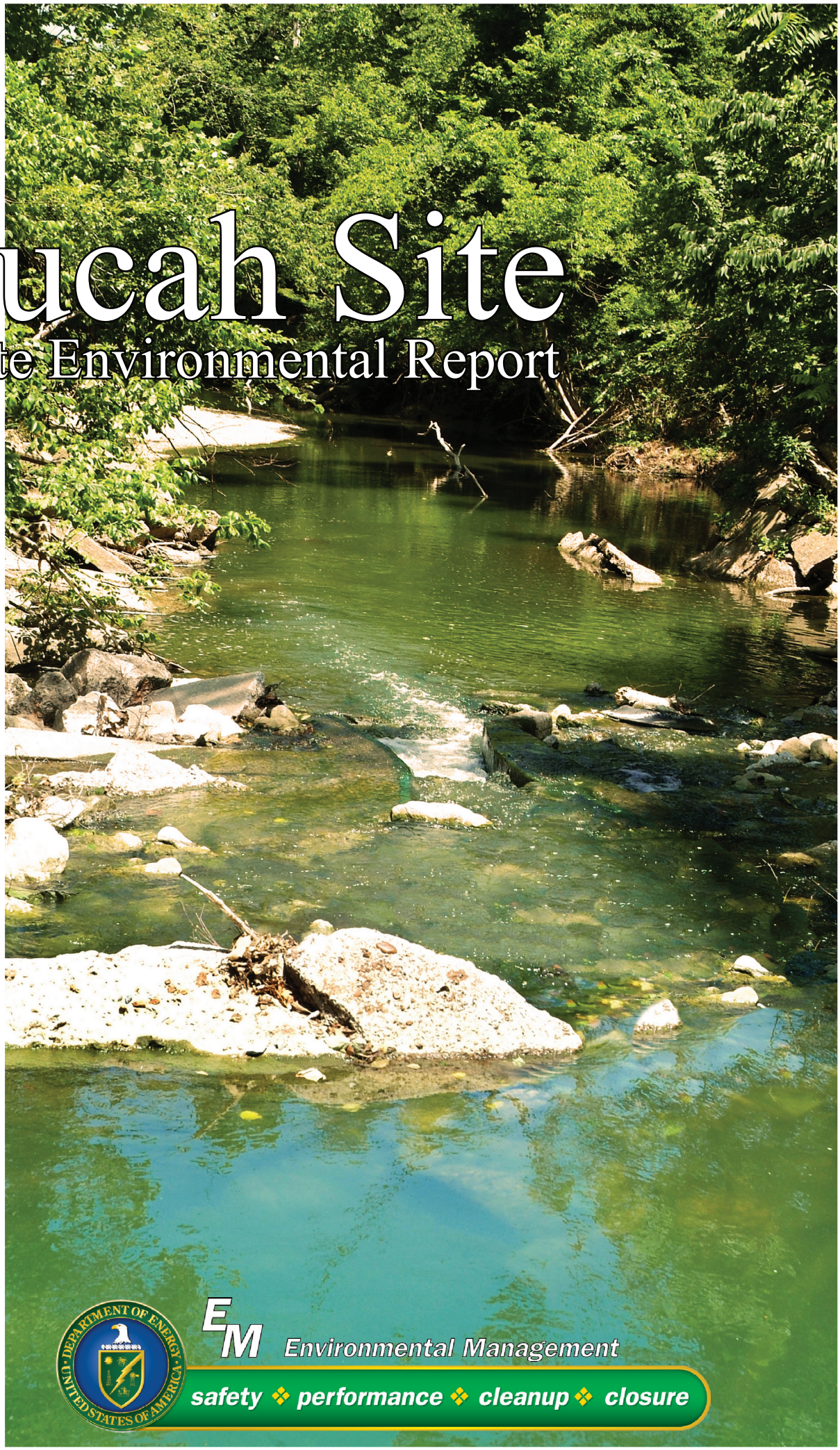
PAD-REG-1009
Volume II

Paducah Site

Annual Site Environmental Report

2010



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

PAD-REG-1009
Volume II

Paducah Site
Annual Site Environmental Report for Calendar Year 2010

Data Summary

January 2012

Prepared for the
U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
LATA ENVIRONMENTAL SERVICES OF KENTUCKY, LLC
managing the
Environmental Remediation Activities at the
Paducah Gaseous Diffusion Plant
under contract DE-AC30-10CC40020

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Notes:

1. "ND" means the parameter was not detected. Detection limits are available in the Paducah OREIS database. The count detects column represents the number of times the contaminant was detected when sampled during the year.

2. Monitoring programs often include measurement of extremely low concentrations of radionuclides, below the detection limit of the counting instruments. Less-than-detectable data will produce numerical measurements with values below the detection limit and sometimes negative values. All of the actual values, including those that are negative, are included in the statistical analyses in accordance with DOE's *Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance* (DOE 1991).

3. For nonradiological data, average values are calculated using the actual result values from the OREIS database. Where analytical result values were below the detection level, half of the detection limit was used to calculate average concentration. For radiological data, the average concentration was calculated by using the actual result given for both detectable and non-detectable results.

4. Reference Criteria for Sections 1 and 2 are used for comparison of results to Derived Concentration Guide (DCG) levels or site action limits that have been defined by the Environmental Programs. Additionally, technetium-99 is compared to an "Action Limit." This "Action Limit" is based on the calculated 900 pCi/L maximum contaminant level for groundwater (*Methods for Conducting Risk Assessments and Risk Evaluations at the Paducah Gaseous Diffusion Plant Paducah, Kentucky, Volume 1. Human Health*, DOE/LX/07-0107&D2/R1/V1, U.S. Department of Energy, February 2011).

5. The following data volume includes monitoring results for surface water, sediment, air, and animal tissue. Groundwater results are not presented in this data volume because more significant detail and data tables are presented in the Annual Site Environmental Report, Volume I.

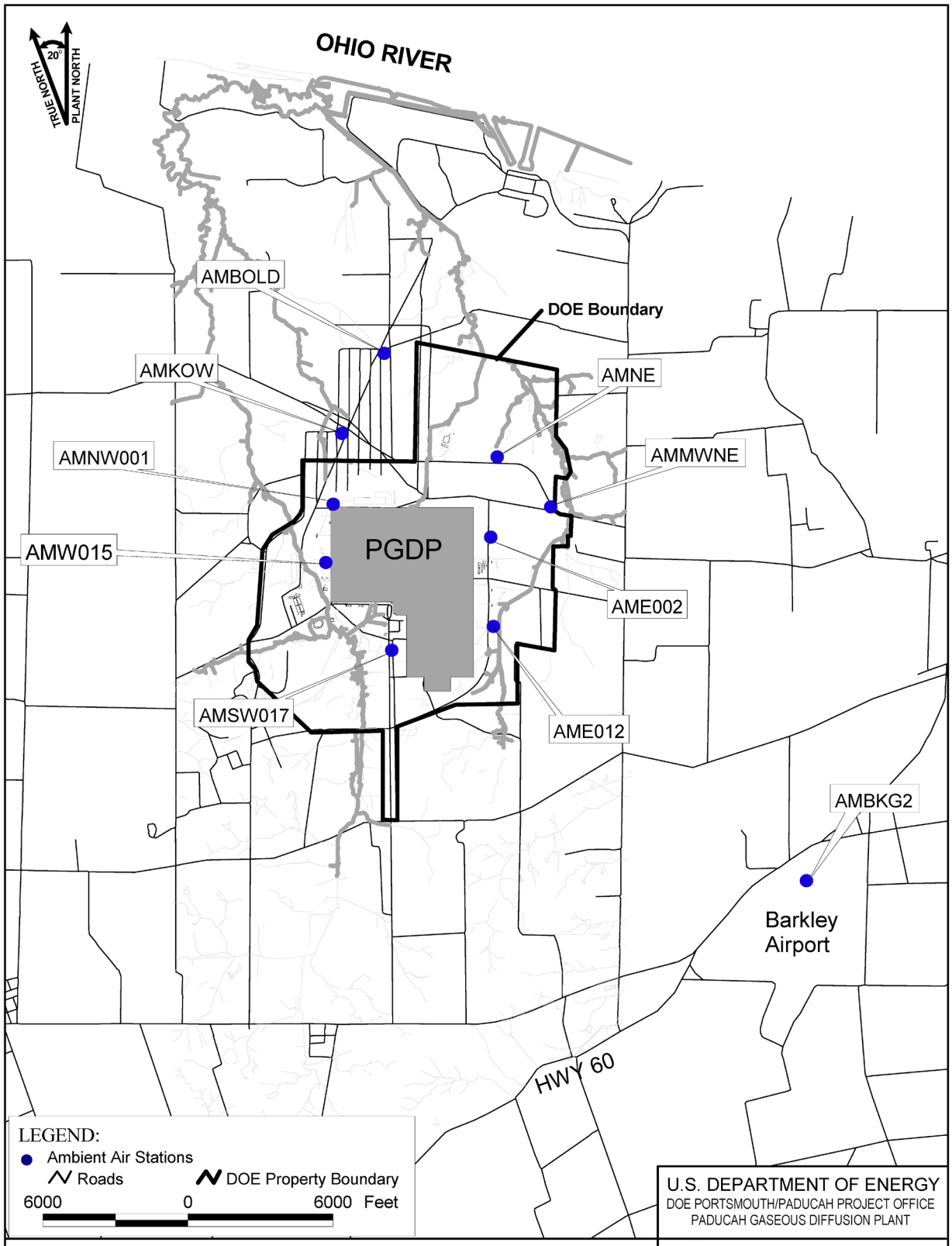

Figure 1. Paducah Site Ambient Air Monitoring Stations

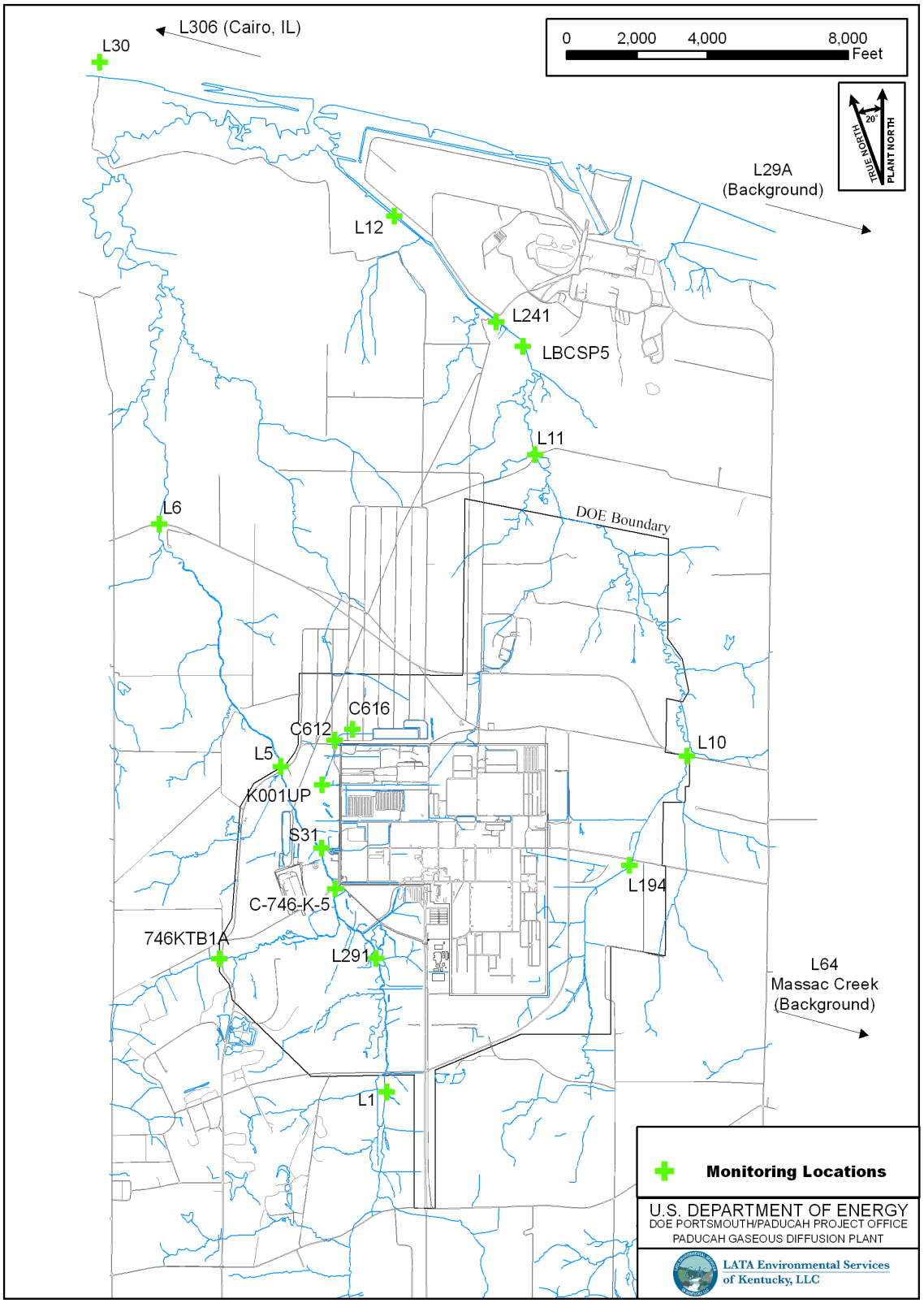

FIGURE No. ASER|ASER2010-SW.mxd
DATE 08-29-2011

Figure 2. Surface Water and Seep Monitoring Locations

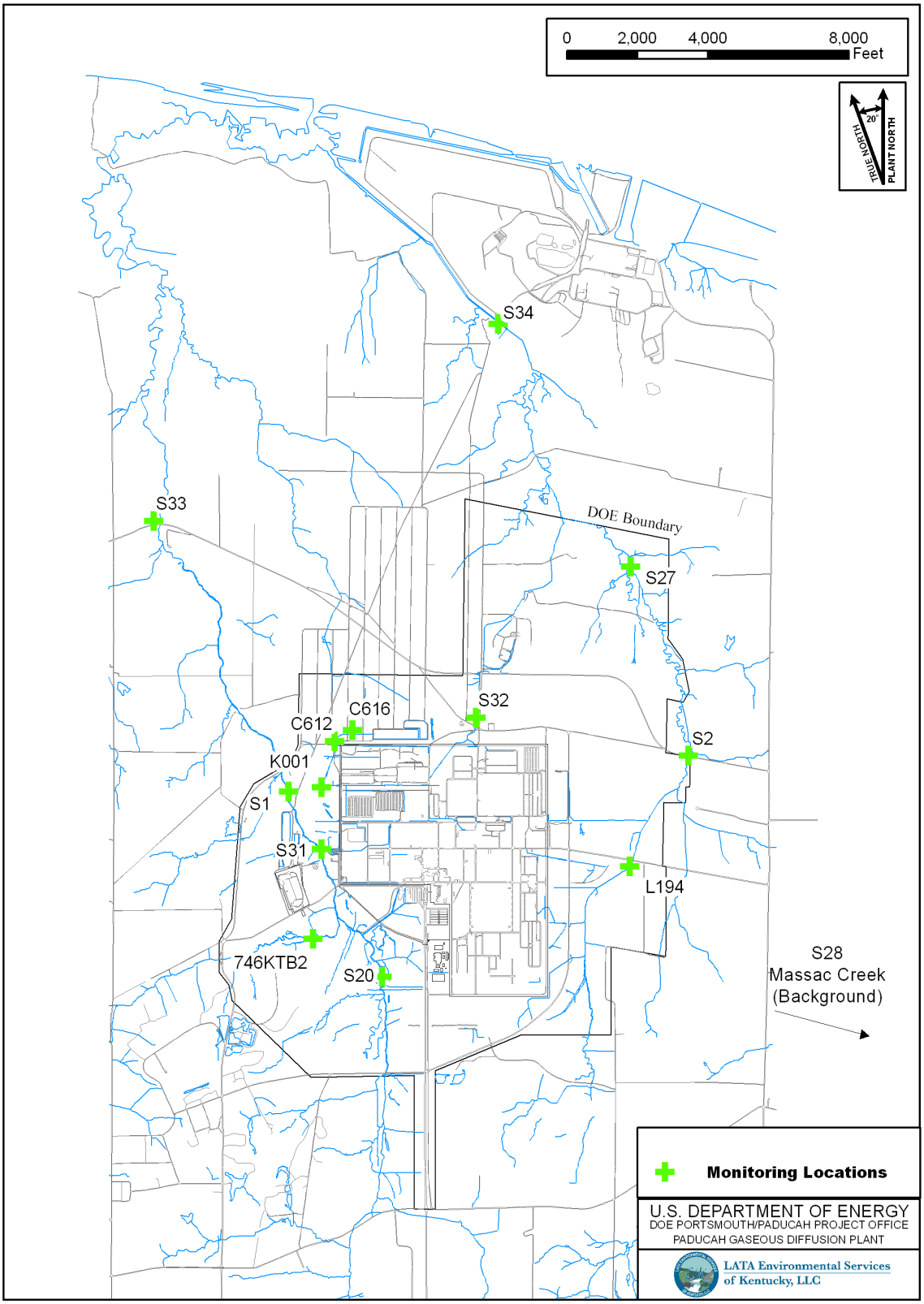

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Figure 3. Sediment Monitoring Locations

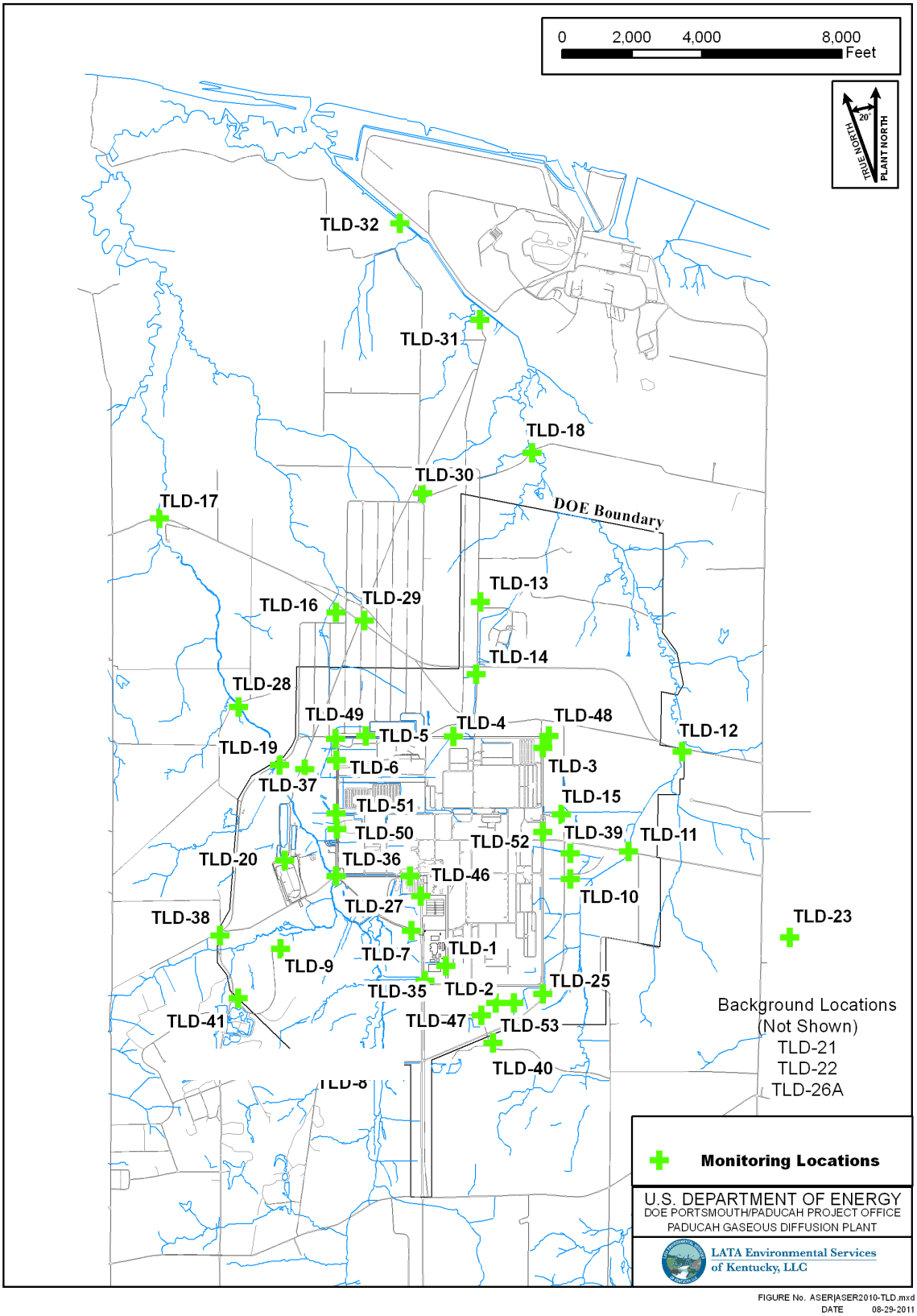

Figure 4. TLD Locations in the Vicinity of PGDP

1. RADIOLOGICAL EFFLUENT DATA

KPDES Radiological Data

Table 1.1. Radiological Effluent Data for Outfall 001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	-7.22E+00	1.02E+02	3.57E+00	54	54		
Beta activity	pCi/L	4.54E+00	8.44E+01	3.53E+01	54	54		
Technetium-99	pCi/L	-3.32E+00	2.67E+01	1.44E+01	4	4	ActionLimit	9.00E+02

Table 1.2. Radiological Effluent Data for Outfall 015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	5.72E+00	9.68E+01	3.21E+01	5	5		
Beta activity	pCi/L	1.60E+01	6.64E+01	2.90E+01	5	5		
Technetium-99	pCi/L	-1.61E+01	2.05E+01	4.71E+00	5	5	ActionLimit	9.00E+02

Table 1.3. Radiological Effluent Data for Outfall 017

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	9.42E-02	4.13E+00	1.80E+00	22	22		
Beta activity	pCi/L	8.18E-01	1.30E+01	5.91E+00	22	22		
Technetium-99	pCi/L	-1.71E+00	2.97E+01	1.20E+01	5	5	ActionLimit	9.00E+02

Table 1.4. Radiological Effluent Data for Outfall 019

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	-1.66E+00	2.64E+00	4.90E-01	2	2		
Beta activity	pCi/L	7.83E+00	7.86E+00	7.85E+00	2	2		
Technetium-99	pCi/L	-1.14E+01	-3.86E+00	-7.63E+00	2	2	ActionLimit	9.00E+02

Table 1.5. Radiological Effluent Data for Outfall 020

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	2.93E-01	2.84E+01	1.01E+01	13	13		
Beta activity	pCi/L	1.48E+01	3.85E+01	2.19E+01	13	13		
Technetium-99	pCi/L	4.60E+00	1.91E+01	1.26E+01	4	4	ActionLimit	9.00E+02

Surface Water Radiological Data

Table 1.6. Radiological Effluent Data for Landfill Surface Water Location L135

Upstream of the C-746-S&T Closed Landfills

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	1.28E+00	8.42E+00	4.26E+00	3	3		
Beta activity	pCi/L	8.52E+00	3.47E+01	2.18E+01	3	3		

