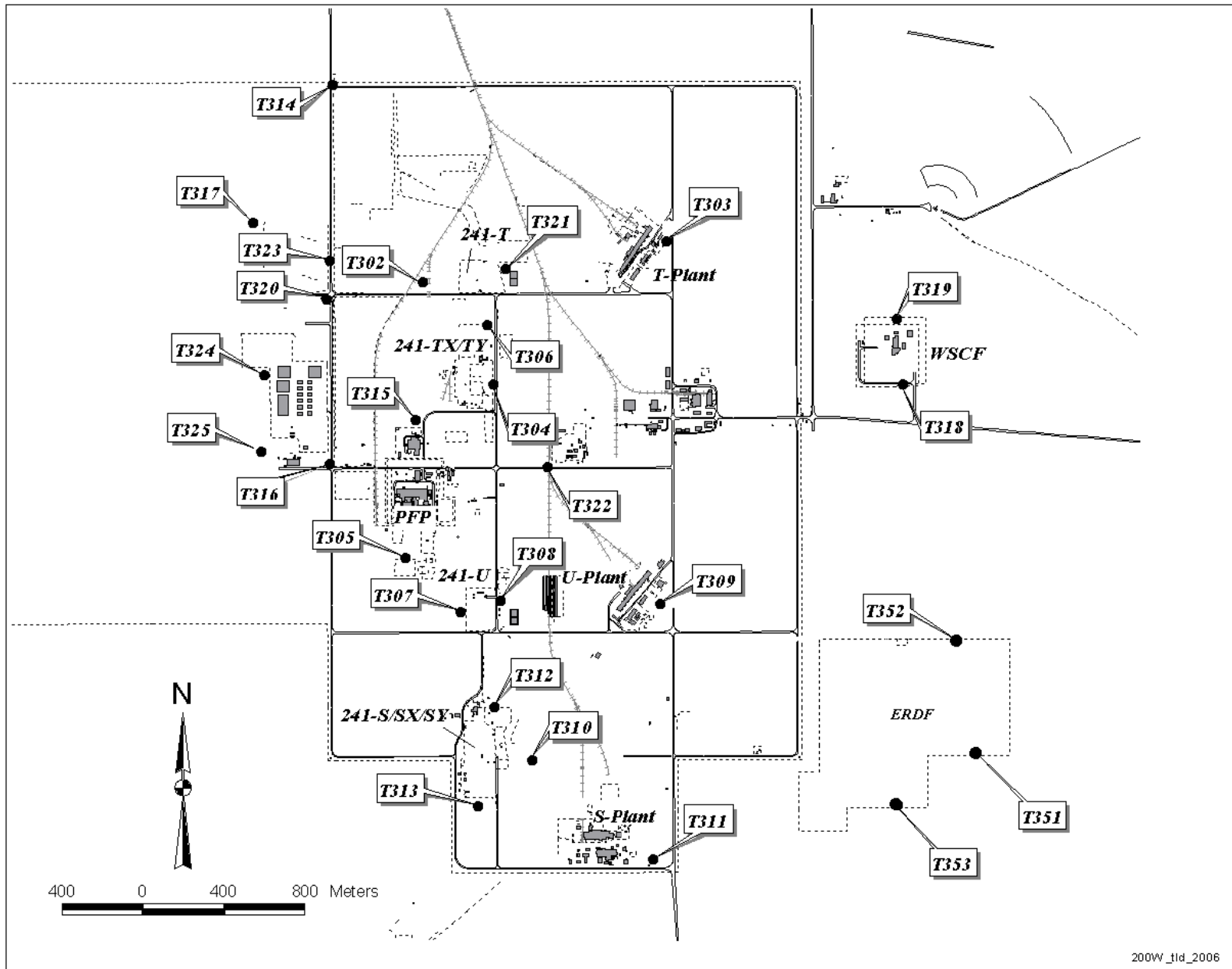


Figure 5-9. 200 West Area TLD Locations.



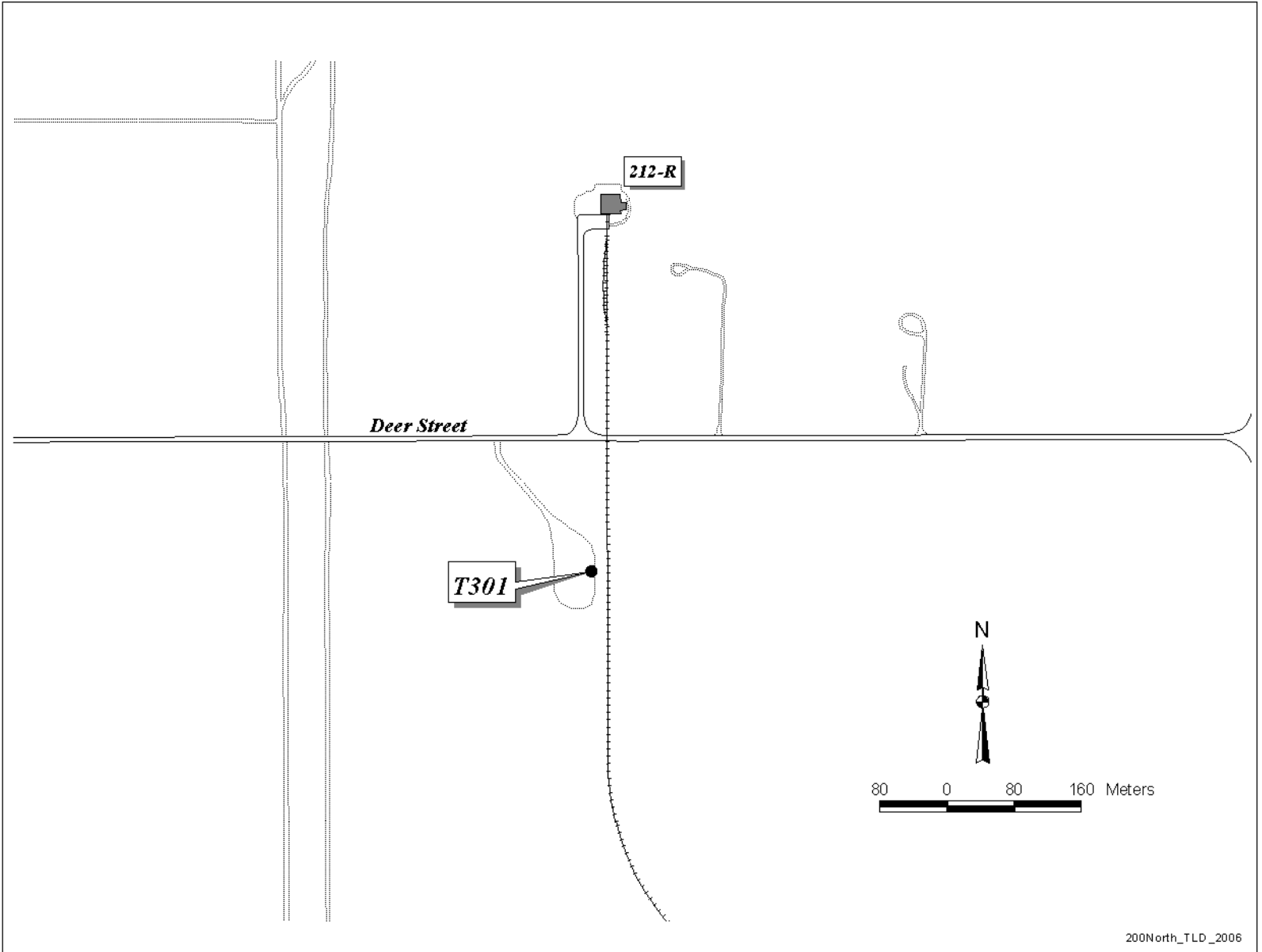


Figure 5-10. 200 North Area TLD Location.

200North\_TLD\_2006

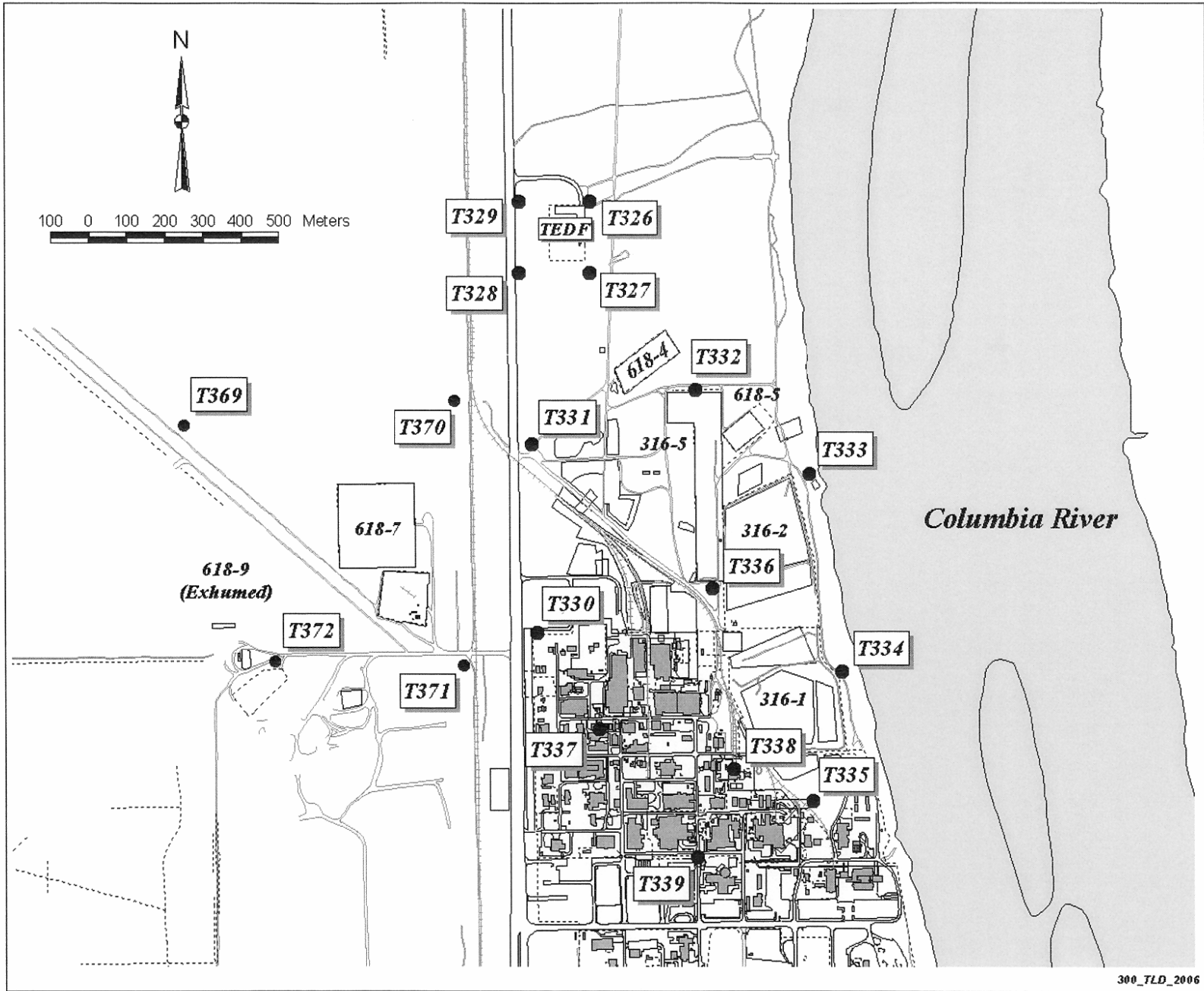


Figure 5-11. 300 Area Treated Effluent Disposal Facility and 300 Area TLTD Locations.

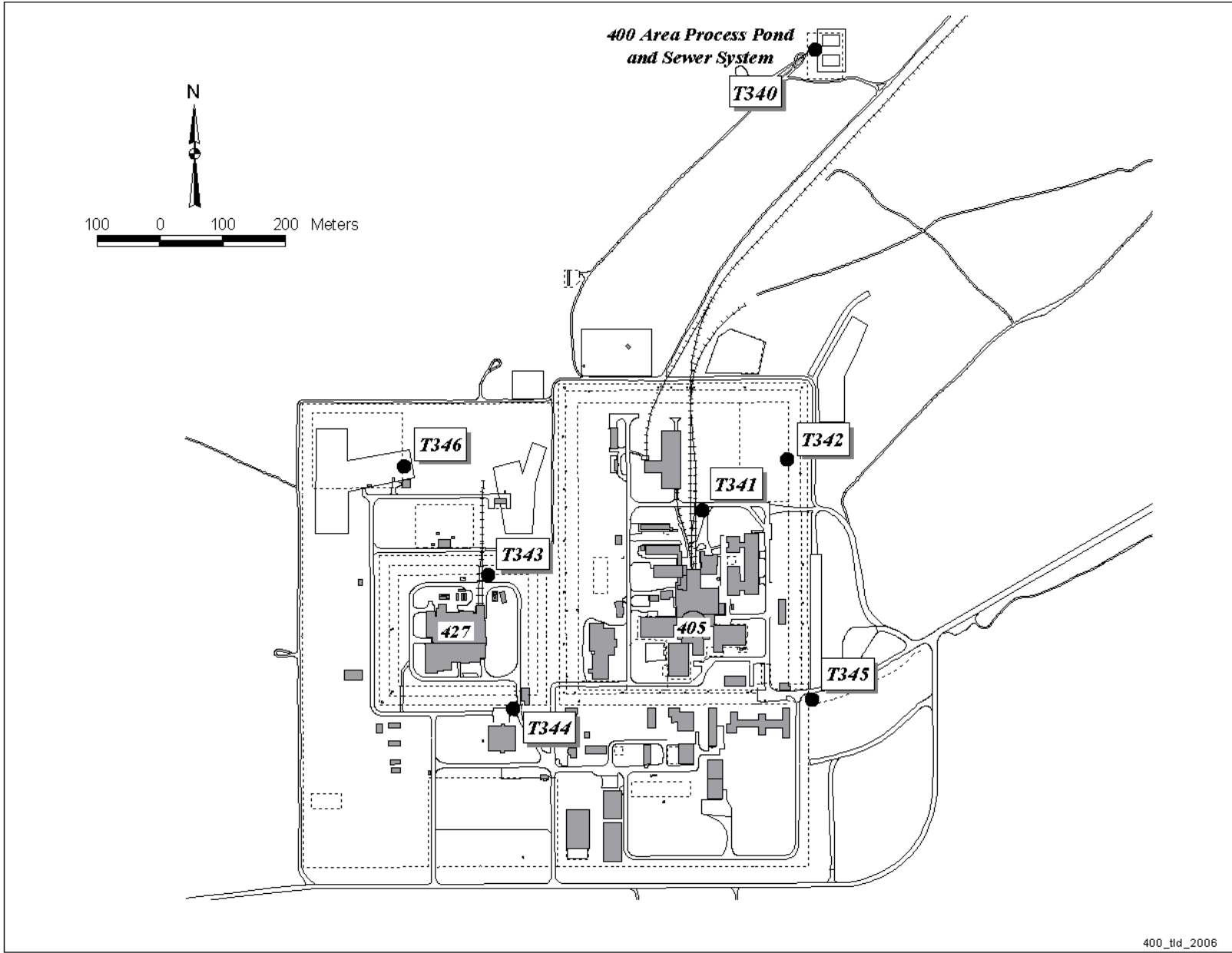


Figure 5-12. 400 Area TLD Locations.

