PRS-ENM-0045
Volume II

PADUCAH SITE
ANNUAL SITE ENVIRONMENTAL REPORT
2008

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

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PRS-ENM-0045
Volume II

Environmental Monitoring Results, Annual Site Environmental Report, Calendar Year 2008 Paducah Gaseous Diffusion Plant, Paducah, Kentucky

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Prepared for the
U. S. Department of Energy
Office of Environmental Management

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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 non-radiological 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.

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.

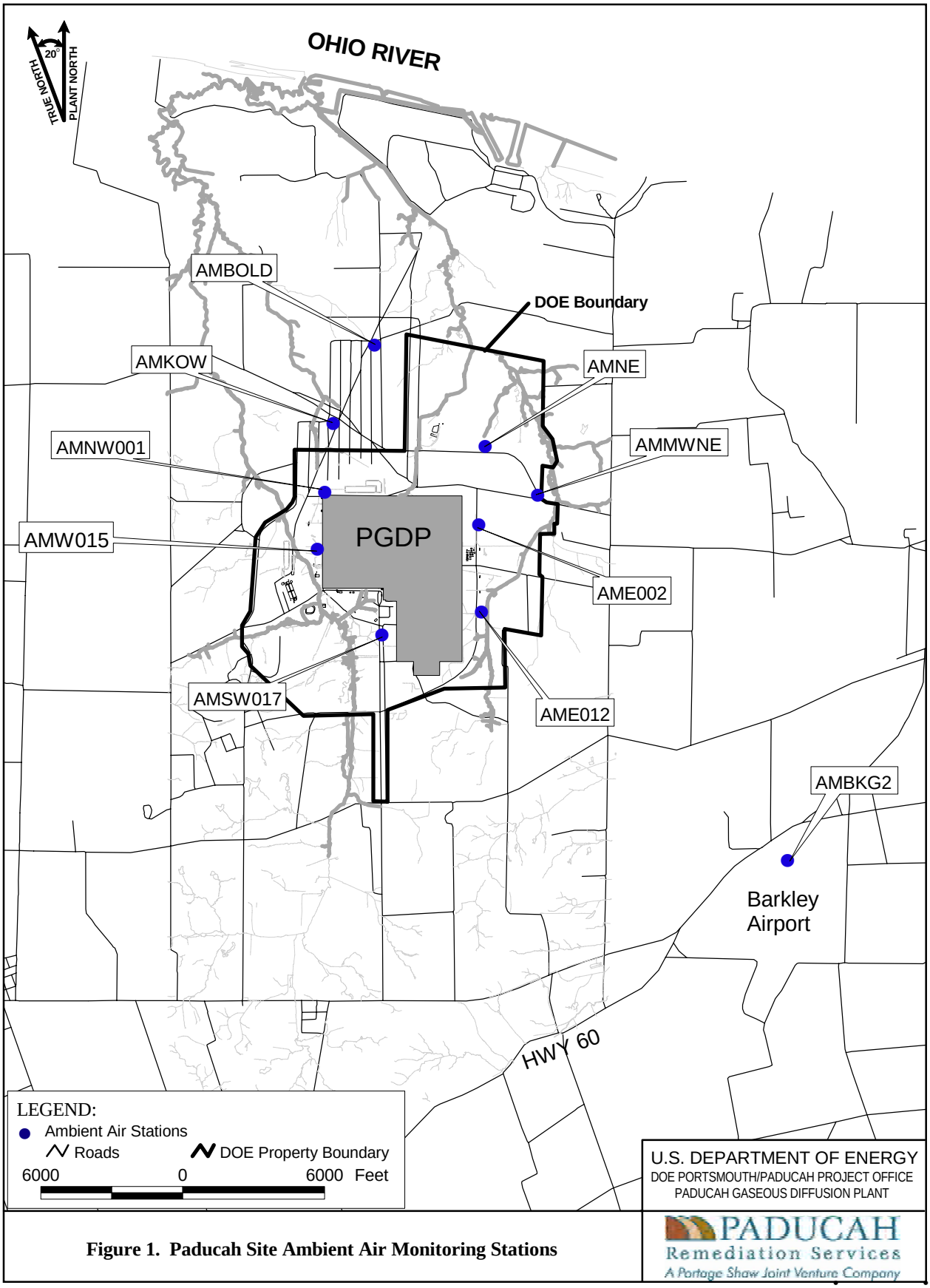

Figure 1. Paducah Site Ambient Air Monitoring Stations

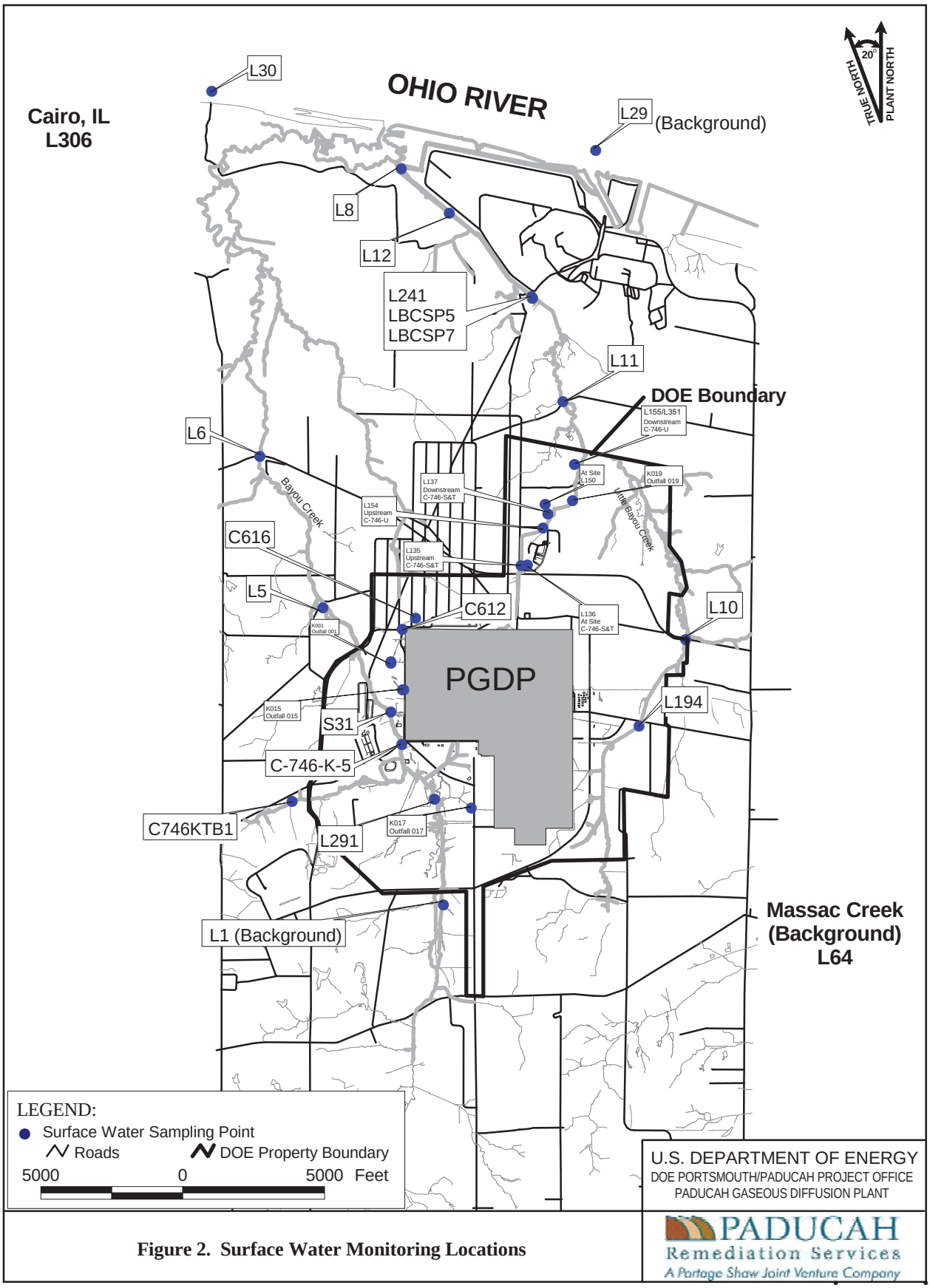

Figure 2. Surface Water Monitoring Locations

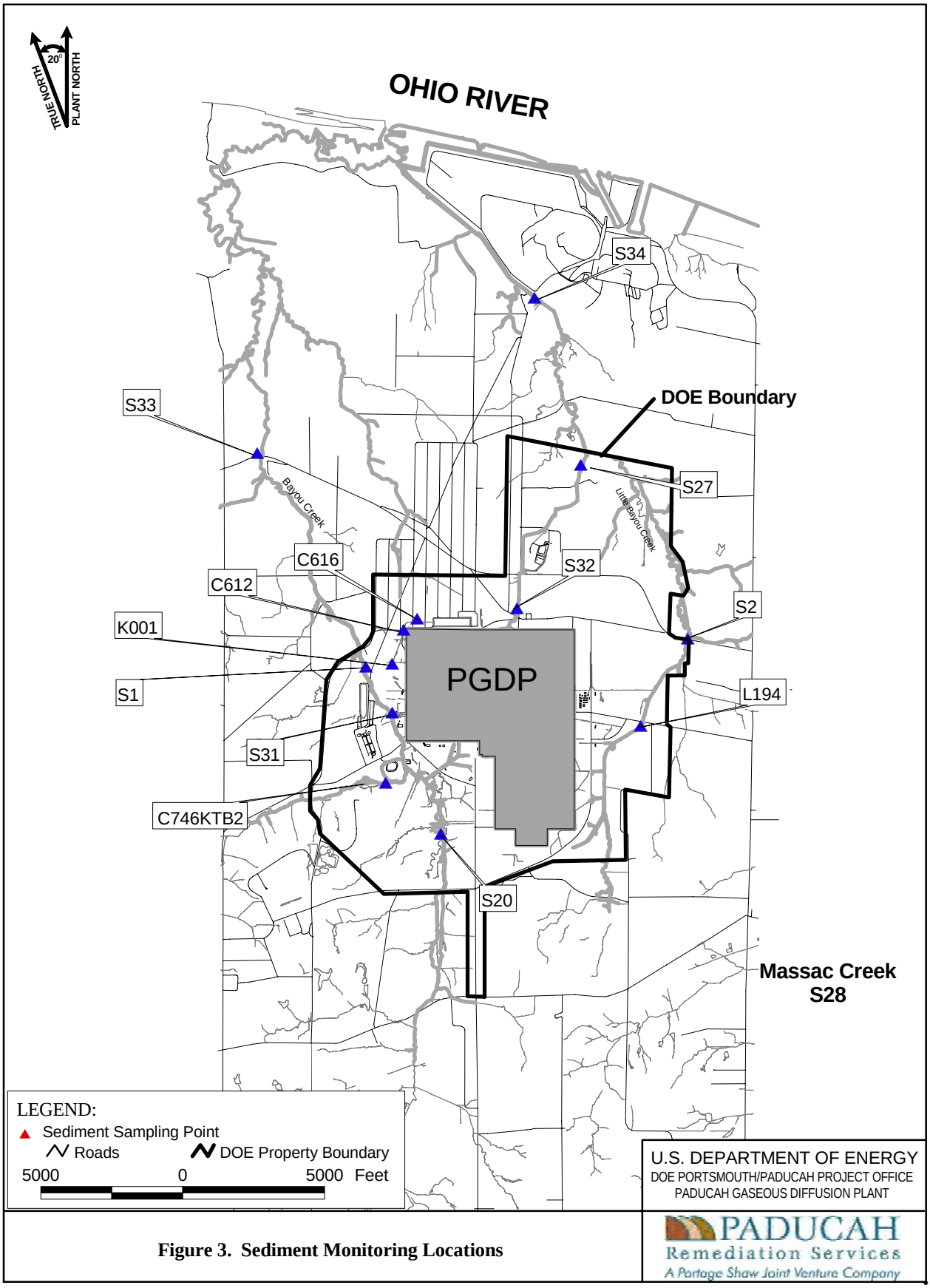

Figure 3. Sediment Monitoring Locations