Table 1.7. Radiological Effluent Data for Landfill Surface Water Location L136

At the C-746-S&T Closed Landfills

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	-4.11E-02	3.05E+00	1.30E+00	3	3		
Beta activity	pCi/L	7.11E+00	1.22E+01	1.04E+01	3	3		

Table 1.8. Radiological Effluent Data for Landfill Surface Water Location L150

At the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	9.37E-01	3.15E+00	1.79E+00	3	3		
Beta activity	pCi/L	5.91E+00	1.04E+01	7.76E+00	3	3		

Table 1.9. Radiological Effluent Data for Landfill Surface Water Location L154

Upstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	2.04E+00	7.13E+00	4.32E+00	3	3		
Beta activity	pCi/L	1.38E+01	2.46E+01	1.96E+01	3	3		

Table 1.10. Radiological Effluent Data for Landfill Surface Water Location L351

Downstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	3.51E+00	5.51E+00	4.55E+00	4	4		
Beta activity	pCi/L	9.40E+00	2.06E+01	1.52E+01	4	4		

2. RADIOLOGICAL ENVIRONMENTAL SURVEILLANCE DATA

Table 2.1. Kentucky Radiation Health and Toxics Branch Ambient Air Monitoring Results[1,2]
Ambient Air Station

		AMSW017	AMW015	AMNW001	AMNE	AME002	AME012	AMBKG2	AMBOLD	AMKOW	AMMWNE	TRPBLK
Qtr	**Nuclide**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**	**Ci/m3**
1	Am-241	-2.38E-18	-2.51E-18	-7.39E-16	-7.78E-16	-4.31E-15	-1.08E-18	-1.97E-15	-8.78E-17	-2.25E-15	-4.42E-15	-7.21E-16
	Np-237	8.46E-17	6.87E-17	1.84E-16	1.73E-16	-1.39E-16	5.33E-16	1.03E-16	-1.06E-17	2.77E-17	5.10E-16	7.64E-17
	Tc-99	-1.09E-16	-3.35E-17	8.13E-17	-4.53E-16	-4.98E-16	-5.36E-16	-6.18E-16	7.30E-17	-3.07E-17	-2.62E-16	-5.01E-17
	U-238/Th-234	8.20E-17	7.48E-17	4.77E-17	8.43E-17	8.13E-17	1.77E-17	5.11E-17	1.58E-16	5.02E-17	9.19E-17	4.60E-17
2	Am-241	-2.23E-17	-2.12E-15	-8.38E-16	-6.94E-17	-2.15E-15	-9.11E-16	-1.91E-17	1.15E-16	-1.94E-15	-6.28E-15	-4.41-15
	Np-237	-1.80E-16	-2.27E-16	-3.79E-16	1.25E-16	2.47E-16	-3.10E-17	-6.10E-17	1.27E-16	-5.32E-16	6.85E-16	-5.18E-17
	Tc-99	3.02E-16	2.90E-16	2.18E-16	2.22E-16	4.26E-16	3.45E-16	-2.99E-17	2.60E-16	3.19E-16	-9.94E-17	-1.76E-16
	U-238/Th-234	2.75E-17	4.39E-17	1.59E-17	9.24E-17	8.24E-17	4.80E-17	3.55E-17	1.09E-16	2.20E-17	4.93E-17	2.90E-17
3	Am-241	-7.84E-16	-5.28E-15	-7.86E-16	-5.15E-15	-2.05E-15	-7.10E-16	-5.26E-15	-1.87E-15	-1.24E-15	-4.96E-15	-2.50E-15
	Np-237	-4.50E-16	2.20E-16	-1.87E-16	9.67E-16	3.40E-16	2.81E-16	-3.95E-16	3.58E-16	-1.69E-16	-1.58E-16	-2.62E-16
	Tc-99	5.58E-16	5.75E-16	8.63E-16	2.92E-16	2.46E-16	4.88E-16	5.60E-16	5.81E-16	5.04E-16	3.27E-16	3.09E-16
	U-238/Th-234	9.51E-18	1.86E-17	7.10E-17	3.79E-17	6.02E-17	4.49E-17	3.74E-17	6.51E-17	7.01E-17	7.47E-17	9.97E-18
4	Am-241	-5.56E-16	-5.02E-15	-2.54E-15	-2.73-15	3.09E-17	5.29E-18	4.50E-17	-6.72E-16	-2.87E-15	-4.08E-17	-2.59E-15
	Np-237	-3.37E-16	-4.21E-16	2.04E-16	-8.19E-18	4.23E-17	-8.12E-17	-1.21E-16	3.09E-16	-2.09E-16	-5.29E-16	-1.18E-16
	Tc-99	1.19E-16	5.54E-17	-2.62E-16	2.28E-16	2.69E-16	1.03E-17	2.61E-17	-1.74E-17	7.25E-17	-6.11E-17	-1.631E-16
	U-238/Th-234	-2.51E-17	1.02E-17	1.86E-17	6.74E-17	7.78E-17	7.33E-17	4.39E-17	1.35E-16	1.97E-17	2.33E-17	-7.90E-17

[1] All results are below the applicable limiting values of 40 *CFR* § 61, Table 2 (see footnote 3).
[2] 40 *CFR* § 61, Table 2, Limiting Values (Ci/m^3): Am-241, 1.9E-15; Np-237, 1.2E-15; Tc-99, 1.4E-13; Th-234, 2.2E-12; and U-238, 8.3E-15.

Surface Water Radiological Data

Table 2.2. Radiological Monitoring Data for Surface Water Location L1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	7.96E-03	5.43E-02	3.72E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-2.61E+00	5.30E-01	-1.06E+00	3	3		
Cesium-137	pCi/L	-9.43E-01	-7.98E-02	-3.90E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.62E+00	1.75E-01	-5.41E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	2.30E-02	3.66E+00	2.16E+00	3	3		
Dissolved Beta	pCi/L	1.91E+00	3.69E+00	2.98E+00	3	3		
Neptunium-237	pCi/L	-1.23E-02	2.04E-02	-4.37E-04	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-6.55E-03	4.05E-04	-2.57E-03	3	3		
Plutonium-239/240	pCi/L	-4.61E-03	1.72E-02	4.71E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-2.31E+01	-1.22E+01	-1.93E+01	3	3		
Suspended Alpha	pCi/L	-9.08E-01	1.01E+00	2.20E-01	3	3		
Suspended Beta	pCi/L	-5.75E-01	2.08E+00	6.91E-01	3	3		
Technetium-99	pCi/L	-1.03E+01	1.04E+01	-5.67E-01	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	8.82E-02	4.81E-01	2.45E-01	3	3		
Thorium-230	pCi/L	-5.82E-02	5.37E-02	-1.04E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-9.26E-02	2.68E-02	-1.57E-02	3	3		
Thorium-234	pCi/L	-2.22E+01	1.30E+01	-5.75E+00	3	3		
Uranium	pCi/L	-3.66E-02	1.72E-01	7.38E-02	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	2.58E-02	8.12E-02	5.06E-02	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-3.64E-02	4.62E-04	-1.84E-02	3	3	10%DCG	6.00E+01
Uranium-235	wt %				3	3		
Uranium-238	pCi/L	-4.51E-02	1.10E-01	4.15E-02	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.3. Radiological Monitoring Data for Surface Water Location L5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-9.37E-03	6.74E-02	2.87E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.62E+00	1.16E-01	-8.68E-01	3	3		
Cesium-137	pCi/L	-9.43E-01	1.98E-01	-2.04E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-6.54E-01	1.69E+00	5.77E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	1.18E+00	1.31E+01	5.74E+00	3	3		
Dissolved Beta	pCi/L	8.93E+00	1.60E+01	1.23E+01	3	3		
Neptunium-237	pCi/L	-2.69E-01	1.49E-02	-8.56E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-4.69E-02	2.26E-02	-1.19E-02	3	3		
Plutonium-239/240	pCi/L	0.00E+00	7.36E-03	2.72E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.43E+01	4.52E+01	1.17E+01	3	3		
Suspended Alpha	pCi/L	-2.12E+00	1.69E+00	-2.70E-01	3	3		
Suspended Beta	pCi/L	1.14E+00	7.63E+00	3.47E+00	3	3		
Technetium-99	pCi/L	-9.38E+00	6.16E+00	-1.20E-01	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.93E-01	4.96E-01	2.98E-01	3	3		
Thorium-230	pCi/L	-1.73E-02	8.14E-02	2.01E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-2.35E-02	2.63E-02	6.90E-03	3	3		
Thorium-234	pCi/L	-3.35E+01	1.45E+00	-1.76E+01	3	3		
Uranium	pCi/L	5.36E-01	1.16E+01	6.32E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	3.59E-01	4.23E+00	2.27E+00	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-1.07E-02	2.15E-01	1.34E-01	3	3	10%DCG	6.00E+01
Uranium-235	wt %	4.91E-01	4.91E-01	4.91E-01	3	3		
Uranium-238	pCi/L	1.88E-01	7.15E+00	3.91E+00	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.4. Radiological Monitoring Data for Surface Water Location L6

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-1.63E-02	5.58E-02	1.69E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-5.25E-01	-6.82E-02	-3.59E-01	3	3		
Cesium-137	pCi/L	-4.77E-01	1.44E+00	7.61E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.34E+00	-8.64E-01	-1.07E+00	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	2.16E+00	9.37E+00	4.77E+00	3	3		
Dissolved Beta	pCi/L	6.56E+00	1.61E+01	1.04E+01	3	3		
Neptunium-237	pCi/L	-2.21E-02	3.69E-02	5.07E-03	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-2.38E-02	4.45E-03	-1.04E-02	3	3		
Plutonium-239/240	pCi/L	0.00E+00	2.23E-02	7.70E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-9.35E+00	1.69E+01	7.85E+00	3	3		
Suspended Alpha	pCi/L	-8.37E-01	5.71E-01	4.13E-02	3	3		
Suspended Beta	pCi/L	-1.60E+00	7.82E+00	2.27E+00	3	3		
Technetium-99	pCi/L	-3.69E+00	8.59E+00	2.70E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.73E-01	5.32E-01	3.01E-01	3	3		
Thorium-230	pCi/L	-3.35E-02	1.32E-01	4.43E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-2.02E-02	1.51E-02	-3.17E-03	3	3		
Thorium-234	pCi/L	-1.02E+01	2.43E+00	-5.54E+00	3	3		
Uranium	pCi/L	1.44E+00	7.58E+00	4.68E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.15E+00	2.98E+00	1.93E+00	3	3	10%DCG	5.00E+01
Uranium-235	wt %	4.92E-01	4.92E-01	4.92E-01	3	3		
Uranium-235	pCi/L	7.82E-03	1.53E-01	8.58E-02	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	2.74E-01	4.45E+00	2.66E+00	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.5. Radiological Monitoring Data for Surface Water Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	1.25E-03	1.68E-02	8.79E-03	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-8.45E-01	1.12E-01	-4.31E-01	3	3		
Cesium-137	pCi/L	-1.29E+00	-2.71E-01	-6.77E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.82E+00	1.86E+00	-3.50E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-1.06E+00	8.88E+00	4.31E+00	3	3		
Dissolved Beta	pCi/L	1.35E+01	4.11E+01	3.16E+01	3	3		
Neptunium-237	pCi/L	-6.58E-02	6.23E-03	-2.21E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	8.61E-04	1.09E-02	6.94E-03	3	3		
Plutonium-239/240	pCi/L	0.00E+00	1.10E-02	4.23E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-5.65E+00	2.55E+01	4.97E+00	3	3		
Suspended Alpha	pCi/L	8.21E-01	3.77E+00	2.33E+00	3	3		
Suspended Beta	pCi/L	3.08E+00	3.60E+00	3.39E+00	3	3		
Technetium-99	pCi/L	-8.89E+00	6.79E+00	1.47E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.03E-01	5.70E-01	3.63E-01	3	3		
Thorium-230	pCi/L	-2.18E-02	1.09E-01	4.22E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-2.34E-02	6.01E-03	-9.50E-03	3	3		
Thorium-234	pCi/L	-1.29E+01	4.66E+00	-4.69E+00	3	3		
Uranium	pCi/L	1.45E+00	8.68E+00	4.53E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	4.94E-01	1.90E+00	1.37E+00	3	3	10%DCG	5.00E+01
Uranium-235	wt %	3.17E-01	3.17E-01	3.17E-01	3	3		
Uranium-235	pCi/L	4.22E-02	2.22E-01	1.03E-01	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	9.15E-01	6.56E+00	3.06E+00	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.6. Radiological Monitoring Data for Surface Water Location K015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	3.84E-03	1.54E-02	9.62E-03	2	2	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.09E+00	-4.57E-01	-7.74E-01	2	2		
Cesium-137	pCi/L	-6.92E-01	-4.98E-01	-5.95E-01	2	2	10%DCG	3.00E+02
Cobalt-60	pCi/L	-7.00E-01	-2.99E-01	-4.99E-01	2	2	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	2.98E+00	1.05E+02	5.40E+01	2	2		
Dissolved Beta	pCi/L	1.17E+01	6.92E+01	4.05E+01	2	2		
Neptunium-237	pCi/L	-1.82E-02	5.42E-02	1.80E-02	2	2	10%DCG	3.00E+00
Plutonium-238	pCi/L	-2.50E-02	-1.68E-02	-2.09E-02	2	2		
Plutonium-239/240	pCi/L	-2.64E-03	4.08E-02	1.91E-02	2	2	10%DCG	3.00E+00
Potassium-40	pCi/L	-9.98E+00	3.22E+01	1.11E+01	2	2		
Suspended Alpha	pCi/L	8.45E-01	5.75E+00	3.30E+00	2	2		
Suspended Beta	pCi/L	8.04E+00	2.63E+01	1.72E+01	2	2		
Technetium-99	pCi/L	6.13E+00	1.06E+01	8.37E+00	2	2	ActionLimit	9.00E+02
Thorium-228	pCi/L	3.03E-02	4.84E-01	2.57E-01	2	2		
Thorium-230	pCi/L	2.68E-03	4.50E-02	2.38E-02	2	2	10%DCG	3.00E+01
Thorium-232	pCi/L	-1.44E-02	2.71E-02	6.35E-03	2	2		
Thorium-234	pCi/L	-4.42E+00	1.36E+01	4.59E+00	2	2		
Uranium	pCi/L	3.44E+00	1.39E+02	7.12E+01	2	2	10%DCG	6.00E+01
Uranium-234	pCi/L	6.71E-01	2.60E+01	1.33E+01	2	2	10%DCG	5.00E+01
Uranium-235	wt %	2.49E-01	2.49E-01	2.49E-01	2	2		
Uranium-235	pCi/L	2.30E-02	2.12E+00	1.07E+00	2	2	10%DCG	6.00E+01
Uranium-238	pCi/L	2.75E+00	1.11E+02	5.69E+01	2	2	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.7. Radiological Monitoring Data for Surface Water Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-8.50E-03	3.29E-02	1.46E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.82E-01	6.30E-01	1.87E-01	3	3		
Cesium-137	pCi/L	4.86E-01	2.71E+00	1.48E+00	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.54E+00	-6.14E-01	-9.37E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-2.09E+00	7.95E+00	2.78E+00	3	3		
Dissolved Beta	pCi/L	1.84E+01	3.20E+01	2.43E+01	3	3		
Neptunium-237	pCi/L	-2.68E-02	3.27E-02	-6.27E-03	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.18E-02	1.73E-02	-1.60E-03	3	3		
Plutonium-239/240	pCi/L	-5.52E-03	5.92E-03	1.92E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-8.18E+00	9.08E+00	-2.00E+00	3	3		
Suspended Alpha	pCi/L	-1.69E+00	2.59E+00	1.28E-01	3	3		
Suspended Beta	pCi/L	-1.87E+00	4.00E+00	1.19E+00	3	3		
Technetium-99	pCi/L	2.31E+01	4.92E+01	3.69E+01	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.66E-01	2.72E-01	2.26E-01	3	3		
Thorium-230	pCi/L	8.31E-02	1.66E-01	1.29E-01	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-2.70E-02	1.13E-01	3.87E-02	3	3		
Thorium-234	pCi/L	-2.85E+01	-2.20E+01	-2.44E+01	3	3		
Uranium	pCi/L	1.67E-03	3.77E-02	1.98E-02	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	6.55E-03	3.69E-02	2.10E-02	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-3.67E-02	1.81E-02	-2.91E-03	3	3	10%DCG	6.00E+01
Uranium-235	wt %				3	3		
Uranium-238	pCi/L	-1.73E-02	1.88E-02	1.65E-03	3	3	10%DCG	6.00E+01

Table 2.8. Radiological Monitoring Data for Surface Water Location C613

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	1.16E+01	1.16E+01	1.16E+01	1	1		
Beta activity	pCi/L	1.22E+01	1.22E+01	1.22E+01	1	1		
Uranium	pCi/L	1.74E+01	1.74E+01	1.74E+01	1	1	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.9. Radiological Monitoring Data for Surface Water Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-3.74E-03	4.47E-02	1.65E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.16E+00	1.33E+00	-4.40E-02	3	3		
Cesium-137	pCi/L	-1.01E+00	3.85E-01	-3.47E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.37E+00	-1.13E+00	-1.28E+00	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-5.96E+00	-1.51E+00	-4.24E+00	3	3		
Dissolved Beta	pCi/L	3.79E+01	5.02E+01	4.37E+01	3	3		
Neptunium-237	pCi/L	-5.31E-03	8.82E-02	2.87E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-3.89E-03	8.02E-02	2.79E-02	3	3		
Plutonium-239/240	pCi/L	0.00E+00	3.36E-02	1.36E-02	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	2.65E+01	4.64E+01	3.78E+01	3	3		
Suspended Alpha	pCi/L	-1.45E+00	1.27E+00	-1.12E-01	3	3		
Suspended Beta	pCi/L	-2.36E+00	1.21E+01	4.17E+00	3	3		
Technetium-99	pCi/L	-5.02E+00	1.35E+01	4.21E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.31E-01	4.63E-01	2.70E-01	3	3		
Thorium-230	pCi/L	-4.57E-02	5.80E-02	9.20E-03	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-4.90E-02	9.12E-03	-1.16E-02	3	3		
Thorium-234	pCi/L	-1.30E+00	6.25E+01	3.74E+01	3	3		
Uranium	pCi/L	1.26E+00	1.50E+00	1.40E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	6.03E-01	8.01E-01	6.99E-01	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	-1.98E-02	8.11E-02	3.47E-02	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	6.14E-01	7.19E-01	6.66E-01	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.10. Radiological Monitoring Data for Surface Water Location L291

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-2.13E-02	1.97E-02	1.30E-03	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.45E+00	8.59E-01	-4.41E-01	3	3		
Cesium-137	pCi/L	-1.03E+00	1.66E+00	1.49E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.95E+00	5.67E-01	-3.76E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-7.32E-01	1.53E+00	6.06E-01	3	3		
Dissolved Beta	pCi/L	1.12E+00	3.06E+00	2.33E+00	3	3		
Neptunium-237	pCi/L	-4.60E-02	5.44E-02	1.01E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	2.73E-03	8.41E-03	6.31E-03	3	3		
Plutonium-239/240	pCi/L	-8.87E-03	6.83E-03	-2.52E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.25E+01	3.55E+01	6.88E+00	3	3		
Suspended Alpha	pCi/L	-6.23E-01	7.39E-01	1.82E-01	3	3		
Suspended Beta	pCi/L	-4.28E+00	1.57E+00	-1.93E+00	3	3		
Technetium-99	pCi/L	-1.26E+01	3.32E+01	8.22E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.20E-01	4.06E-01	2.44E-01	3	3		
Thorium-230	pCi/L	-4.82E-02	1.89E-01	5.84E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	1.29E-02	1.83E-02	1.65E-02	3	3		
Thorium-234	pCi/L	-1.09E+01	3.80E+01	9.37E+00	3	3		
Uranium	pCi/L	2.14E-01	8.57E-01	4.35E-01	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.61E-01	8.39E-01	3.92E-01	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-2.26E-02	1.73E-02	-7.53E-03	3	3	10%DCG	6.00E+01
Uranium-235	wt %				3	3		
Uranium-238	pCi/L	3.56E-02	7.47E-02	5.02E-02	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.11. Radiological Monitoring Data for Surface Water Location L10

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	1.93E-03	3.63E-02	1.52E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-2.84E+00	1.45E+00	-3.01E-01	3	3		
Cesium-137	pCi/L	-1.13E+00	6.84E-02	-4.01E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	5.30E-01	3.40E+00	2.07E+00	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-1.45E+00	2.58E+00	6.97E-01	3	3		
Dissolved Beta	pCi/L	1.14E+00	4.18E+00	3.04E+00	3	3		
Neptunium-237	pCi/L	-1.20E-02	9.66E-03	2.10E-04	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	7.22E-03	1.32E-02	9.69E-03	3	3		
Plutonium-239/240	pCi/L	-1.66E-02	-4.99E-03	-9.99E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.41E+01	9.93E+00	-2.98E+00	3	3		
Suspended Alpha	pCi/L	-5.78E-01	7.39E-01	-5.20E-02	3	3		
Suspended Beta	pCi/L	-8.92E-01	6.09E+00	1.59E+00	3	3		
Technetium-99	pCi/L	-1.65E+00	6.79E+00	3.56E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	2.38E-01	6.94E-01	4.07E-01	3	3		
Thorium-230	pCi/L	-3.92E-02	3.96E-02	7.87E-03	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-1.63E-02	-5.06E-03	-1.22E-02	3	3		
Thorium-234	pCi/L	-2.77E+01	5.82E+01	2.08E+01	3	3		
Uranium	pCi/L	1.10E+00	4.37E+00	2.92E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	4.81E-01	7.92E-01	6.22E-01	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	-1.40E-02	9.88E-02	4.54E-02	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	3.18E-01	3.67E+00	2.25E+00	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.12. Radiological Monitoring Data for Surface Water Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-1.68E-02	1.16E-02	-3.21E-03	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-5.07E-01	2.31E+00	5.09E-01	3	3		
Cesium-137	pCi/L	3.16E-01	2.30E+00	1.14E+00	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.55E+00	-7.56E-01	-1.13E+00	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	2.57E+00	5.66E+00	4.33E+00	3	3		
Dissolved Beta	pCi/L	3.01E+00	6.65E+00	4.86E+00	3	3		
Neptunium-237	pCi/L	-2.35E-02	2.73E-02	1.99E-03	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-5.73E-04	1.31E-02	5.11E-03	3	3		
Plutonium-239/240	pCi/L	-5.17E-03	1.82E-02	3.20E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.63E+01	1.64E+01	-2.55E+00	3	3		
Suspended Alpha	pCi/L	-1.74E+00	3.61E-01	-6.09E-01	3	3		
Suspended Beta	pCi/L	-2.05E+00	4.37E+00	1.19E+00	3	3		
Technetium-99	pCi/L	-9.27E+00	1.45E+01	1.96E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	7.50E-02	3.57E-01	2.37E-01	3	3		
Thorium-230	pCi/L	-5.02E-02	2.63E-02	-1.80E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-3.56E-02	1.90E-02	-1.07E-02	3	3		
Thorium-234	pCi/L	-9.77E+00	-2.65E+00	-6.56E+00	3	3		
Uranium	pCi/L	1.00E+00	4.37E+00	2.83E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	5.29E-01	8.61E-01	7.12E-01	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-1.43E-02	7.71E-02	4.01E-02	3	3	10%DCG	6.00E+01
Uranium-235	wt %				3	3		
Uranium-238	pCi/L	2.69E-01	3.43E+00	2.08E+00	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.13. Radiological Monitoring Data for Surface Water Location L11