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
100 B/C Field Remediation project	T200	1st Quarter '06	0.010	0.24	26.6	89	109
	T201		0.009	0.21	23.1	78	109
	T202		0.009	0.22	24.1	81	109
	T203		0.009	0.22	24.5	82	109
	T200	2nd Quarter '06	0.010	0.23	18.1	85	78
	T201		0.009	0.22	16.9	79	78
	T202		0.009	0.23	17.6	83	78
	T203		0.009	0.21	16.1	76	78
	T200	3rd Quarter '06	0.010	0.25	23.1	91	93
	T201		0.009	0.22	20.8	82	93
	T202		0.009	0.22	20.1	79	93
	T203		0.009	0.22	20.7	81	93
	T200	4th Quarter '06	0.011	0.26	23.9	96	91
	T201		0.010	0.25	22.7	91	91
	T202		0.010	0.24	21.5	86	91
	T203		0.010	0.23	21.3	85	91

100-B/C, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T200	0.010 $\pm$ 0.001	0.25 $\pm$ 0.02	22.5 $\pm$ 2.3	90 $\pm$ 9
T201	0.009 $\pm$ 0.001	0.23 $\pm$ 0.03	20.6 $\pm$ 3.0	82 $\pm$ 12
T202	0.009 $\pm$ 0.001	0.22 $\pm$ 0.02	20.5 $\pm$ 1.6	82 $\pm$ 6
T203	0.009 $\pm$ 0.001	0.22 $\pm$ 0.02	20.3 $\pm$ 2.0	81 $\pm$ 8

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
100 K Area	T218	1st Quarter '06	0.009	0.21	22.4	75	109
	T219		0.045	1.08	118	395	109
	T220		0.312	7.48	815	2730	109
	T221		0.234	5.61	612	2049	109
	T222		0.388	9.31	1015	3399	109
	T223		0.033	0.78	85.5	286	109
	T224		0.013	0.30	33.1	111	109
	T225		0.019	0.46	49.7	167	109
	T226		0.012	0.28	30.6	103	109
	T227		0.075	1.80	196	656	109
	T228		0.037	0.89	97.0	325	109
	T218	2nd Quarter '06	0.019	0.45	35.9	166	79
	T219		0.112	2.68	212	980	79
	T220		0.737	17.68	1396	6455	79
	T221		0.254	6.11	482	2229	79
	T222		0.022	0.54	42.3	196	79
	T223		0.016	0.39	30.4	141	79
	T224		0.010	0.24	18.6	86	79
	T225		0.020	0.48	37.8	175	79
	T226		0.011	0.26	20.6	95	79
T227		0.028	0.67	52.9	245	79	
T228		0.014	0.33	26.4	122	79	
T376		0.009	0.22	17.4	80	79	
T377		0.008	0.19	15.1	70	79	
T378		0.012	0.28	22.1	102	79	

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
100 K Area	3rd Quarter '06	T218	0.022	0.53	48.9	194	92
		T219	0.072	1.74	160	634	92
		T220	0.032	0.77	70.4	279	92
		T221	0.038	0.90	83.0	329	92
		T222	0.017	0.42	38.3	152	92
		T223	0.012	0.30	27.2	108	92
		T224	0.011	0.26	23.6	94	92
		T225	0.021	0.49	45.3	180	92
		T226	0.013	0.31	28.7	114	92
		T227	0.022	0.52	48.1	191	92
		T228	0.011	0.27	24.9	99	92
		T376	0.009	0.21	19.3	76	93
		T377	0.009	0.22	20.2	79	93
		T378	0.011	0.26	24.3	96	92
	4th Quarter '06	T218	0.018	0.44	39.8	160	91
		T219	0.066	1.58	144	576	91
		T220	0.030	0.72	65.3	262	91
		T221	0.032	0.77	70.5	283	91
		T222	0.018	0.43	39.0	156	91
		T223	0.012	0.29	26.2	105	91
		T224	0.011	0.26	23.4	94	91
		T225	0.020	0.49	44.6	179	91
		T226	0.012	0.28	25.6	103	91
		T227	0.022	0.52	47.3	190	91
		T228	0.013	0.31	28.5	115	91
		T376	0.010	0.23	20.6	83	90
		T377	0.009	0.22	20.2	82	90
		T378	0.020	0.47	43.1	173	91

100-K Area, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T218	0.017 ± 0.012	0.40 ± 0.28	36.1 ± 25.7	145 ± 103
T219	0.071 ± 0.056	1.71 ± 1.34	1568 ± 122.3	623 ± 489
T220	0.264 ± 0.667	6.33 ± 16.01	577 ± 1461.1	2309 ± 5844
T221	0.140 ± 0.242	3.36 ± 5.81	307 ± 530.5	1227 ± 2122
T222	0.127 ± 0.369	3.06 ± 8.85	279 ± 807.9	1116 ± 3232
T223	0.019 ± 0.020	0.46 ± 0.47	41.6 ± 42.9	166 ± 171
T224	0.011 ± 0.002	0.27 ± 0.06	24.3 ± 5.2	97 ± 21
T225	0.020 ± 0.001	0.48 ± 0.03	43.6 ± 3.0	174 ± 12
T226	0.012 ± 0.002	0.28 ± 0.04	26.0 ± 3.9	104 ± 15
T227	0.039 ± 0.051	0.93 ± 1.24	84.7 ± 112.7	339 ± 451
T228	0.020 ± 0.024	0.48 ± 0.59	43.5 ± 53.5	174 ± 214
T376	0.009 ± 0.001	0.22 ± 0.02	19.9 ± 1.9	80 ± 8
T377	0.009 ± 0.001	0.21 ± 0.04	19.3 ± 3.2	77 ± 13
T378	0.014 ± 0.010	0.34 ± 0.23	31.2 ± 21.2	125 ± 85

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
CVDF (100 K Area)	T347	0.089	2.14	233	781	109
	T348	0.068	1.63	178	595	109
	T349	0.020	0.48	52.5	176	109
	T350	0.026	0.62	67.5	226	109
	T347	0.149	3.58	283	1307	79
	T348	0.063	1.50	118	547	79
	T349	0.024	0.57	45.0	208	79
	T350	0.037	0.89	70.3	325	79
	T347	0.039	0.93	85.5	339	92
	T348	0.014	0.34	31.6	125	92
	T349	0.011	0.26	23.8	94	92
	T350	0.012	0.30	27.2	108	92
	T347	0.035	0.83	75.5	303	91
	T348	0.014	0.33	29.8	120	91
	T349	0.010	0.24	22.0	88	91
	T350	0.012	0.29	26.1	105	91

CVDF, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T347	0.076 $\pm$ 0.107	1.82 $\pm$ 2.57	166.5 $\pm$ 234.9	666 $\pm$ 939
T348	0.040 $\pm$ 0.059	0.96 $\pm$ 1.42	87.9 $\pm$ 129.9	352 $\pm$ 519
T349	0.016 $\pm$ 0.014	0.39 $\pm$ 0.33	35.2 $\pm$ 29.8	141 $\pm$ 119
T350	0.021 $\pm$ 0.024	0.51 $\pm$ 0.58	47.0 $\pm$ 52.9	188 $\pm$ 211

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
100-KR-1 Field Remediation project	T364	0.016	0.39	40.7	141	105
	T365	0.010	0.25	26.1	91	105
	T366	0.010	0.25	25.8	90	105
	T367	0.010	0.25	26.2	91	105
	T368	0.012	0.28	29.6	103	105
	T364	0.012	0.28	21.9	101	79
	T365	0.009	0.22	17.5	81	79
	T366	0.011	0.26	20.6	95	79
	T367	0.011	0.26	20.4	94	79
	T368	0.011	0.27	21.3	98	79
	T364	0.011	0.26	23.9	94	93
	T365	0.009	0.22	20.8	82	93
	T366	0.011	0.26	24.2	95	93
	T367	0.011	0.26	23.8	94	93
	T368	0.011	0.27	25.2	99	93
	T364	0.011	0.26	23.2	94	90
	T365	0.010	0.24	21.9	89	90
	T366	0.012	0.29	26.3	107	90
	T367	0.012	0.28	25.1	102	90
	T368	0.012	0.29	26.2	106	90

100-KR-1, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T364	0.012 $\pm$ 0.005	0.30 $\pm$ 0.12	27.3 $\pm$ 11.4	109 $\pm$ 46
T365	0.010 $\pm$ 0.001	0.24 $\pm$ 0.03	21.5 $\pm$ 2.5	86 $\pm$ 10
T366	0.011 $\pm$ 0.002	0.26 $\pm$ 0.04	24.1 $\pm$ 3.6	96 $\pm$ 14
T367	0.011 $\pm$ 0.001	0.26 $\pm$ 0.03	23.8 $\pm$ 2.3	95 $\pm$ 9
T368	0.012 $\pm$ 0.001	0.28 $\pm$ 0.02	25.4 $\pm$ 1.8	102 $\pm$ 7

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
100 N Area	1st Quarter '06	T229	0.018	0.43	46.4	157	108
		T231	0.027	0.66	70.8	239	108
		T234	0.013	0.31	32.9	111	108
		T235	0.013	0.31	33.7	114	108
		T240	0.017	0.41	44.7	151	108
		T243	0.009	0.21	22.4	76	108
		T245	0.028	0.66	71.4	241	108
		T246	0.012	0.28	30.6	104	108
		T248	0.013	0.30	32.8	111	108
		T250	0.012	0.28	30.6	103	108
		T251	0.014	0.34	35.4	123	105
	2nd Quarter '06	T229	0.013	0.32	24.9	115	79
		T231	0.018	0.44	34.5	159	79
		T234	0.011	0.27	21.4	99	79
		T235	0.013	0.30	23.9	111	79
		T240	0.015	0.36	28.5	132	79
		T243	0.013	0.31	24.3	112	79
		T245	0.018	0.44	34.6	160	79
		T246	0.010	0.23	18.3	84	79
		T248	0.012	0.29	23.0	106	79
		T250	0.010	0.25	19.5	90	79
		T251	0.010	0.25	19.4	90	79
	3rd Quarter '06	T229	0.010	0.23	21.8	85	93
		T231	0.013	0.32	29.8	117	93
		T234	0.010	0.25	23.1	91	93
		T235	0.011	0.27	25.3	99	93
		T240	0.014	0.33	30.3	119	93
		T243	0.014	0.33	30.8	122	92
		T245	0.011	0.27	25.4	100	93
		T246	0.009	0.22	20.7	81	93
		T248	0.011	0.27	25.5	100	93
		4th Quarter '06	T234	0.011	0.27	25.7	100
T235	0.011		0.27	25.4	98	94	
T240	0.015		0.35	33.1	128	94	
T243	0.010		0.23	22.2	85	95	
T246	0.010		0.23	21.6	84	94	
T248	0.012		0.28	26.1	101	94	

100-N, Annual Averages ± 2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T229	0.014 ± 0.008	0.33 ± 0.20	30.3 ± 18.0	121 ± 72
T231	0.020 ± 0.014	0.48 ± 0.34	44.0 ± 31.0	176 ± 124
T234	0.011 ± 0.002	0.28 ± 0.05	25.2 ± 4.2	101 ± 17
T235	0.012 ± 0.002	0.29 ± 0.04	26.4 ± 3.9	106 ± 16
T240	0.015 ± 0.003	0.37 ± 0.07	33.3 ± 6.8	133 ± 27
T243	0.011 ± 0.005	0.27 ± 0.12	24.3 ± 10.9	97 ± 44
T245	0.020 ± 0.016	0.47 ± 0.39	42.8 ± 35.5	171 ± 142
T246	0.010 ± 0.002	0.24 ± 0.06	22.3 ± 5.2	89 ± 21
T248	0.012 ± 0.001	0.29 ± 0.03	26.2 ± 2.5	105 ± 10
T250	0.011 ± 0.002	0.27 ± 0.05	24.4 ± 4.7	98 ± 19
T251	0.012 ± 0.005	0.30 ± 0.13	27.2 ± 11.8	109 ± 47

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	T259	0.009	0.22	23.1	80	105
	T260	0.009	0.22	23.1	80	105
	T261	0.010	0.23	23.9	84	104
	T262	0.009	0.22	23.1	81	104
	T263	0.009	0.22	23.0	81	104
	T264	0.012	0.28	29.0	101	105
	T265	0.012	0.28	29.1	101	105
	T266	0.009	0.22	23.1	80	105
	T267	0.010	0.24	25.7	89	105
	T268	0.012	0.28	29.8	104	105
	T269	0.010	0.24	24.9	87	104
	T270	0.014	0.33	34.7	121	105
	T271	0.010	0.24	24.8	86	105
	T272	0.012	0.29	30.0	104	105
	T273	0.009	0.22	23.5	82	105
	T274	0.010	0.24	24.9	87	105
	T275	0.009	0.23	23.7	82	105
	T276	0.009	0.21	21.9	76	105
	T277	0.010	0.25	26.3	91	105
	T278	0.010	0.23	24.0	84	104
	T279	0.010	0.23	23.8	84	104
	T280	0.009	0.22	23.2	81	105
	T281	0.010	0.23	23.8	84	104
	T282	0.009	0.22	23.5	82	105
	T283	0.009	0.22	22.7	80	104
	T284	0.012	0.29	30.5	106	105
	T285	0.022	0.52	54.1	188	105
	T286	0.016	0.38	39.8	139	105
	T287	0.035	0.84	86.9	305	104
	T288	0.021	0.49	51.1	179	104
T289	0.017	0.41	42.3	148	104	
T290	0.013	0.30	31.6	111	104	
T291	0.018	0.43	45.2	157	105	
T292	0.027	0.65	68.5	238	105	
T293	0.012	0.29	30.6	106	105	
T294	0.019	0.45	46.8	164	104	
T295	0.011	0.25	26.5	92	105	
T296	0.010	0.23	24.2	84	105	
T297	0.009	0.22	23.3	81	105	
T298	0.009	0.21	22.5	78	105	
T299	0.009	0.22	23.5	82	105	
T300	0.010	0.25	26.2	91	105	



Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
<b>200 East</b>	T259	0.010	0.24	20.1	86	85
<b>Area</b>	T260	0.010	0.23	19.3	83	85
	T261	0.010	0.23	20.9	85	90
	T262	0.010	0.24	21.7	88	90
	T263	0.009	0.22	20.0	81	90
	T264	0.013	0.30	25.4	109	85
	T265	0.012	0.29	25.0	108	85
	T266	0.010	0.23	19.9	86	85
	T267	0.010	0.24	20.4	88	85
	T268	0.013	0.32	26.9	115	85
	T269	0.010	0.25	22.5	90	91
	T270	0.014	0.35	29.3	126	85
	T271	0.010	0.25	21.2	91	85
	T272	0.012	0.28	25.5	103	90
	T273	0.009	0.23	19.1	82	85
	T274	0.010	0.24	20.3	87	85
	T275	0.010	0.24	20.6	89	85
	T276	0.009	0.21	18.2	78	85
	T277	0.010	0.23	19.8	85	85
	T278	0.010	0.24	20.1	87	85
	T279	0.009	0.22	18.7	80	85
	T280	0.011	0.26	21.8	94	85
	T281	0.010	0.23	19.8	85	85
	T282	0.009	0.22	20.2	82	90
	T283	0.010	0.24	20.0	86	85
	T284	0.012	0.28	25.6	104	90
	T285	0.021	0.51	45.5	185	90
	T286	0.016	0.38	34.0	138	90
	T287	0.025	0.61	54.8	223	90
	T288	0.019	0.47	41.8	170	90
	T289	0.018	0.42	38.1	155	90
	T290	0.013	0.31	28.2	115	90
	T291	0.018	0.44	39.7	161	90
	T292	0.025	0.60	54.0	219	90
	T293	0.012	0.30	26.6	108	90
	T294	0.019	0.47	41.9	170	90
	T295	0.009	0.22	18.8	81	85
	T296	0.010	0.23	20.9	85	90
	T297	0.009	0.22	19.9	81	90
	T298	0.009	0.21	17.9	77	85
	T299	0.010	0.23	19.9	85	85
	T300	0.010	0.23	21.1	86	90

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	T259	0.010	0.23	21.2	84	92
	T260	0.010	0.23	21.4	85	92
	T261	0.010	0.24	20.6	86	87
	T262	0.009	0.23	19.6	82	87
	T263	0.010	0.24	20.8	87	87
	T264	0.012	0.28	26.1	104	92
	T265	0.012	0.29	26.8	107	92
	T266	0.010	0.24	22.3	89	92
	T267	0.011	0.25	23.4	93	92
	T268	0.012	0.30	27.5	109	92
	T269	0.011	0.25	21.7	92	86
	T270	0.014	0.33	30.1	119	92
	T271	0.010	0.25	22.8	91	92
	T272	0.012	0.29	25.5	107	87
	T273	0.010	0.23	21.0	83	92
	T274	0.011	0.25	23.4	93	92
	T275	0.010	0.25	22.7	90	92
	T276	0.009	0.22	20.0	79	92
	T277	0.011	0.25	23.3	92	92
	T278	0.009	0.23	20.8	83	92
	T279	0.010	0.24	21.6	86	92
	T280	0.009	0.22	20.5	81	92
	T281	0.010	0.23	21.5	86	92
	T282	0.010	0.23	20.4	86	87
	T283	0.009	0.23	20.8	83	92
	T284	0.013	0.31	27.4	115	87
	T285	0.032	0.77	66.9	281	87
	T286	0.017	0.41	35.5	149	87
	T287	0.024	0.57	49.9	210	87
	T288	0.021	0.49	43.5	180	88
T289	0.019	0.45	38.8	163	87	
T290	0.013	0.30	26.8	111	88	
T291	0.019	0.44	39.0	162	88	
T292	0.058	1.39	121	506	87	
T293	0.012	0.30	26.0	109	87	
T294	0.019	0.45	38.8	163	87	
T295	0.010	0.23	21.1	84	92	
T296	0.011	0.25	21.9	92	87	
T297	0.011	0.26	22.5	95	87	
T298	0.009	0.22	20.5	81	92	
T299	0.010	0.25	23.0	91	92	
T300	0.012	0.28	24.2	102	87	