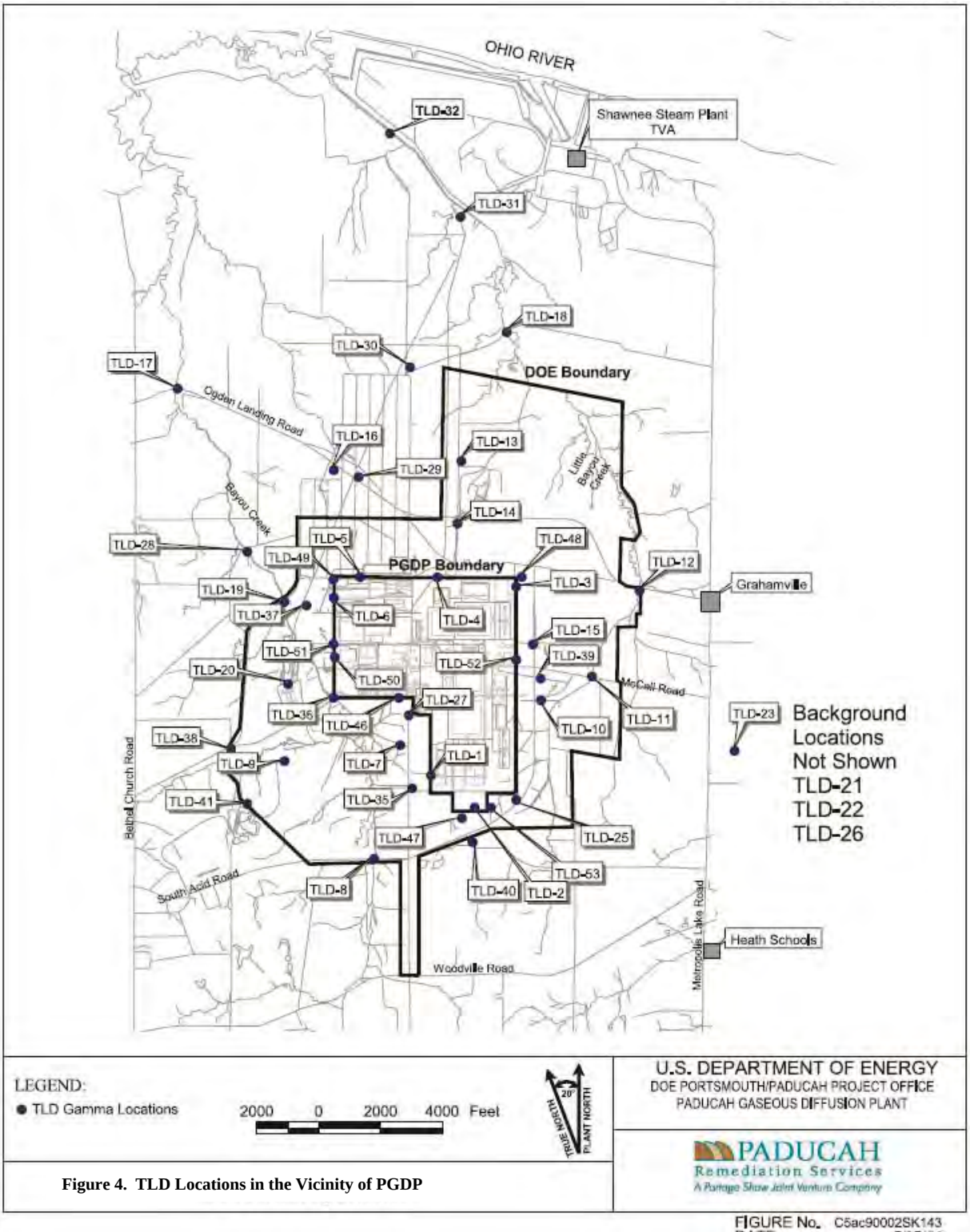

Figure 4. TLD Locations in the Vicinity of PGDP

FIGURE No. C5ac90002SK143
DATE 7/17/06

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	-6.74	188	7	3	55		
Beta activity	pCi/L	4.74	94.9	31.7	53	55		
Technetium-99	pCi/L	-2.7	12.3	6.1	0	4	ActionLimit	900

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	21.6	133	48.5	9	9		
Beta activity	pCi/L	23.5	144	55.7	9	9		
Technetium-99	pCi/L	0.652	40.7	21.6	2	4	ActionLimit	900

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	-0.574	8.34	1.46	1	13		
Beta activity	pCi/L	0.464	14	7.79	11	13		
Technetium-99	pCi/L	-15.2	3.21	-3.47	0	5	ActionLimit	900

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	-1.52	9.04	3.11	0	17		
Beta activity	pCi/L	-0.416	14	7.15	5	17		
Technetium-99	pCi/L	-8.47	9.74	-0.721	0	6	ActionLimit	900

Surface Water Radiological Data

Table 1.5 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	1.22	3.56	2.48	0	4		
Beta activity	pCi/L	7.35	17.3	12	4	4		

Table 1.6 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	1.06	9.22	3.35	1	5		
Beta activity	pCi/L	6.37	15.2	8.56	5	5		

Table 1.7 Radiological Effluent Data for Landfill Surface Water Location L137

Downstream 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	-0.803	4.22	1.7	1	3		
Beta activity	pCi/L	6.41	10.9	9.08	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	-0.611	1.9	0.803	0	4		
Beta activity	pCi/L	3.33	8.47	5.94	2	4		

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	0.498	4.74	2.77	1	4		
Beta activity	pCi/L	8.22	18.9	14.9	4	4		

Table 1.10 Radiological Effluent Data for Landfill Surface Water Location L155

Downstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	1.26	4.39	2.61	0	3		
Beta activity	pCi/L	3.17	9.64	7.1	2	3		

Surface Water Radiological Data

Table 1.11 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	1.68	1.68	1.68	0	1		
Beta activity	pCi/L	13.4	13.4	13.4	1	1		