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	7.52E-03	4.41E-02	3.32E-02	4	4	10%DCG	3.00E+00
Cesium-134	pCi/L	-7.81E-01	2.50E-01	-1.35E-01	4	4		
Cesium-137	pCi/L	5.05E-02	1.45E+00	7.33E-01	4	4	10%DCG	3.00E+02
Cobalt-60	pCi/L	-2.08E+00	-1.02E-01	-9.87E-01	4	4	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-3.70E-02	2.90E+00	1.41E+00	4	4		
Dissolved Beta	pCi/L	2.98E+00	9.03E+00	4.94E+00	4	4		
Neptunium-237	pCi/L	-4.76E-03	7.84E-02	2.67E-02	4	4	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.16E-02	-2.20E-04	-6.07E-03	4	4		
Plutonium-239/240	pCi/L	7.20E-04	1.11E-02	4.39E-03	4	4	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.71E+01	2.80E+01	4.93E+00	4	4		
Suspended Alpha	pCi/L	-9.37E-01	5.47E-01	-8.60E-02	4	4		
Suspended Beta	pCi/L	-1.05E-01	5.31E+00	2.33E+00	4	4		
Technetium-99	pCi/L	-1.46E+01	5.82E+00	-3.63E+00	4	4	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.32E-01	2.27E-01	1.75E-01	4	4		
Thorium-230	pCi/L	-2.51E-02	4.04E-02	6.70E-03	4	4	10%DCG	3.00E+01
Thorium-232	pCi/L	-1.82E-02	4.97E-02	1.41E-02	4	4		
Thorium-234	pCi/L	-1.53E+01	9.02E+00	-8.87E+00	4	4		
Uranium	pCi/L	9.42E-01	4.28E+00	3.15E+00	4	4	10%DCG	6.00E+01
Uranium-234	pCi/L	2.73E-01	8.19E-01	5.57E-01	4	4	10%DCG	5.00E+01
Uranium-235	pCi/L	-2.72E-02	1.34E-01	5.31E-02	4	4	10%DCG	6.00E+01
Uranium-235	wt %				4	4		
Uranium-238	pCi/L	6.97E-01	3.42E+00	2.54E+00	4	4	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.14. Radiological Monitoring Data for Surface Water Location L12

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	1.82E-03	2.71E-02	1.73E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.13E+00	6.10E-03	-6.10E-01	3	3		
Cesium-137	pCi/L	-5.41E-01	7.80E-01	-4.17E-02	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-7.84E-01	5.62E-01	-7.52E-02	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	1.77E+00	3.81E+00	3.00E+00	3	3		
Dissolved Beta	pCi/L	7.64E+00	1.33E+01	1.07E+01	3	3		
Neptunium-237	pCi/L	-2.30E-02	3.86E-02	1.62E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.62E-02	-2.34E-04	-6.05E-03	3	3		
Plutonium-239/240	pCi/L	1.57E-03	1.10E-02	4.72E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-6.14E+00	-3.92E+00	-4.76E+00	3	3		
Suspended Alpha	pCi/L	-3.51E-01	1.12E+00	1.83E-01	3	3		
Suspended Beta	pCi/L	8.02E-01	1.58E+00	1.20E+00	3	3		
Technetium-99	pCi/L	4.50E+00	1.20E+01	8.38E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	9.56E-02	5.03E-01	2.59E-01	3	3		
Thorium-230	pCi/L	5.52E-02	2.26E-01	1.47E-01	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-1.95E-02	2.26E-02	-3.60E-04	3	3		
Thorium-234	pCi/L	-2.29E+01	-5.04E+00	-1.53E+01	3	3		
Uranium	pCi/L	5.26E-01	1.99E+00	1.31E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.89E-01	5.25E-01	3.79E-01	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	-1.26E-02	6.41E-02	3.29E-02	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	3.50E-01	1.50E+00	8.96E-01	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.15. Radiological Monitoring Data for Surface Water Location L241

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	-1.62E-03	2.40E-02	7.89E-03	4	4	10%DCG	3.00E+00
Cesium-134	pCi/L	-3.08E-01	1.01E+00	1.40E-01	4	4		
Cesium-137	pCi/L	-8.08E-01	1.35E+00	2.24E-01	4	4	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.41E-01	7.66E-01	2.36E-01	4	4	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	6.10E-01	3.75E+00	1.74E+00	4	4		
Dissolved Beta	pCi/L	9.10E+00	3.39E+01	1.82E+01	4	4		
Neptunium-237	pCi/L	1.24E-02	3.53E-02	2.08E-02	4	4	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.03E-02	1.18E-03	-2.92E-03	4	4		
Plutonium-239/240	pCi/L	-6.07E-03	1.58E-02	4.22E-03	4	4	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.43E+01	1.46E+01	2.42E-01	4	4		
Suspended Alpha	pCi/L	4.50E-01	9.99E-01	7.09E-01	4	4		
Suspended Beta	pCi/L	1.29E+00	3.32E+00	2.32E+00	4	4		
Technetium-99	pCi/L	1.16E+00	5.17E+01	2.28E+01	4	4	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.23E-02	2.79E-01	1.36E-01	4	4		
Thorium-230	pCi/L	-1.12E-02	4.15E-01	1.69E-01	4	4	10%DCG	3.00E+01
Thorium-232	pCi/L	-2.19E-02	2.91E-02	-4.06E-03	4	4		
Thorium-234	pCi/L	-3.02E+01	-1.07E+01	-2.04E+01	4	4		
Uranium	pCi/L	5.50E-01	2.65E+00	1.95E+00	4	4	10%DCG	6.00E+01
Uranium-234	pCi/L	7.15E-02	6.39E-01	4.66E-01	4	4	10%DCG	5.00E+01
Uranium-235	wt %				4	4		
Uranium-235	pCi/L	1.11E-02	7.75E-02	4.84E-02	4	4	10%DCG	6.00E+01
Uranium-238	pCi/L	4.67E-01	2.00E+00	1.43E+00	4	4	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.16. Radiological Monitoring Data for Surface Water Location C746K-5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	2.30E-03	8.10E-02	3.63E-02	4	4	10%DCG	3.00E+00
Cesium-134	pCi/L	-2.07E+00	9.07E-01	-7.09E-01	4	4		
Cesium-137	pCi/L	-1.07E+00	8.68E-01	-4.75E-03	4	4	10%DCG	3.00E+02
Cobalt-60	pCi/L	-2.04E+00	9.35E-01	-5.93E-01	4	4	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	1.40E-01	9.61E-01	5.17E-01	4	4		
Dissolved Beta	pCi/L	2.11E+00	1.12E+01	5.76E+00	4	4		
Neptunium-237	pCi/L	1.44E-02	3.53E-02	2.24E-02	4	4	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.02E-02	9.20E-03	3.37E-04	4	4		
Plutonium-239/240	pCi/L	0.00E+00	1.59E-02	6.39E-03	4	4	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.06E+01	4.09E+01	5.33E+00	4	4		
Suspended Alpha	pCi/L	-1.38E+00	2.99E+00	3.68E-01	4	4		
Suspended Beta	pCi/L	-4.75E+00	2.25E+00	1.05E-01	4	4		
Technetium-99	pCi/L	-7.34E+00	5.63E+00	-6.08E-01	4	4	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.06E-01	2.62E-01	1.62E-01	4	4		
Thorium-230	pCi/L	-6.06E-02	1.10E-01	4.92E-02	4	4	10%DCG	3.00E+01
Thorium-232	pCi/L	-3.42E-02	2.60E-03	-1.71E-02	4	4		
Thorium-234	pCi/L	-1.42E+01	1.31E+01	-1.60E+00	4	4		
Uranium	pCi/L	1.33E-04	4.00E-01	1.66E-01	4	4	10%DCG	6.00E+01
Uranium-234	pCi/L	-2.16E-02	1.91E-01	9.39E-02	4	4	10%DCG	5.00E+01
Uranium-235	wt %				4	4		
Uranium-235	pCi/L	-4.16E-02	2.40E-02	-7.18E-03	4	4	10%DCG	6.00E+01
Uranium-238	pCi/L	2.34E-02	1.85E-01	7.99E-02	4	4	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.17. Radiological Monitoring Data for Surface Water Location C746KTB3

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	7.34E-03	6.45E-02	2.78E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-2.29E+00	3.95E-02	-1.04E+00	3	3		
Cesium-137	pCi/L	-1.29E+00	3.37E-01	-3.89E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.47E+00	1.36E+00	-3.86E-02	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-3.28E+00	-6.42E-01	-1.90E+00	3	3		
Dissolved Beta	pCi/L	-2.89E+00	1.17E+01	5.49E+00	3	3		
Neptunium-237	pCi/L	-2.54E-02	2.83E-02	6.73E-03	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-6.02E-03	5.42E-03	-1.87E-03	3	3		
Plutonium-239/240	pCi/L	0.00E+00	6.07E-03	2.02E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.91E+01	1.93E+00	-6.41E+00	3	3		
Suspended Alpha	pCi/L	3.35E-02	2.19E+00	7.91E-01	3	3		
Suspended Beta	pCi/L	-5.74E-01	1.63E+00	5.33E-01	3	3		
Technetium-99	pCi/L	-1.20E+01	4.53E+00	-3.41E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.21E-01	4.50E-01	2.56E-01	3	3		
Thorium-230	pCi/L	-6.84E-02	2.41E-01	7.16E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-3.53E-02	-1.05E-02	-2.23E-02	3	3		
Thorium-234	pCi/L	-2.20E+01	-1.63E+01	-1.90E+01	3	3		
Uranium	pCi/L	1.92E-02	9.54E-02	5.19E-02	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.88E-02	5.90E-02	4.51E-02	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	-1.94E-02	1.64E-02	8.73E-04	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	-1.90E-02	2.01E-02	5.90E-03	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.18. Radiological Monitoring Data for Surface Water Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	2.46E-02	4.77E-02	3.35E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.27E+00	-4.85E-01	-8.90E-01	3	3		
Cesium-137	pCi/L	-1.17E+00	-2.82E-01	-6.13E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-9.44E-01	-6.51E-01	-8.12E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	7.75E+00	9.96E+00	9.10E+00	3	3		
Dissolved Beta	pCi/L	1.05E+01	3.47E+01	2.07E+01	3	3		
Neptunium-237	pCi/L	-2.35E-02	2.03E-01	6.07E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	3.46E-03	1.06E-02	7.00E-03	3	3		
Plutonium-239/240	pCi/L	7.35E-03	7.88E-03	7.57E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.85E+01	5.94E+01	2.56E+01	3	3		
Suspended Alpha	pCi/L	-3.05E-01	1.21E+00	4.52E-01	3	3		
Suspended Beta	pCi/L	1.64E+00	2.16E+01	1.09E+01	3	3		
Technetium-99	pCi/L	-6.46E+00	1.54E+01	5.21E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	8.82E-02	2.61E-01	1.77E-01	3	3		
Thorium-230	pCi/L	-3.65E-02	9.78E-02	2.50E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-2.06E-02	2.74E-03	-1.20E-02	3	3		
Thorium-234	pCi/L	-1.60E+01	6.59E+01	3.51E+01	3	3		
Uranium	pCi/L	1.46E+00	1.27E+01	7.42E+00	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.09E+00	7.37E+00	4.46E+00	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	1.19E-01	3.80E-01	2.56E-01	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	2.52E-01	4.99E+00	2.72E+00	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.19. Radiological Monitoring Data for Surface Water Location L29A

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	2.44E-03	2.07E-02	1.10E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.47E+00	6.98E-01	-2.24E-01	3	3		
Cesium-137	pCi/L	-1.77E+00	9.54E-02	-9.68E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.95E+00	1.66E+00	-6.03E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-5.32E-01	4.02E+00	1.43E+00	3	3		
Dissolved Beta	pCi/L	2.44E+00	5.15E+00	3.81E+00	3	3		
Neptunium-237	pCi/L	-2.97E-02	5.62E-03	-1.41E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.62E-02	1.55E-03	-5.55E-03	3	3		
Plutonium-239/240	pCi/L	-5.13E-03	1.44E-02	5.31E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.77E+01	6.28E+01	1.96E+01	3	3		
Suspended Alpha	pCi/L	-7.22E-01	8.45E+00	4.39E+00	3	3		
Suspended Beta	pCi/L	5.40E+00	2.08E+01	1.21E+01	3	3		
Technetium-99	pCi/L	-2.33E+00	9.17E+00	2.83E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	2.13E-01	4.09E-01	3.16E-01	3	3		
Thorium-230	pCi/L	-6.86E-02	8.10E-02	2.40E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-8.91E-04	7.54E-02	2.66E-02	3	3		
Thorium-234	pCi/L	-1.42E+01	1.45E+00	-7.98E+00	3	3		
Uranium	pCi/L	3.71E-01	1.12E+00	7.06E-01	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	3.17E-01	8.68E-01	5.08E-01	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	-7.39E-03	5.46E-03	-2.08E-03	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	4.82E-02	2.92E-01	1.99E-01	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.20. Radiological Monitoring Data for Surface Water Location L30

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	2.48E-02	4.95E-02	3.38E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.06E+00	-2.64E-01	-5.39E-01	3	3		
Cesium-137	pCi/L	-7.22E-01	1.03E+00	-1.32E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.92E+00	9.65E-01	-3.93E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	7.90E-01	6.08E+00	3.47E+00	3	3		
Dissolved Beta	pCi/L	-1.23E+00	5.97E+00	3.39E+00	3	3		
Neptunium-237	pCi/L	7.06E-03	1.79E-02	1.23E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.63E-02	-5.94E-04	-1.06E-02	3	3		
Plutonium-239/240	pCi/L	1.06E-02	2.09E-02	1.43E-02	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.23E+01	2.55E+01	2.16E+00	3	3		
Suspended Alpha	pCi/L	-1.48E-01	2.24E+00	1.36E+00	3	3		
Suspended Beta	pCi/L	4.72E+00	9.13E+00	6.52E+00	3	3		
Technetium-99	pCi/L	-7.73E+00	-3.01E+00	-4.93E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	4.20E-02	2.70E-01	1.49E-01	3	3		
Thorium-230	pCi/L	-5.39E-02	2.29E-02	-4.67E-03	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-1.88E-02	2.70E-02	5.42E-03	3	3		
Thorium-234	pCi/L	-6.43E+00	1.79E+01	3.02E+00	3	3		
Uranium	pCi/L	3.01E-01	8.56E-01	5.41E-01	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.07E-01	7.42E-01	3.90E-01	3	3	10%DCG	5.00E+01
Uranium-235	wt %				3	3		
Uranium-235	pCi/L	-2.80E-02	5.81E-03	-7.00E-03	3	3	10%DCG	6.00E+01
Uranium-238	pCi/L	1.09E-01	1.92E-01	1.58E-01	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.21. Radiological Monitoring Data for Surface Water Location L306

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	5.42E-04	1.16E-02	7.06E-03	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-1.02E+00	1.70E-01	-3.00E-01	3	3		
Cesium-137	pCi/L	-1.13E+00	1.54E+00	1.99E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-1.50E+00	1.52E-01	-4.76E-01	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	1.60E+00	2.95E+00	2.49E+00	3	3		
Dissolved Beta	pCi/L	-6.94E-01	1.01E+01	5.10E+00	3	3		
Neptunium-237	pCi/L	6.27E-05	3.29E-02	1.73E-02	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	4.51E-03	2.80E-02	1.90E-02	3	3		
Plutonium-239/240	pCi/L	8.19E-04	1.65E-02	8.54E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-9.74E+00	3.48E+01	9.61E+00	3	3		
Suspended Alpha	pCi/L	-7.83E-01	1.31E+00	6.02E-01	3	3		
Suspended Beta	pCi/L	1.26E+00	6.43E+00	4.08E+00	3	3		
Technetium-99	pCi/L	1.59E+00	9.82E+00	5.48E+00	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	3.99E-01	5.90E-01	4.74E-01	3	3		
Thorium-230	pCi/L	5.16E-04	8.14E-02	4.97E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-4.74E-03	2.69E-03	-1.21E-03	3	3		
Thorium-234	pCi/L	-2.25E+01	-9.38E+00	-1.44E+01	3	3		
Uranium	pCi/L	2.73E-01	8.84E-01	6.20E-01	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.48E-01	8.29E-01	4.31E-01	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-1.27E-02	1.49E-02	-1.27E-04	3	3	10%DCG	6.00E+01
Uranium-235	wt %				3	3		
Uranium-238	pCi/L	6.75E-02	3.72E-01	1.89E-01	3	3	10%DCG	6.00E+01

Surface Water Radiological Data

Table 2.22. Radiological Monitoring Data for Surface Water Location L64

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Americium-241	pCi/L	2.88E-03	3.56E-02	1.56E-02	3	3	10%DCG	3.00E+00
Cesium-134	pCi/L	-2.23E-01	8.96E-01	4.32E-01	3	3		
Cesium-137	pCi/L	-6.97E-01	2.43E+00	7.81E-01	3	3	10%DCG	3.00E+02
Cobalt-60	pCi/L	-2.59E+00	-1.78E-01	-1.55E+00	3	3	10%DCG	1.00E+03
Dissolved Alpha	pCi/L	-2.15E-01	4.37E+00	1.86E+00	3	3		
Dissolved Beta	pCi/L	1.66E+00	4.42E+00	3.25E+00	3	3		
Neptunium-237	pCi/L	-2.46E-02	2.87E-02	-2.70E-03	3	3	10%DCG	3.00E+00
Plutonium-238	pCi/L	-1.11E-02	4.14E-03	-4.51E-03	3	3		
Plutonium-239/240	pCi/L	0.00E+00	6.30E-03	4.15E-03	3	3	10%DCG	3.00E+00
Potassium-40	pCi/L	-1.54E+01	5.74E+01	1.42E+01	3	3		
Suspended Alpha	pCi/L	-3.80E-01	1.62E-01	-7.36E-02	3	3		
Suspended Beta	pCi/L	-6.79E-01	5.54E+00	1.96E+00	3	3		
Technetium-99	pCi/L	-9.93E+00	8.53E+00	-1.89E-01	3	3	ActionLimit	9.00E+02
Thorium-228	pCi/L	1.98E-01	4.24E-01	2.85E-01	3	3		
Thorium-230	pCi/L	-6.43E-02	2.91E-02	-2.95E-02	3	3	10%DCG	3.00E+01
Thorium-232	pCi/L	-8.30E-03	2.12E-02	5.62E-03	3	3		
Thorium-234	pCi/L	-1.49E+01	2.12E+00	-6.99E+00	3	3		
Uranium	pCi/L	5.26E-02	8.31E-01	3.56E-01	3	3	10%DCG	6.00E+01
Uranium-234	pCi/L	1.46E-02	8.99E-01	3.64E-01	3	3	10%DCG	5.00E+01
Uranium-235	pCi/L	-2.74E-02	1.95E-02	8.33E-04	3	3	10%DCG	6.00E+01
Uranium-235	wt %				3	3		
Uranium-238	pCi/L	-4.06E-02	2.76E-02	-9.10E-03	3	3	10%DCG	6.00E+01

Table 2.23. Radiological Monitoring Data for Surface Water Seep Location LBCSP5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	2.98E+00	4.07E+00	3.53E+00	2	2		
Beta activity	pCi/L	5.43E+01	6.09E+01	5.76E+01	2	2		
Technetium-99	pCi/L	6.99E+01	8.87E+01	7.93E+01	2	2	ActionLimit	9.00E+02
Uranium	pCi/L	-4.14E-02	8.97E-01	4.28E-01	2	2	10%DCG	6.00E+01

Sediment Radiological Data

Table 2.24. Radiological Data for Sediment Location S20

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	3.70E-03	3.70E-03	3.70E-03	1	1		
Alpha activity	pCi/g	4.58E+00	4.58E+00	4.58E+00	1	1		
Americium-241	pCi/g	4.70E-03	4.70E-03	4.70E-03	1	1		
Beta activity	pCi/g	4.03E+00	4.03E+00	4.03E+00	1	1		
Cesium-137	pCi/g	-5.68E-03	-5.68E-03	-5.68E-03	1	1		
Cobalt-60	pCi/g	1.93E-02	1.93E-02	1.93E-02	1	1		
Neptunium-237	pCi/g	1.28E-03	1.28E-03	1.28E-03	1	1		
Plutonium-239/240	pCi/g	-4.28E-04	-4.28E-04	-4.28E-04	1	1		
Potassium-40	pCi/g	8.54E+00	8.54E+00	8.54E+00	1	1		
Technetium-99	pCi/g	6.12E-02	6.12E-02	6.12E-02	1	1		
Thorium-230	pCi/g	3.33E-01	3.33E-01	3.33E-01	1	1		
Uranium	pCi/kg	2.98E+02	2.98E+02	2.98E+02	1	1		
Uranium-234	pCi/g	1.43E-01	1.43E-01	1.43E-01	1	1		
Uranium-235	wt %				1	1		
Uranium-238	pCi/g	1.51E-01	1.51E-01	1.51E-01	1	1		

Table 2.25. Radiological Data for Sediment Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	4.14E-02	4.14E-02	4.14E-02	1	1		
Alpha activity	pCi/g	5.32E+00	5.32E+00	5.32E+00	1	1		
Americium-241	pCi/g	6.39E-03	6.39E-03	6.39E-03	1	1		
Beta activity	pCi/g	1.28E+01	1.28E+01	1.28E+01	1	1		
Cesium-137	pCi/g	3.36E-02	3.36E-02	3.36E-02	1	1		
Cobalt-60	pCi/g	-3.41E-03	-3.41E-03	-3.41E-03	1	1		
Neptunium-237	pCi/g	2.95E-02	2.95E-02	2.95E-02	1	1		
Plutonium-239/240	pCi/g	2.17E-02	2.17E-02	2.17E-02	1	1		
Potassium-40	pCi/g	4.49E+00	4.49E+00	4.49E+00	1	1		
Technetium-99	pCi/g	4.03E+00	4.03E+00	4.03E+00	1	1		
Thorium-230	pCi/g	3.00E-01	3.00E-01	3.00E-01	1	1		
Uranium	pCi/kg	1.85E+03	1.85E+03	1.85E+03	1	1		
Uranium-234	pCi/g	7.93E-01	7.93E-01	7.93E-01	1	1		
Uranium-235	wt %	6.33E-01	6.33E-01	6.33E-01	1	1		
Uranium-238	pCi/g	1.01E+00	1.01E+00	1.01E+00	1	1		