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
200 East Area	T259	0.010	0.24	22.9	88	95
	T260	0.010	0.25	23.3	90	95
	T261	0.010	0.24	22.9	86	97
	T262	0.010	0.23	22.4	84	97
	T263	0.010	0.24	23.5	88	97
	T264		TLD not recoverable			
	T265	0.012	0.30	28.2	108	95
	T266	0.010	0.25	23.5	90	95
	T267	0.010	0.24	23.3	89	95
	T268	0.013	0.30	28.7	110	95
	T269	0.011	0.26	25.2	95	97
	T270	0.015	0.36	34.6	133	95
	T271	0.011	0.25	24.2	93	95
	T272	0.013	0.31	29.6	111	97
	T273	0.009	0.22	21.0	81	95
	T274	0.010	0.24	22.5	86	95
	T275	0.010	0.25	23.5	89	96
	T276	0.011	0.26	25.2	95	97
	T277	0.011	0.26	24.4	94	95
	T278	0.010	0.24	23.1	87	97
	T279	0.010	0.23	22.3	84	97
	T280	0.010	0.23	22.3	86	95
	T281	0.010	0.23	22.3	84	97
	T282	0.010	0.23	21.8	84	95
	T283	0.010	0.23	22.6	85	97
	T284	0.013	0.31	29.3	113	95
	T285	0.041	0.98	93.0	357	95
	T286	0.017	0.42	39.8	153	95
	T287	0.021	0.49	47.8	180	97
	T288	0.022	0.53	50.6	192	96
	T289	0.017	0.41	39.4	151	95
	T290	0.013	0.32	30.7	117	96
	T291	0.014	0.35	33.3	127	96
T292	0.046	1.11	108	406	97	
T293	0.013	0.30	29.5	111	97	
T294	0.018	0.44	42.3	159	97	
T295	0.010	0.24	23.6	89	97	
T296	0.010	0.24	22.9	88	95	
T297	0.010	0.25	23.7	91	95	
T298	0.009	0.23	21.5	83	95	
T299	0.010	0.25	23.5	90	95	
T300	0.012	0.29	27.1	104	95	

Table 5-2. 2006 TLD Results. (16 sheets total)

200 East Area, Annual Averages  $\pm$  2 Standard Deviations

	<b>mrem/hr</b>	<b>mrem/day</b>	<b>mrem/qtr</b>	<b>mrem/year</b>
T259	0.010 $\pm$ 0.001	0.23 $\pm$ 0.02	21.1 $\pm$ 1.6	84 $\pm$ 6
T260	0.010 $\pm$ 0.001	0.23 $\pm$ 0.02	21.1 $\pm$ 1.9	84 $\pm$ 8
T261	0.010 $\pm$ 0.000	0.23 $\pm$ 0.01	21.3 $\pm$ 0.5	85 $\pm$ 2
T262	0.010 $\pm$ 0.001	0.23 $\pm$ 0.02	21.0 $\pm$ 1.6	84 $\pm$ 6
T263	0.010 $\pm$ 0.001	0.23 $\pm$ 0.02	21.1 $\pm$ 2.0	84 $\pm$ 8
T264	0.012 $\pm$ 0.001	0.29 $\pm$ 0.02	26.1 $\pm$ 2.1	104 $\pm$ 8
T265	0.012 $\pm$ 0.001	0.29 $\pm$ 0.02	26.4 $\pm$ 1.6	106 $\pm$ 6
T266	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	21.5 $\pm$ 2.2	86 $\pm$ 9
T267	0.010 $\pm$ 0.000	0.25 $\pm$ 0.01	22.5 $\pm$ 1.1	90 $\pm$ 4
T268	0.012 $\pm$ 0.001	0.30 $\pm$ 0.03	27.3 $\pm$ 2.4	109 $\pm$ 10
T269	0.010 $\pm$ 0.001	0.25 $\pm$ 0.02	22.8 $\pm$ 1.6	91 $\pm$ 6
T270	0.014 $\pm$ 0.001	0.34 $\pm$ 0.03	31.2 $\pm$ 3.0	125 $\pm$ 12
T271	0.010 $\pm$ 0.001	0.25 $\pm$ 0.02	22.5 $\pm$ 1.4	90 $\pm$ 6
T272	0.012 $\pm$ 0.001	0.29 $\pm$ 0.02	26.6 $\pm$ 1.8	106 $\pm$ 7
T273	0.009 $\pm$ 0.000	0.22 $\pm$ 0.01	20.5 $\pm$ 0.6	82 $\pm$ 2
T274	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	22.1 $\pm$ 1.6	88 $\pm$ 6
T275	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	21.9 $\pm$ 1.8	87 $\pm$ 7
T276	0.009 $\pm$ 0.002	0.23 $\pm$ 0.05	20.5 $\pm$ 4.3	82 $\pm$ 17
T277	0.010 $\pm$ 0.001	0.25 $\pm$ 0.02	22.7 $\pm$ 1.9	91 $\pm$ 8
T278	0.010 $\pm$ 0.000	0.23 $\pm$ 0.01	21.3 $\pm$ 1.0	85 $\pm$ 4
T279	0.010 $\pm$ 0.001	0.23 $\pm$ 0.01	20.9 $\pm$ 1.1	83 $\pm$ 4
T280	0.010 $\pm$ 0.001	0.23 $\pm$ 0.03	21.3 $\pm$ 3.0	85 $\pm$ 12
T281	0.010 $\pm$ 0.000	0.23 $\pm$ 0.00	21.1 $\pm$ 0.4	84 $\pm$ 2
T282	0.009 $\pm$ 0.000	0.23 $\pm$ 0.01	20.8 $\pm$ 0.9	83 $\pm$ 4
T283	0.009 $\pm$ 0.001	0.23 $\pm$ 0.02	20.8 $\pm$ 1.4	83 $\pm$ 6
T284	0.012 $\pm$ 0.001	0.30 $\pm$ 0.03	27.3 $\pm$ 2.6	109 $\pm$ 10
T285	0.029 $\pm$ 0.019	0.69 $\pm$ 0.45	62.8 $\pm$ 41.3	251 $\pm$ 165
T286	0.016 $\pm$ 0.002	0.40 $\pm$ 0.04	36.1 $\pm$ 3.7	144 $\pm$ 15
T287	0.026 $\pm$ 0.012	0.63 $\pm$ 0.29	57.8 $\pm$ 26.8	231 $\pm$ 107
T288	0.021 $\pm$ 0.002	0.49 $\pm$ 0.05	45.1 $\pm$ 4.6	181 $\pm$ 18
T289	0.018 $\pm$ 0.001	0.42 $\pm$ 0.03	38.5 $\pm$ 3.1	154 $\pm$ 12
T290	0.013 $\pm$ 0.001	0.31 $\pm$ 0.02	28.3 $\pm$ 1.4	113 $\pm$ 6
T291	0.017 $\pm$ 0.004	0.41 $\pm$ 0.09	37.9 $\pm$ 8.4	151 $\pm$ 34
T292	0.039 $\pm$ 0.031	0.93 $\pm$ 0.75	84.5 $\pm$ 68.8	338 $\pm$ 275
T293	0.012 $\pm$ 0.000	0.30 $\pm$ 0.01	27.1 $\pm$ 1.0	108 $\pm$ 4
T294	0.019 $\pm$ 0.001	0.45 $\pm$ 0.02	41.0 $\pm$ 2.3	164 $\pm$ 9
T295	0.010 $\pm$ 0.001	0.24 $\pm$ 0.03	21.7 $\pm$ 2.5	87 $\pm$ 10
T296	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	21.8 $\pm$ 1.8	87 $\pm$ 7
T297	0.010 $\pm$ 0.002	0.24 $\pm$ 0.04	21.7 $\pm$ 3.5	87 $\pm$ 14
T298	0.009 $\pm$ 0.001	0.22 $\pm$ 0.01	20.0 $\pm$ 1.3	80 $\pm$ 5
T299	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	21.8 $\pm$ 2.2	87 $\pm$ 9
T300	0.011 $\pm$ 0.002	0.26 $\pm$ 0.05	23.9 $\pm$ 4.4	95 $\pm$ 17

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field		
200 West Area	1st Quarter '06	T302	0.010	0.23	24.7	85	106	
		T303	0.013	0.32	34.2	118	106	
		T304	0.014	0.33	35.1	121	106	
		T305	0.010	0.24	25.8	89	106	
		T306	0.011	0.27	28.5	98	106	
		T307	0.011	0.26	27.0	94	105	
		T308	0.010	0.25	25.8	90	105	
		T309	0.010	0.23	23.8	83	105	
		T310	0.011	0.25	26.5	92	105	
		T311	0.010	0.23	24.3	85	105	
		T312	0.013	0.32	33.2	116	105	
		T313	0.019	0.45	47.4	165	105	
		T314	0.009	0.21	22.1	76	106	
		T315	0.009	0.22	23.6	81	106	
		T316	0.010	0.24	25.4	88	106	
		T317	0.010	0.24	25.0	86	106	
		T318	0.009	0.23	23.8	83	105	
		T319	0.009	0.23	23.8	83	105	
		T320	0.011	0.26	27.8	96	106	
		T321	0.011	0.27	28.6	99	106	
		T322	0.009	0.21	22.5	77	106	
	T323	0.011	0.26	27.7	95	106		
	T324	0.015	0.36	38.5	133	106		
	T325	0.011	0.26	27.9	96	106		
		2nd Quarter '06	T302	0.010	0.24	20.3	88	84
			T303	0.015	0.35	29.4	128	84
			T304	0.015	0.35	29.4	128	84
			T305	0.010	0.24	20.0	87	84
			T306	0.012	0.28	23.5	102	84
			T307	0.011	0.27	22.5	98	84
			T308	0.011	0.26	22.0	96	84
			T309	0.010	0.24	20.0	87	84
	T310		0.011	0.26	22.2	96	84	
	T311		0.010	0.23	19.5	85	84	
	T312		0.017	0.41	34.5	150	84	
	T313		0.019	0.46	38.9	167	85	
	T314		0.010	0.23	19.5	85	84	
	T315		0.010	0.24	20.2	88	84	
	T316		0.010	0.25	21.0	91	84	
	T317	0.010	0.23	19.6	85	84		
	T318	0.010	0.23	19.3	83	85		
	T319	0.010	0.23	19.5	84	85		
	T320	0.012	0.28	23.6	103	84		
	T321	0.011	0.27	22.9	99	84		
	T322	0.010	0.23	19.1	83	84		
	T323	0.012	0.28	23.8	103	84		
	T324	0.017	0.41	34.7	151	84		
	T325	0.012	0.28	23.8	103	84		

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field		
200 West Area	3rd Quarter '06	T302	0.011	0.26	24.1	96	92	
		T303	0.013	0.32	29.0	115	92	
		T304	0.015	0.35	32.6	129	92	
		T305	0.010	0.23	21.5	86	92	
		T306	0.012	0.29	26.9	107	92	
		T307	0.011	0.26	24.0	95	92	
		T308	0.011	0.26	23.9	95	92	
		T309	0.010	0.24	22.1	88	92	
		T310	0.011	0.27	24.7	98	92	
		T311	0.010	0.23	21.2	84	92	
		T312	0.014	0.33	30.8	122	92	
		T313	0.020	0.47	43.1	173	91	
		T314	0.010	0.23	21.0	83	92	
		T315	0.011	0.25	23.1	92	92	
		T316	0.011	0.25	23.1	92	92	
		T317	0.010	0.25	23.0	91	92	
		T318	0.009	0.22	20.5	81	92	
		T319	0.010	0.23	21.3	85	92	
		T320	0.012	0.28	26.2	104	92	
		T321	0.012	0.28	26.1	104	92	
		T322	0.010	0.24	21.9	87	92	
	T323	0.012	0.29	26.3	104	92		
	T324	0.030	0.72	66.6	264	92		
	T325	0.013	0.31	28.6	114	92		
		4th Quarter '06	T302	0.011	0.26	24.7	94	96
			T303	0.013	0.30	29.2	111	96
			T304	0.014	0.34	32.7	124	96
			T305	0.011	0.25	24.6	93	97
			T306	0.012	0.28	27.3	104	96
			T307	0.012	0.28	26.8	102	96
			T308	0.011	0.26	24.6	94	96
			T309	0.010	0.25	24.3	91	97
	T310		0.012	0.27	26.7	100	97	
	T311		0.009	0.22	21.2	80	97	
	T312		0.029	0.69	67.1	252	97	
	T313	0.020	0.48	46.5	175	97		
	T314	0.010	0.23	22.4	85	96		
	T315	0.010	0.25	24.2	91	97		
	T316	0.011	0.27	25.5	97	96		
	T317	0.011	0.26	24.7	94	96		
	T318	0.010	0.24	22.7	86	96		
	T319	0.010	0.23	22.3	85	96		
	T320	0.011	0.26	25.4	96	96		
	T321	0.011	0.27	26.5	100	97		
	T322	0.009	0.23	21.6	82	96		
	T323	0.013	0.30	28.9	110	96		
	T324	0.017	0.42	40.0	152	96		
	T325	0.013	0.30	29.2	111	96		

Table 5-2. 2006 TLD Results. (16 sheets total)

200 West Area, Annual Averages  $\pm$  2 Standard Deviations

	<b>mrem/hr</b>	<b>mrem/day</b>	<b>mrem/qtr</b>	<b>mrem/year</b>
T302	0.010 $\pm$ 0.001	0.25 $\pm$ 0.03	22.4 $\pm$ 2.7	89 $\pm$ 11
T303	0.013 $\pm$ 0.002	0.32 $\pm$ 0.04	29.4 $\pm$ 3.6	118 $\pm$ 14
T304	0.014 $\pm$ 0.001	0.34 $\pm$ 0.02	31.3 $\pm$ 1.9	125 $\pm$ 7
T305	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	22.1 $\pm$ 1.5	89 $\pm$ 6
T306	0.012 $\pm$ 0.001	0.28 $\pm$ 0.02	25.6 $\pm$ 1.8	102 $\pm$ 7
T307	0.011 $\pm$ 0.001	0.27 $\pm$ 0.02	24.3 $\pm$ 1.8	97 $\pm$ 7
T308	0.011 $\pm$ 0.001	0.26 $\pm$ 0.02	23.3 $\pm$ 1.4	93 $\pm$ 5
T309	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	21.8 $\pm$ 1.7	87 $\pm$ 7
T310	0.011 $\pm$ 0.001	0.26 $\pm$ 0.02	24.2 $\pm$ 1.7	97 $\pm$ 7
T311	0.009 $\pm$ 0.001	0.23 $\pm$ 0.01	20.8 $\pm$ 1.2	83 $\pm$ 5
T312	0.018 $\pm$ 0.014	0.44 $\pm$ 0.35	40.0 $\pm$ 31.7	160 $\pm$ 127
T313	0.019 $\pm$ 0.001	0.47 $\pm$ 0.03	42.5 $\pm$ 2.4	170 $\pm$ 9
T314	0.009 $\pm$ 0.001	0.22 $\pm$ 0.02	20.5 $\pm$ 2.1	82 $\pm$ 9
T315	0.010 $\pm$ 0.001	0.24 $\pm$ 0.03	22.0 $\pm$ 2.4	88 $\pm$ 9
T316	0.010 $\pm$ 0.001	0.25 $\pm$ 0.02	22.9 $\pm$ 1.9	92 $\pm$ 8
T317	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	22.3 $\pm$ 2.0	89 $\pm$ 8
T318	0.010 $\pm$ 0.000	0.23 $\pm$ 0.01	20.8 $\pm$ 1.0	83 $\pm$ 4
T319	0.010 $\pm$ 0.000	0.23 $\pm$ 0.01	21.0 $\pm$ 0.5	84 $\pm$ 2
T320	0.011 $\pm$ 0.001	0.27 $\pm$ 0.02	24.8 $\pm$ 2.1	99 $\pm$ 8
T321	0.011 $\pm$ 0.001	0.27 $\pm$ 0.01	25.1 $\pm$ 1.1	100 $\pm$ 4
T322	0.009 $\pm$ 0.001	0.23 $\pm$ 0.02	20.6 $\pm$ 2.0	82 $\pm$ 8
T323	0.012 $\pm$ 0.001	0.28 $\pm$ 0.03	25.7 $\pm$ 3.0	103 $\pm$ 12
T324	0.020 $\pm$ 0.014	0.48 $\pm$ 0.33	43.4 $\pm$ 30.0	174 $\pm$ 120
T325	0.012 $\pm$ 0.002	0.29 $\pm$ 0.04	26.4 $\pm$ 3.9	106 $\pm$ 16