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2. RADIOLOGICAL ENVIRONMENTAL SURVEILLANCE DATA

Ambient Air 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
Quarter	**Nuclide**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**	**Ci/m^3**
1	^{241}Am	7.95E-17	6.47E-17	9.50E-17	1.50E-16	-6.80E-17	2.07E-16	1.19E-16	1.21E-17	-6.37E-17	-7.48E-17
	^{237}Np	-3.14E-16	-2.61E-17	-1.82E-16	-4.73E-19	-2.22E-16	-2.53E-16	-2.79E-16	1.37E-16	7.41E-17	2.38E-17
	^{99}Tc	2.70E-16	3.46E-16	-4.65E-17	9.00E-17	0	4.43E-16	-1.703E-15	-1.56E-16	2.90E-17	4.32E-16
	^{238}U/^{234}Th	7.72E-17	6.16E-17	7.51E-17	9.55E-17	9.71E-17	1.26E-16	7.71E-17	1.15E-16	8.95E-17	1.37E-16
2	^{241}Am	-1.04E-16	6.62E-17	-2.90E-16	-1.39E-16	2.76E-16	4.35E-17	-1.31E-16	2.69E-16	-2.92E-17	2.39E-17
	^{237}Np	1.45E-16	-5.51E-17	-2.86E-18	-4.64E-18	-1.67E-16	-1.22E-16	-2.36E-16	-2.17E-16	4.06E-17	2.48E-16
	^{99}Tc	5.85E-16	2.34E-16	1.76E-16	6.38E-17	-1.09E-16	5.13E-17	-3.13E-16	-3.75E-16	-6.75E-18	6.28E-17
	^{238}U/^{234}Th	8.07E-17	8.76E-17	9.83E-17	1.09E-16	8.42E-17	8.40E-17	8.99E-17	1.41E-16	1.23E-16	7.11E-17
3	^{241}Am	1.78E-16	-1.53E-16	9.98E-17	-1.28E-17	-6.50E-18	-1.59E-16	1.09E-16	5.93E-17	2.14E-17	-2.56E-16
	^{237}Np	-1.57E-16	5.88E-17	3.32E-16	-2.29E-16	-1.35E-16	-1.18E-18	1.2E-16	-2.82E-17	4.49E-17	-1.41E-16
	^{99}Tc	3.90E-16	2.22E-16	1.29E-16	9.81E-17	-5.58E-17	3.86E-17	1.85E-16	-2.66E-16	-2.11E-15	4.55E-17
	^{238}U/^{234}Th	1.87E-16	2.40E-16	2.33E-16	2.50E-16	3.03E-16	2.66E-16	1.91E-16	4.32E-16	2.98E-16	2.43E-16
4	^{241}Am	9.25E-17	-1.36E-16	9.51E-17	2.13E-16	-5.65E-16	1.23E-16	3.95E-16	1.38E-16	-1.49E-16	-9.29E-16
	^{237}Np	-3.67E-16	3.85E-17	2.53E-16	-4.05E-17	-8.31E-17	-1.00E-16	-1.27E-16	3.45E-16	-3.17E-16	1.50E-16
	^{99}Tc	-1.86E-17	3.59E-16	-5.28E-17	-1.86E-17	9.35E-17	1.16E-16	1.59E-16	3.08E-16	9.28E-17	2.04E-16
	^{238}U/^{234}Th	7.80E-17	1.34E-16	9.69E-17	8.89E-17	9.69E-17	1.22E-16	7.25E-17	1.33E-16	1.18E-16	9.77E-17

[1]All results are below the applicable limiting values of 40 CFR § 61, Table 2 (see footnote 2).
[2]40 CFR § 61, Table 2, Limiting Values (Ci/m^3): ^{241}Am - 1.9E-15, ^{237}Np - 1.2E-15, ^{99}Tc - 1.4E-13, ^{234}Th - 2.2E-12 and ^{238}U 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
Activity of U-235	pCi/L	-0.0155	0.00833	-0.0048	0	3		
Americium-241	pCi/L	-0.00556	0.00664	0.00102	0	4	10%DCG	3
Cesium-134	pCi/L	-0.477	0.48	0.0598	0	4		
Cesium-137	pCi/L	-0.454	0.176	-0.177	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.493	0.0674	-0.14	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.0263	2.38	1.36	0	4		
Dissolved Beta	pCi/L	1.79	6.98	3.63	0	4		
Neptunium-237	pCi/L	-0.0142	-0.0066	-0.0105	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00867	0.0225	0.00161	0	4		
Plutonium-239/240	pCi/L	-0.00697	-0.0001	-0.00398	0	4	10%DCG	3
Potassium-40	pCi/L	-32.9	7.47	-13	0	4		
Suspended Alpha	pCi/L	-1.12	1.24	-0.0237	0	4		
Suspended Beta	pCi/L	-0.505	3.61	1.82	0	4		
Technetium-99	pCi/L	-4.53	17.2	4.63	1	4	ActionLimit	900
Thorium-228	pCi/L	0.0703	0.139	0.112	0	4		
Thorium-230	pCi/L	-0.0513	0.0862	0.022	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0298	0.0218	-0.00405	0	4		
Thorium-234	pCi/L	-33.5	9.48	-13	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.02	0.134	0.0607	0	4	10%DCG	60
Uranium-234	pCi/L	-0.0122	0.108	0.0439	0	4	10%DCG	50
Uranium-235	pCi/L	0.00545	0.00545	0.00545	0	1	10%DCG	60
Uranium-238	pCi/L	0.00284	0.0413	0.019	0	4	10%DCG	60

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
Activity of U-235	pCi/L	0.00532	0.053	0.0279	0	3		
Americium-241	pCi/L	-0.0106	0.0262	0.00753	0	4	10%DCG	3
Cesium-134	pCi/L	-0.527	0.571	-0.211	0	4		
Cesium-137	pCi/L	-0.511	1.23	0.273	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.75	1.38	0.111	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-4.95	2.4	0.0245	0	4		
Dissolved Beta	pCi/L	6.95	22.8	14.9	3	4		
Neptunium-237	pCi/L	-0.0102	0.0245	0.00662	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.0109	0.0158	0.00188	0	4		
Plutonium-239/240	pCi/L	-0.00388	0.00519	0.00258	0	4	10%DCG	3
Potassium-40	pCi/L	-23.5	27	-2.6	0	4		
Suspended Alpha	pCi/L	-0.998	1.57	0.253	0	4		
Suspended Beta	pCi/L	-1.51	1.49	0.227	0	4		
Technetium-99	pCi/L	-3.66	6.86	1.02	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0396	0.152	0.0968	0	4		
Thorium-230	pCi/L	-0.0265	0.0959	0.0384	0	4	10%DCG	30
Thorium-232	pCi/L	0.00229	0.0193	0.0108	0	4		
Thorium-234	pCi/L	-30.7	8.3	-9.4	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.772	1.95	1.29	1	4	10%DCG	60
Uranium-234	pCi/L	0.296	0.834	0.608	4	4	10%DCG	50
Uranium-235	pCi/L	-0.0107	-0.0107	-0.0107	0	1	10%DCG	60
Uranium-238	pCi/L	0.406	1.21	0.669	4	4	10%DCG	60