Sediment Radiological Data

Table 2.26. Radiological Data for Sediment Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	1.21E-01	1.21E-01	1.21E-01	1	1		
Alpha activity	pCi/g	8.53E+00	8.53E+00	8.53E+00	1	1		
Americium-241	pCi/g	1.91E-02	1.91E-02	1.91E-02	1	1		
Beta activity	pCi/g	1.68E+01	1.68E+01	1.68E+01	1	1		
Cesium-137	pCi/g	1.53E-02	1.53E-02	1.53E-02	1	1		
Cobalt-60	pCi/g	1.67E-03	1.67E-03	1.67E-03	1	1		
Neptunium-237	pCi/g	1.06E-01	1.06E-01	1.06E-01	1	1		
Plutonium-239/240	pCi/g	5.76E-02	5.76E-02	5.76E-02	1	1		
Potassium-40	pCi/g	7.01E+00	7.01E+00	7.01E+00	1	1		
Technetium-99	pCi/g	8.82E+00	8.82E+00	8.82E+00	1	1		
Thorium-230	pCi/g	6.82E-01	6.82E-01	6.82E-01	1	1		
Uranium	pCi/kg	5.54E+03	5.54E+03	5.54E+03	1	1		
Uranium-234	pCi/g	2.32E+00	2.32E+00	2.32E+00	1	1		
Uranium-235	wt %	6.03E-01	6.03E-01	6.03E-01	1	1		
Uranium-238	pCi/g	3.09E+00	3.09E+00	3.09E+00	1	1		

Table 2.27. Radiological Data for Sediment Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	5.90E-02	5.90E-02	5.90E-02	1	1		
Alpha activity	pCi/g	6.49E+00	6.49E+00	6.49E+00	1	1		
Americium-241	pCi/g	1.05E-02	1.05E-02	1.05E-02	1	1		
Beta activity	pCi/g	1.40E+01	1.40E+01	1.40E+01	1	1		
Cesium-137	pCi/g	4.16E-02	4.16E-02	4.16E-02	1	1		
Cobalt-60	pCi/g	-3.60E-03	-3.60E-03	-3.60E-03	1	1		
Neptunium-237	pCi/g	3.39E-02	3.39E-02	3.39E-02	1	1		
Plutonium-239/240	pCi/g	1.29E-02	1.29E-02	1.29E-02	1	1		
Potassium-40	pCi/g	5.37E+00	5.37E+00	5.37E+00	1	1		
Technetium-99	pCi/g	3.74E+00	3.74E+00	3.74E+00	1	1		
Thorium-230	pCi/g	3.80E-01	3.80E-01	3.80E-01	1	1		
Uranium	pCi/kg	2.61E+03	2.61E+03	2.61E+03	1	1		
Uranium-234	pCi/g	9.72E-01	9.72E-01	9.72E-01	1	1		
Uranium-235	wt %	5.79E-01	5.79E-01	5.79E-01	1	1		
Uranium-238	pCi/g	1.58E+00	1.58E+00	1.58E+00	1	1		

Sediment Radiological Data

Table 2.28. Radiological Data for Sediment Location S1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	2.09E-01	2.09E-01	2.09E-01	1	1		
Alpha activity	pCi/g	2.05E+01	2.05E+01	2.05E+01	1	1		
Americium-241	pCi/g	5.70E-03	5.70E-03	5.70E-03	1	1		
Beta activity	pCi/g	4.54E+01	4.54E+01	4.54E+01	1	1		
Cesium-137	pCi/g	3.68E-02	3.68E-02	3.68E-02	1	1		
Cobalt-60	pCi/g	-4.82E-03	-4.82E-03	-4.82E-03	1	1		
Neptunium-237	pCi/g	3.60E-01	3.60E-01	3.60E-01	1	1		
Plutonium-239/240	pCi/g	1.46E-02	1.46E-02	1.46E-02	1	1		
Potassium-40	pCi/g	2.77E+00	2.77E+00	2.77E+00	1	1		
Technetium-99	pCi/g	1.98E+01	1.98E+01	1.98E+01	1	1		
Thorium-230	pCi/g	4.42E-01	4.42E-01	4.42E-01	1	1		
Uranium	pCi/kg	9.40E+03	9.40E+03	9.40E+03	1	1		
Uranium-234	pCi/g	3.31E+00	3.31E+00	3.31E+00	1	1		
Uranium-235	wt %	5.49E-01	5.49E-01	5.49E-01	1	1		
Uranium-238	pCi/g	5.88E+00	5.88E+00	5.88E+00	1	1		

Table 2.29. Radiological Data for Sediment Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	4.45E-01	4.45E-01	4.45E-01	1	1		
Alpha activity	pCi/g	1.24E+01	1.24E+01	1.24E+01	1	1		
Americium-241	pCi/g	1.60E-02	1.60E-02	1.60E-02	1	1		
Beta activity	pCi/g	1.24E+01	1.24E+01	1.24E+01	1	1		
Cesium-137	pCi/g	6.63E-02	6.63E-02	6.63E-02	1	1		
Cobalt-60	pCi/g	8.40E-03	8.40E-03	8.40E-03	1	1		
Neptunium-237	pCi/g	3.24E-02	3.24E-02	3.24E-02	1	1		
Plutonium-239/240	pCi/g	7.89E-02	7.89E-02	7.89E-02	1	1		
Potassium-40	pCi/g	5.27E+00	5.27E+00	5.27E+00	1	1		
Technetium-99	pCi/g	1.33E+00	1.33E+00	1.33E+00	1	1		
Thorium-230	pCi/g	9.47E-01	9.47E-01	9.47E-01	1	1		
Uranium	pCi/kg	1.55E+04	1.55E+04	1.55E+04	1	1		
Uranium-234	pCi/g	1.07E+01	1.07E+01	1.07E+01	1	1		
Uranium-235	wt %	1.49E+00	1.55E+00	1.52E+00	2	2		
Uranium-238	pCi/g	4.41E+00	4.41E+00	4.41E+00	1	1		

Sediment Radiological Data

Table 2.30. Radiological Data for Sediment Location S33

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	6.10E-03	1.43E-02	1.02E-02	2	2		
Alpha activity	pCi/g	5.72E+00	6.71E+00	6.21E+00	2	2		
Americium-241	pCi/g	4.42E-03	8.16E-03	6.29E-03	2	2		
Beta activity	pCi/g	2.32E+00	3.61E+00	2.96E+00	2	2		
Cesium-137	pCi/g	7.49E-02	7.66E-02	7.57E-02	2	2		
Cobalt-60	pCi/g	9.87E-03	1.03E-02	1.01E-02	2	2		
Neptunium-237	pCi/g	2.14E-03	3.86E-03	3.00E-03	2	2		
Plutonium-239/240	pCi/g	3.76E-03	4.41E-03	4.09E-03	2	2		
Potassium-40	pCi/g	7.70E+00	7.79E+00	7.75E+00	2	2		
Technetium-99	pCi/g	1.20E-01	1.25E-01	1.23E-01	2	2		
Thorium-230	pCi/g	3.09E-01	4.06E-01	3.58E-01	2	2		
Uranium	pCi/kg	4.30E+02	6.55E+02	5.43E+02	2	2		
Uranium-234	pCi/g	2.00E-01	2.87E-01	2.43E-01	2	2		
Uranium-235	wt %	6.24E-01	6.24E-01	6.24E-01	2	2		
Uranium-238	pCi/g	2.24E-01	3.53E-01	2.88E-01	2	2		

Table 2.31. Radiological Data for Sediment Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	6.61E-02	6.61E-02	6.61E-02	1	1		
Alpha activity	pCi/g	6.91E+00	6.91E+00	6.91E+00	1	1		
Americium-241	pCi/g	2.70E-03	2.70E-03	2.70E-03	1	1		
Beta activity	pCi/g	9.08E+00	9.08E+00	9.08E+00	1	1		
Cesium-137	pCi/g	3.02E-02	3.02E-02	3.02E-02	1	1		
Cobalt-60	pCi/g	1.02E-02	1.02E-02	1.02E-02	1	1		
Neptunium-237	pCi/g	5.31E-03	5.31E-03	5.31E-03	1	1		
Plutonium-239/240	pCi/g	1.33E-03	1.33E-03	1.33E-03	1	1		
Potassium-40	pCi/g	5.19E+00	5.19E+00	5.19E+00	1	1		
Technetium-99	pCi/g	7.52E-01	7.52E-01	7.52E-01	1	1		
Thorium-230	pCi/g	1.94E-01	1.94E-01	1.94E-01	1	1		
Uranium	pCi/kg	3.64E+03	3.64E+03	3.64E+03	1	1		
Uranium-234	pCi/g	6.28E-01	6.28E-01	6.28E-01	1	1		
Uranium-235	wt %	3.48E-01	3.48E-01	3.48E-01	1	1		
Uranium-238	pCi/g	2.94E+00	2.94E+00	2.94E+00	1	1		

Sediment Radiological Data

Table 2.32. Radiological Data for Sediment Location S2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	8.88E-02	8.88E-02	8.88E-02	1	1		
Alpha activity	pCi/g	1.27E+01	1.27E+01	1.27E+01	1	1		
Americium-241	pCi/g	4.38E-03	4.38E-03	4.38E-03	1	1		
Beta activity	pCi/g	1.55E+01	1.55E+01	1.55E+01	1	1		
Cesium-137	pCi/g	2.61E-02	2.61E-02	2.61E-02	1	1		
Cobalt-60	pCi/g	1.50E-03	1.50E-03	1.50E-03	1	1		
Neptunium-237	pCi/g	2.54E-03	2.54E-03	2.54E-03	1	1		
Plutonium-239/240	pCi/g	1.02E-03	1.02E-03	1.02E-03	1	1		
Potassium-40	pCi/g	2.42E+00	2.42E+00	2.42E+00	1	1		
Technetium-99	pCi/g	3.08E-01	3.08E-01	3.08E-01	1	1		
Thorium-230	pCi/g	2.18E-01	2.18E-01	2.18E-01	1	1		
Uranium	pCi/kg	6.01E+03	6.01E+03	6.01E+03	1	1		
Uranium-234	pCi/g	6.64E-01	6.64E-01	6.64E-01	1	1		
Uranium-235	wt %	2.62E-01	2.62E-01	2.62E-01	1	1		
Uranium-238	pCi/g	5.26E+00	5.26E+00	5.26E+00	1	1		

Table 2.33. Radiological Data for Sediment Location S27

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	4.36E-02	4.36E-02	4.36E-02	1	1		
Alpha activity	pCi/g	6.72E+00	6.72E+00	6.72E+00	1	1		
Americium-241	pCi/g	1.90E-02	1.90E-02	1.90E-02	1	1		
Beta activity	pCi/g	6.36E+00	6.36E+00	6.36E+00	1	1		
Cesium-137	pCi/g	1.58E-02	1.58E-02	1.58E-02	1	1		
Cobalt-60	pCi/g	-1.61E-03	-1.61E-03	-1.61E-03	1	1		
Neptunium-237	pCi/g	6.84E-03	6.84E-03	6.84E-03	1	1		
Plutonium-239/240	pCi/g	6.36E-02	6.36E-02	6.36E-02	1	1		
Potassium-40	pCi/g	2.56E+00	2.56E+00	2.56E+00	1	1		
Technetium-99	pCi/g	1.14E+00	1.14E+00	1.14E+00	1	1		
Thorium-230	pCi/g	1.19E+00	1.19E+00	1.19E+00	1	1		
Uranium	pCi/kg	2.33E+03	2.33E+03	2.33E+03	1	1		
Uranium-234	pCi/g	4.78E-01	4.78E-01	4.78E-01	1	1		
Uranium-235	wt %	3.73E-01	3.73E-01	3.73E-01	1	1		
Uranium-238	pCi/g	1.81E+00	1.81E+00	1.81E+00	1	1		

Sediment Radiological Data

Table 2.34. Radiological Data for Sediment Location S34

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	2.73E-02	2.73E-02	2.73E-02	1	1		
Alpha activity	pCi/g	7.23E+00	7.23E+00	7.23E+00	1	1		
Americium-241	pCi/g	2.07E-02	2.07E-02	2.07E-02	1	1		
Beta activity	pCi/g	6.87E+00	6.87E+00	6.87E+00	1	1		
Cesium-137	pCi/g	1.57E-02	1.57E-02	1.57E-02	1	1		
Cobalt-60	pCi/g	1.61E-03	1.61E-03	1.61E-03	1	1		
Neptunium-237	pCi/g	1.04E-02	1.04E-02	1.04E-02	1	1		
Plutonium-239/240	pCi/g	5.15E-02	5.15E-02	5.15E-02	1	1		
Potassium-40	pCi/g	3.49E+00	3.49E+00	3.49E+00	1	1		
Technetium-99	pCi/g	1.13E+00	1.13E+00	1.13E+00	1	1		
Thorium-230	pCi/g	1.14E+00	1.14E+00	1.14E+00	1	1		
Uranium	pCi/kg	1.96E+03	1.96E+03	1.96E+03	1	1		
Uranium-234	pCi/g	4.56E-01	4.56E-01	4.56E-01	1	1		
Uranium-235	wt %	2.87E-01	2.87E-01	2.87E-01	1	1		
Uranium-238	pCi/g	1.48E+00	1.48E+00	1.48E+00	1	1		

Table 2.35. Radiological Data for Sediment Location C746KTB2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	2.32E-03	2.32E-03	2.32E-03	1	1		
Alpha activity	pCi/g	1.89E+00	1.89E+00	1.89E+00	1	1		
Americium-241	pCi/g	3.23E-03	3.23E-03	3.23E-03	1	1		
Beta activity	pCi/g	1.68E+00	1.68E+00	1.68E+00	1	1		
Cesium-137	pCi/g	1.37E-02	1.37E-02	1.37E-02	1	1		
Cobalt-60	pCi/g	1.07E-02	1.07E-02	1.07E-02	1	1		
Neptunium-237	pCi/g	-1.97E-03	-1.97E-03	-1.97E-03	1	1		
Plutonium-239/240	pCi/g	9.75E-04	9.75E-04	9.75E-04	1	1		
Potassium-40	pCi/g	2.15E+00	2.15E+00	2.15E+00	1	1		
Technetium-99	pCi/g	1.52E-01	1.52E-01	1.52E-01	1	1		
Thorium-230	pCi/g	1.96E-01	1.96E-01	1.96E-01	1	1		
Uranium	pCi/kg	2.31E+02	2.31E+02	2.31E+02	1	1		
Uranium-234	pCi/g	1.24E-01	1.24E-01	1.24E-01	1	1		
Uranium-235	wt %				1	1		
Uranium-238	pCi/g	1.05E-01	1.05E-01	1.05E-01	1	1		

Sediment Radiological Data

Table 2.36. Radiological Data for Sediment Location S32

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	1.18E-01	1.18E-01	1.18E-01	1	1		
Alpha activity	pCi/g	4.32E+01	4.32E+01	4.32E+01	1	1		
Americium-241	pCi/g	4.20E-01	4.20E-01	4.20E-01	1	1		
Beta activity	pCi/g	4.94E+01	4.94E+01	4.94E+01	1	1		
Cesium-137	pCi/g	3.73E-01	3.73E-01	3.73E-01	1	1		
Cobalt-60	pCi/g	-9.01E-03	-9.01E-03	-9.01E-03	1	1		
Neptunium-237	pCi/g	4.48E-01	4.48E-01	4.48E-01	1	1		
Plutonium-239/240	pCi/g	1.41E+00	1.41E+00	1.41E+00	1	1		
Potassium-40	pCi/g	6.67E+00	6.67E+00	6.67E+00	1	1		
Technetium-99	pCi/g	1.88E+01	1.88E+01	1.88E+01	1	1		
Thorium-230	pCi/g	2.11E+01	2.11E+01	2.11E+01	1	1		
Uranium	pCi/kg	5.11E+03	5.11E+03	5.11E+03	1	1		
Uranium-234	pCi/g	2.24E+00	2.24E+00	2.24E+00	1	1		
Uranium-235	wt %	6.62E-01	6.62E-01	6.62E-01	1	1		
Uranium-238	pCi/g	2.76E+00	2.76E+00	2.76E+00	1	1		

Table 2.37. Radiological Data for Sediment Location S28

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/g	1.43E-02	1.43E-02	1.43E-02	1	1		
Alpha activity	pCi/g	4.47E+00	4.47E+00	4.47E+00	1	1		
Americium-241	pCi/g	2.65E-03	2.65E-03	2.65E-03	1	1		
Beta activity	pCi/g	2.10E+00	2.10E+00	2.10E+00	1	1		
Cesium-137	pCi/g	-7.75E-03	-7.75E-03	-7.75E-03	1	1		
Cobalt-60	pCi/g	7.12E-04	7.12E-04	7.12E-04	1	1		
Neptunium-237	pCi/g	-9.40E-04	-9.40E-04	-9.40E-04	1	1		
Plutonium-239/240	pCi/g	0.00E+00	0.00E+00	0.00E+00	1	1		
Potassium-40	pCi/g	7.46E+00	7.46E+00	7.46E+00	1	1		
Technetium-99	pCi/g	1.90E-02	1.90E-02	1.90E-02	1	1		
Thorium-230	pCi/g	2.57E-01	2.57E-01	2.57E-01	1	1		
Uranium	pCi/kg	3.10E+02	3.10E+02	3.10E+02	1	1		
Uranium-234	pCi/g	1.49E-01	1.49E-01	1.49E-01	1	1		
Uranium-235	wt %	1.49E+00	1.49E+00	1.49E+00	2	2		
Uranium-238	pCi/g	1.47E-01	1.47E-01	1.47E-01	1	1		

Direct Gamma Radiation (TLD) Data

Table 2.38. Radiological Exposure Due to Gamma Radiation (mrem)

Location	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Annualized[1]
TLD-1	166	246	216	202	862
TLD-2	260	337	332	361	1333
TLD-3	40	58	67	50	223
TLD-4	17	22	21	20	80
TLD-5	17	22	22	22	85
TLD-6	15	19	19	22	78
TLD-7	19	25	25	24	96
TLD-8	15	17	17	17	66
TLD-9	15	18	19	19	73
TLD-10	15	19	20	20	76
TLD-11	16	20	22	19	79
TLD-12	16	19	20	20	76
TLD-13	18	23	23	24	91
TLD-14	14	19	18	18	71
TLD-15	14	18	17	17	67
TLD-16	17	24	24	22	91
TLD-17	13	17	18	18	68
TLD-18	16	20	21	19	78
TLD-19	15	19	19	20	75
TLD-20	16	22	20	22	83
TLD-21	18	23	25	23	92
TLD-22	17	22	22	21	83
TLD-23	16	21	22	20	81
TLD-25	16	22	24	18	83
TLD-26	13	17	18	18	69
TLD-27	15	20	20	21	78
TLD-28	14	21	18	20	76
TLD-29	14	19	18	18	71
TLD-30	16	22	20	21	82
TLD-31	19	21	21	22	83
TLD-32	19	22	26	25	95
TLD-35	19	25	24	22	92
TLD-36	14	16	20	18	70
TLD-37	16	18	19	19	72
TLD-38	16	21	19	19	77
TLD-39	15	19	19	21	76
TLD-40	21	26	27	26	103
TLD-41	14	18	19	18	70
TLD-46	13	20	19	18	74
TLD-47	66	88	88	81	333
TLD-48	26	40	44	33	152
TLD-49	14	18	19	16	68
TLD-50	30	48	52	45	188
TLD-51	17	26	25	24	97
TLD-52	21	25	28	25	101
TLD-53	90	116	103	107	423

[1]Note: Annualized results represent a summation of the quarters adjusted to ensure that there is a correlation between the results and 1 year (365 days). TLDs may not have been collected on the last day of each quarter so this accounts for varying number of days.

Deer Radiological Data

Table 2.39. Radiological Analysis of Deer Bone Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Neptunium-237	pCi/g	-3.26E-03	3.18E-03	-3.05E-05	6	6		
Plutonium-239/240	pCi/g	-1.58E-03	3.87E-03	1.20E-03	6	6		
Technetium-99	pCi/g	-2.48E-01	-6.45E-02	-1.61E-01	6	6		
Thorium-230	pCi/g	4.96E-03	1.71E-02	8.99E-03	6	6		
Uranium-233/234	pCi/g	-4.01E-03	2.82E-02	8.13E-03	6	6		
Uranium-235	pCi/g	-2.22E-03	3.66E-03	2.41E-04	6	6		
Uranium-238	pCi/g	1.33E-03	1.78E-02	6.17E-03	6	6		

Table 2.40. Radiological Analysis of Deer Thyroid Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Technetium-99	pCi/g	-6.20E-01	3.70E-01	-1.51E-01	5	5		

Table 2.41. Radiological Analysis of Deer Muscle Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Neptunium-237	pCi/g	-3.56E-03	1.74E-03	-3.29E-04	6	6		
Plutonium-239/240	pCi/g	0.00E+00	3.56E-03	1.93E-03	6	6		
Technetium-99	pCi/g	-5.45E-02	1.46E-01	5.73E-03	6	6		
Thorium-230	pCi/g	2.86E-03	1.72E-02	8.15E-03	6	6		
Uranium-233/234	pCi/g	1.45E-03	7.40E-03	4.57E-03	6	6		
Uranium-235	pCi/g	-1.93E-03	1.83E-03	2.78E-04	6	6		
Uranium-238	pCi/g	-1.48E-03	3.43E-03	1.35E-03	6	6		

Table 2.42. Radiological Analysis of Deer Liver Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Neptunium-237	pCi/g	-1.70E-03	3.43E-03	9.11E-04	6	6		
Plutonium-239/240	pCi/g	-1.69E-03	3.29E-03	1.03E-05	6	6		
Technetium-99	pCi/g	-4.83E-03	1.27E-01	3.95E-02	6	6		
Thorium-230	pCi/g	0.00E+00	2.06E-02	1.13E-02	6	6		
Uranium-233/234	pCi/g	9.83E-06	1.68E-02	4.88E-03	6	6		
Uranium-235	pCi/g	-2.02E-03	2.31E-03	4.77E-05	6	6		
Uranium-238	pCi/g	0.00E+00	2.78E-03	1.05E-03	6	6		