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
300 Area	1st Quarter '06	T332	0.009	0.22	22.6	81	102
		T333	0.010	0.23	23.3	83	102
		T334	0.009	0.21	21.7	78	102
		T335	0.010	0.24	24.0	86	102
		T336	0.010	0.23	23.2	83	102
		T337	0.009	0.22	22.6	81	102
		T338	0.012	0.29	29.5	106	102
	T339	0.011	0.26	26.8	96	102	
	2nd Quarter '06	T332	0.009	0.21	16.6	78	78
		T333	0.010	0.23	18.1	85	78
		T334	0.009	0.20	15.8	74	78
		T335	0.009	0.22	17.5	82	78
		T336	0.008	0.20	15.7	74	78
		T337	0.027	0.65	50.9	238	78
		T338	0.011	0.26	20.4	95	78
	T339	0.010	0.25	19.5	92	78	
	3rd Quarter '06	T332	0.009	0.23	22.2	83	98
		T333	0.010	0.25	24.4	91	98
		T334	0.009	0.23	22.1	82	98
		T335	0.010	0.23	22.5	84	98
		T336	0.011	0.26	25.2	94	98
		T337	0.009	0.22	21.8	81	98
		T338	0.012	0.29	28.2	105	98
	T339	0.011	0.26	25.8	96	98	
	4th Quarter '06	T332	0.010	0.23	21.3	85	92
		T333	0.010	0.23	21.3	84	92
		T334	0.010	0.23	20.9	83	92
		T335	0.010	0.24	21.6	86	92
		T336	0.010	0.24	21.9	87	92
		T337	0.009	0.21	19.6	78	92
		T338	0.013	0.31	28.5	113	92
	T339	0.011	0.26	23.8	95	92	

300 Area, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T332	0.009 $\pm$ 0.001	0.22 $\pm$ 0.02	20.4 $\pm$ 1.5	82 $\pm$ 6
T333	0.010 $\pm$ 0.001	0.24 $\pm$ 0.02	21.5 $\pm$ 1.7	86 $\pm$ 7
T334	0.009 $\pm$ 0.001	0.22 $\pm$ 0.02	19.9 $\pm$ 2.0	79 $\pm$ 8
T335	0.010 $\pm$ 0.000	0.23 $\pm$ 0.01	21.1 $\pm$ 1.0	84 $\pm$ 4
T336	0.010 $\pm$ 0.002	0.23 $\pm$ 0.05	21.2 $\pm$ 4.3	85 $\pm$ 17
T337	0.013 $\pm$ 0.018	0.31 $\pm$ 0.43	28.3 $\pm$ 39.6	113 $\pm$ 158
T338	0.012 $\pm$ 0.002	0.29 $\pm$ 0.04	26.3 $\pm$ 3.6	105 $\pm$ 14
T339	0.011 $\pm$ 0.000	0.26 $\pm$ 0.01	23.7 $\pm$ 1.0	95 $\pm$ 4



Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
300 TEDF	1st Quarter '06	T326	0.009	0.22	22.8	82	102
		T327	0.009	0.22	22.7	81	102
		T328	0.010	0.23	23.4	84	102
		T329	0.009	0.22	22.8	82	102
		T330	0.009	0.22	22.5	81	102
		T331	0.009	0.22	22.2	80	102
	2nd Quarter '06	T326	0.009	0.21	16.4	77	78
		T327	0.009	0.21	16.4	77	78
		T328	0.009	0.22	16.9	79	78
		T329	0.009	0.21	16.1	76	78
		T330	0.009	0.21	16.6	78	78
		T331	0.009	0.22	16.9	79	78
	3rd Quarter '06	T326	0.010	0.24	23.4	87	98
		T327	0.010	0.23	22.8	85	98
		T328	0.010	0.25	24.1	90	98
		T329	0.010	0.23	22.5	84	98
		T330	0.010	0.23	22.5	84	98
		T331	0.010	0.25	24.4	91	98
	4th Quarter '06	T326	0.010	0.25	22.6	90	92
		T327	0.010	0.24	22.5	89	92
T328		0.011	0.26	24.3	96	92	
T329		0.011	0.25	23.1	92	92	
T330		0.009	0.22	20.6	82	92	
T331		0.010	0.24	22.0	87	92	

300 TEDF, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T326	0.010 $\pm$ 0.001	0.23 $\pm$ 0.03	21.0 $\pm$ 2.9	84 $\pm$ 11
T327	0.010 $\pm$ 0.001	0.23 $\pm$ 0.03	20.8 $\pm$ 2.6	83 $\pm$ 10
T328	0.010 $\pm$ 0.002	0.24 $\pm$ 0.04	21.9 $\pm$ 3.8	87 $\pm$ 15
T329	0.010 $\pm$ 0.002	0.23 $\pm$ 0.04	20.9 $\pm$ 3.4	83 $\pm$ 13
T330	0.009 $\pm$ 0.001	0.22 $\pm$ 0.01	20.3 $\pm$ 1.2	81 $\pm$ 5
T331	0.010 $\pm$ 0.001	0.23 $\pm$ 0.03	21.1 $\pm$ 2.9	84 $\pm$ 11

Table 5-2. 2006 TLD Results. (16 sheets total)

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
300-FF-2 Field Remediation project (300 Area)	T369	0.010	0.24	21.9	87	92
	T370	0.009	0.23	20.9	82	93
	T371	0.010	0.25	23.0	90	93
	T372	0.011	0.26	23.8	93	93

300-FF-2, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T369	0.010 $\pm$ 0.000	0.24 $\pm$ 0.00	21.7 $\pm$ 0.0	87 $\pm$ 0
T370	0.009 $\pm$ 0.000	0.22 $\pm$ 0.00	20.5 $\pm$ 0.0	82 $\pm$ 0
T371	0.010 $\pm$ 0.000	0.25 $\pm$ 0.00	22.5 $\pm$ 0.0	90 $\pm$ 0
T372	0.011 $\pm$ 0.000	0.26 $\pm$ 0.00	23.4 $\pm$ 0.0	93 $\pm$ 0

Location	Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field	
400 Area	1st Quarter '06	T340	0.009	0.23	23.3	83	103
		T341	0.009	0.22	22.0	79	102
		T342	0.009	0.22	22.6	80	103
		T343	0.010	0.23	23.4	83	103
		T344	0.009	0.21	22.0	78	103
		T345	0.009	0.22	22.6	80	103
		T346	0.009	0.21	21.9	78	103
	2nd Quarter '06	T340	0.009	0.22	16.9	79	78
		T341	0.009	0.20	15.9	75	78
		T342	0.008	0.20	15.7	74	78
		T343	0.009	0.20	15.9	75	78
		T344	0.009	0.20	15.8	74	78
		T345	0.008	0.20	15.6	73	78
		T346	0.008	0.20	15.5	73	78
	3rd Quarter '06	T340	0.010	0.24	23.5	89	97
		T341	0.010	0.23	22.5	85	97
		T342	0.010	0.23	22.3	84	97
		T343	0.010	0.24	23.0	87	97
		T344	0.009	0.22	21.4	81	97
		T345	0.009	0.22	21.1	79	97
		T346	0.009	0.22	21.3	80	97
	4th Quarter '06	T340	0.010	0.24	22.5	89	93
		T341	0.011	0.27	25.0	98	93
		T342	0.009	0.22	20.4	80	93
		T343	0.009	0.22	20.6	81	93
		T344	0.009	0.22	20.3	80	93
		T345	0.011	0.25	23.7	93	93
		T346	0.010	0.23	21.7	85	93

400 Area, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T340	0.010 $\pm$ 0.001	0.23 $\pm$ 0.03	21.2 $\pm$ 2.4	85 $\pm$ 9
T341	0.010 $\pm$ 0.002	0.23 $\pm$ 0.06	21.1 $\pm$ 5.1	84 $\pm$ 20
T342	0.009 $\pm$ 0.001	0.22 $\pm$ 0.02	19.9 $\pm$ 2.2	80 $\pm$ 9
T343	0.009 $\pm$ 0.001	0.22 $\pm$ 0.03	20.4 $\pm$ 2.5	82 $\pm$ 10
T344	0.009 $\pm$ 0.001	0.21 $\pm$ 0.02	19.6 $\pm$ 1.4	78 $\pm$ 6
T345	0.009 $\pm$ 0.002	0.22 $\pm$ 0.05	20.4 $\pm$ 4.2	82 $\pm$ 17
T346	0.009 $\pm$ 0.001	0.22 $\pm$ 0.03	19.8 $\pm$ 2.6	79 $\pm$ 10

Table 5-2. 2006 TLD Results. (16 sheets total)

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
ERDF (200 West Area)	T351	1st Quarter '06	0.010	0.23	24.1	85	104
	T352		0.009	0.22	22.6	79	104
	T353		0.010	0.23	23.9	84	104
	T351	2nd Quarter '06	0.009	0.22	19.9	80	91
	T352		0.009	0.21	19.4	78	91
	T353		0.009	0.22	20.3	82	91
	T351	3rd Quarter '06	0.010	0.25	22.2	90	90
	T352		0.010	0.23	21.1	85	90
	T353		0.010	0.23	20.9	85	90
	T351	4th Quarter '06	0.011	0.27	25.3	98	94
	T352		0.011	0.26	24.7	96	94
	T353		0.011	0.25	23.9	93	94

ERDF, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T351	$0.010 \pm 0.002$	$0.24 \pm 0.04$	$22.0 \pm 3.9$	$88 \pm 16$
T352	$0.010 \pm 0.002$	$0.23 \pm 0.04$	$21.1 \pm 4.1$	$84 \pm 16$
T353	$0.010 \pm 0.001$	$0.23 \pm 0.03$	$21.4 \pm 2.4$	$86 \pm 10$

Location		Sample Period	mrem/hr	mrem/day	mrem/qtr	mrem/year	Days in Field
IDF (200 East Area)	T375	1st Quarter '06	0.010	0.24	25.2	89	104
	T375	2nd Quarter '06	0.010	0.24	20.2	87	85
	T375	3rd Quarter '06	0.011	0.25	23.6	93	93
	T375	4th Quarter '06	0.010	0.25	24.2	91	97

IDF, Annual Averages  $\pm$  2 Standard Deviations

	mrem/hr	mrem/day	mrem/qtr	mrem/year
T375	$0.010 \pm 0.001$	$0.25 \pm 0.01$	$22.4 \pm 1.3$	$90 \pm 5$

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## 6.0 RADIOLOGICAL SURVEYS

In 2006, there were approximately 3,583 ha (8,853 acres) of posted outdoor contamination areas and 600 ha (1,482 acres) of posted underground radioactive materials areas at the Hanford Site. During 2006, five small areas totaling less than 0.4 ha (1 acre) were reclassified from contamination/soil contamination areas to underground radioactive materials areas, and several waste sites in the 100 Areas (11 ha [27 acres]) and one waste site in the 300 Area (2 ha [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 2006.

Table 6-1. Waste Sites Remediated and Released From Posting During 2006.

<b>Area</b>	<b>Waste Site</b>	<b>Area</b>	<b>Waste Site</b>
<b>100-B/C</b>	118-B-6	<b>100-H</b>	100-H-9
			100-H-10
<b>100-D</b>	132-D-2		100-H-11
	132-D-3		100-H-12
			100-H-13
<b>100-F</b>	141-C		100-H-14
	100-F-31		132-H-2
	100-F-33		
	100-F-43	<b>100-K</b>	116-K-2
	116-F-8		
	116-F-16		
	118-F-3	<b>300</b>	600-259
	118-F-7		618-2
	126-F-2		618-3
	128-F-3		618-8
	132-F-1		

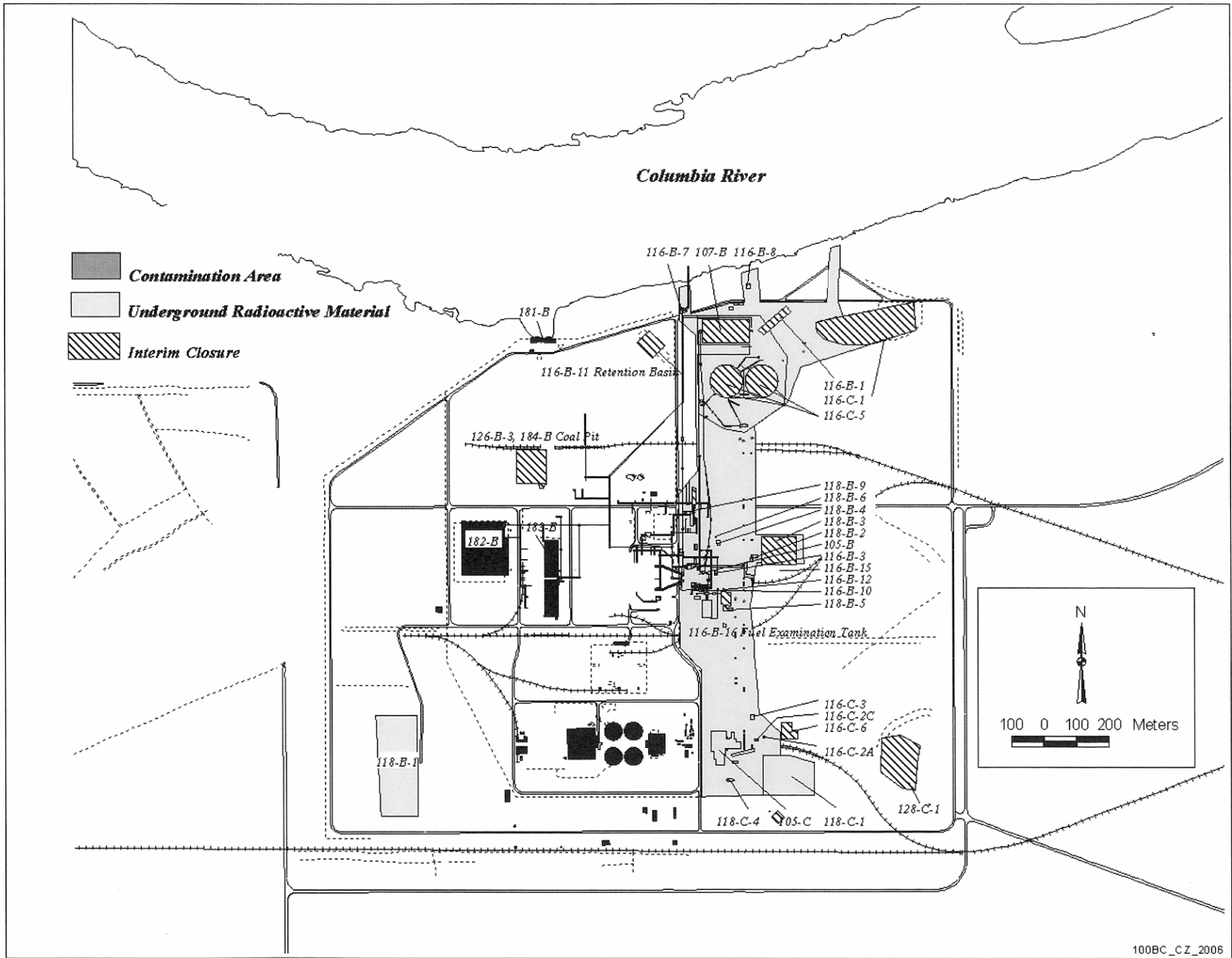


Figure 6-1. 2006 Radiological Survey Locations, 100-B/C Area.