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
Activity of U-235	pCi/L	0.00696	0.0626	0.0362	0	3		
Americium-241	pCi/L	-0.00463	0.0116	0.000284	0	5	10%DCG	3
Cesium-134	pCi/L	-0.587	0.762	0.283	0	5		
Cesium-137	pCi/L	-0.839	0.112	-0.493	0	5	10%DCG	300
Cobalt-60	pCi/L	0.0474	1.18	0.761	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	-9.7	3.98	-2.01	0	5		
Dissolved Beta	pCi/L	2.4	26.6	17	4	5		
Neptunium-237	pCi/L	-0.00802	0.122	0.0369	0	5	10%DCG	3
Plutonium-238	pCi/L	0.0000929	0.0218	0.00864	0	5		
Plutonium-239/240	pCi/L	-0.0105	0.0206	0.00423	0	5	10%DCG	3
Potassium-40	pCi/L	-8.77	28.1	7.52	1	5		
Suspended Alpha	pCi/L	-0.43	2.74	0.72	0	5		
Suspended Beta	pCi/L	-2	2.92	0.0986	0	5		
Technetium-99	pCi/L	-7.54	2.41	-1.53	0	5	ActionLimit	900
Thorium-228	pCi/L	0.0563	0.3	0.128	0	5		
Thorium-230	pCi/L	-0.0262	0.0717	0.0365	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0196	0.016	-0.00365	0	5		
Thorium-234	pCi/L	-30	13.9	-2.39	0	5		
Uranium	mg/L	0.005	0.005	0.005	0	5	10%DCG	0.0901
Uranium	pCi/L	0.634	1.41	1.02	1	5	10%DCG	60
Uranium-234	pCi/L	0.281	0.656	0.48	4	5	10%DCG	50
Uranium-235	pCi/L	0.016	0.0188	0.0174	0	2	10%DCG	60
Uranium-238	pCi/L	0.264	0.846	0.512	5	5	10%DCG	60

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
Activity of U-235	pCi/L	0.0598	0.297	0.146	2	3		
Americium-241	pCi/L	-0.00812	0.0223	0.00942	0	4	10%DCG	3
Cesium-134	pCi/L	-0.459	0.0929	-0.239	0	4		
Cesium-137	pCi/L	0.292	1.41	0.939	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.855	1.13	-0.04	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	0.0423	28.4	9.27	1	4		
Dissolved Beta	pCi/L	14.4	42.5	33.1	3	4		
Neptunium-237	pCi/L	-0.0187	0.0209	0.0063	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.0114	0.00773	0.00183	0	4		
Plutonium-239/240	pCi/L	-0.00862	0.00586	-0.00281	0	4	10%DCG	3
Potassium-40	pCi/L	-4.46	12.6	6.67	0	4		
Suspended Alpha	pCi/L	-3.46	2.3	-0.341	0	4		
Suspended Beta	pCi/L	-1.78	2.54	1.05	0	4		
Technetium-99	pCi/L	-1.77	27.5	7.48	1	4	ActionLimit	900
Thorium-228	pCi/L	0.0823	0.184	0.123	0	4		
Thorium-230	pCi/L	0.0412	0.215	0.112	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0308	0.037	0.00432	0	4		
Thorium-234	pCi/L	-44.2	2.33	-12.2	0	4		
Uranium	pCi/L	0.72	12.3	4.88	3	4	10%DCG	60
Uranium-234	pCi/L	0.312	4.64	1.76	3	4	10%DCG	50
Uranium-235	pCi/L	-0.0054	-0.0054	-0.0054	0	1	10%DCG	60
Uranium-238	pCi/L	0.414	7.36	3.01	4	4	10%DCG	60

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
Activity of U-235	pCi/L	1.86	2.27	2.06	2	2		
Americium-241	pCi/L	-0.00827	0.047	0.0145	0	3	10%DCG	3
Cesium-134	pCi/L	-0.616	0.504	0.111	0	3		
Cesium-137	pCi/L	1.19	1.79	1.5	0	3	10%DCG	300
Cobalt-60	pCi/L	0.0491	0.466	0.284	0	3	10%DCG	1000
Dissolved Alpha	pCi/L	36.1	78	59.6	3	3		
Dissolved Beta	pCi/L	36.6	216	112	3	3		
Neptunium-237	pCi/L	0.00129	0.106	0.0471	0	3	10%DCG	3
Plutonium-238	pCi/L	-0.00475	0.00155	-0.00207	0	3		
Plutonium-239/240	pCi/L	0.0335	0.0837	0.0555	1	3	10%DCG	3
Potassium-40	pCi/L	-20.3	32.2	1.21	0	3		
Suspended Alpha	pCi/L	-0.757	4.11	2.24	0	3		
Suspended Beta	pCi/L	14.9	35.6	23.2	3	3		
Technetium-99	pCi/L	-3.58	33.3	15.4	1	3	ActionLimit	900
Thorium-228	pCi/L	0.0349	0.126	0.0749	0	3		
Thorium-230	pCi/L	0.0636	0.209	0.135	0	3	10%DCG	30
Thorium-232	pCi/L	-0.0149	0.0167	0.00573	0	3		
Thorium-234	pCi/L	-33.1	48.8	-1.93	0	3		
Uranium	pCi/L	37.1	134	93	3	3	10%DCG	60
Uranium-234	pCi/L	8.94	26.6	20	3	3	10%DCG	50
Uranium-235	pCi/L	0.633	0.633	0.633	1	1	10%DCG	60
Uranium-238	pCi/L	27.5	105	71.3	3	3	10%DCG	60