3. NONRADIOLOGICAL EFFLUENT DATA

KPDES Outfall Nonradiological Data

Table 3.1. Nonradiological Effluent Data for Outfall 001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,2-Diphenylhydrazine	ug/L	2.80E-01	2.80E-01	2.80E-01	1	1
3,3'-Dichlorobenzidine	ug/L	1.30E+00	1.30E+00	1.30E+00	1	1
Benz(a)anthracene	ug/L	4.70E-03	2.00E-02	1.24E-02	2	2
Benzidine	ug/L	8.00E-01	8.00E-01	8.00E-01	1	1
Benzo(a)pyrene	ug/L	2.90E-01	2.90E-01	2.90E-01	1	1
Benzo(k)fluoranthene	ug/L	2.00E-02	2.00E-02	2.00E-02	1	1
Bis(2-ethylhexyl)phthalate	ug/L	4.60E+00	4.60E+00	4.60E+00	1	1
Chlorine, Total Residual	mg/L	3.00E-02	3.00E-01	3.87E-02	62	62
Chrysene	ug/L	6.30E-01	6.30E-01	6.30E-01	1	1
Conductivity	umho/cm	1.75E+00	2.06E+03	1.23E+03	74	74
Cyanide	mg/L	5.00E-03	1.42E-02	9.08E-03	4	4
Dibenz(a,h)anthracene	ug/L	1.90E-01	1.90E-01	1.90E-01	1	1
Dissolved Oxygen	mg/L	4.03E+00	2.32E+01	8.72E+00	74	74
Flow Rate	mgd	1.03E+00	5.88E+00	2.12E+00	74	74
Hardness - Total as CaCO3	mg/L	1.50E+02	3.70E+02	3.10E+02	4	4
Heptachlor	ug/L	5.00E-04	1.12E-02	5.22E-03	4	4
Hexachlorobenzene	ug/L	2.00E-02	2.00E-02	2.00E-02	1	1
Indeno(1,2,3-cd)pyrene	ug/L	1.00E-02	1.10E-01	3.55E-02	4	4
N-Nitrosodimethylamine	ug/L	1.50E+00	1.50E+00	1.50E+00	1	1
N-Nitroso-di-n-propylamine	ug/L	1.50E+00	1.50E+00	1.50E+00	1	1
N-Nitrosodiphenylamine	ug/L	8.10E+00	8.10E+00	8.10E+00	1	1
Oil and Grease	mg/L	4.00E+00	5.00E+00	4.80E+00	54	54
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	54	54
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	54	54
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	54	54
PCB-1242	ug/L	9.00E-02	1.00E-01	9.96E-02	54	54
PCB-1248	ug/L	1.10E-01	1.20E-01	1.18E-01	54	54
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	54	54
PCB-1260	ug/L	5.00E-02	2.90E-01	5.44E-02	54	54
PCB-1268	ug/L	8.00E-02	9.00E-02	8.96E-02	54	54
pH	Std Unit	6.33E+00	8.40E+00	7.12E+00	74	74
Phosphorous	mg/L	1.20E-01	5.70E-01	3.34E-01	54	54
Polychlorinated biphenyl	ug/L	1.70E-01	2.90E-01	1.75E-01	54	54
SEM	%	1.00E+00	1.00E+00	1.00E+00	3	3
Suspended Solids	mg/L	8.00E+00	4.10E+01	2.03E+01	54	54
Temperature	deg F	4.43E+01	8.74E+01	6.70E+01	74	74
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	54	54
Uranium	mg/L	1.00E-03	2.57E-01	1.12E-02	54	54

KPDES Outfall Nonradiological Data

Table 3.2. Nonradiological Effluent Data for Outfall 015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Benz(a)anthracene	ug/L	2.00E-03	4.00E-02	1.00E-02	5	5
Benzo(k)fluoranthene	ug/L	2.00E-03	4.20E-02	1.00E-02	5	5
Conductivity	umho/cm	1.70E+02	5.93E+02	3.73E+02	18	18
Dissolved Oxygen	mg/L	7.55E+00	1.91E+01	1.03E+01	18	18
Flow Rate	mgd	6.67E-02	5.30E+00	7.92E-01	18	18
Hardness - Total as CaCO3	mg/L	7.60E+01	2.30E+02	1.45E+02	5	5
Heptachlor	ug/L	5.00E-04	4.00E-03	1.20E-03	5	5
Iron	mg/L	9.11E-01	5.84E+00	3.62E+00	5	5
Oil and Grease	mg/L	4.00E+00	5.00E+00	4.80E+00	5	5
PCB-1016	ug/L	1.60E-01	1.70E-01	1.64E-01	5	5
PCB-1221	ug/L	1.70E-01	1.80E-01	1.74E-01	5	5
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	5	5
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	5	5
PCB-1248	ug/L	1.10E-01	1.20E-01	1.18E-01	5	5
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	5	5
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	5	5
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	5	5
pH	Std Unit	7.47E+00	8.05E+00	7.75E+00	18	18
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.74E-01	5	5
Suspended Solids	mg/L	1.70E+01	1.37E+02	6.24E+01	5	5
Temperature	deg F	4.66E+01	7.05E+01	5.81E+01	18	18
Uranium	mg/L	9.39E-03	3.00E-01	9.18E-02	5	5

KPDES Outfall Nonradiological Data

Table 3.3. Nonradiological Effluent Data for Outfall 017

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Benz(a)anthracene	ug/L	2.00E-03	2.00E-03	2.00E-03	5	5
Conductivity	umho/cm	1.12E+02	5.65E+02	3.16E+02	36	36
Dissolved Oxygen	mg/L	5.58E+00	1.65E+01	1.00E+01	36	36
Flow Rate	mgd	1.00E-02	8.98E+00	9.81E-01	36	36
Hardness - Total as CaCO3	mg/L	4.90E+01	1.50E+02	1.08E+02	5	5
Heptachlor	ug/L	5.00E-04	2.50E-03	9.00E-04	5	5
Indeno(1,2,3-cd)pyrene	ug/L	1.10E-02	1.10E-02	1.10E-02	1	1
Oil and Grease	mg/L	4.00E+00	5.00E+00	4.73E+00	22	22
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	22	22
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	22	22
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	22	22
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	22	22
PCB-1248	ug/L	1.10E-01	1.20E-01	1.18E-01	22	22
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	22	22
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	22	22
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	22	22
pH	Std Unit	6.61E+00	8.13E+00	7.52E+00	36	36
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	22	22
Suspended Solids	mg/L	1.60E+01	2.40E+01	1.75E+01	22	22
Temperature	deg F	3.68E+01	8.01E+01	6.23E+01	36	36
Uranium	mg/L	1.00E-03	2.97E-03	1.60E-03	22	22
Zinc	mg/L	2.00E-02	2.28E-01	1.22E-01	22	22

Table 3.4. Nonradiological Effluent Data for Outfall 019

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Conductivity	umho/cm	1.82E+02	2.26E+02	2.04E+02	8	8
Dissolved Oxygen	mg/L	9.49E+00	1.27E+01	1.11E+01	8	8
Flow Rate	mgd	1.50E-01	8.00E-01	4.75E-01	8	8
Hardness - Total as CaCO3	mg/L	8.20E+01	9.80E+01	9.00E+01	2	2
Iron	mg/L	2.00E-01	3.63E-01	2.81E-01	2	2
Oil and Grease	mg/L	5.00E+00	5.00E+00	5.00E+00	2	2
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	2	2
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	2	2
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	2	2
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	2	2
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	2	2
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	2	2
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	2	2
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	2	2
pH	Std Unit	7.18E+00	7.75E+00	7.29E+00	8	8
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	2	2
Suspended Solids	mg/L	1.70E+01	1.70E+01	1.70E+01	2	2
Temperature	deg F	4.45E+01	7.18E+01	5.81E+01	8	8
Uranium	mg/L	1.00E-03	1.00E-03	1.00E-03	2	2
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	2	2

KPDES Outfall Nonradiological Data

Table 3.5. Nonradiological Effluent Data for Outfall 020

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,1-Trichloroethane	ug/L	1.00E+00	5.00E+00	3.00E+00	4	4
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Carbonaceous Biochemical Oxyge	mg/L	5.00E+00	5.00E+00	5.00E+00	5	5
Chloride	mg/L	1.30E+01	4.20E+01	3.13E+01	4	4
Conductivity	umho/cm	7.30E+02	1.39E+03	1.01E+03	29	29
Dissolved Oxygen	mg/L	6.39E+00	1.10E+01	8.89E+00	29	29
Flow Rate	mgd	7.00E-02	1.50E-01	1.17E-01	28	28
Hardness - Total as CaCO3	mg/L	3.40E+02	5.20E+02	4.40E+02	4	4
Iron	mg/L	2.00E-01	7.67E-01	3.97E-01	4	4
Nickel	mg/L	7.17E-03	1.39E-02	1.02E-02	4	4
Nitrate as Nitrogen	mg/L	2.10E+00	4.00E+00	3.07E+00	4	4
Oil and Grease	mg/L	4.00E+00	5.00E+00	4.77E+00	13	13
PCB-1016	ug/L	1.60E-01	1.70E-01	1.68E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.77E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.79E+00	7.90E+00	7.38E+00	29	29
Phosphorous	mg/L	8.00E-02	1.90E-01	1.25E-01	4	4
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.77E-01	4	4
Suspended Solids	mg/L	1.60E+01	5.40E+01	2.39E+01	16	16
Temperature	deg F	4.86E+01	8.25E+01	6.32E+01	29	29
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Turbidity	NTU	6.53E+01	6.53E+01	6.53E+01	1	1
Uranium	mg/L	5.76E-03	8.22E-02	2.01E-02	13	13
Zinc	mg/L	2.00E-02	2.05E-02	2.02E-02	4	4

Surface Water Nonradiological Data

Table 3.6. Nonradiological Effluent Data for Landfill Surface Water Location L135

Upstream of the C-746-S&T Closed Landfills

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	2.70E+01	3.30E+01	3.07E+01	3	3
Chloride	mg/L	1.40E+01	3.90E+01	2.30E+01	3	3
Conductivity	umho/cm	2.16E+02	1.48E+03	6.72E+02	3	3
Dissolved Oxygen	mg/L	8.02E+00	1.72E+01	1.32E+01	3	3
Dissolved Solids	mg/L	1.28E+02	2.09E+02	1.63E+02	3	3
Flow Rate	mgd	1.70E-01	8.98E+00	3.37E+00	3	3
Iron	mg/L	1.34E+00	1.19E+01	5.01E+00	3	3
pH	Std Unit	6.87E+00	7.80E+00	7.29E+00	3	3
Sodium	mg/L	6.62E+00	2.38E+01	1.44E+01	3	3
Sulfate	mg/L	1.00E+01	1.80E+01	1.43E+01	3	3
Suspended Solids	mg/L	2.20E+01	2.08E+02	8.83E+01	3	3
Temperature	deg F	4.68E+01	6.61E+01	5.84E+01	3	3
Total Organic Carbon (TOC)	mg/L	1.19E+01	1.55E+01	1.34E+01	3	3
Total Solids	mg/L	1.44E+02	4.13E+02	2.48E+02	3	3
Uranium	mg/L	2.25E-03	1.00E-02	6.75E-03	3	3

Table 3.7. Nonradiological Effluent Data for Landfill Surface Water Location L136

At the C-746-S&T Closed Landfills

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	2.70E+01	3.90E+01	3.27E+01	3	3
Chloride	mg/L	2.40E+00	4.80E+00	3.60E+00	3	3
Conductivity	umho/cm	1.77E+02	3.68E+02	2.67E+02	3	3
Dissolved Oxygen	mg/L	4.27E+00	1.04E+01	7.36E+00	3	3
Dissolved Solids	mg/L	1.11E+02	1.90E+02	1.45E+02	3	3
Flow Rate	mgd	5.00E-02	6.85E-01	3.58E-01	3	3
Iron	mg/L	2.00E-01	1.05E+00	4.93E-01	3	3
pH	Std Unit	6.49E+00	7.61E+00	7.17E+00	3	3
Sodium	mg/L	1.39E+00	4.21E+00	2.88E+00	3	3
Sulfate	mg/L	9.80E+00	3.40E+01	2.33E+01	3	3
Suspended Solids	mg/L	1.70E+01	2.40E+01	1.93E+01	3	3
Temperature	deg F	5.09E+01	6.63E+01	6.12E+01	3	3
Total Organic Carbon (TOC)	mg/L	8.80E+00	1.77E+01	1.42E+01	3	3
Total Solids	mg/L	1.36E+02	1.99E+02	1.60E+02	3	3
Uranium	mg/L	1.00E-03	4.41E-03	2.22E-03	3	3

Surface Water Nonradiological Data

Table 3.8. Nonradiological Effluent Data for Landfill Surface Water Location L150

At the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	2.70E+01	3.30E+01	2.90E+01	3	3
Chloride	mg/L	2.00E+00	3.60E+00	2.53E+00	3	3
Conductivity	umho/cm	9.70E+01	1.41E+03	5.35E+02	3	3
Dissolved Oxygen	mg/L	8.13E+00	1.13E+01	9.55E+00	3	3
Dissolved Solids	mg/L	6.50E+01	1.33E+02	1.01E+02	3	3
Flow Rate	mgd	4.00E-03	1.70E-01	7.42E-02	3	3
Iron	mg/L	1.75E+00	1.44E+01	6.38E+00	3	3
pH	Std Unit	7.11E+00	8.07E+00	7.47E+00	3	3
Sodium	mg/L	1.26E+00	3.69E+00	2.48E+00	3	3
Sulfate	mg/L	9.60E+00	1.40E+01	1.22E+01	3	3
Suspended Solids	mg/L	4.40E+01	5.24E+02	2.46E+02	3	3
Temperature	deg F	4.99E+01	6.54E+01	6.02E+01	3	3
Total Organic Carbon (TOC)	mg/L	4.00E+00	1.17E+01	7.90E+00	3	3
Total Solids	mg/L	1.52E+02	4.77E+02	2.88E+02	3	3
Uranium	mg/L	1.00E-03	1.26E-03	1.09E-03	3	3

Table 3.9. Nonradiological Effluent Data for Landfill Surface Water Location L154

Upstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	2.70E+01	4.20E+01	3.23E+01	3	3
Chloride	mg/L	5.90E+00	3.60E+01	1.80E+01	3	3
Conductivity	umho/cm	1.64E+02	1.47E+03	6.42E+02	3	3
Dissolved Oxygen	mg/L	7.56E+00	1.04E+01	9.04E+00	3	3
Dissolved Solids	mg/L	1.44E+02	2.16E+02	1.73E+02	3	3
Flow Rate	mgd	3.30E-01	4.21E+00	1.86E+00	3	3
Iron	mg/L	5.92E-01	1.89E+01	7.00E+00	3	3
pH	Std Unit	7.11E+00	7.58E+00	7.31E+00	3	3
Sodium	mg/L	5.26E+00	2.11E+01	1.16E+01	3	3
Sulfate	mg/L	1.20E+01	1.70E+01	1.40E+01	3	3
Suspended Solids	mg/L	1.70E+01	3.31E+02	1.22E+02	3	3
Temperature	deg F	4.72E+01	6.57E+01	5.84E+01	3	3
Total Organic Carbon (TOC)	mg/L	1.44E+01	1.89E+01	1.60E+01	3	3
Total Solids	mg/L	1.54E+02	5.57E+02	2.94E+02	3	3
Uranium	mg/L	1.00E-03	6.96E-03	4.57E-03	3	3

Surface Water Nonradiological Data

Table 3.10. Nonradiological Effluent Data for Landfill Surface Water Location L351

Downstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	3.30E+01	3.50E+01	3.38E+01	4	4
Chloride	mg/L	4.20E+00	1.50E+01	1.03E+01	4	4
Conductivity	umho/cm	1.92E+02	1.45E+03	5.09E+02	4	4
Dissolved Oxygen	mg/L	7.83E+00	1.23E+01	9.57E+00	4	4
Dissolved Solids	mg/L	1.21E+02	1.61E+02	1.40E+02	4	4
Flow Rate	mgd	4.60E-01	6.56E+00	2.79E+00	4	4
Iron	mg/L	1.07E+00	4.97E+00	2.78E+00	4	4
pH	Std Unit	7.21E+00	7.55E+00	7.39E+00	4	4
Sodium	mg/L	3.46E+00	7.93E+00	6.60E+00	4	4
Sulfate	mg/L	9.00E+00	2.10E+01	1.65E+01	4	4
Suspended Solids	mg/L	6.00E+01	1.58E+02	9.50E+01	4	4
Temperature	deg F	4.68E+01	6.42E+01	5.86E+01	4	4
Total Organic Carbon (TOC)	mg/L	1.44E+01	1.84E+01	1.66E+01	4	4
Total Solids	mg/L	1.82E+02	2.57E+02	2.23E+02	4	4
Uranium	mg/L	1.64E-03	8.09E-03	4.73E-03	4	4

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4. NONRADIOLOGICAL ENVIRONMENTAL SURVEILLANCE DATA

Surface Water Nonradiological Data

Table 4.1. Nonradiological Monitoring Data for Surface Water Location L1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.00E+01	5.00E+01	2.46E+01	5	5
Aluminum	mg/L	8.40E-01	1.95E+00	1.21E+00	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.40E-01	1.13E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	5.63E-02	7.13E-02	6.36E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.53E+01	1.99E+01	1.69E+01	3	3
Chloride	mg/L	7.20E+00	5.70E+01	2.54E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.35E-03	1.12E-03	3	3
Conductivity	umho/cm	1.27E+02	2.96E+02	2.24E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	4.77E+00	1.11E+01	8.68E+00	5	5
Flow Rate	mgd	1.00E-01	2.16E+01	5.25E+00	5	5
Hardness - Total as CaCO3	mg/L	4.30E+01	6.70E+01	5.53E+01	3	3
Iron	mg/L	9.03E-01	1.84E+00	1.45E+00	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	2.57E+00	4.44E+00	3.52E+00	3	3
Manganese	mg/L	1.24E-01	7.40E-01	3.40E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	1.00E-01	9.70E-01	4.97E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.04E+00	7.91E+00	7.48E+00	5	5
Phosphorous	mg/L	9.00E-02	1.80E-01	1.40E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	1.55E+00	3.52E+00	2.53E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	6.39E+00	3.60E+01	2.36E+01	3	3
Suspended Solids	mg/L	1.60E+01	2.80E+01	2.03E+01	3	3
Temperature	deg F	3.65E+01	7.92E+01	5.06E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	2.00E+00	1.35E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.2. Nonradiological Monitoring Data for Surface Water Location L5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	2.00E+01	4.00E+01	2.70E+01	5	5
Aluminum	mg/L	2.00E-01	1.05E+00	5.17E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.80E-01	1.47E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	3.48E-02	4.50E-02	4.08E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	2.84E+01	4.23E+01	3.49E+01	3	3
Chloride	mg/L	3.00E+01	9.10E+01	5.73E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Conductivity	umho/cm	3.78E+02	1.12E+03	7.64E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	4.55E+00	2.21E+01	1.13E+01	5	5
Flow Rate	mgd	7.24E+00	9.62E+00	8.00E+00	5	5
Hardness - Total as CaCO3	mg/L	9.50E+01	1.40E+02	1.22E+02	3	3
Iron	mg/L	2.00E-01	1.02E+00	5.97E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	8.06E+00	1.23E+01	1.03E+01	3	3
Manganese	mg/L	5.54E-02	9.19E-02	7.19E-02	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	1.10E+00	1.30E+00	1.20E+00	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	9.00E-02	1.00E-01	9.75E-02	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	8.00E-02	9.00E-02	8.75E-02	4	4
pH	Std Unit	7.07E+00	7.85E+00	7.52E+00	5	5
Phosphorous	mg/L	1.90E-01	2.50E-01	2.10E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Potassium	mg/L	4.89E+00	7.17E+00	6.28E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	3.04E+01	7.04E+01	5.38E+01	3	3
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.67E+01	3	3
Temperature	deg F	4.27E+01	8.35E+01	5.74E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.00E-03	2.10E-02	1.25E-02	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.3. Nonradiological Monitoring Data for Surface Water Location L6

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.90E+01	4.00E+01	2.37E+01	7	7
Aluminum	mg/L	2.00E-01	1.34E+00	6.83E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.30E-01	1.17E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	2.14E-02	5.08E-02	3.88E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	2.38E+01	3.76E+01	3.16E+01	3	3
Chloride	mg/L	2.90E+01	8.70E+01	5.40E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Conductivity	umho/cm	3.73E+02	1.14E+03	8.65E+02	7	7
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	9.31E+00	1.73E+01	1.35E+01	7	7
Flow Rate	mgd	1.86E+00	1.81E+01	6.89E+00	7	7
Hardness - Total as CaCO3	mg/L	9.60E+01	1.30E+02	1.09E+02	3	3
Iron	mg/L	2.09E-01	1.33E+00	7.32E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	7.97E+00	1.08E+01	9.49E+00	3	3
Manganese	mg/L	5.94E-02	7.61E-02	6.83E-02	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	4.80E-01	1.20E+00	8.83E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.64E-01	5	5
PCB-1221	ug/L	1.70E-01	1.80E-01	1.74E-01	5	5
PCB-1232	ug/L	1.30E-01	1.40E-01	1.34E-01	5	5
PCB-1242	ug/L	9.00E-02	1.00E-01	9.80E-02	5	5
PCB-1248	ug/L	1.10E-01	1.20E-01	1.14E-01	5	5
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	5	5
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	5	5
PCB-1268	ug/L	8.00E-02	9.00E-02	8.80E-02	5	5
pH	Std Unit	7.21E+00	9.18E+00	8.62E+00	7	7
Phosphorous	mg/L	1.70E-01	2.30E-01	2.10E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.74E-01	5	5
Potassium	mg/L	5.31E+00	6.13E+00	5.86E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	2.98E+01	6.60E+01	5.08E+01	3	3
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.67E+01	3	3
Temperature	deg F	3.40E+01	9.23E+01	4.82E+01	7	7
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	5	5
Uranium	mg/L	1.45E-03	1.40E-02	8.81E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.4. Nonradiological Monitoring Data for Surface Water Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	2.00E+01	3.00E+01	2.38E+01	4	4
Aluminum	mg/L	2.00E-01	2.00E-01	2.00E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	2.40E-01	1.73E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	3.22E-02	3.83E-02	3.45E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.08E+02	1.61E+02	1.26E+02	3	3
Chloride	mg/L	1.90E+02	2.30E+02	2.10E+02	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.88E-03	1.49E-03	3	3
Conductivity	umho/cm	1.83E+02	2.01E+03	8.91E+02	5	5
Copper	mg/L	5.20E-03	6.00E-03	5.54E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	9.10E+00	1.18E+01	9.72E+00	5	5
Flow Rate	mgd	4.52E-01	1.24E+01	6.09E+00	5	5
Hardness - Total as CaCO3	mg/L	4.30E+02	5.60E+02	4.83E+02	3	3
Iron	mg/L	2.00E-01	6.36E-01	4.46E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	4.56E+01	4.67E+01	4.60E+01	3	3
Manganese	mg/L	5.58E-02	1.08E-01	8.35E-02	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	7.71E-03	1.12E-02	9.43E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	3.40E+00	6.70E+00	5.30E+00	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.56E+00	7.46E+00	7.00E+00	5	5
Phosphorous	mg/L	3.40E-01	7.30E-01	5.23E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Potassium	mg/L	2.54E+01	3.75E+01	3.12E+01	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	1.94E+02	2.30E+02	2.07E+02	3	3
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.67E+01	3	3
Temperature	deg F	4.83E+01	8.76E+01	6.24E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.84E-03	5.00E-03	3.76E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.5. Nonradiological Monitoring Data for Surface Water Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.05E+01	1.70E+01	1.48E+01	3	3
Conductivity	umho/cm	1.55E+02	1.62E+03	6.85E+02	5	5
Dissolved Oxygen	mg/L	6.39E+00	1.05E+01	8.29E+00	5	5
Flow Rate	mgd	1.24E+00	5.85E+00	3.39E+00	5	5
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.62E+00	7.61E+00	7.24E+00	5	5
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Temperature	deg F	4.33E+01	8.96E+01	5.98E+01	5	5
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4

Table 4.6. Nonradiological Monitoring Data for Surface Water Location K015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.35E+01	3.50E+01	2.43E+01	2	2
Conductivity	umho/cm	1.70E+02	6.19E+02	3.95E+02	2	2
Dissolved Oxygen	mg/L	7.75E+00	1.91E+01	1.34E+01	2	2
Flow Rate	mgd	3.40E-01	5.30E+00	2.82E+00	2	2
pH	Std Unit	7.48E+00	7.78E+00	7.63E+00	2	2
Temperature	deg F	6.64E+01	7.07E+01	6.86E+01	2	2