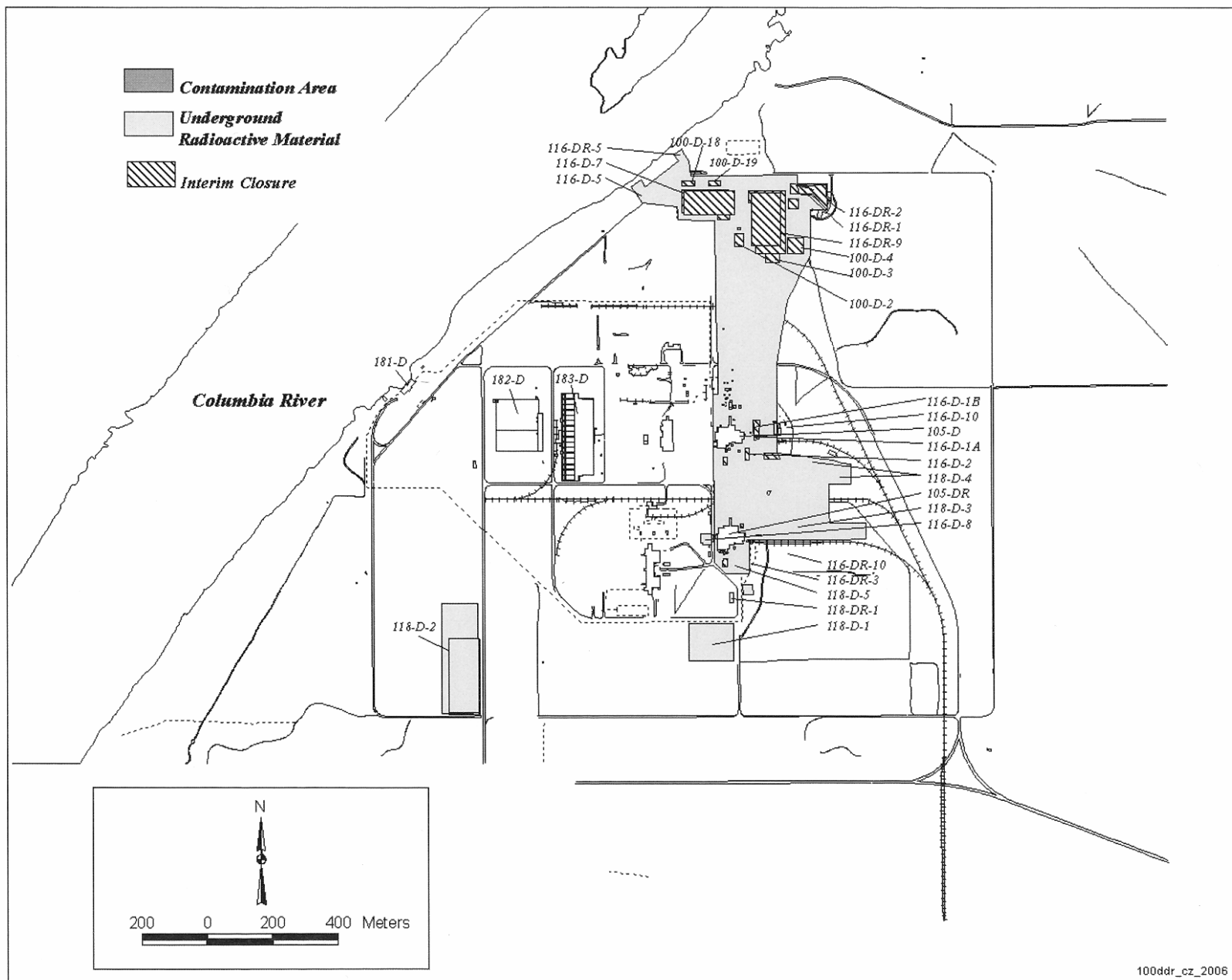


Figure 6-2. 2006 Radiological Survey Locations, 100-D/DR Area.

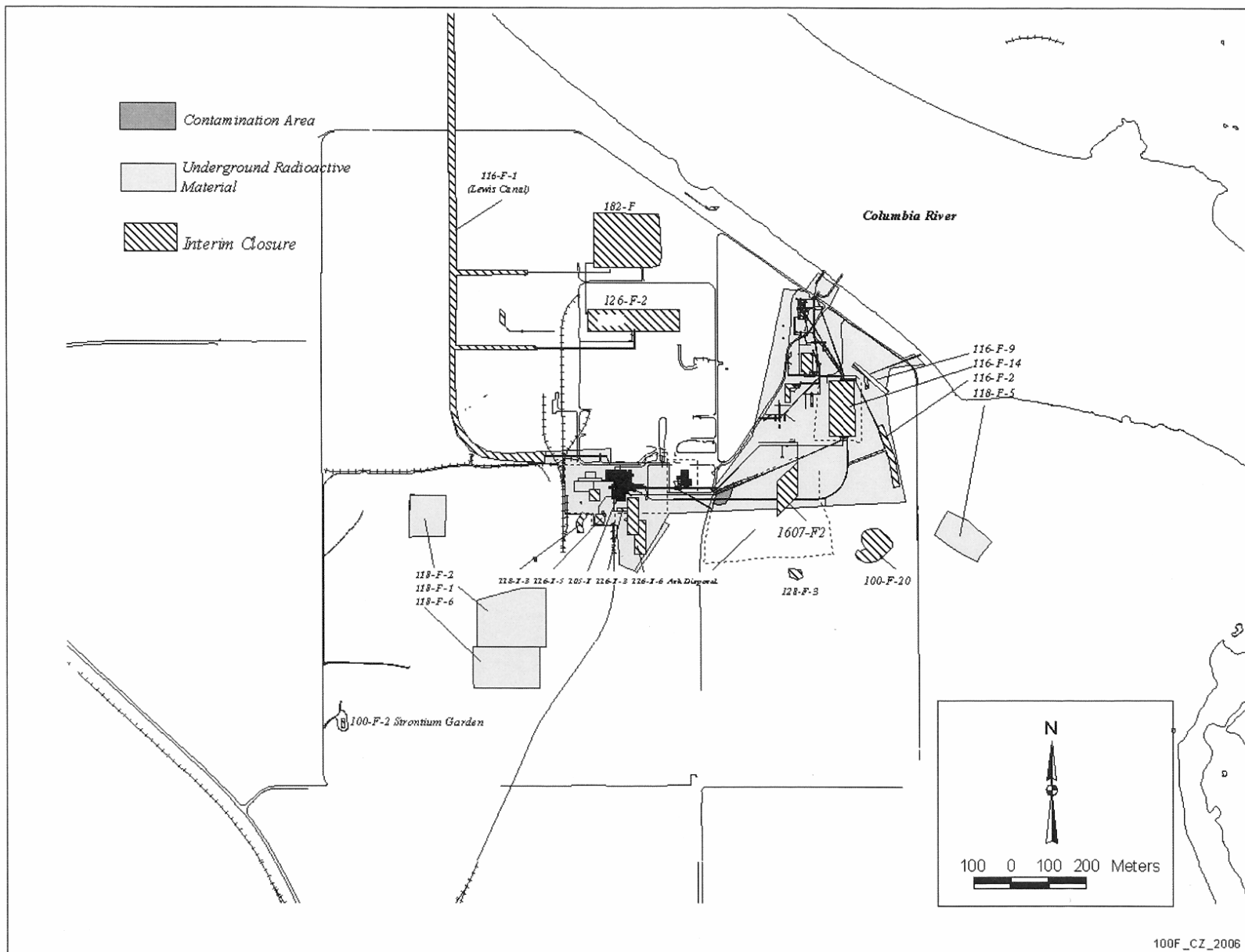


Figure 6-3. 2006 Radiological Survey Locations, 100-F Area.



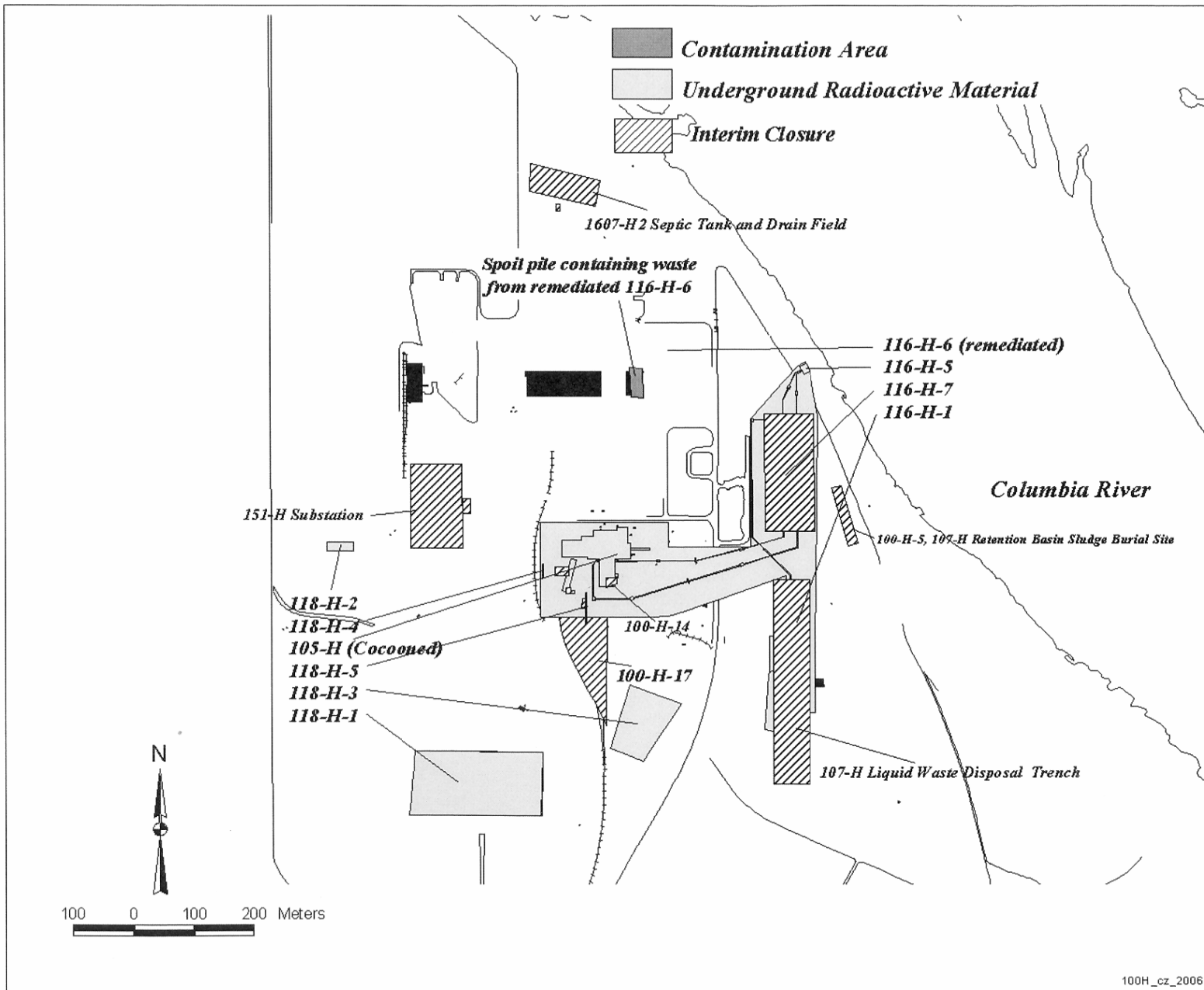


Figure 6-4. 2006 Radiological Survey Locations, 100-H Area.

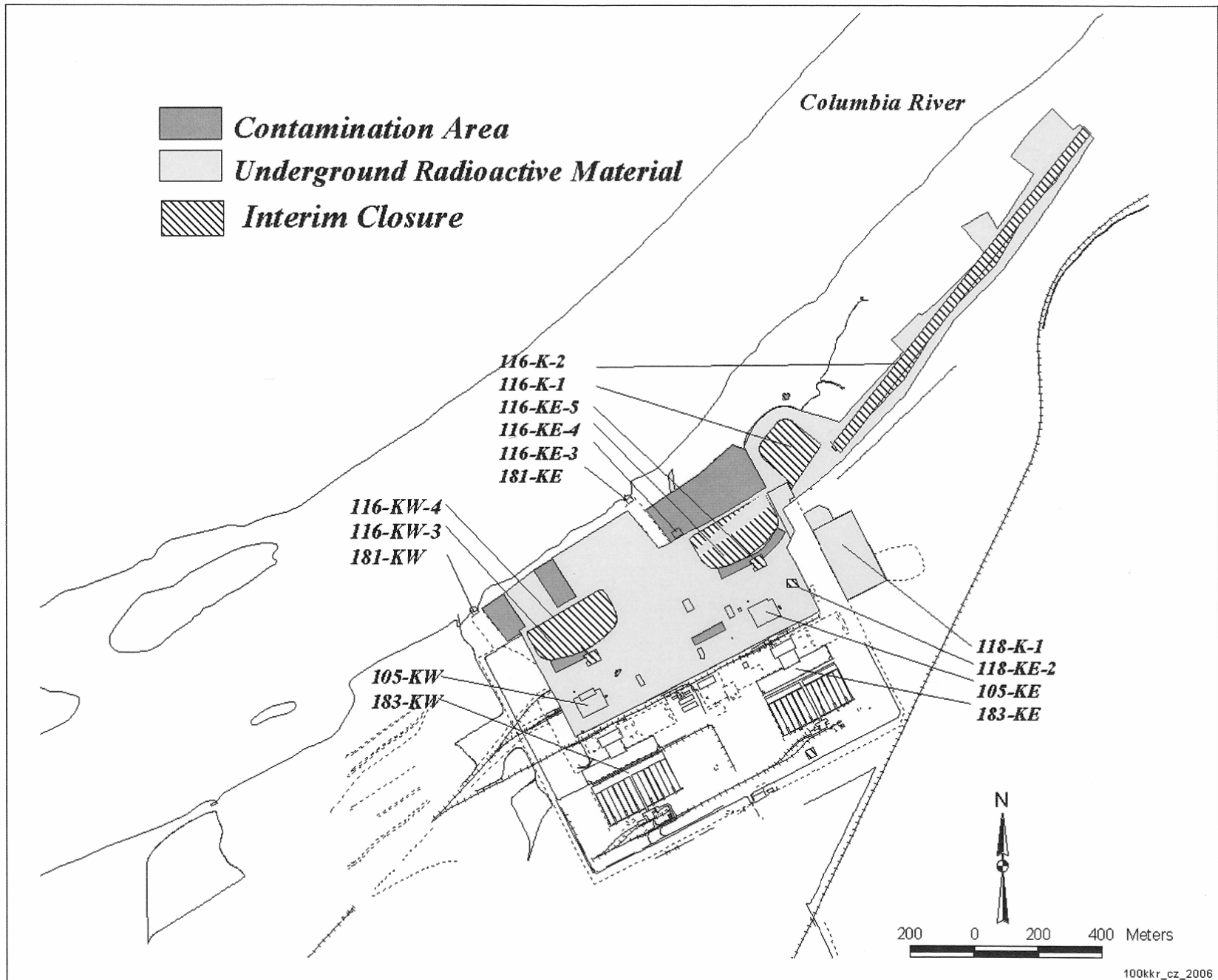


Figure 6-5. 2006 Radiological Survey Locations, 100-K Area.