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
Activity of U-235	pCi/L	-0.00507	0.00711	-0.000773	0	3		
Americium-241	pCi/L	-0.00889	0.0273	0.00547	0	4	10%DCG	3
Cesium-134	pCi/L	-0.718	2.27	0.527	0	4		
Cesium-137	pCi/L	-0.593	0.158	-0.134	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.24	0.235	-0.477	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.0992	1.68	1.12	0	4		
Dissolved Beta	pCi/L	10.9	14.5	12.7	4	4		
Neptunium-237	pCi/L	-0.00476	0.0231	0.0108	0	4	10%DCG	3
Plutonium-238	pCi/L	0.00046	0.0145	0.0062	0	4		
Plutonium-239/240	pCi/L	-0.0177	0.00992	-0.00251	0	4	10%DCG	3
Potassium-40	pCi/L	-22.8	17.7	-4.63	0	4		
Suspended Alpha	pCi/L	-0.254	0.548	0.154	0	4		
Suspended Beta	pCi/L	-0.829	1.47	0.355	0	4		
Technetium-99	pCi/L	4.5	17.2	9.05	1	4	ActionLimit	900
Thorium-228	pCi/L	0.0306	0.194	0.102	0	4		
Thorium-230	pCi/L	-0.02	0.0644	0.0234	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0203	0.0328	0.0011	0	4		
Thorium-234	pCi/L	-31.2	66.6	3.51	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.0135	0.0661	0.0412	0	4	10%DCG	60
Uranium-234	pCi/L	0.00645	0.0557	0.027	0	4	10%DCG	50
Uranium-235	pCi/L	0.014	0.014	0.014	0	1	10%DCG	60
Uranium-238	pCi/L	-0.00362	0.0309	0.0113	0	4	10%DCG	60

Surface Water Radiological Data

Table 2.8 Radiological Monitoring Data for Surface Water Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.00718	0.0321	0.0199	0	3		
Americium-241	pCi/L	0.000477	0.0094	0.00332	0	4	10%DCG	3
Cesium-134	pCi/L	-1.12	0.582	-0.221	0	4		
Cesium-137	pCi/L	-0.43	1.02	0.0865	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.746	1.4	0.256	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-8.14	12	1.49	0	4		
Dissolved Beta	pCi/L	29.1	75.4	47.5	4	4		
Neptunium-237	pCi/L	-0.0102	0.0435	0.0204	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00448	0.0211	0.0062	0	4		
Plutonium-239/240	pCi/L	-0.000597	0.0255	0.0124	0	4	10%DCG	3
Potassium-40	pCi/L	7.18	63.1	31.6	2	4		
Suspended Alpha	pCi/L	-603	3.04	-151	0	4		
Suspended Beta	pCi/L	-1.59	4.29	0.726	0	4		
Technetium-99	pCi/L	-4.86	14.5	5.49	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0299	0.178	0.0919	0	4		
Thorium-230	pCi/L	-0.0537	0.0412	0.0131	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0205	0.0334	0.00885	0	4		
Thorium-234	pCi/L	-35.2	4.53	-16	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.559	1.09	0.773	0	4	10%DCG	60
Uranium-234	pCi/L	0.318	0.441	0.366	3	4	10%DCG	50
Uranium-235	pCi/L	0.00271	0.00271	0.00271	0	1	10%DCG	60
Uranium-238	pCi/L	0.239	0.612	0.39	4	4	10%DCG	60

Surface Water Radiological Data

Table 2.9 Radiological Monitoring Data for Surface Water Location L291

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.00275	0.0239	0.00917	0	3		
Americium-241	pCi/L	-0.0168	0.0496	0.00953	0	4	10%DCG	3
Cesium-134	pCi/L	-0.668	1.37	0.568	0	4		
Cesium-137	pCi/L	-0.405	0.518	0.0853	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.212	0.448	0.192	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	0.366	3.62	1.97	0	4		
Dissolved Beta	pCi/L	0.118	6	3.58	0	4		
Neptunium-237	pCi/L	-0.024	0.0161	-0.00672	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00391	0.0183	0.0076	0	4		
Plutonium-239/240	pCi/L	-0.00639	0.0222	0.00875	0	4	10%DCG	3
Potassium-40	pCi/L	-15.4	0.479	-5.48	0	4		
Suspended Alpha	pCi/L	-1.06	1.84	-0.218	0	4		
Suspended Beta	pCi/L	-1.61	2.3	0.288	0	4		
Technetium-99	pCi/L	-9.93	5.65	-2.21	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0122	0.139	0.0805	0	4		
Thorium-230	pCi/L	-0.00761	0.0702	0.0199	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0158	0.0167	-0.00033	0	4		
Thorium-234	pCi/L	-28.4	3.84	-12.8	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.0667	0.193	0.128	0	4	10%DCG	60
Uranium-234	pCi/L	0.0148	0.0627	0.0449	0	4	10%DCG	50
Uranium-235	pCi/L	0.00803	0.00803	0.00803	0	1	10%DCG	60
Uranium-238	pCi/L	0.0456	0.128	0.0742	0	4	10%DCG	60

Surface Water Radiological Data

Table 2.10 Radiological Monitoring Data for Surface Water Location L10

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.0248	0.125	0.0601	1	3		
Americium-241	pCi/L	0.00269	0.0499	0.0213	0	4	10%DCG	3
Cesium-134	pCi/L	-0.41	0.558	0.0575	0	4		
Cesium-137	pCi/L	-0.126	1.21	0.489	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.1	0.797	-0.314	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.681	5.25	2.24	0	4		
Dissolved Beta	pCi/L	4.6	10.2	8.15	1	4		
Neptunium-237	pCi/L	-0.0269	0.0485	-0.00252	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.0000726	0.00851	0.00429	0	4		
Plutonium-239/240	pCi/L	-0.0119	0.0152	0.00426	0	4	10%DCG	3
Potassium-40	pCi/L	-39.5	5.94	-11.7	0	4		
Suspended Alpha	pCi/L	-0.44	0.872	0.219	0	4		
Suspended Beta	pCi/L	-1.75	1.96	-0.168	0	4		
Technetium-99	pCi/L	-15.6	3.72	-5.99	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0337	0.145	0.0947	0	4		
Thorium-230	pCi/L	-0.0371	0.115	0.0087	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0213	0.0202	0.00446	0	4		
Thorium-234	pCi/L	-34.6	1.07	-17.2	0	4		
Uranium	mg/L	0.005	0.012	0.00775	2	4	10%DCG	0.0901
Uranium	pCi/L	1.12	4.71	2.7	1	4	10%DCG	60
Uranium-234	pCi/L	0.238	0.953	0.523	2	4	10%DCG	50
Uranium-235	pCi/L	0.0432	0.0432	0.0432	0	1	10%DCG	60
Uranium-238	pCi/L	0.834	3.63	2.12	4	4	10%DCG	60