Surface Water Nonradiological Data

Table 4.7. Nonradiological Monitoring Data for Surface Water Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.50E+01	5.00E+01	3.00E+01	5	5
Aluminum	mg/L	2.00E-01	2.00E-01	2.00E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.70E-01	1.23E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	1.37E-01	1.44E-01	1.41E-01	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	2.45E+01	2.91E+01	2.62E+01	3	3
Chloride	mg/L	4.10E+01	8.00E+01	5.43E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Conductivity	umho/cm	3.48E+02	4.60E+02	3.98E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	8.26E+00	1.12E+01	9.63E+00	5	5
Hardness - Total as CaCO3	mg/L	9.40E+01	9.90E+01	9.63E+01	3	3
Iron	mg/L	2.00E-01	2.00E-01	2.00E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	9.84E+00	1.04E+01	1.01E+01	3	3
Manganese	mg/L	5.00E-03	2.57E-02	1.19E-02	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	6.40E-01	2.40E+00	1.58E+00	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.34E+00	8.09E+00	7.23E+00	5	5
Phosphorous	mg/L	8.00E-02	1.00E-01	9.00E-02	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	1.33E+00	1.35E+00	1.34E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	3.06E+01	3.18E+01	3.10E+01	3	3
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.67E+01	3	3
Temperature	deg F	4.66E+01	6.42E+01	5.59E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.40E+00	3.80E+00	2.60E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.8. Nonradiological Monitoring Data for Surface Water Location L291

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.10E+01	3.50E+01	2.12E+01	5	5
Aluminum	mg/L	2.41E-01	1.28E+00	9.27E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.00E-01	1.00E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	4.86E-02	6.32E-02	5.50E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.82E+01	2.09E+01	1.95E+01	3	3
Chloride	mg/L	7.90E+00	5.10E+01	2.50E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Conductivity	umho/cm	1.40E+02	2.99E+02	2.39E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	8.24E+00	1.32E+01	1.09E+01	5	5
Flow Rate	mgd	6.00E-02	7.46E+00	1.91E+00	5	5
Hardness - Total as CaCO3	mg/L	4.70E+01	1.30E+02	8.20E+01	3	3
Iron	mg/L	3.42E-01	1.39E+00	9.31E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	3.01E+00	5.48E+00	4.07E+00	3	3
Manganese	mg/L	9.74E-02	1.32E-01	1.19E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	6.00E-02	6.50E-01	3.67E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.42E+00	7.70E+00	7.59E+00	5	5
Phosphorous	mg/L	8.00E-02	1.90E-01	1.20E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Potassium	mg/L	2.26E+00	3.05E+00	2.61E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	8.90E+00	3.92E+01	2.48E+01	3	3
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.67E+01	3	3
Temperature	deg F	3.66E+01	7.99E+01	5.09E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.36E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.9. Nonradiological Monitoring Data for Surface Water Location L10

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.50E+01	3.50E+01	2.60E+01	5	5
Aluminum	mg/L	2.37E-01	4.07E+00	1.89E+00	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.50E-01	1.17E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	3.07E-02	7.41E-02	5.58E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.54E+01	2.05E+01	1.86E+01	3	3
Chloride	mg/L	1.90E+01	4.30E+01	3.17E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.81E-03	1.27E-03	3	3
Conductivity	umho/cm	2.45E+02	4.64E+02	3.73E+02	5	5
Copper	mg/L	5.20E-03	5.20E-02	2.08E-02	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	5.47E+00	2.87E+01	1.73E+01	5	5
Flow Rate	mgd	4.70E-01	3.77E+00	1.94E+00	5	5
Hardness - Total as CaCO3	mg/L	6.00E+01	7.20E+01	6.40E+01	3	3
Iron	mg/L	3.48E-01	5.54E+00	2.36E+00	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	4.92E+00	7.82E+00	5.91E+00	3	3
Manganese	mg/L	9.62E-02	2.52E-01	1.52E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-02	2.00E-02	3	3
Nitrate/Nitrite as Nitrogen	mg/L	5.10E-01	7.20E-01	6.17E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.04E+00	7.80E+00	7.52E+00	5	5
Phosphorous	mg/L	2.10E-01	3.40E-01	2.90E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	2.17E+00	4.04E+00	2.85E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	2.50E+01	4.42E+01	3.50E+01	3	3
Suspended Solids	mg/L	1.60E+01	3.00E+01	2.10E+01	3	3
Temperature	deg F	3.74E+01	8.42E+01	5.39E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	2.34E-03	1.01E-02	6.99E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-01	8.00E-02	3	3

Surface Water Nonradiological Data

Table 4.10. Nonradiological Monitoring Data for Surface Water Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.50E+01	3.50E+01	2.30E+01	5	5
Aluminum	mg/L	2.00E-01	9.78E-01	4.83E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.00E-01	1.00E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	2.03E-02	3.00E-02	2.66E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-02	4.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.47E+01	2.42E+01	1.99E+01	3	3
Chloride	mg/L	1.90E+01	3.60E+01	2.93E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Conductivity	umho/cm	2.57E+02	4.92E+02	3.88E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	6.32E+00	1.68E+01	9.75E+00	5	5
Flow Rate	mgd	3.00E-01	1.62E+00	9.58E-01	5	5
Hardness - Total as CaCO3	mg/L	6.50E+01	8.40E+01	7.30E+01	3	3
Iron	mg/L	4.11E-01	1.46E+00	7.75E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	5.04E+00	7.88E+00	6.28E+00	3	3
Manganese	mg/L	1.75E-02	4.79E-02	3.31E-02	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	5.50E-01	8.60E-01	6.87E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.03E+00	7.41E+00	6.93E+00	5	5
Phosphorous	mg/L	2.30E-01	4.10E-01	3.30E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Potassium	mg/L	2.30E+00	4.15E+00	2.94E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	2.52E+01	4.27E+01	3.46E+01	3	3
Suspended Solids	mg/L	1.60E+01	3.80E+01	2.47E+01	3	3
Temperature	deg F	5.10E+01	8.89E+01	6.32E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.23E-03	1.32E-02	7.52E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.11. Nonradiological Monitoring Data for Surface Water Location L11

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	2.00E+01	3.00E+01	2.42E+01	6	6
Aluminum	mg/L	2.74E-01	2.42E+00	1.57E+00	4	4
Ammonia as Nitrogen	mg/L	1.00E-01	1.40E-01	1.17E-01	4	4
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Barium	mg/L	3.46E-02	6.67E-02	5.81E-02	4	4
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Calcium	mg/L	1.57E+01	2.32E+01	1.83E+01	4	4
Chloride	mg/L	9.70E+00	5.90E+01	2.71E+01	4	4
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Conductivity	umho/cm	2.37E+02	4.89E+02	3.63E+02	6	6
Copper	mg/L	5.20E-03	5.20E-02	2.86E-02	4	4
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	4	4
Dissolved Oxygen	mg/L	1.13E+01	1.56E+01	1.35E+01	6	6
Flow Rate	mgd	1.41E+00	1.08E+01	4.15E+00	6	6
Hardness - Total as CaCO3	mg/L	4.90E+01	7.70E+01	6.08E+01	4	4
Iron	mg/L	4.84E-01	2.51E+00	1.62E+00	4	4
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Magnesium	mg/L	3.22E+00	7.07E+00	4.68E+00	4	4
Manganese	mg/L	5.08E-02	1.45E-01	1.13E-01	4	4
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	4	4
Nickel	mg/L	5.00E-03	5.00E-02	2.75E-02	4	4
Nitrate/Nitrite as Nitrogen	mg/L	3.90E-01	4.70E-01	4.40E-01	4	4
PCB-1016	ug/L	1.60E-01	1.70E-01	1.62E-01	5	5
PCB-1221	ug/L	1.70E-01	1.80E-01	1.72E-01	5	5
PCB-1232	ug/L	1.30E-01	1.40E-01	1.34E-01	5	5
PCB-1242	ug/L	9.00E-02	1.00E-01	9.80E-02	5	5
PCB-1248	ug/L	1.10E-01	1.20E-01	1.14E-01	5	5
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	5	5
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	5	5
PCB-1268	ug/L	8.00E-02	9.00E-02	8.80E-02	5	5
pH	Std Unit	7.30E+00	8.83E+00	7.98E+00	6	6
Phosphorous	mg/L	1.80E-01	2.30E-01	2.10E-01	4	4
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.72E-01	5	5
Potassium	mg/L	2.14E+00	3.80E+00	2.67E+00	4	4
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Sodium	mg/L	1.20E+01	4.44E+01	2.75E+01	4	4
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.68E+01	4	4
Temperature	deg F	3.49E+01	8.55E+01	5.38E+01	6	6
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	5	5
Uranium	mg/L	2.82E-03	1.00E-02	7.79E-03	8	8
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4
Zinc	mg/L	2.00E-02	2.00E-01	1.10E-01	4	4

Surface Water Nonradiological Data

Table 4.12. Nonradiological Monitoring Data for Surface Water Location L12

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.90E+01	4.00E+01	2.76E+01	5	5
Aluminum	mg/L	2.27E-01	4.55E-01	3.05E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	2.20E-01	1.53E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	6.40E-02	8.02E-02	7.07E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	3.27E+01	4.00E+01	3.54E+01	3	3
Chloride	mg/L	2.50E+01	2.70E+01	2.57E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.75E-03	1.34E-03	3	3
Conductivity	umho/cm	3.47E+02	4.56E+02	4.08E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	6.53E+00	1.33E+01	9.14E+00	5	5
Flow Rate	mgd	1.92E+00	3.68E+00	2.81E+00	5	5
Hardness - Total as CaCO3	mg/L	1.10E+02	1.20E+02	1.13E+02	3	3
Iron	mg/L	4.24E-01	7.33E-01	5.57E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	6.25E+00	7.10E+00	6.82E+00	3	3
Manganese	mg/L	2.62E-01	4.27E-01	3.31E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	1.10E+00	1.60E+00	1.30E+00	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.88E+00	7.19E+00	7.02E+00	5	5
Phosphorous	mg/L	1.10E-01	2.20E-01	1.60E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	2.51E+00	3.51E+00	3.02E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	2.63E+01	3.35E+01	2.97E+01	3	3
Suspended Solids	mg/L	1.70E+01	4.10E+01	2.50E+01	3	3
Temperature	deg F	4.36E+01	7.96E+01	5.66E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	6.90E+00	4.18E+00	4	4
Uranium	mg/L	1.58E-03	5.00E-03	3.84E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.13. Nonradiological Monitoring Data for Surface Water Location L241

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.30E+01	3.50E+01	2.12E+01	6	6
Aluminum	mg/L	2.00E-01	5.79E-01	3.54E-01	4	4
Ammonia as Nitrogen	mg/L	1.00E-01	1.20E-01	1.05E-01	4	4
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Barium	mg/L	6.71E-02	1.03E-01	8.98E-02	4	4
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Calcium	mg/L	1.85E+01	2.52E+01	2.25E+01	4	4
Chloride	mg/L	2.90E+01	6.30E+01	4.65E+01	4	4
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Conductivity	umho/cm	3.34E+02	4.80E+02	4.17E+02	6	6
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	4	4
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	4	4
Dissolved Oxygen	mg/L	4.73E+00	1.61E+01	1.14E+01	6	6
Flow Rate	mgd	5.60E-01	4.94E+00	2.49E+00	6	6
Hardness - Total as CaCO3	mg/L	6.90E+01	9.00E+01	8.40E+01	4	4
Iron	mg/L	3.96E-01	7.68E-01	5.90E-01	4	4
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Magnesium	mg/L	6.48E+00	7.79E+00	7.08E+00	4	4
Manganese	mg/L	4.27E-02	1.17E-01	8.48E-02	4	4
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	4	4
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Nitrate/Nitrite as Nitrogen	mg/L	8.00E-01	1.40E+00	1.01E+00	4	4
PCB-1016	ug/L	1.60E-01	1.70E-01	1.62E-01	5	5
PCB-1221	ug/L	1.70E-01	1.80E-01	1.72E-01	5	5
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	5	5
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	5	5
PCB-1248	ug/L	1.10E-01	1.20E-01	1.18E-01	5	5
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	5	5
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	5	5
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	5	5
pH	Std Unit	6.42E+00	7.77E+00	7.18E+00	6	6
Phosphorous	mg/L	1.10E-01	1.30E-01	1.23E-01	4	4
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.72E-01	5	5
Potassium	mg/L	2.01E+00	3.30E+00	2.49E+00	4	4
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Sodium	mg/L	3.87E+01	5.14E+01	4.44E+01	4	4
Suspended Solids	mg/L	1.70E+01	1.70E+01	1.70E+01	4	4
Temperature	deg F	3.80E+01	8.01E+01	5.24E+01	6	6
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Trichloroethene	ug/L	8.10E+00	5.30E+01	3.00E+01	5	5
Uranium	mg/L	2.00E-03	6.00E-03	4.72E-03	8	8
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4

Surface Water Nonradiological Data

Table 4.14. Nonradiological Monitoring Data for Surface Water Location C746K-5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.10E+01	3.50E+01	2.30E+01	6	6
Aluminum	mg/L	2.37E-01	1.31E+00	8.08E-01	4	4
Ammonia as Nitrogen	mg/L	1.00E-01	1.00E-01	1.00E-01	4	4
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Barium	mg/L	4.12E-02	5.79E-02	4.72E-02	4	4
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Calcium	mg/L	1.64E+01	2.07E+01	1.89E+01	4	4
Chloride	mg/L	6.70E+00	6.20E+01	2.67E+01	4	4
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Conductivity	umho/cm	1.30E+02	3.29E+02	2.56E+02	6	6
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	4	4
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	4	4
Dissolved Oxygen	mg/L	5.73E+00	2.15E+01	1.23E+01	6	6
Flow Rate	mgd	6.10E-01	2.67E+01	8.85E+00	6	6
Hardness - Total as CaCO3	mg/L	4.60E+01	6.80E+01	6.10E+01	4	4
Iron	mg/L	3.53E-01	1.28E+00	8.59E-01	4	4
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Magnesium	mg/L	2.42E+00	5.34E+00	4.14E+00	4	4
Manganese	mg/L	5.47E-02	9.88E-02	7.28E-02	4	4
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	4	4
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Nitrate/Nitrite as Nitrogen	mg/L	8.00E-02	6.30E-01	3.02E-01	4	4
PCB-1016	ug/L	1.60E-01	1.70E-01	1.62E-01	5	5
PCB-1221	ug/L	1.70E-01	1.80E-01	1.72E-01	5	5
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	5	5
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	5	5
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	5	5
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	5	5
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	5	5
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	5	5
pH	Std Unit	6.94E+00	7.84E+00	7.33E+00	6	6
Phosphorous	mg/L	6.00E-02	1.30E-01	8.75E-02	4	4
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.72E-01	5	5
Potassium	mg/L	2.11E+00	2.56E+00	2.33E+00	4	4
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	4	4
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	4	4
Sodium	mg/L	6.69E+00	3.57E+01	2.62E+01	4	4
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.68E+01	4	4
Temperature	deg F	3.78E+01	8.25E+01	5.88E+01	6	6
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	4	4
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	5	5
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	8	8
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	4	4

Surface Water Nonradiological Data

Table 4.15. Nonradiological Monitoring Data for Surface Water Location C746KTB1A

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.70E+01	1.70E+01	1.70E+01	2	2
Conductivity	umho/cm	2.66E+02	2.66E+02	2.66E+02	2	2
Dissolved Oxygen	mg/L	1.38E+01	1.38E+01	1.38E+01	2	2
Flow Rate	mgd	4.00E-02	4.00E-02	4.00E-02	2	2
PCB-1016	ug/L	1.70E-01	1.70E-01	1.70E-01	1	1
PCB-1221	ug/L	1.80E-01	1.80E-01	1.80E-01	1	1
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	1	1
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	1	1
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	1	1
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	1	1
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	1	1
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	1	1
pH	Std Unit	7.66E+00	7.66E+00	7.66E+00	2	2
Polychlorinated biphenyl	ug/L	1.80E-01	1.80E-01	1.80E-01	1	1
Temperature	deg F	3.50E+01	3.50E+01	3.50E+01	2	2
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	1	1

Surface Water Nonradiological Data

Table 4.16. Nonradiological Monitoring Data for Surface Water Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.00E+01	3.50E+01	2.10E+01	5	5
Aluminum	mg/L	2.00E-01	2.31E-01	2.10E-01	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.80E+00	1.10E+00	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	1.33E-02	8.21E-02	3.86E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.42E+01	2.58E+01	2.17E+01	3	3
Chloride	mg/L	2.80E+01	8.20E+01	4.60E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Conductivity	umho/cm	2.98E+02	4.88E+02	3.50E+02	5	5
Copper	mg/L	5.20E-03	7.99E-03	6.13E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	5.39E+00	9.44E+00	7.14E+00	5	5
Flow Rate	mgd	7.50E-01	3.85E+00	1.55E+00	5	5
Hardness - Total as CaCO3	mg/L	6.20E+01	7.80E+01	7.07E+01	3	3
Iron	mg/L	2.00E-01	4.83E-01	3.34E-01	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	4.33E+00	7.06E+00	5.47E+00	3	3
Manganese	mg/L	1.28E-02	3.72E-02	2.62E-02	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	1.50E-02	8.33E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	1.40E+00	2.30E+00	1.80E+00	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.38E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.17E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	6.99E+00	7.28E+00	7.19E+00	5	5
Phosphorous	mg/L	3.10E-01	6.00E-01	4.30E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	3.13E+00	3.85E+00	3.44E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	3.25E+01	6.03E+01	4.45E+01	3	3
Suspended Solids	mg/L	1.60E+01	1.70E+01	1.67E+01	3	3
Temperature	deg F	5.68E+01	9.00E+01	7.05E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.30E+00	1.08E+00	4	4
Uranium	mg/L	1.15E-03	1.51E-02	8.66E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	4.66E-02	2.89E-02	3	3

Surface Water Nonradiological Data

Table 4.17. Nonradiological Monitoring Data for Surface Water Location L29A

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.10E+01	4.00E+01	2.72E+01	5	5
Aluminum	mg/L	1.92E+00	7.05E+00	4.14E+00	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	3.50E-01	2.13E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-01	4.00E-02	3	3
Barium	mg/L	4.51E-02	9.37E-02	6.80E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	1.75E+01	4.02E+01	3.02E+01	3	3
Chloride	mg/L	1.30E+01	1.90E+01	1.60E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-01	8.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.00E-02	4.39E-03	3	3
Conductivity	umho/cm	1.77E+02	3.22E+02	2.88E+02	5	5
Copper	mg/L	5.20E-03	5.20E-02	2.08E-02	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	5.47E+00	1.18E+01	8.99E+00	5	5
Hardness - Total as CaCO3	mg/L	6.10E+01	1.50E+02	1.17E+02	3	3
Iron	mg/L	2.18E+00	9.62E+00	5.31E+00	3	3
Lead	mg/L	5.00E-03	9.43E-03	6.48E-03	3	3
Magnesium	mg/L	3.46E+00	1.13E+01	8.52E+00	3	3
Manganese	mg/L	9.62E-02	8.09E-01	3.82E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-02	2.00E-02	3	3
Nitrate/Nitrite as Nitrogen	mg/L	3.40E-01	1.50E+00	8.30E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.47E+00	7.66E+00	7.55E+00	5	5
Phosphorous	mg/L	1.90E-01	9.50E-01	5.23E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	2.88E+00	3.49E+00	3.25E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	1.00E+01	1.48E+01	1.22E+01	3	3
Suspended Solids	mg/L	7.20E+01	6.84E+02	3.62E+02	3	3
Temperature	deg F	3.93E+01	8.71E+01	5.97E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-01	8.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-01	8.00E-02	3	3

Surface Water Nonradiological Data

Table 4.18. Nonradiological Monitoring Data for Surface Water Location L30

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.50E+01	3.50E+01	3.00E+01	5	5
Aluminum	mg/L	3.05E+00	5.22E+00	4.31E+00	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.40E-01	1.13E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	6.13E-02	7.89E-02	6.74E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	2.62E+01	3.60E+01	3.27E+01	3	3
Chloride	mg/L	6.70E+00	2.10E+01	1.49E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	2.13E-03	2.79E-03	2.39E-03	3	3
Conductivity	umho/cm	1.73E+02	3.36E+02	2.99E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	5.52E+00	1.28E+01	8.88E+00	5	5
Hardness - Total as CaCO3	mg/L	1.10E+02	1.60E+02	1.40E+02	3	3
Iron	mg/L	4.23E+00	5.87E+00	4.94E+00	3	3
Lead	mg/L	5.00E-03	6.05E-03	5.35E-03	3	3
Magnesium	mg/L	5.55E+00	1.26E+01	9.45E+00	3	3
Manganese	mg/L	2.63E-01	3.37E-01	3.10E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.16E-03	5.97E-03	5.49E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	4.30E-01	1.20E+00	7.37E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.40E-01	1.40E-01	1.40E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.20E-01	1.20E-01	1.20E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.39E+00	7.73E+00	7.60E+00	5	5
Phosphorous	mg/L	2.30E-01	3.00E-01	2.70E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Potassium	mg/L	2.48E+00	3.81E+00	3.02E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	5.68E+00	1.57E+01	1.12E+01	3	3
Suspended Solids	mg/L	9.30E+01	2.75E+02	1.67E+02	3	3
Temperature	deg F	4.50E+01	8.65E+01	6.18E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.19. Nonradiological Monitoring Data for Surface Water Location L306

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.60E+01	3.50E+01	2.34E+01	5	5
Aluminum	mg/L	7.51E-01	4.00E+00	2.33E+00	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.00E-01	1.00E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	4.59E-02	7.38E-02	5.86E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	3.37E+01	4.08E+01	3.76E+01	3	3
Chloride	mg/L	1.60E+01	2.30E+01	1.97E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	2.89E-03	1.73E-03	3	3
Conductivity	umho/cm	1.53E+02	4.37E+02	3.45E+02	5	5
Copper	mg/L	1.26E-02	2.17E-02	1.80E-02	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	4.30E+00	3.19E+01	1.75E+01	5	5
Hardness - Total as CaCO3	mg/L	1.30E+02	1.50E+02	1.37E+02	3	3
Iron	mg/L	9.17E-01	4.99E+00	2.80E+00	3	3
Lead	mg/L	5.00E-03	5.75E-03	5.25E-03	3	3
Magnesium	mg/L	1.13E+01	1.18E+01	1.16E+01	3	3
Manganese	mg/L	6.97E-02	2.52E-01	1.52E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	7.01E-03	5.67E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	4.50E-01	2.10E+00	1.32E+00	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.65E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.35E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.15E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.76E+00	7.96E+00	7.89E+00	5	5
Phosphorous	mg/L	1.60E-01	2.70E-01	2.10E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.75E-01	4	4
Potassium	mg/L	2.98E+00	3.35E+00	3.13E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	1.17E+01	1.57E+01	1.42E+01	3	3
Suspended Solids	mg/L	2.10E+01	1.29E+02	7.53E+01	3	3
Temperature	deg F	3.70E+01	8.73E+01	5.57E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.80E-02	3.12E-02	2.92E-02	3	3