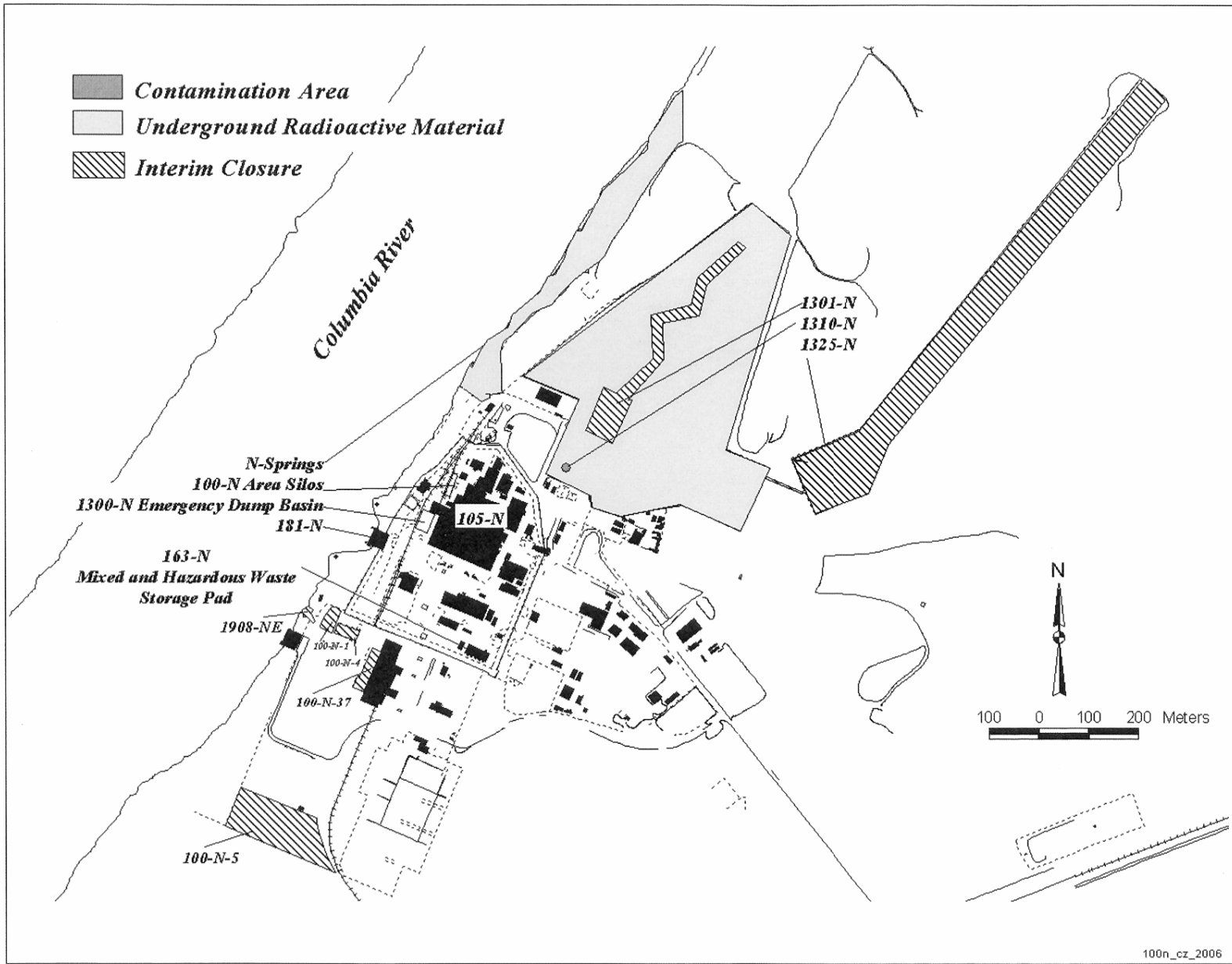


Figure 6-6. 2006 Radiological Survey Locations, 100-N Area.

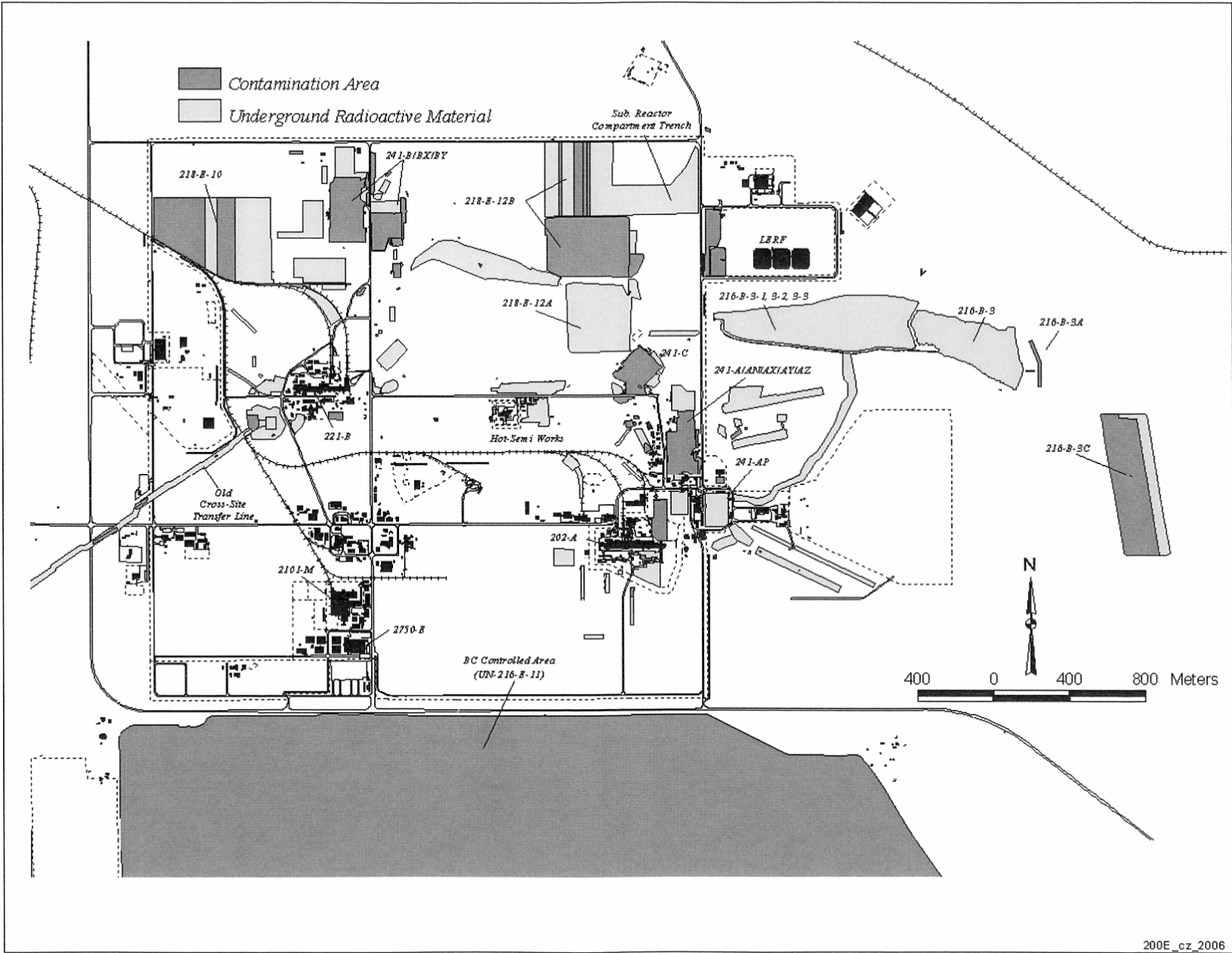


Figure 6-7. 2006 Radiological Survey Locations, 200 East Area.



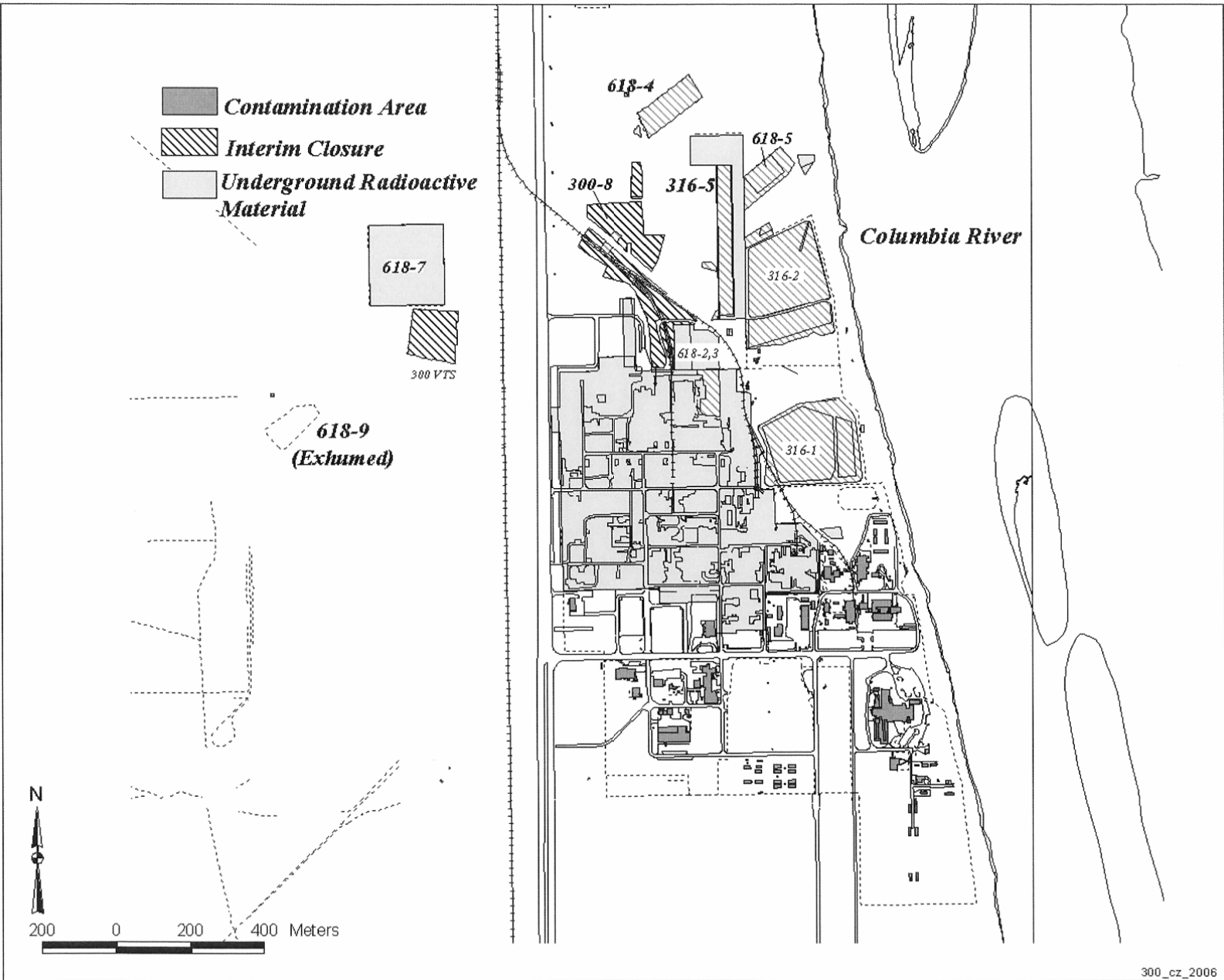


Figure 6-9. 2006 Radiological Survey Locations, 300 Area.

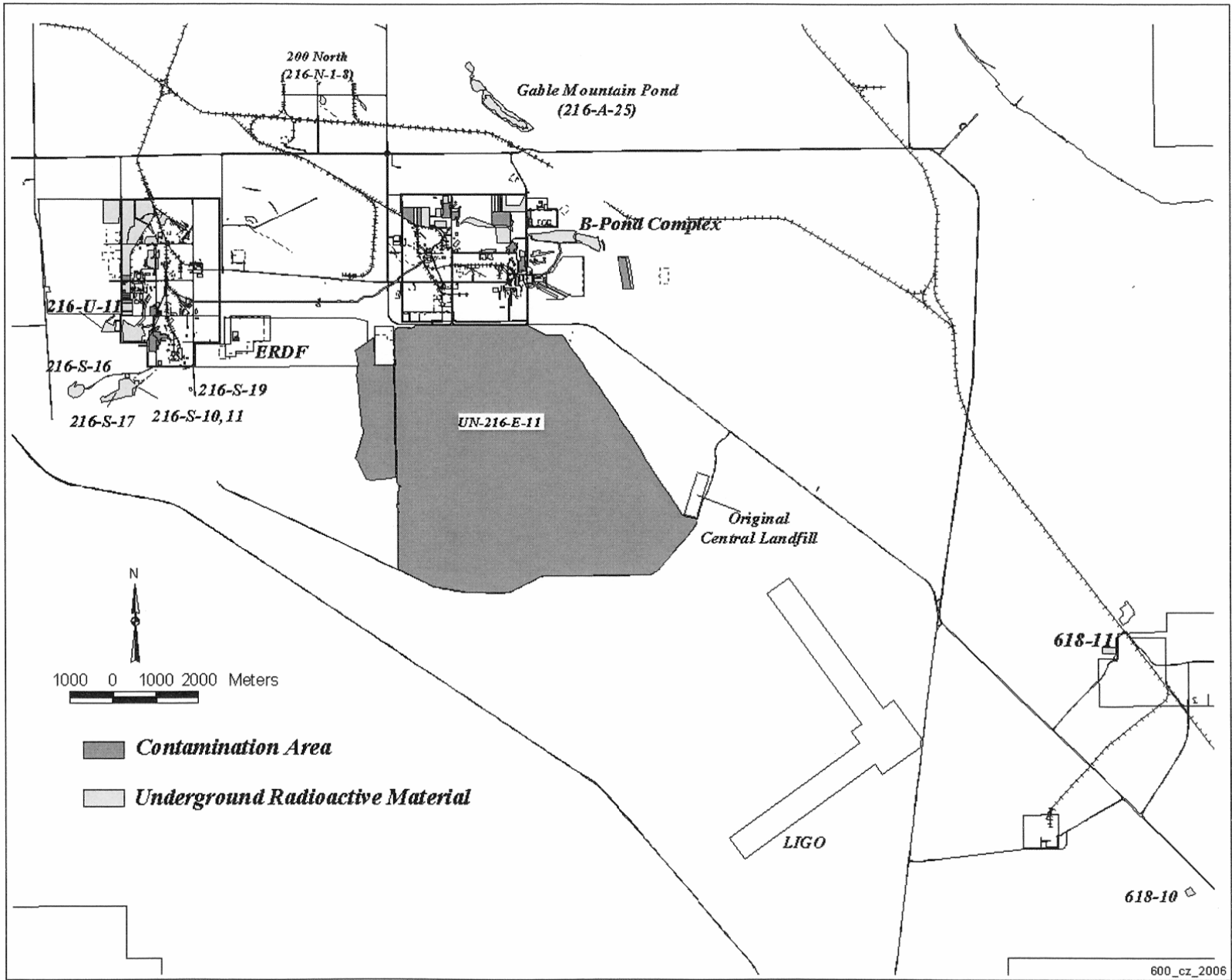


Figure 6-10. 2006 Radiological Survey Locations, 600 Area.

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## **7.0 INVESTIGATIVE SAMPLING**

Investigative samples are typically collected where known or suspected radioactive contamination was present, or to verify radiological conditions at project sites. In 2006, however, no investigative samples were collected. Three animal samples collected late in 2005 were analyzed for radionuclides at the 222-S Laboratory and the analytical results are provided in Table 7-1. During 2006, 130 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 2006, there were 25 instances of radiological contamination in which soil was identified as the carrier of contamination. Of these, 15 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 5,500 disintegrations per minute (dpm)/100 cm<sup>2</sup> to greater than 3,600,000 dpm/100 cm<sup>2</sup>. Contaminated areas were radiologically posted or cleaned up. The number of contamination incidents and the range of radiation dose rate levels observed in 2006 were generally within historical ranges.

### **7.2 VEGETATION**

In 2006, there were 75 instances in which vegetation was identified as the carrier of radiological contamination. One instance of contaminated vegetation had field readings in excess of 1,000,000 dpm/100 cm<sup>2</sup>. The radioactivity levels were all within historical ranges.

The number of contaminated vegetation incidents increased from 66 in 2005 to 75 in 2006. 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 2006, the number

of animals found to be contaminated with radioactivity and the range of radionuclide concentrations were within historical ranges.

In 2006, seventeen instances of contaminated animals or animal-related contamination were identified. Of these, none were submitted to the laboratory. The analytical results from the following three animal samples collected in late 2005 are provided in Table 7-1:

- A contaminated mouse found outside the 241-S Tank Farm (200 West Area)
- A contaminated mouse found outside the 241-B Tank Farm (200 East Area)
- A contaminated rabbit found outside the 241-SX/SY Tank Farm (200 West Area).

One animal-related sample collected in the 200 Areas during 2006 exhibited field readings in excess of 1,000,000 dpm/100 cm<sup>2</sup>. 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 2006 to ascertain the radiological, and in some cases, physical condition of specific sites or operations:

During 2006, DTS-RPT-088, *Integrated Disposal Facility Preoperational Monitoring Report* (Mitchell et al. 2006b), was finalized to document preoperational monitoring for the Integrated Disposal Facility. Monitoring efforts included soil, air, thermoluminescent dosimeters (TLD), and biota.