Surface Water Radiological Data

Table 2.11 Radiological Monitoring Data for Surface Water Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.0378	0.152	0.0819	1	3		
Americium-241	pCi/L	-0.00529	0.022	0.00542	0	4	10%DCG	3
Cesium-134	pCi/L	-0.841	0.888	-0.262	0	4		
Cesium-137	pCi/L	-0.597	0.447	-0.0303	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.71	1.19	0.0982	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.814	4.81	3	0	4		
Dissolved Beta	pCi/L	1.07	11.5	7.6	2	4		
Neptunium-237	pCi/L	-0.0274	0.0233	-0.00177	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00548	0.00737	0.0012	0	4		
Plutonium-239/240	pCi/L	-0.00634	0.0285	0.0101	0	4	10%DCG	3
Potassium-40	pCi/L	-19.8	5.84	-8.36	0	4		
Suspended Alpha	pCi/L	-0.651	1.24	0.143	0	4		
Suspended Beta	pCi/L	0.0735	3.5	2	0	4		
Technetium-99	pCi/L	-9.4	12.2	2.63	0	4	ActionLimit	900
Thorium-228	pCi/L	0.027	0.145	0.0763	0	4		
Thorium-230	pCi/L	-0.0159	0.0496	0.0151	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0151	0.0156	0.00159	0	4		
Thorium-234	pCi/L	-37.9	-3.85	-23.3	0	4		
Uranium	mg/L	0.005	0.017	0.00925	2	4	10%DCG	0.0901
Uranium	pCi/L	0.98	7.04	3.37	1	4	10%DCG	60
Uranium-234	pCi/L	0.249	1.15	0.6	2	4	10%DCG	50
Uranium-235	pCi/L	0.0278	0.0278	0.0278	0	1	10%DCG	60
Uranium-238	pCi/L	0.703	5.73	2.7	4	4	10%DCG	60

Surface Water Radiological Data

Table 2.12 Radiological Monitoring Data for Surface Water Location L11

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.034	0.055	0.0445	0	4		
Americium-241	pCi/L	-0.0204	0.0132	-0.00327	0	5	10%DCG	3
Cesium-134	pCi/L	-1.32	1.21	-0.186	0	5		
Cesium-137	pCi/L	-0.949	0.261	-0.257	0	5	10%DCG	300
Cobalt-60	pCi/L	-0.813	0.732	-0.254	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	-0.458	2.59	1.23	0	5		
Dissolved Beta	pCi/L	3.91	9.99	7.01	1	5		
Neptunium-237	pCi/L	-0.00996	0.0502	0.0198	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.0097	0.00179	-0.00314	0	5		
Plutonium-239/240	pCi/L	-0.0166	0.0217	0.00001	0	5	10%DCG	3
Potassium-40	pCi/L	-7.25	11.7	3.61	0	5		
Suspended Alpha	pCi/L	-0.586	0.764	-0.0482	0	5		
Suspended Beta	pCi/L	-0.122	2.68	1.37	0	5		
Technetium-99	pCi/L	-5.4	11.9	-0.202	0	5	ActionLimit	900
Thorium-228	pCi/L	0.0755	0.174	0.117	0	5		
Thorium-230	pCi/L	-0.0401	0.064	0.00628	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0209	0.0115	-0.00162	0	5		
Thorium-234	pCi/L	-45.1	12.1	-13.1	0	5		
Uranium	mg/L	0.005	0.008	0.0062	3	5	10%DCG	0.0901
Uranium	pCi/L	0.82	2.99	2.07	1	5	10%DCG	60
Uranium-234	pCi/L	0.147	0.486	0.381	3	5	10%DCG	50
Uranium-235	pCi/L	0.0141	0.0141	0.0141	0	1	10%DCG	60
Uranium-238	pCi/L	0.64	2.45	1.65	5	5	10%DCG	60

Surface Water Radiological Data

Table 2.13 Radiological Monitoring Data for Surface Water Location L12

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.0149	0.0156	0.0154	0	3		
Americium-241	pCi/L	-0.00465	0.0205	0.00673	0	4	10%DCG	3
Cesium-134	pCi/L	-1.58	0.777	-0.421	0	4		
Cesium-137	pCi/L	-0.942	1.01	-0.172	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.8	0.66	-0.397	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-2.8	3.13	0.708	0	4		
Dissolved Beta	pCi/L	5.1	16.9	11	3	4		
Neptunium-237	pCi/L	-0.00539	0.0525	0.0134	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.0101	0.0116	0	0	4		
Plutonium-239/240	pCi/L	-0.00196	0.023	0.00869	0	4	10%DCG	3
Potassium-40	pCi/L	-6.99	42.4	13.2	1	4		
Suspended Alpha	pCi/L	-0.964	1.54	0.035	0	4		
Suspended Beta	pCi/L	-0.123	3.91	2.08	0	4		
Technetium-99	pCi/L	-1.82	15.9	7.7	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0454	0.294	0.142	0	4		
Thorium-230	pCi/L	0.000833	0.121	0.0477	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0192	0.0156	0.00075	0	4		
Thorium-234	pCi/L	-59	6.15	-23.6	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.327	1.54	0.784	0	4	10%DCG	60
Uranium-234	pCi/L	0.112	0.375	0.211	1	4	10%DCG	50
Uranium-235	pCi/L	0.0744	0.0744	0.0744	0	1	10%DCG	60
Uranium-238	pCi/L	0.173	1.15	0.542	4	4	10%DCG	60