Surface Water Nonradiological Data

Table 4.20. Nonradiological Monitoring Data for Surface Water Location L64

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	1.10E+01	3.50E+01	1.94E+01	5	5
Aluminum	mg/L	5.52E-01	2.73E+00	1.33E+00	3	3
Ammonia as Nitrogen	mg/L	1.00E-01	1.20E-01	1.07E-01	3	3
Antimony	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Arsenic	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Barium	mg/L	4.80E-02	6.59E-02	5.58E-02	3	3
Beryllium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Cadmium	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Calcium	mg/L	9.62E+00	1.37E+01	1.22E+01	3	3
Chloride	mg/L	7.60E+00	1.80E+01	1.39E+01	3	3
Chromium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Cobalt	mg/L	1.00E-03	1.21E-03	1.07E-03	3	3
Conductivity	umho/cm	1.19E+02	1.63E+02	1.52E+02	5	5
Copper	mg/L	5.20E-03	5.20E-03	5.20E-03	3	3
Cyanide	mg/L	5.00E-02	5.00E-02	5.00E-02	3	3
Dissolved Oxygen	mg/L	7.44E+00	1.57E+01	1.28E+01	5	5
Flow Rate	mgd	4.30E-01	3.53E+01	1.33E+01	5	5
Hardness - Total as CaCO3	mg/L	3.40E+01	4.80E+01	4.07E+01	3	3
Iron	mg/L	1.07E+00	2.87E+00	1.88E+00	3	3
Lead	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Magnesium	mg/L	2.40E+00	2.97E+00	2.69E+00	3	3
Manganese	mg/L	1.64E-01	4.27E-01	2.55E-01	3	3
Mercury	mg/L	2.00E-04	2.00E-04	2.00E-04	3	3
Nickel	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Nitrate/Nitrite as Nitrogen	mg/L	6.00E-02	8.70E-01	5.07E-01	3	3
PCB-1016	ug/L	1.60E-01	1.70E-01	1.63E-01	4	4
PCB-1221	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
PCB-1232	ug/L	1.30E-01	1.40E-01	1.35E-01	4	4
PCB-1242	ug/L	1.00E-01	1.00E-01	1.00E-01	4	4
PCB-1248	ug/L	1.10E-01	1.20E-01	1.15E-01	4	4
PCB-1254	ug/L	7.00E-02	7.00E-02	7.00E-02	4	4
PCB-1260	ug/L	5.00E-02	5.00E-02	5.00E-02	4	4
PCB-1268	ug/L	9.00E-02	9.00E-02	9.00E-02	4	4
pH	Std Unit	7.01E+00	7.81E+00	7.28E+00	5	5
Phosphorous	mg/L	8.00E-02	1.40E-01	1.20E-01	3	3
Polychlorinated biphenyl	ug/L	1.70E-01	1.80E-01	1.73E-01	4	4
Potassium	mg/L	1.89E+00	2.95E+00	2.34E+00	3	3
Selenium	mg/L	5.00E-03	5.00E-03	5.00E-03	3	3
Silver	mg/L	1.00E-03	1.00E-03	1.00E-03	3	3
Sodium	mg/L	5.94E+00	1.69E+01	1.11E+01	3	3
Suspended Solids	mg/L	1.60E+01	3.80E+01	2.37E+01	3	3
Temperature	deg F	3.70E+01	8.69E+01	5.22E+01	5	5
Thallium	mg/L	1.00E-02	1.00E-02	1.00E-02	3	3
Trichloroethene	ug/L	1.00E+00	1.00E+00	1.00E+00	4	4
Uranium	mg/L	1.00E-03	5.00E-03	3.00E-03	6	6
Vanadium	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3
Zinc	mg/L	2.00E-02	2.00E-02	2.00E-02	3	3

Surface Water Nonradiological Data

Table 4.21. Nonradiological Monitoring Data for Surface Water Seep Location LBCSP5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,1-Trichloroethane	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
1,1,2-Trichloroethane	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
1,1-Dichloroethane	ug/L	2.00E+00	2.00E+00	2.00E+00	2	2
1,1-Dichloroethene	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
1,2-Dichloroethane	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
1,2-Dimethylbenzene	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
Alkalinity	mg/L	1.45E+01	1.95E+01	1.61E+01	4	4
Benzene	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
Bromodichloromethane	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
Calcium	mg/L	2.36E+01	2.56E+01	2.46E+01	2	2
Carbon tetrachloride	ug/L	1.00E+01	1.20E+01	1.10E+01	2	2
Chloride	mg/L	2.80E+01	2.80E+01	2.80E+01	2	2
Chloroform	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
cis-1,2-Dichloroethene	ug/L	2.00E+00	2.00E+00	2.00E+00	2	2
Conductivity	umho/cm	3.19E+02	3.35E+02	3.27E+02	4	4
Dissolved Oxygen	mg/L	4.59E+00	3.93E+02	1.02E+02	4	4
Ethylbenzene	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
m,p-Xylene	ug/L	2.00E+01	2.00E+01	2.00E+01	2	2
Magnesium	mg/L	7.31E+00	7.96E+00	7.63E+00	2	2
Manganese	mg/L	5.00E-03	5.00E-03	5.00E-03	2	2
pH	Std Unit	5.97E+00	6.35E+00	6.19E+00	4	4
Potassium	mg/L	1.72E+00	1.72E+00	1.72E+00	2	2
Sodium	mg/L	3.19E+01	3.30E+01	3.25E+01	2	2
Sulfate	mg/L	1.70E+01	1.80E+01	1.75E+01	2	2
Temperature	deg F	5.82E+01	5.91E+01	5.88E+01	4	4
Tetrachloroethene	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
Toluene	ug/L	1.00E+01	1.00E+01	1.00E+01	2	2
trans-1,2-Dichloroethene	ug/L	2.00E+00	2.00E+00	2.00E+00	2	2
Trichloroethene	ug/L	1.50E+02	2.40E+02	2.03E+02	3	3
Vinyl chloride	ug/L	4.00E+00	4.00E+00	4.00E+00	2	2

Sediment Nonradiological Data

Table 4.22. Nonradiological Data for Sediment Location S20

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	3.46E+03	3.46E+03	3.46E+03	1	1
Antimony	mg/kg	6.60E+00	6.60E+00	6.60E+00	1	1
Arsenic	mg/kg	1.83E+01	1.83E+01	1.83E+01	1	1
Barium	mg/kg	4.91E+01	4.91E+01	4.91E+01	1	1
Beryllium	mg/kg	4.59E-01	4.59E-01	4.59E-01	1	1
Cadmium	mg/kg	1.83E+00	1.83E+00	1.83E+00	1	1
Calcium	mg/kg	4.68E+02	4.68E+02	4.68E+02	1	1
Chromium	mg/kg	4.37E+00	4.37E+00	4.37E+00	1	1
Cobalt	mg/kg	2.57E+00	2.57E+00	2.57E+00	1	1
Copper	mg/kg	5.51E+00	5.51E+00	5.51E+00	1	1
Iron	mg/kg	4.88E+03	4.88E+03	4.88E+03	1	1
Lead	mg/kg	1.83E+01	1.83E+01	1.83E+01	1	1
Magnesium	mg/kg	4.84E+02	4.84E+02	4.84E+02	1	1
Manganese	mg/kg	1.44E+02	1.44E+02	1.44E+02	1	1
Mercury	mg/kg	1.30E-02	1.30E-02	1.30E-02	1	1
Nickel	mg/kg	4.59E+00	4.59E+00	4.59E+00	1	1
PCB-1016	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1221	ug/kg	9.00E+01	1.00E+02	9.50E+01	2	2
PCB-1232	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1242	ug/kg	4.00E+01	5.00E+01	4.50E+01	2	2
PCB-1248	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1254	ug/kg	6.00E+01	7.00E+01	6.50E+01	2	2
PCB-1260	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	9.00E+01	1.00E+02	9.50E+01	2	2
Potassium	mg/kg	2.20E+02	2.20E+02	2.20E+02	1	1
Selenium	mg/kg	1.83E+01	1.83E+01	1.83E+01	1	1
Silver	mg/kg	1.65E+00	1.65E+00	1.65E+00	1	1
Sodium	mg/kg	1.83E+02	1.83E+02	1.83E+02	1	1
Thallium	mg/kg	1.83E+01	1.83E+01	1.83E+01	1	1
Uranium	mg/kg	9.17E+01	9.17E+01	9.17E+01	1	1
Vanadium	mg/kg	9.58E+00	9.58E+00	9.58E+00	1	1
Zinc	mg/kg	1.83E+01	1.83E+01	1.83E+01	1	1

Sediment Nonradiological Data

Table 4.23. Nonradiological Data for Sediment Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.56E+03	1.56E+03	1.56E+03	1	1
Antimony	mg/kg	8.76E+00	8.76E+00	8.76E+00	1	1
Arsenic	mg/kg	1.89E+01	1.89E+01	1.89E+01	1	1
Barium	mg/kg	3.49E+01	3.49E+01	3.49E+01	1	1
Beryllium	mg/kg	4.73E-01	4.73E-01	4.73E-01	1	1
Cadmium	mg/kg	1.89E+00	1.89E+00	1.89E+00	1	1
Calcium	mg/kg	2.52E+03	2.52E+03	2.52E+03	1	1
Chromium	mg/kg	7.40E+00	7.40E+00	7.40E+00	1	1
Cobalt	mg/kg	2.90E+00	2.90E+00	2.90E+00	1	1
Copper	mg/kg	1.67E+01	1.67E+01	1.67E+01	1	1
Iron	mg/kg	4.34E+03	4.34E+03	4.34E+03	1	1
Lead	mg/kg	1.89E+01	1.89E+01	1.89E+01	1	1
Magnesium	mg/kg	3.90E+02	3.90E+02	3.90E+02	1	1
Manganese	mg/kg	3.91E+01	3.91E+01	3.91E+01	1	1
Mercury	mg/kg	3.00E-02	3.00E-02	3.00E-02	1	1
Nickel	mg/kg	4.73E+00	4.73E+00	4.73E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
Potassium	mg/kg	1.82E+02	1.82E+02	1.82E+02	1	1
Selenium	mg/kg	1.89E+01	1.89E+01	1.89E+01	1	1
Silver	mg/kg	2.19E+00	2.19E+00	2.19E+00	1	1
Sodium	mg/kg	1.89E+02	1.89E+02	1.89E+02	1	1
Thallium	mg/kg	1.89E+01	1.89E+01	1.89E+01	1	1
Uranium	mg/kg	9.47E+01	9.47E+01	9.47E+01	1	1
Vanadium	mg/kg	4.58E+00	4.58E+00	4.58E+00	1	1
Zinc	mg/kg	2.18E+01	2.18E+01	2.18E+01	1	1

Sediment Nonradiological Data

Table 4.24. Nonradiological Data for Sediment Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2.47E+03	2.47E+03	2.47E+03	1	1
Antimony	mg/kg	9.68E+00	9.68E+00	9.68E+00	1	1
Arsenic	mg/kg	1.80E+01	1.80E+01	1.80E+01	1	1
Barium	mg/kg	4.62E+01	4.62E+01	4.62E+01	1	1
Beryllium	mg/kg	7.82E-01	7.82E-01	7.82E-01	1	1
Cadmium	mg/kg	1.80E+00	1.80E+00	1.80E+00	1	1
Calcium	mg/kg	1.32E+03	1.32E+03	1.32E+03	1	1
Chromium	mg/kg	1.70E+01	1.70E+01	1.70E+01	1	1
Cobalt	mg/kg	4.86E+00	4.86E+00	4.86E+00	1	1
Copper	mg/kg	1.97E+01	1.97E+01	1.97E+01	1	1
Iron	mg/kg	1.42E+04	1.42E+04	1.42E+04	1	1
Lead	mg/kg	1.80E+01	1.80E+01	1.80E+01	1	1
Magnesium	mg/kg	4.81E+02	4.81E+02	4.81E+02	1	1
Manganese	mg/kg	1.21E+02	1.21E+02	1.21E+02	1	1
Mercury	mg/kg	3.40E-02	3.40E-02	3.40E-02	1	1
Nickel	mg/kg	8.27E+00	8.27E+00	8.27E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	3.80E+02	2.30E+02	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	3.80E+02	2.40E+02	2	2
Potassium	mg/kg	2.30E+02	2.30E+02	2.30E+02	1	1
Selenium	mg/kg	1.80E+01	1.80E+01	1.80E+01	1	1
Silver	mg/kg	2.42E+00	2.42E+00	2.42E+00	1	1
Sodium	mg/kg	1.80E+02	1.80E+02	1.80E+02	1	1
Thallium	mg/kg	1.80E+01	1.80E+01	1.80E+01	1	1
Uranium	mg/kg	8.99E+01	8.99E+01	8.99E+01	1	1
Vanadium	mg/kg	2.13E+01	2.13E+01	2.13E+01	1	1
Zinc	mg/kg	2.60E+01	2.60E+01	2.60E+01	1	1

Sediment Nonradiological Data

Table 4.25. Nonradiological Data for Sediment Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.39E+03	1.39E+03	1.39E+03	1	1
Antimony	mg/kg	8.66E+00	8.66E+00	8.66E+00	1	1
Arsenic	mg/kg	1.84E+01	1.84E+01	1.84E+01	1	1
Barium	mg/kg	2.94E+01	2.94E+01	2.94E+01	1	1
Beryllium	mg/kg	4.60E-01	4.60E-01	4.60E-01	1	1
Cadmium	mg/kg	1.84E+00	1.84E+00	1.84E+00	1	1
Calcium	mg/kg	1.20E+03	1.20E+03	1.20E+03	1	1
Chromium	mg/kg	6.36E+00	6.36E+00	6.36E+00	1	1
Cobalt	mg/kg	2.90E+00	2.90E+00	2.90E+00	1	1
Copper	mg/kg	1.44E+01	1.44E+01	1.44E+01	1	1
Iron	mg/kg	3.60E+03	3.60E+03	3.60E+03	1	1
Lead	mg/kg	1.84E+01	1.84E+01	1.84E+01	1	1
Magnesium	mg/kg	3.93E+02	3.93E+02	3.93E+02	1	1
Manganese	mg/kg	4.59E+01	4.59E+01	4.59E+01	1	1
Mercury	mg/kg	3.70E-02	3.70E-02	3.70E-02	1	1
Nickel	mg/kg	4.79E+00	4.79E+00	4.79E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.10E+02	1.05E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	1.50E+02	1.05E+02	2	2
Polychlorinated biphenyl	ug/kg	1.10E+02	1.50E+02	1.30E+02	2	2
Potassium	mg/kg	1.99E+02	1.99E+02	1.99E+02	1	1
Selenium	mg/kg	1.84E+01	1.84E+01	1.84E+01	1	1
Silver	mg/kg	2.17E+00	2.17E+00	2.17E+00	1	1
Sodium	mg/kg	1.84E+02	1.84E+02	1.84E+02	1	1
Thallium	mg/kg	1.84E+01	1.84E+01	1.84E+01	1	1
Uranium	mg/kg	9.19E+01	9.19E+01	9.19E+01	1	1
Vanadium	mg/kg	4.13E+00	4.13E+00	4.13E+00	1	1
Zinc	mg/kg	2.41E+01	2.41E+01	2.41E+01	1	1

Sediment Nonradiological Data

Table 4.26. Nonradiological Data for Sediment Location S1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2.06E+03	2.06E+03	2.06E+03	1	1
Antimony	mg/kg	5.27E+00	5.27E+00	5.27E+00	1	1
Arsenic	mg/kg	1.68E+01	1.68E+01	1.68E+01	1	1
Barium	mg/kg	1.72E+01	1.72E+01	1.72E+01	1	1
Beryllium	mg/kg	4.95E-01	4.95E-01	4.95E-01	1	1
Cadmium	mg/kg	1.68E+00	1.68E+00	1.68E+00	1	1
Calcium	mg/kg	4.89E+02	4.89E+02	4.89E+02	1	1
Chromium	mg/kg	2.41E+01	2.41E+01	2.41E+01	1	1
Cobalt	mg/kg	2.10E+00	2.10E+00	2.10E+00	1	1
Copper	mg/kg	7.75E+00	7.75E+00	7.75E+00	1	1
Iron	mg/kg	9.25E+03	9.25E+03	9.25E+03	1	1
Lead	mg/kg	1.68E+01	1.68E+01	1.68E+01	1	1
Magnesium	mg/kg	2.35E+02	2.35E+02	2.35E+02	1	1
Manganese	mg/kg	5.56E+01	5.56E+01	5.56E+01	1	1
Mercury	mg/kg	1.30E-02	1.30E-02	1.30E-02	1	1
Nickel	mg/kg	4.79E+00	4.79E+00	4.79E+00	1	1
PCB-1016	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1242	ug/kg	4.00E+01	5.00E+01	4.50E+01	2	2
PCB-1248	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1254	ug/kg	7.00E+01	9.00E+01	8.00E+01	2	2
PCB-1260	ug/kg	7.00E+01	1.10E+02	9.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.10E+02	1.60E+02	1.35E+02	2	2
Potassium	mg/kg	1.04E+02	1.04E+02	1.04E+02	1	1
Selenium	mg/kg	1.68E+01	1.68E+01	1.68E+01	1	1
Silver	mg/kg	1.32E+00	1.32E+00	1.32E+00	1	1
Sodium	mg/kg	1.68E+02	1.68E+02	1.68E+02	1	1
Thallium	mg/kg	1.68E+01	1.68E+01	1.68E+01	1	1
Uranium	mg/kg	8.38E+01	8.38E+01	8.38E+01	1	1
Vanadium	mg/kg	2.35E+01	2.35E+01	2.35E+01	1	1
Zinc	mg/kg	2.60E+01	2.60E+01	2.60E+01	1	1

Sediment Nonradiological Data

Table 4.27. Nonradiological Data for Sediment Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.66E+03	1.66E+03	1.66E+03	1	1
Antimony	mg/kg	7.81E+00	7.81E+00	7.81E+00	1	1
Arsenic	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Barium	mg/kg	3.26E+01	3.26E+01	3.26E+01	1	1
Beryllium	mg/kg	4.65E-01	4.65E-01	4.65E-01	1	1
Cadmium	mg/kg	1.86E+00	1.86E+00	1.86E+00	1	1
Calcium	mg/kg	4.85E+03	4.85E+03	4.85E+03	1	1
Chromium	mg/kg	8.49E+00	8.49E+00	8.49E+00	1	1
Cobalt	mg/kg	2.32E+00	2.32E+00	2.32E+00	1	1
Copper	mg/kg	2.55E+01	2.55E+01	2.55E+01	1	1
Iron	mg/kg	4.19E+03	4.19E+03	4.19E+03	1	1
Lead	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Magnesium	mg/kg	7.98E+02	7.98E+02	7.98E+02	1	1
Manganese	mg/kg	1.46E+02	1.46E+02	1.46E+02	1	1
Mercury	mg/kg	2.01E-01	2.01E-01	2.01E-01	1	1
Nickel	mg/kg	1.02E+01	1.02E+01	1.02E+01	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	3	3
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	3	3
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	3	3
PCB-1260	ug/kg	1.30E+02	2.20E+02	1.80E+02	3	3
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	3	3
Polychlorinated biphenyl	ug/kg	1.30E+02	2.20E+02	1.80E+02	3	3
Potassium	mg/kg	1.32E+02	1.32E+02	1.32E+02	1	1
Selenium	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Silver	mg/kg	1.95E+00	1.95E+00	1.95E+00	1	1
Sodium	mg/kg	1.86E+02	1.86E+02	1.86E+02	1	1
Thallium	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Uranium	mg/kg	9.29E+01	9.29E+01	9.29E+01	1	1
Vanadium	mg/kg	5.60E+00	5.60E+00	5.60E+00	1	1
Zinc	mg/kg	8.71E+01	8.71E+01	8.71E+01	1	1

Sediment Nonradiological Data

Table 4.28. Nonradiological Data for Sediment Location S33

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2.75E+03	2.84E+03	2.80E+03	2	2
Antimony	mg/kg	5.58E+00	9.16E+00	7.37E+00	2	2
Arsenic	mg/kg	1.78E+01	1.96E+01	1.87E+01	2	2
Barium	mg/kg	4.73E+01	5.28E+01	5.00E+01	2	2
Beryllium	mg/kg	4.45E-01	4.89E-01	4.67E-01	2	2
Cadmium	mg/kg	1.78E+00	1.96E+00	1.87E+00	2	2
Calcium	mg/kg	5.61E+02	6.35E+02	5.98E+02	2	2
Chromium	mg/kg	3.35E+00	3.88E+00	3.62E+00	2	2
Cobalt	mg/kg	3.12E+00	3.89E+00	3.50E+00	2	2
Copper	mg/kg	3.43E+00	3.54E+00	3.49E+00	2	2
Iron	mg/kg	4.81E+03	6.12E+03	5.47E+03	2	2
Lead	mg/kg	1.78E+01	1.96E+01	1.87E+01	2	2
Magnesium	mg/kg	4.43E+02	4.46E+02	4.45E+02	2	2
Manganese	mg/kg	3.41E+02	5.32E+02	4.37E+02	2	2
Mercury	mg/kg	1.40E-02	1.80E-02	1.60E-02	2	2
Nickel	mg/kg	4.45E+00	4.89E+00	4.67E+00	2	2
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	3	3
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	3	3
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	3	3
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	3	3
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	3	3
Polychlorinated biphenyl	ug/kg	1.00E+02	1.00E+02	1.00E+02	3	3
Potassium	mg/kg	1.22E+02	1.23E+02	1.23E+02	2	2
Selenium	mg/kg	1.78E+01	1.96E+01	1.87E+01	2	2
Silver	mg/kg	1.40E+00	2.29E+00	1.85E+00	2	2
Sodium	mg/kg	1.78E+02	1.96E+02	1.87E+02	2	2
Thallium	mg/kg	1.78E+01	1.96E+01	1.87E+01	2	2
Uranium	mg/kg	8.91E+01	9.78E+01	9.34E+01	2	2
Vanadium	mg/kg	8.65E+00	9.59E+00	9.12E+00	2	2
Zinc	mg/kg	1.78E+01	1.96E+01	1.87E+01	2	2

Sediment Nonradiological Data

Table 4.29. Nonradiological Data for Sediment Location S2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.38E+03	1.38E+03	1.38E+03	1	1
Antimony	mg/kg	8.54E+00	8.54E+00	8.54E+00	1	1
Arsenic	mg/kg	1.74E+01	1.74E+01	1.74E+01	1	1
Barium	mg/kg	2.60E+01	2.60E+01	2.60E+01	1	1
Beryllium	mg/kg	4.34E-01	4.34E-01	4.34E-01	1	1
Cadmium	mg/kg	1.74E+00	1.74E+00	1.74E+00	1	1
Calcium	mg/kg	7.98E+02	7.98E+02	7.98E+02	1	1
Chromium	mg/kg	4.99E+01	4.99E+01	4.99E+01	1	1
Cobalt	mg/kg	3.30E+00	3.30E+00	3.30E+00	1	1
Copper	mg/kg	4.84E+00	4.84E+00	4.84E+00	1	1
Iron	mg/kg	5.87E+03	5.87E+03	5.87E+03	1	1
Lead	mg/kg	1.74E+01	1.74E+01	1.74E+01	1	1
Magnesium	mg/kg	1.96E+02	1.96E+02	1.96E+02	1	1
Manganese	mg/kg	1.60E+02	1.60E+02	1.60E+02	1	1
Mercury	mg/kg	1.40E-02	1.40E-02	1.40E-02	1	1
Nickel	mg/kg	4.34E+00	4.34E+00	4.34E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	1.30E+02	1.05E+02	2	2
PCB-1254	ug/kg	7.00E+01	9.00E+01	8.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	3.00E+02	2.00E+02	2	2
Potassium	mg/kg	8.68E+01	8.68E+01	8.68E+01	1	1
Selenium	mg/kg	1.74E+01	1.74E+01	1.74E+01	1	1
Silver	mg/kg	2.13E+00	2.13E+00	2.13E+00	1	1
Sodium	mg/kg	1.74E+02	1.74E+02	1.74E+02	1	1
Thallium	mg/kg	1.74E+01	1.74E+01	1.74E+01	1	1
Uranium	mg/kg	8.68E+01	8.68E+01	8.68E+01	1	1
Vanadium	mg/kg	1.17E+01	1.17E+01	1.17E+01	1	1
Zinc	mg/kg	3.10E+01	3.10E+01	3.10E+01	1	1