In 2006, DTS-RPT-084, *Field Investigation for Mammal Burrow Occurrence Associated with Carbon Tetrachloride Soil Gas Monitoring Locations* (Mitchell et al. 2006a), was submitted supporting Phase III 200 Area Central Plateau Ecological Risk Assessment. The study assessed concentrations of carbon tetrachloride in small mammal burrows.

Phase III 200 Area Central Plateau Ecological Risk Assessment support included collecting and analyzing soil samples, and monitoring radiation at two offsite locations to help establish background conditions of potential contaminants. The two reference sites were the Crab Creek drainage (located north of the Saddle Mountains), and the Eaton Ranch (located near the summit of Manastash Ridge on I-82).

Table 7-1. Investigative Sample Results, 2006.

Matrix	Location	Date	Field Reading <sup>(a)</sup>	Isotope	Result <sup>(b)</sup> (pCi/g) ± Uncertainty	Analytical
Mouse	241-S Tank Farm	06/28/05	6,000dpm/100cm <sup>2</sup>	<sup>60</sup> Co	<1.3E+01	
				<sup>89,90</sup> Sr	1.0E+02 ± 1.0E+01	
				<sup>134</sup> Cs	<1.5E+01	
				<sup>137</sup> Cs	1.0E+03 ± 2.5E+01	
				<sup>152</sup> Eu	<6.2E+01	
				<sup>154</sup> Eu	<4.1E+01	
				<sup>155</sup> Eu	<4.9E+01	
				Total U	1.06E+03	
				<sup>238</sup> Pu	1.5E+00 ± 1.4E+01	
				<sup>239,240</sup> Pu	1.1E+00 ± 1.6E+01	

Matrix	Location	Date	Field Reading <sup>(a)</sup>	Isotope	Result <sup>(b)</sup> (pCi/gm) ± Uncertainty	Analytical
Mouse	241-B Tank Farm	09/28/05	4,000dpm/100cm <sup>2</sup>	<sup>60</sup> Co	<4.8E+00	
				<sup>89,90</sup> Sr	3.9E+02 ± 2.8E+00	
				<sup>134</sup> Cs	<5.2E+00	
				<sup>137</sup> Cs	<8.4E+00	
				<sup>152</sup> Eu	<2.3E+01	
				<sup>154</sup> Eu	<1.8E+01	
				<sup>155</sup> Eu	<1.5E+01	
				Total U	1.99E+02	
				<sup>238</sup> Pu	<3.8E-01 ± 1.0E+02	
				<sup>239,240</sup> Pu	<3.8E-01 ± 1.0E+02	

Matrix	Location	Date	Field Reading <sup>(a)</sup>	Isotope	Result <sup>(b)</sup> (pCi/Sample) ± Uncertainty	Analytical
Rabbit	241-SX/SY Tank Farm	11/17/05	600,000dpm/100cm <sup>2</sup>	<sup>60</sup> Co	1.5E+00 ± 1.2E+01	
				<sup>89,90</sup> Sr	3.6E+04 ± 2.6E-01	
				<sup>134</sup> Cs	<1.8E+00	
				<sup>137</sup> Cs	5.0E+03 ± 5.2E+00	
				<sup>152</sup> Eu	<1.0E+02	
				<sup>154</sup> Eu	8.7E+00 ± 8.6E+00	
				<sup>155</sup> Eu	<8.8E+00	
				Total U	8.02E+02	
				<sup>238</sup> Pu	7.9E-01 ± 4.2E+00	
				<sup>239,240</sup> Pu	1.0E+01 ± 3.8E+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, 2006. (2 sheets total)

SAMPLE MATRIX	LOCATION	FIELD READING	
		(Beta/Gamma)	DATE
Mud Dauber Nest	Inside electrical panel in the 1802-N Pipe Trestle	120,000dpm/100cm <sup>2</sup>	01/11/06
Rabbit Feces/Soil (old)	On top of the 216-B-29 through 34 Trenches	480,000dpm/100cm <sup>2</sup>	01/12/06
Tumbleweed	West of 241-A Tank Farm complex	55,000dpm/100cm <sup>2</sup>	01/25/06
Tumbleweed	241-B Tank Farm	30,000dpm/100cm <sup>2</sup>	01/26/06
Soil	UPR-600-12 (Rt 4S @ 200-E Hill)	18,000dpm/100cm <sup>2</sup>	01/31/06
Tumbleweeds	218-E-12B Trench 94	60,000dpm/100cm <sup>2</sup>	02/02/06
Tumbleweed	118-B-1 Burial Grounds	17,000dpm/100cm <sup>2</sup>	02/06/06
Tumbleweeds (6)	218-E-12B Burial Ground	>1,000,000dpm/100cm <sup>2</sup>	02/14/06
Soil	241-SX/SY Tank Farm	3,600,000dpm/100cm <sup>2</sup>	02/15/06
Tumbleweed	218-E-12B Burial Ground	60,000dpm/100cm <sup>2</sup>	02/16/06
Tumbleweeds	100-N Fence line and Parking lot	500,000dpm/100cm <sup>2</sup>	02/21/06
Tumbleweed	218-E-12B Trench 94	87,000dpm/100cm <sup>2</sup>	02/22/06
Specks	241-SX Tank Farm Perimeter	850,000dpm/100cm <sup>2</sup>	03/03/06
Tumbleweeds	200-E-135 South of 241-C	40,000dpm/100cm <sup>2</sup>	03/03/06
Soil	241-ER-151 Diversion Box	225,000dpm/100cm <sup>2</sup>	03/10/06
Rock Dove (Pigeon)	241-SX/SY Tank Farm	3,000dpm/100cm <sup>2</sup>	03/13/06
Tumbleweeds (2)	West perimeter 241-B Tank Farm	90,000dpm/100cm <sup>2</sup>	03/16/06
Mouse	272-S Paint Shop	4,000dpm/100cm <sup>2</sup>	03/21/06
Tumbleweed	Canton Ave @ Gate 810 (200-E-109)	417,000dpm/100cm <sup>2</sup>	03/23/06
Tumbleweed Fragments	218-E-12B Burial Ground	240,000dpm/100cm <sup>2</sup>	03/28/06
Concrete Fragment	Outside Paint Booth Annex 2715-E building	70,000dpm/100cm <sup>2</sup>	03/30/06
Mouse Carcass	Next to 206-A inside PUREX Facility	5,000dpm/100cm <sup>2</sup>	03/30/06
Soil	221-B Between 222-B & 224B	5,000dpm/100cm <sup>2</sup>	03/30/06
French Drain	216-B-51 French Drain	18,000dpm/100cm <sup>2</sup>	04/03/06
Specks	Outside 241-SX Tank Farm	77,000dpm/100cm <sup>2</sup>	04/04/06
Tumbleweed	200-E-109 (NE corner of 200-E Fenceline)	15,000dpm/100cm <sup>2</sup>	04/11/06
Tumbleweed	200-E-109 (NE corner of 200-E Fenceline)	597,000dpm/100cm <sup>2</sup>	04/12/06
Tumbleweeds	218-E-12B Trench 94	5,097,000dpm/100cm <sup>2</sup>	04/17/06
Moss & Soil	200-E-53 associated with 218-E-12B	349,000dpm/100cm <sup>2</sup>	04/19/06
Soil	UPR-200-E-79 Pipeline break between 242-B and 207-B	5mR/hr	04/20/06
Tumbleweed Fragments	241-AZ Tank Farm	60,000dpm/100cm <sup>2</sup>	04/25/06
Tumbleweed Fragments/Soil	275-EA Building	5,397,000dpm/100cm <sup>2</sup>	04/25/06
Speck	Southwest of 241-SX Tank Farm	250,000dpm/100cm <sup>2</sup>	04/26/06
Speck	244-A Lift Station	250,000dpm/100cm <sup>2</sup>	04/27/06
Concrete Pad	West side of 618-13	25,000dpm/100cm <sup>2</sup>	05/01/06
Concrete Pad	300-255 Waste Site (NE corner 309 Bldg.)	80,000dpm/100cm <sup>2</sup>	05/02/06
Tumbleweed Fragments/Soil	241-A Tank Farm Complex Perimeter	2,394,000dpm/100cm <sup>2</sup>	05/05/06
Tumbleweed Fragments	216-A-1 Trench	600,000dpm/100cm <sup>2</sup>	05/16/06
Tumbleweed Fragments	241-TX-153 Diversion Box Weather Cover	149,000dpm/100cm <sup>2</sup>	05/16/06
Plastic Bag/Bolts/Rags	Found at base of 244-TX passive Breather Filter Riser	400,000dpm/100cm <sup>2</sup>	05/17/06
Tumbleweed Fragment	North side of 241-T Perimeter Fence	600,000dpm/100cm <sup>2</sup>	05/17/06
Mud Dauber Nest	Inside removed utility poles at the 1714-N Warehouse	152,000dpm/100cm <sup>2</sup>	05/18/06
Soil Speck	Southwest corner of the 241-B Tank Farm	700,000dpm/100cm <sup>2</sup>	05/23/06
Tumbleweed	Northeast corner of LERF Fenceline	90,000dpm/100cm <sup>2</sup>	05/24/06
Soil	East Fenceline 241-TX/TY	120,000dpm/100cm <sup>2</sup>	05/25/06
Tumbleweed Fragments	200-E Northeast Fenceline across from Trench 94	1,200,000dpm/100cm <sup>2</sup>	05/26/06
Tumbleweed Fragments	241-B Tank Farm Fenceline	10,000dpm/100cm <sup>2</sup>	05/26/06
Soil Specks	South and east side of 241-SX/SY Tank Farm	70,000dpm/100cm <sup>2</sup>	05/31/06
Tumbleweed Fragments	East side of 241-BX/BY Tank Farm	60,000dpm/100cm <sup>2</sup>	05/31/06
Tumbleweed	Northeast fenceline inside 200-E along Canton Ave.	480,000dpm/100cm <sup>2</sup>	06/01/06
Waste Trailer	ERDF Container Transfer Area	140,000dpm/100cm <sup>2</sup>	06/01/06
Water Pumps	4732-B Excess Warehouse	15,000dpm/100cm <sup>2</sup>	06/01/06
Tumbleweed Segment	200-E Fenceline along Canton Ave. near 8th Street	20,000dpm/100cm <sup>2</sup>	06/06/06
Scaffold poles/Razor wire holders	3790 Lay Down Yard	18,000dpm/100cm <sup>2</sup>	06/07/06
Scaffold foot & Wire Rope	3790 Lay Down Yard	60,000dpm/100cm <sup>2</sup>	06/12/06
6" C-clamp & 1/2" Crescent Wrench	2713-W Carpenters Shop	18,000dpm/100cm <sup>2</sup>	06/13/06
Tumbleweed Fragment	Outside 241-AN Tank Farm	100,000dpm/100cm <sup>2</sup>	06/19/06
Tumbleweed Fragment	East of 241-AZ Tank Farm	84,000dpm/100cm <sup>2</sup>	06/21/06
Soil Speck	200-E-129 (North end of B-Plant RR cut)	80,000dpm/100cm <sup>2</sup>	07/03/06
(10)Tumbleweed Fragments	Outside 241-A Tank Farm (in "Courtyard")	500,000dpm/100cm <sup>2</sup>	07/12/06
Soil in Excavator Battery Box	100-N Area	310,000dpm/100cm <sup>2</sup>	07/13/06
Vegetation in Wooden Box	3790 Laydown Yard	18,000dpm/100cm <sup>2</sup>	07/20/06
Tumbleweed Fragments	Outside the 241-AZ Tank Farm	80,000dpm/100cm <sup>2</sup>	07/26/06
Rabbit Fece (old)	Outside west perimeter fence 241-SX Tank Farm	>1,000,000dpm/100cm <sup>2</sup>	07/27/06
Tumbleweed Fragments	Outside the 241-AZ Tank Farm	150,000dpm/100cm <sup>2</sup>	08/01/06
Tumbleweeds (50-60)	On top of the 216-U-11 Covered Pond	12,000dpm/100cm <sup>2</sup>	08/02/06
Tumbleweeds	Along Canton Ave east of 218-E-12B	70,000dpm/100cm <sup>2</sup>	08/03/06

Table 7-2. Investigative Samples Not Analyzed, 2006. (2 sheets total)

SAMPLE MATRIX	LOCATION	FIELD READING	
		(Beta/Gamma)	DATE
Rabbit Feces/Soil (old)	North of 241-SY Tank Farm	650,000dpm/100cm <sup>2</sup>	08/06/06
Tumbleweed	On Buffalo Ave along 241-A Complex	480,000dpm/100cm <sup>2</sup>	08/08/06
Tumbleweed	Inside 200-E-29 (East of 241-A)	180,000dpm/100cm <sup>2</sup>	08/09/06
Tumbleweed fragment & Speck	Outside North perimeter 241-B Tank Farm	450,000dpm/100cm <sup>2</sup>	08/09/06
Tumbleweed Fragments & Soil	241-A Tank Farm Complex Perimeter	150,000dpm/100cm <sup>2</sup>	08/16/06
Tumbleweed Fragments & Specks	241-A Tank Farm East Perimeter Fenceline	300,000dpm/100cm <sup>2</sup>	08/18/06
Tumbleweed Fragments	East of Canton Ave and 241-A Tank Farm Perimeter Fence	450,000dpm/100cm <sup>2</sup>	08/20/06
Tumbleweed Fragments	East of Canton Ave and 241-A Tank Farm Perimeter Fence	200,000dpm/100cm <sup>2</sup>	08/22/06
Tumbleweeds (15-20)	Growing on top of the 216-S-21 Crib	12,000dpm/100cm <sup>2</sup>	08/23/06
Tumbleweed Fragments	East of Canton Ave. Pipeline Berm @ 241-A	250,000dpm/100cm <sup>2</sup>	08/23/06
Tumbleweed Fragments	Outside perimeter fence of 241-BX/BY	144,000dpm/100cm <sup>2</sup>	08/28/06
Rodent Bait Station	Outside perimeter fence of 241-BX/BY	180,000dpm/100cm <sup>2</sup>	08/28/06
Speck	Outside perimeter of 241-A-302A	700,000dpm/100cm <sup>2</sup>	08/29/06
Coyote Feces	Near northeast corner of 241-SY Tank Farm	45,000dpm/100cm <sup>2</sup>	08/29/06
Tumbleweed Fragments	East of Waste Treatment Plant Berm & east of 241-A	100,000dpm/100cm <sup>2</sup>	08/30/06
Tumbleweeds	Inside UPR-200-W-38 @ 216-T-2 Rev. Well	1,200,000dpm/100cm <sup>2</sup>	08/31/06
Mouse	Inside Garbage dumpster @ 100-F Garage	5,000dpm/100cm <sup>2</sup>	08/31/06
Tumbleweeds (3)	On top of the 216-T-18 Crib	40,000dpm/100cm <sup>2</sup>	09/06/06
Speck	Perimeter of 200-E-115	35,000dpm/100cm <sup>2</sup>	09/11/06
Tumbleweeds	On top of the 216-U-10 Covered Pond	30,000dpm/100cm <sup>2</sup>	09/12/06
Rabbit Fece	UPR-200-E-143 near the 244-A Lift Station	60,000dpm/100cm <sup>2</sup>	09/12/06
Nuttall's Cottontail Rabbit	Trapped outside 241-SX/SY Tank Farm	72,000dpm/100cm <sup>2</sup>	09/12/06
Rabbit Fece	Outside 241-SX Tank Farm Perimeter fence	250,000dpm/100cm <sup>2</sup>	09/14/06
Tumbleweeds (4)	UPR-200-W-161 near 241-U-152	>1,000,000dpm/100cm <sup>2</sup>	09/20/06
Tumbleweeds	118-B-1 Trench 3	400,000dpm/100cm <sup>2</sup>	09/23/06
Coyote Feces	200-E-116 URM Pipeline between 221-B & 241-C	135,000dpm/100cm <sup>2</sup>	09/25/06
Tumbleweed Frags. Rabbit Fece	Outside E. perimeter fence 241-C Tank Farm	100,000dpm/100cm <sup>2</sup>	09/25/06
Spotty Soil Approx. 1 sq. Ft.	UPR-600-20	80,000dpm/100cm <sup>2</sup>	09/25/06
Tumbleweeds	200-E-114 east and north of 241-B Tank Farm	48,000dpm/100cm <sup>2</sup>	09/26/06
Tumbleweed Fragments	East of 241-AZ and AN Tank Farms	10,000dpm/100cm <sup>2</sup>	10/03/06
Tumbleweeds	216-U-11 Pond	10,000dpm/100cm <sup>2</sup>	10/03/06
Tumbleweeds	216-U-10 Pond	180,000dpm/100cm <sup>2</sup>	10/05/06
Soil	2704-HV	500,000dpm/100cm <sup>2</sup>	10/10/06
Hammer	Storage container (connex box) @ 100-K	51,000dpm/100cm <sup>2</sup>	10/10/06
Tumbleweeds (5 wind blown)	200-E-128 Transfer Line	60,000dpm/100cm <sup>2</sup>	10/14/06
Tumbleweed Specks/Fragments	241-A Tank Farm Court Yard	20,000dpm/100cm <sup>2</sup>	10/18/06
Tumbleweeds (2)	200-E-112 Transfer Line (221-B to 207-B)	120,000dpm/100cm <sup>2</sup>	10/24/06
Tumbleweeds (3)	200-E-112 Transfer Line (221-B to 207-B)	18,000dpm/100cm <sup>2</sup>	10/27/06
Scale	277-W Maintenance Shop	Not identified	10/27/06
Tumbleweeds (6-7)	200-BC Crib Area	18,000dpm/100cm <sup>2</sup>	10/30/06
Mouse Bait Station	244-A Lift Station	20,000dpm/100cm <sup>2</sup>	10/30/06
Tumbleweed	200-BC Crib Area	18,000dpm/100cm <sup>2</sup>	10/31/06
Rabbit Feces (3)	North perimeter Fence 241-SX	150,000dpm/100cm <sup>2</sup>	10/31/06
Speck	241-U Tank Farm Perimeter Fence	400,000dpm/100cm <sup>2</sup>	10/31/06
Speck	241-ER-151 Diversion Box East Perimeter Fence	200,000dpm/100cm <sup>2</sup>	10/31/06
Tumbleweed Fragment	241-SX/SY Tank Farm Perimeter Fence	35,000dpm/100cm <sup>2</sup>	11/01/06
Tumbleweeds	218-W-4A Burial Ground	174,000dpm/100cm <sup>2</sup>	11/07/06
Tumbleweed	241-BX/BY Tank Farm South Perimeter Fenceline	36,000dpm/100cm <sup>2</sup>	11/07/06
Tumbleweeds (8)	216-A-30 Crib	48,000dpm/100cm <sup>2</sup>	11/08/06
Speck	Northeast side of 241-C Tank Farm	8,000dpm/100cm <sup>2</sup>	11/09/06
Tumbleweed Fragments	Outside Perimeter 241-AZ Tank Farm	400,000dpm/100cm <sup>2</sup>	11/09/06
Tumbleweeds (3)	On top of the 216-U-14 Ditch @ 216-U-10 Pond	24,000dpm/100cm <sup>2</sup>	11/13/06
Specks	East of 241-C Tank Farm	90,000dpm/100cm <sup>2</sup>	11/14/06
Specks	outside Perimeter Fence of 241-C	50,000dpm/100cm <sup>2</sup>	11/15/06
Tumbleweed Fragments	East of 241-A Tank Farm	240,000dpm/100cm <sup>2</sup>	11/15/06
Tumbleweed	Outside 241-AZ Tank Farm	120,000dpm/100cm <sup>2</sup>	11/16/06
Tumbleweed	209-E Gate Entrance	48,000dpm/100cm <sup>2</sup>	11/20/06
Tumbleweeds (3)	218-E-12B Burial Ground	654,000dpm/100cm <sup>2</sup>	11/29/06
Tumbleweeds (3)	Outside west perimeter fence 241-S Tank Farm	60,000dpm/100cm <sup>2</sup>	11/20/06
Tumbleweed	Transfer Line 200-E-127 North of 207-A	60,000dpm/100cm <sup>2</sup>	12/11/06
Tumbleweeds (7)	On top of the 216-U-10 Covered Pond	54,000dpm/100cm <sup>2</sup>	12/13/06
Soil	200-W-42 (excavated URM pipe line to 216-U-8 Crib)	5,500dpm/100cm <sup>2</sup>	12/14/06
Speck	East of 241-C Tank Farm	350,000dpm/100cm <sup>2</sup>	12/20/06