Sediment Nonradiological Data

Table 4.30. Nonradiological Data for Sediment Location S27

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.68E+03	1.68E+03	1.68E+03	1	1
Antimony	mg/kg	8.06E+00	8.06E+00	8.06E+00	1	1
Arsenic	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Barium	mg/kg	2.62E+01	2.62E+01	2.62E+01	1	1
Beryllium	mg/kg	4.65E-01	4.65E-01	4.65E-01	1	1
Cadmium	mg/kg	1.86E+00	1.86E+00	1.86E+00	1	1
Calcium	mg/kg	3.79E+02	3.79E+02	3.79E+02	1	1
Chromium	mg/kg	3.85E+01	3.85E+01	3.85E+01	1	1
Cobalt	mg/kg	2.33E+00	2.33E+00	2.33E+00	1	1
Copper	mg/kg	4.22E+00	4.22E+00	4.22E+00	1	1
Iron	mg/kg	4.11E+03	4.11E+03	4.11E+03	1	1
Lead	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Magnesium	mg/kg	2.18E+02	2.18E+02	2.18E+02	1	1
Manganese	mg/kg	7.82E+01	7.82E+01	7.82E+01	1	1
Mercury	mg/kg	1.10E-02	1.10E-02	1.10E-02	1	1
Nickel	mg/kg	4.65E+00	4.65E+00	4.65E+00	1	1
PCB-1016	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1242	ug/kg	4.00E+01	5.00E+01	4.50E+01	2	2
PCB-1248	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
Potassium	mg/kg	9.51E+01	9.51E+01	9.51E+01	1	1
Selenium	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Silver	mg/kg	2.01E+00	2.01E+00	2.01E+00	1	1
Sodium	mg/kg	1.86E+02	1.86E+02	1.86E+02	1	1
Thallium	mg/kg	1.86E+01	1.86E+01	1.86E+01	1	1
Uranium	mg/kg	9.30E+01	9.30E+01	9.30E+01	1	1
Vanadium	mg/kg	8.15E+00	8.15E+00	8.15E+00	1	1
Zinc	mg/kg	2.24E+01	2.24E+01	2.24E+01	1	1

Sediment Nonradiological Data

Table 4.31. Nonradiological Data for Sediment Location C746KTB2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.13E+03	1.13E+03	1.13E+03	1	1
Antimony	mg/kg	6.50E+00	6.50E+00	6.50E+00	1	1
Arsenic	mg/kg	1.82E+01	1.82E+01	1.82E+01	1	1
Barium	mg/kg	1.90E+01	1.90E+01	1.90E+01	1	1
Beryllium	mg/kg	4.55E-01	4.55E-01	4.55E-01	1	1
Cadmium	mg/kg	1.82E+00	1.82E+00	1.82E+00	1	1
Calcium	mg/kg	3.88E+02	3.88E+02	3.88E+02	1	1
Chromium	mg/kg	3.54E+00	3.54E+00	3.54E+00	1	1
Cobalt	mg/kg	2.52E+00	2.52E+00	2.52E+00	1	1
Copper	mg/kg	2.27E+00	2.27E+00	2.27E+00	1	1
Iron	mg/kg	4.52E+03	4.52E+03	4.52E+03	1	1
Lead	mg/kg	1.82E+01	1.82E+01	1.82E+01	1	1
Magnesium	mg/kg	1.26E+02	1.26E+02	1.26E+02	1	1
Manganese	mg/kg	2.09E+02	2.09E+02	2.09E+02	1	1
Mercury	mg/kg	1.40E-02	1.40E-02	1.40E-02	1	1
Nickel	mg/kg	4.55E+00	4.55E+00	4.55E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
Potassium	mg/kg	9.10E+01	9.10E+01	9.10E+01	1	1
Selenium	mg/kg	1.82E+01	1.82E+01	1.82E+01	1	1
Silver	mg/kg	1.63E+00	1.63E+00	1.63E+00	1	1
Sodium	mg/kg	1.82E+02	1.82E+02	1.82E+02	1	1
Thallium	mg/kg	1.82E+01	1.82E+01	1.82E+01	1	1
Uranium	mg/kg	9.10E+01	9.10E+01	9.10E+01	1	1
Vanadium	mg/kg	8.46E+00	8.46E+00	8.46E+00	1	1
Zinc	mg/kg	1.82E+01	1.82E+01	1.82E+01	1	1

Sediment Nonradiological Data

Table 4.32. Nonradiological Data for Sediment Location S34

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.80E+03	1.80E+03	1.80E+03	1	1
Antimony	mg/kg	5.64E+00	5.64E+00	5.64E+00	1	1
Arsenic	mg/kg	1.81E+01	1.81E+01	1.81E+01	1	1
Barium	mg/kg	3.23E+01	3.23E+01	3.23E+01	1	1
Beryllium	mg/kg	4.53E-01	4.53E-01	4.53E-01	1	1
Cadmium	mg/kg	1.81E+00	1.81E+00	1.81E+00	1	1
Calcium	mg/kg	3.58E+02	3.58E+02	3.58E+02	1	1
Chromium	mg/kg	2.70E+01	2.70E+01	2.70E+01	1	1
Cobalt	mg/kg	3.08E+00	3.08E+00	3.08E+00	1	1
Copper	mg/kg	6.49E+00	6.49E+00	6.49E+00	1	1
Iron	mg/kg	5.07E+03	5.07E+03	5.07E+03	1	1
Lead	mg/kg	1.81E+01	1.81E+01	1.81E+01	1	1
Magnesium	mg/kg	2.11E+02	2.11E+02	2.11E+02	1	1
Manganese	mg/kg	1.20E+02	1.20E+02	1.20E+02	1	1
Mercury	mg/kg	1.40E-02	1.40E-02	1.40E-02	1	1
Nickel	mg/kg	4.53E+00	4.53E+00	4.53E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
Potassium	mg/kg	9.39E+01	9.39E+01	9.39E+01	1	1
Selenium	mg/kg	1.81E+01	1.81E+01	1.81E+01	1	1
Silver	mg/kg	1.41E+00	1.41E+00	1.41E+00	1	1
Sodium	mg/kg	1.81E+02	1.81E+02	1.81E+02	1	1
Thallium	mg/kg	1.81E+01	1.81E+01	1.81E+01	1	1
Uranium	mg/kg	9.07E+01	9.07E+01	9.07E+01	1	1
Vanadium	mg/kg	8.67E+00	8.67E+00	8.67E+00	1	1
Zinc	mg/kg	2.18E+01	2.18E+01	2.18E+01	1	1

Sediment Nonradiological Data

Table 4.33. Nonradiological Data for Sediment Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.61E+03	1.61E+03	1.61E+03	1	1
Antimony	mg/kg	8.62E+00	8.62E+00	8.62E+00	1	1
Arsenic	mg/kg	1.78E+01	1.78E+01	1.78E+01	1	1
Barium	mg/kg	2.80E+01	2.80E+01	2.80E+01	1	1
Beryllium	mg/kg	4.44E-01	4.44E-01	4.44E-01	1	1
Cadmium	mg/kg	1.78E+00	1.78E+00	1.78E+00	1	1
Calcium	mg/kg	9.84E+02	9.84E+02	9.84E+02	1	1
Chromium	mg/kg	1.18E+01	1.18E+01	1.18E+01	1	1
Cobalt	mg/kg	2.69E+00	2.69E+00	2.69E+00	1	1
Copper	mg/kg	9.94E+00	9.94E+00	9.94E+00	1	1
Iron	mg/kg	3.97E+03	3.97E+03	3.97E+03	1	1
Lead	mg/kg	1.78E+01	1.78E+01	1.78E+01	1	1
Magnesium	mg/kg	4.02E+02	4.02E+02	4.02E+02	1	1
Manganese	mg/kg	1.45E+02	1.45E+02	1.45E+02	1	1
Mercury	mg/kg	1.80E-02	1.80E-02	1.80E-02	1	1
Nickel	mg/kg	4.44E+00	4.44E+00	4.44E+00	1	1
PCB-1016	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	7.00E+01	8.00E+01	7.50E+01	2	2
PCB-1242	ug/kg	4.00E+01	5.00E+01	4.50E+01	2	2
PCB-1248	ug/kg	8.00E+01	1.00E+02	9.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	1.00E+02	8.50E+01	2	2
PCB-1260	ug/kg	8.00E+01	3.70E+02	2.25E+02	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	2.80E+02	3.70E+02	3.25E+02	2	2
Potassium	mg/kg	8.88E+01	8.88E+01	8.88E+01	1	1
Selenium	mg/kg	1.78E+01	1.78E+01	1.78E+01	1	1
Silver	mg/kg	2.15E+00	2.15E+00	2.15E+00	1	1
Sodium	mg/kg	1.78E+02	1.78E+02	1.78E+02	1	1
Thallium	mg/kg	1.78E+01	1.78E+01	1.78E+01	1	1
Uranium	mg/kg	8.88E+01	8.88E+01	8.88E+01	1	1
Vanadium	mg/kg	5.12E+00	5.12E+00	5.12E+00	1	1
Zinc	mg/kg	4.56E+01	4.56E+01	4.56E+01	1	1

Sediment Nonradiological Data

Table 4.34. Nonradiological Data for Sediment Location S32

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	4.15E+03	4.15E+03	4.15E+03	1	1
Antimony	mg/kg	8.57E+00	8.57E+00	8.57E+00	1	1
Arsenic	mg/kg	1.92E+01	1.92E+01	1.92E+01	1	1
Barium	mg/kg	5.55E+01	5.55E+01	5.55E+01	1	1
Beryllium	mg/kg	4.79E-01	4.79E-01	4.79E-01	1	1
Cadmium	mg/kg	1.92E+00	1.92E+00	1.92E+00	1	1
Calcium	mg/kg	3.04E+03	3.04E+03	3.04E+03	1	1
Chromium	mg/kg	2.16E+01	2.16E+01	2.16E+01	1	1
Cobalt	mg/kg	2.89E+00	2.89E+00	2.89E+00	1	1
Copper	mg/kg	2.60E+01	2.60E+01	2.60E+01	1	1
Iron	mg/kg	6.52E+03	6.52E+03	6.52E+03	1	1
Lead	mg/kg	1.92E+01	1.92E+01	1.92E+01	1	1
Magnesium	mg/kg	8.26E+02	8.26E+02	8.26E+02	1	1
Manganese	mg/kg	1.46E+02	1.46E+02	1.46E+02	1	1
Mercury	mg/kg	4.10E-02	4.10E-02	4.10E-02	1	1
Nickel	mg/kg	1.30E+01	1.30E+01	1.30E+01	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	1.10E+02	9.00E+01	2	2
PCB-1260	ug/kg	1.20E+02	1.50E+02	1.35E+02	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.20E+02	2.60E+02	1.90E+02	2	2
Potassium	mg/kg	2.28E+02	2.28E+02	2.28E+02	1	1
Selenium	mg/kg	1.92E+01	1.92E+01	1.92E+01	1	1
Silver	mg/kg	2.14E+00	2.14E+00	2.14E+00	1	1
Sodium	mg/kg	1.92E+02	1.92E+02	1.92E+02	1	1
Thallium	mg/kg	1.92E+01	1.92E+01	1.92E+01	1	1
Uranium	mg/kg	9.58E+01	9.58E+01	9.58E+01	1	1
Vanadium	mg/kg	9.68E+00	9.68E+00	9.68E+00	1	1
Zinc	mg/kg	3.53E+01	3.53E+01	3.53E+01	1	1

Sediment Nonradiological Data

Table 4.35. Nonradiological Data for Sediment Location S28

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.94E+03	1.94E+03	1.94E+03	1	1
Antimony	mg/kg	8.17E+00	8.17E+00	8.17E+00	1	1
Arsenic	mg/kg	1.94E+01	1.94E+01	1.94E+01	1	1
Barium	mg/kg	2.55E+01	2.55E+01	2.55E+01	1	1
Beryllium	mg/kg	4.84E-01	4.84E-01	4.84E-01	1	1
Cadmium	mg/kg	1.94E+00	1.94E+00	1.94E+00	1	1
Calcium	mg/kg	3.31E+02	3.31E+02	3.31E+02	1	1
Chromium	mg/kg	4.21E+00	4.21E+00	4.21E+00	1	1
Cobalt	mg/kg	2.42E+00	2.42E+00	2.42E+00	1	1
Copper	mg/kg	3.87E+00	3.87E+00	3.87E+00	1	1
Iron	mg/kg	2.66E+03	2.66E+03	2.66E+03	1	1
Lead	mg/kg	1.94E+01	1.94E+01	1.94E+01	1	1
Magnesium	mg/kg	3.22E+02	3.22E+02	3.22E+02	1	1
Manganese	mg/kg	8.47E+01	8.47E+01	8.47E+01	1	1
Mercury	mg/kg	1.60E-02	1.60E-02	1.60E-02	1	1
Nickel	mg/kg	4.84E+00	4.84E+00	4.84E+00	1	1
PCB-1016	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1221	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
PCB-1232	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1242	ug/kg	5.00E+01	5.00E+01	5.00E+01	2	2
PCB-1248	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1254	ug/kg	7.00E+01	7.00E+01	7.00E+01	2	2
PCB-1260	ug/kg	8.00E+01	8.00E+01	8.00E+01	2	2
PCB-1268	ug/kg	6.00E+01	6.00E+01	6.00E+01	2	2
Polychlorinated biphenyl	ug/kg	1.00E+02	1.00E+02	1.00E+02	2	2
Potassium	mg/kg	9.85E+01	9.85E+01	9.85E+01	1	1
Selenium	mg/kg	1.94E+01	1.94E+01	1.94E+01	1	1
Silver	mg/kg	2.04E+00	2.04E+00	2.04E+00	1	1
Sodium	mg/kg	1.94E+02	1.94E+02	1.94E+02	1	1
Thallium	mg/kg	1.94E+01	1.94E+01	1.94E+01	1	1
Uranium	mg/kg	9.69E+01	9.69E+01	9.69E+01	1	1
Vanadium	mg/kg	6.91E+00	6.91E+00	6.91E+00	1	1
Zinc	mg/kg	1.94E+01	1.94E+01	1.94E+01	1	1

Deer Nonradiological Data

Table 4.36. Nonradiological Analysis of Deer Liver Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	5.62E-01	3.27E+00	1.16E+00	6	6
Antimony	mg/kg	1.61E+00	1.69E+00	1.66E+00	6	6
Arsenic	mg/kg	4.54E-01	4.75E-01	4.68E-01	6	6
Barium	mg/kg	9.85E-02	2.13E-01	1.70E-01	6	6
Beryllium	mg/kg	5.72E-03	5.99E-03	5.90E-03	6	6
Cadmium	mg/kg	1.35E-02	1.90E-01	6.76E-02	6	6
Chromium	mg/kg	5.45E-02	1.45E-01	1.08E-01	6	6
Cobalt	mg/kg	5.15E-02	1.47E-01	9.78E-02	6	6
Copper	mg/kg	7.45E-01	9.66E+01	3.88E+01	6	6
Iron	mg/kg	4.80E+01	4.41E+02	1.43E+02	6	6
Lead	mg/kg	2.04E-01	5.18E-01	2.57E-01	6	6
Lipids	%	2.52E+00	6.69E+00	5.13E+00	6	6
Manganese	mg/kg	2.41E-01	4.71E+00	3.26E+00	6	6
Mercury	mg/kg	4.70E-02	5.00E-02	4.85E-02	6	6
Nickel	mg/kg	3.30E-01	3.46E-01	3.41E-01	6	6
PCB-1016	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
PCB-1221	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
PCB-1232	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
PCB-1242	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
PCB-1248	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
PCB-1254	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
PCB-1260	ug/kg	9.17E+00	2.47E+01	1.44E+01	6	6
PCB-1268	ug/kg	9.04E+00	9.88E+00	9.49E+00	6	6
Polychlorinated biphenyl	ug/kg	9.17E+00	2.47E+01	1.44E+01	6	6
Selenium	mg/kg	1.11E+00	2.76E+00	1.54E+00	6	6
Silver	mg/kg	1.35E-01	1.42E-01	1.40E-01	6	6
Thallium	mg/kg	8.36E-01	8.75E-01	8.62E-01	6	6
Vanadium	mg/kg	4.68E-02	4.90E-02	4.83E-02	6	6
Zinc	mg/kg	1.76E+01	3.86E+01	3.13E+01	6	6

Deer Nonradiological Data

Table 4.37. Nonradiological Analysis of Deer Muscle Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	5.76E-01	2.00E+00	9.10E-01	6	6
Antimony	mg/kg	1.62E+00	1.78E+00	1.69E+00	6	6
Arsenic	mg/kg	4.57E-01	5.00E-01	4.76E-01	6	6
Barium	mg/kg	4.00E-02	1.70E-01	9.27E-02	6	6
Beryllium	mg/kg	5.75E-03	6.30E-03	6.00E-03	6	6
Cadmium	mg/kg	1.36E-02	1.49E-02	1.42E-02	6	6
Chromium	mg/kg	4.73E-02	3.47E-01	1.13E-01	6	6
Cobalt	mg/kg	3.28E-02	7.35E-02	4.72E-02	6	6
Copper	mg/kg	1.24E+00	1.74E+00	1.50E+00	6	6
Iron	mg/kg	3.64E+01	6.06E+01	4.42E+01	6	6
Lead	mg/kg	1.99E-01	2.17E-01	2.07E-01	6	6
Manganese	mg/kg	1.34E-01	4.27E-01	2.33E-01	6	6
Mercury	mg/kg	4.70E-02	4.90E-02	4.78E-02	6	6
Nickel	mg/kg	3.32E-01	3.64E-01	3.47E-01	6	6
Selenium	mg/kg	1.08E+00	1.45E+00	1.19E+00	6	6
Silver	mg/kg	1.36E-01	1.49E-01	1.42E-01	6	6
Thallium	mg/kg	8.40E-01	9.20E-01	8.77E-01	6	6
Vanadium	mg/kg	4.70E-02	5.15E-02	4.91E-02	6	6
Zinc	mg/kg	1.48E+01	1.63E+01	1.56E+01	6	6

Table 4.38. Nonradiological Analysis of Deer Kidney Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	5.60E-01	1.42E+00	8.65E-01	6	6
Antimony	mg/kg	1.63E+00	1.74E+00	1.69E+00	6	6
Arsenic	mg/kg	4.58E-01	4.91E-01	4.75E-01	6	6
Barium	mg/kg	4.44E-01	6.71E-01	5.99E-01	6	6
Beryllium	mg/kg	5.77E-03	6.19E-03	5.98E-03	6	6
Cadmium	mg/kg	1.51E-01	3.21E+00	1.93E+00	6	6
Chromium	mg/kg	6.07E-02	1.46E-01	9.53E-02	6	6
Cobalt	mg/kg	4.88E-02	1.49E+00	3.12E-01	6	6
Copper	mg/kg	3.13E+00	4.49E+00	3.83E+00	6	6
Iron	mg/kg	6.55E+01	1.43E+02	8.72E+01	6	6
Lead	mg/kg	1.99E-01	1.05E+00	3.49E-01	6	6
Manganese	mg/kg	1.14E+00	1.72E+00	1.52E+00	6	6
Mercury	mg/kg	4.70E-02	4.90E-02	4.82E-02	6	6
Nickel	mg/kg	3.33E-01	3.57E-01	3.45E-01	6	6
Selenium	mg/kg	1.53E+00	2.76E+00	2.07E+00	6	6
Silver	mg/kg	1.36E-01	1.46E-01	1.42E-01	6	6
Thallium	mg/kg	8.42E-01	9.04E-01	8.74E-01	6	6
Vanadium	mg/kg	4.72E-02	5.06E-02	4.89E-02	6	6
Zinc	mg/kg	2.31E+01	3.10E+01	2.78E+01	6	6

Deer Nonradiological Data

Table 4.39. Nonradiological Analysis of Deer Fat Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Lipids	%	3.55E+01	8.41E+01	6.60E+01	6	6
PCB-1016	ug/kg	9.07E+00	9.92E+00	9.48E+00	6	6
PCB-1221	ug/kg	9.07E+00	9.92E+00	9.47E+00	6	6
PCB-1232	ug/kg	9.07E+00	9.92E+00	9.48E+00	6	6
PCB-1242	ug/kg	9.07E+00	9.92E+00	9.48E+00	6	6
PCB-1248	ug/kg	9.07E+00	9.92E+00	9.47E+00	6	6
PCB-1254	ug/kg	9.07E+00	9.92E+00	9.47E+00	6	6
PCB-1260	ug/kg	2.53E+01	1.42E+02	7.39E+01	6	6
PCB-1268	ug/kg	9.07E+00	9.92E+00	9.47E+00	6	6
Polychlorinated biphenyl	ug/kg	2.53E+01	1.42E+02	7.39E+01	6	6

Table 4.40. Nonradiological Analysis of Deer Abdominal Fat Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Lipids	%	5.66E+01	7.75E+01	6.72E+01	6	6
PCB-1016	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
PCB-1221	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
PCB-1232	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
PCB-1242	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
PCB-1248	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
PCB-1254	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
PCB-1260	ug/kg	2.62E+01	1.33E+02	7.35E+01	6	6
PCB-1268	ug/kg	8.85E+00	9.86E+00	9.39E+00	6	6
Polychlorinated biphenyl	ug/kg	2.62E+01	1.33E+02	7.35E+01	6	6

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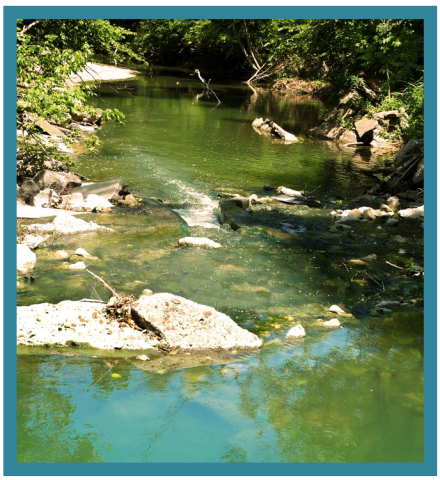

Paducah Site Annual Site Environmental Report 2010

Environmental Management

safety ❖ performance ❖ cleanup ❖ closure