ERDF = Environmental Restoration Disposal Facility  
 LERF = Liquid Effluent Retention Facility  
 PUREX = Plutonium-Uranium Extraction  
 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 2006).

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 (DTS 2006). 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 2006, 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 2006.

Medium	Radionuclide	Number of Results		% Agreement
		Compared	In Agreement	
Air	<sup>60</sup> Co	2	2	100
	<sup>90</sup> Sr	2	2	100
	<sup>106</sup> Ru	2	2	100
	<sup>125</sup> Sb	2	2	100
	<sup>134</sup> Cs	2	2	100
	<sup>137</sup> Cs	2	2	100
	<sup>152</sup> Eu	2	2	100
	<sup>154</sup> Eu	2	2	100
	<sup>155</sup> Eu	2	2	100
	<sup>234</sup> U	2	2	100
	<sup>235</sup> U	2	2	100
	<sup>238</sup> U	2	2	100
	<sup>238</sup> Pu	2	2	100
	<sup>239/240</sup> Pu	2	2	100
	gross α	27	27	100
	gross β	27	27	100
	Totals:	82	82	100
Soil	<sup>60</sup> Co	5	5	100
	<sup>65</sup> Zn	5	5	100
	<sup>90</sup> Sr	5	5	100
	<sup>103</sup> Ru	5	5	100
	<sup>106</sup> Ru	5	5	100
	<sup>113</sup> Sn	5	5	100
	<sup>125</sup> Sb	5	5	100
	<sup>134</sup> Cs	5	5	100
	<sup>137</sup> Cs	5	5	100
	<sup>144</sup> Ce	5	5	100
	<sup>152</sup> Eu	5	5	100
	<sup>154</sup> Eu	5	5	100
	<sup>155</sup> Eu	5	2	40
	<sup>234</sup> U	5	5	100
	<sup>235</sup> U	5	5	100
	<sup>238</sup> U	5	5	100
	<sup>238</sup> Pu	5	5	100
	<sup>239/240</sup> Pu	5	5	100
	Totals:	90	87	96
Vegetation	<sup>60</sup> Co	5	5	100
	<sup>65</sup> Zn	5	5	100
	<sup>90</sup> Sr	5	5	100
	<sup>103</sup> Ru	5	5	100
	<sup>106</sup> Ru	5	5	100
	<sup>113</sup> Sn	5	5	100
	<sup>125</sup> Sb	5	5	100
	<sup>134</sup> Cs	5	5	100
	<sup>137</sup> Cs	5	5	100
	<sup>144</sup> Ce	5	5	100
	<sup>152</sup> Eu	5	5	100
	<sup>154</sup> Eu	5	5	100
	<sup>155</sup> Eu	5	5	100
	<sup>234</sup> U	5	5	100
	<sup>235</sup> U	5	5	100
	<sup>238</sup> U	5	5	100
	<sup>238</sup> Pu	5	5	100
	<sup>239/240</sup> Pu	5	5	100
	Totals:	90	90	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:

- 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. 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 (WDOH).

## 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:  $Bq = 2.7 \text{ E-11 Ci}$ .

**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 2006)* 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 U.S. Department of Energy (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 perimeters.

**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-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* (DOE 2001).

**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 ha [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 ha [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 (DOE 1993).



**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<sup>3</sup> (0.06 in.) in volume, or areal contamination less than 15 cm<sup>2</sup> (2.3 in<sup>2</sup>) 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.

<b>Radionuclide</b>	<b>Symbol</b>	<b>Half-Life</b>	<b>Radionuclide</b>	<b>Symbol</b>	<b>Half-Life</b>
Tritium	<sup>3</sup> H	12.3 yr	Cesium-134	<sup>134</sup> Cs	2.1 yr
Beryllium-7	<sup>7</sup> Be	53.28 d	Cesium-137	<sup>137</sup> Cs	30.3 yr
Carbon-14	<sup>14</sup> C	5.72E+03 yr	Cerium-141	<sup>141</sup> Ce	32.5 d
Sodium-22	<sup>22</sup> Na	2.6 yr	Cerium-144	<sup>144</sup> Ce	284.6 d
Potassium-40	<sup>40</sup> K	1.26 E+09 yr	Promethium-147	<sup>147</sup> Pm	13.4 min
Argon-41	<sup>41</sup> Ar	1.8 h	Europium-152	<sup>152</sup> Eu	13.5 yr
Chromium-51	<sup>51</sup> Cr	27.7 d	Europium-154	<sup>154</sup> Eu	8.6 yr
Manganese-54	<sup>54</sup> Mn	312 d	Europium-155	<sup>155</sup> Eu	4.7 yr
Cobalt-58	<sup>58</sup> Co	71 d	Thallium-208	<sup>208</sup> Tl	3.1 min
Iron-59	<sup>59</sup> Fe	45 d	Bismuth-212	<sup>212</sup> Bi	60.6 min
Cobalt-60	<sup>60</sup> Co	5.3 yr	Lead-212	<sup>212</sup> Pb	10.6 h
Nickel-63	<sup>63</sup> Ni	100 yr	Polonium-212	<sup>212</sup> Po	0.3 x 10 <sup>-6</sup> s
Zinc-65	<sup>65</sup> Zn	243.8 d	Polonium-216	<sup>216</sup> Po	0.15 s
Krypton-85	<sup>85</sup> Kr	10.7 yr	Radon-220	<sup>220</sup> Rn	55.6 s
Strontium-89	<sup>89</sup> Sr	50.5 d	Radium-226	<sup>226</sup> Ra	1.60 E+03 yr
Strontium-90	<sup>90</sup> Sr	29.1 yr	Radium-228	<sup>228</sup> Ra	5.75 yr
Niobium-95	<sup>95</sup> Nb	35.0 d	Thorium-232	<sup>232</sup> Th	1.40 E+10 yr
Zirconium-95	<sup>95</sup> Zr	64.0 d	Uranium Total	U or Uranium	4.50 E+09 yr
Technetium-99	<sup>99</sup> Tc	2.12 E+05 yr	Uranium-234	<sup>234</sup> U	2.40 E+05 yr
Ruthenium-103	<sup>103</sup> Ru	39.4 d	Uranium-235	<sup>235</sup> U	7.00 E+08 yr
Ruthenium-106	<sup>106</sup> Ru	1.0 yr	Uranium-236	<sup>236</sup> U	2.30 E+07 yr
Tin-113	<sup>113</sup> Sn	115 d	Uranium-238	<sup>238</sup> U	4.50 E+09 yr
Antimony-124	<sup>124</sup> Sb	60 d	Plutonium-238	<sup>238</sup> Pu	87.7 yr
Antimony-125	<sup>125</sup> Sb	2.7 yr	Plutonium-239/240	<sup>239,240</sup> Pu	2.40 E+04 yr
Iodine-129	<sup>129</sup> I	1.7 E+07 yr	Plutonium-241	<sup>241</sup> Pu	14.4 yr
Iodine-131	<sup>131</sup> I	8.0 d	Americium-241	<sup>241</sup> Am	433 yr
Barium-133	<sup>133</sup> Ba	10.53 yr			

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## 10.0 STANDARDS

Table 10-1. U.S. Department of Energy Derived Concentration Guides.<sup>a</sup>

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

<sup>a</sup>From DOE Order 5400.5 (DOE 1993).

DCG = derived concentration guides

Table 10-2. U.S. Environmental Protection Agency Concentration Levels for Environmental Compliance.<sup>a</sup> (Radionuclide Concentrations [pCi/m<sup>3</sup>] in Air)

<b>Radionuclide</b>	<b>Concentration</b>	<b>Radionuclide</b>	<b>Concentration</b>
<sup>3</sup> H	1.5E+03	<sup>137</sup> Cs	1.9E-02
<sup>14</sup> C	1.0E+01	<sup>141</sup> Ce	6.3E+00
<sup>40</sup> K	2.7E-02	<sup>144</sup> Ce	6.2E-01
<sup>41</sup> Ar	1.7E+03	<sup>147</sup> Pm	1.1E+01
<sup>51</sup> Cr	3.1E+01	<sup>152</sup> Eu	2.0E-02
<sup>54</sup> Mn	2.8E-01	<sup>154</sup> Eu	2.3E-02
<sup>59</sup> Fe	6.7E-01	<sup>155</sup> Eu	5.9E-01
<sup>58</sup> Co	6.7E-01	<sup>212</sup> Bi	5.6E+01
<sup>60</sup> Co	1.7E-02	<sup>214</sup> Bi	1.4E+02
<sup>65</sup> Zn	9.1E-02	<sup>212</sup> Pb	6.3E+00
<sup>85</sup> Kr	1.0E+06	<sup>214</sup> Pb	1.2E+02
<sup>89</sup> Sr	1.8E+00	<sup>224</sup> Ra	1.5E-01
<sup>90</sup> Sr	1.9E-02	<sup>226</sup> Ra	3.3E-03
<sup>95</sup> Zr	6.7E-01	<sup>228</sup> Ac	3.7E+00
<sup>95</sup> Nb	2.2E+00	<sup>232</sup> Th	6.2E-04
<sup>99</sup> Tc	1.4E-01	<sup>234</sup> U	7.7E-03
<sup>103</sup> Ru	2.6E+00	<sup>235</sup> U	7.1E-03
<sup>106</sup> Ru	3.4E-01	<sup>236</sup> U	7.7E-03
<sup>113</sup> Sn	1.4E+00	<sup>238</sup> U	8.3E-03
<sup>124</sup> Sb	5.3E-01	<sup>238</sup> Pu	2.1E-03
<sup>125</sup> Sb	1.6E-01	<sup>239/240</sup> Pu	2.0E-03
<sup>129</sup> I	9.1E-03	<sup>241</sup> Pu	1.0E-01
<sup>131</sup> I	2.1E-01	<sup>241</sup> Am	1.9E-03
<sup>134</sup> 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
<sup>3</sup> 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
<sup>14</sup> 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
<sup>55</sup> 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
<sup>58</sup> 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
<sup>60</sup> 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
<sup>63</sup> 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
<sup>90</sup> 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
<sup>99</sup> 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
<sup>106</sup> 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
<sup>125</sup> 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
<sup>129</sup> 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
<sup>134</sup> 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
<sup>137</sup> 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
<sup>144</sup> 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
<sup>147</sup> 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
<sup>152</sup> 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
<sup>154</sup> 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
<sup>155</sup> 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
<sup>226</sup> 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
<sup>227</sup> 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
<sup>232</sup> 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
<sup>232</sup> 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
<sup>233</sup> 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
<sup>234</sup> 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
<sup>235</sup> 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
<sup>236</sup> 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
<sup>238</sup> 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
<sup>237</sup> 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
<sup>238</sup> 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
<sup>239</sup> 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
<sup>240</sup> 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
<sup>241</sup> 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
<sup>241</sup> 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, <sup>234</sup>U was not included in the <sup>238</sup>U limits. For supporting references see WHC-SD-EN-TI-070, *Soil Concentration Limits for Accessible and Inaccessible Areas* (Rittman 1992).

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
<sup>3</sup> 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
<sup>14</sup> 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
<sup>55</sup> 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
<sup>58</sup> 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
<sup>60</sup> 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
<sup>63</sup> 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
<sup>90</sup> 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
<sup>99</sup> 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
<sup>106</sup> 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
<sup>125</sup> 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
<sup>129</sup> 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
<sup>134</sup> 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
<sup>137</sup> 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
<sup>144</sup> 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
<sup>147</sup> 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
<sup>152</sup> 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
<sup>154</sup> 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
<sup>155</sup> 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
<sup>226</sup> 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
<sup>227</sup> 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
<sup>232</sup> 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
<sup>232</sup> 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
<sup>233</sup> 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
<sup>234</sup> 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
<sup>235</sup> 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
<sup>236</sup> 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
<sup>238</sup> 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
<sup>237</sup> 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
<sup>238</sup> 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
<sup>239</sup> 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
<sup>240</sup> 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
<sup>241</sup> 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
<sup>241</sup> 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, <sup>234</sup>U was not included in the <sup>238</sup>U limits. For supporting references see WHC-SD-EN-TI-070, *Soil Concentration Limits for Accessible and Inaccessible Areas* (Rittman 1992).



## 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 ( $\pm$ ) 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 ( $\pm$ ) 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 ( $\pm$ ) 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  $i^{\text{th}}$  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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