Surface Water Radiological Data

Table 2.14 Radiological Monitoring Data for Surface Water Location L241

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.00464	0.0503	0.0248	0	4		
Americium-241	pCi/L	-0.0157	0.0249	0.000709	0	5	10%DCG	3
Cesium-134	pCi/L	-1.35	0.183	-0.205	0	5		
Cesium-137	pCi/L	-1.17	0.103	-0.613	0	5	10%DCG	300
Cobalt-60	pCi/L	-0.285	1.09	0.34	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	0.067	6.77	1.82	1	5		
Dissolved Beta	pCi/L	5.05	19.2	12.7	3	5		
Neptunium-237	pCi/L	-0.0127	0.0344	0.0146	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.0107	0.0151	0.00487	0	5		
Plutonium-239/240	pCi/L	-0.00719	0.0106	0.00106	0	5	10%DCG	3
Potassium-40	pCi/L	-14.7	25.7	0.236	1	5		
Suspended Alpha	pCi/L	-1.28	2.48	0.198	0	5		
Suspended Beta	pCi/L	-1.17	3.13	1	0	5		
Technetium-99	pCi/L	0	37	16.6	3	5	ActionLimit	900
Thorium-228	pCi/L	0.0539	0.147	0.0938	0	5		
Thorium-230	pCi/L	0.00143	0.144	0.0487	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0109	0.0275	0.00611	0	5		
Thorium-234	pCi/L	-36	5.08	-15	0	5		
Uranium	mg/L	0.005	0.005	0.005	0	5	10%DCG	0.0901
Uranium	pCi/L	0.745	2.22	1.38	0	5	10%DCG	60
Uranium-234	pCi/L	0.137	0.449	0.289	2	5	10%DCG	50
Uranium-235	pCi/L	-0.00926	-0.0093	-0.00926	0	1	10%DCG	60
Uranium-238	pCi/L	0.491	1.78	1.07	5	5	10%DCG	60

Surface Water Radiological Data

Table 2.15 Radiological Monitoring Data for Surface Water Location C746K-5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.0121	0.0102	-0.00263	0	4		
Americium-241	pCi/L	-0.018	0.00962	-0.00181	0	5	10%DCG	3
Cesium-134	pCi/L	-0.737	0.811	-0.104	0	5		
Cesium-137	pCi/L	-1.02	0.319	-0.211	0	5	10%DCG	300
Cobalt-60	pCi/L	-0.789	2.24	-0.019	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	-1.53	2.18	0.0804	0	5		
Dissolved Beta	pCi/L	1.78	6.3	4.35	0	5		
Neptunium-237	pCi/L	-0.0178	0.0158	0.00476	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.00873	0.00581	-0.00188	0	5		
Plutonium-239/240	pCi/L	-0.00696	0.0138	0.00126	0	5	10%DCG	3
Potassium-40	pCi/L	-15.9	33.3	7.38	0	5		
Suspended Alpha	pCi/L	-0.633	0.588	-0.167	0	5		
Suspended Beta	pCi/L	-1.49	2.83	0.603	0	5		
Technetium-99	pCi/L	-14	10.5	2	0	5	ActionLimit	900
Thorium-228	pCi/L	-0.00195	0.103	0.0618	0	5		
Thorium-230	pCi/L	-0.0167	0.0855	0.0362	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0167	0.0273	0.0014	0	5		
Thorium-234	pCi/L	-30.7	5.08	-11.1	0	5		
Uranium	mg/L	0.005	0.005	0.005	0	5	10%DCG	0.0901
Uranium	pCi/L	0.126	0.434	0.283	0	5	10%DCG	60
Uranium-234	pCi/L	0.0525	0.287	0.164	0	5	10%DCG	50
Uranium-235	pCi/L	0.00238	0.00238	0.00238	0	1	10%DCG	60
Uranium-238	pCi/L	0.0856	0.17	0.121	1	5	10%DCG	60

Surface Water Radiological Data

Table 2.16 Radiological Monitoring Data for Surface Water Location C746KTB1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.0104	0.0127	0.00347	0	3		
Americium-241	pCi/L	-0.00523	0.0283	0.0137	0	4	10%DCG	3
Cesium-134	pCi/L	-0.446	0.568	0.143	0	4		
Cesium-137	pCi/L	-0.59	0.196	-0.295	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.29	-0.0714	-0.618	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.916	1.28	-0.059	0	4		
Dissolved Beta	pCi/L	2.69	8.83	4.91	1	4		
Neptunium-237	pCi/L	0.00711	0.0291	0.0193	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00832	0.0133	0.00076	0	4		
Plutonium-239/240	pCi/L	-0.00655	0.00276	-0.0014	0	4	10%DCG	3
Potassium-40	pCi/L	-15.2	39	8.6	1	4		
Suspended Alpha	pCi/L	-0.992	1.63	0.431	0	4		
Suspended Beta	pCi/L	-0.782	3.58	0.716	0	4		
Technetium-99	pCi/L	-9.38	0.479	-3.55	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0533	0.075	0.0609	0	4		
Thorium-230	pCi/L	0.00675	0.049	0.0259	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0198	0.0105	-0.00086	0	4		
Thorium-234	pCi/L	-25.3	11.2	-12.8	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.0108	0.193	0.0842	0	4	10%DCG	60
Uranium-234	pCi/L	0.00311	0.112	0.0507	0	4	10%DCG	50
Uranium-235	pCi/L	0.00909	0.00909	0.00909	0	1	10%DCG	60
Uranium-238	pCi/L	-0.005	0.0716	0.0285	0	4	10%DCG	60

Surface Water Radiological Data

Table 2.17 Radiological Monitoring Data for Surface Water Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.124	0.176	0.143	3	3		
Americium-241	pCi/L	-0.0115	0.00219	-0.00296	0	4	10%DCG	3
Cesium-134	pCi/L	-0.432	0.156	-0.0922	0	4		
Cesium-137	pCi/L	-1.18	0.185	-0.336	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.86	1.47	-0.0393	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	4.41	7.03	5.52	0	4		
Dissolved Beta	pCi/L	6.33	22.8	13.2	3	4		
Neptunium-237	pCi/L	0.0242	0.0775	0.0484	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00259	0.0288	0.0076	0	4		
Plutonium-239/240	pCi/L	0.0209	0.0518	0.0335	0	4	10%DCG	3
Potassium-40	pCi/L	-18	1.84	-10.7	0	4		
Suspended Alpha	pCi/L	-1.2	1.04	-0.0517	0	4		
Suspended Beta	pCi/L	-3.33	8.3	3.12	1	4		
Technetium-99	pCi/L	-6.96	9.36	2.91	0	4	ActionLimit	900
Thorium-228	pCi/L	0.105	0.268	0.182	0	4		
Thorium-230	pCi/L	-0.0635	0.0931	0.0485	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0161	0.0436	0.00359	0	4		
Thorium-234	pCi/L	-21.8	60.1	0.75	1	4		
Uranium	mg/L	0.005	0.014	0.00775	2	4	10%DCG	0.0901
Uranium	pCi/L	4.32	10.8	7.29	4	4	10%DCG	60
Uranium-234	pCi/L	3.09	6.67	4.76	4	4	10%DCG	50
Uranium-235	pCi/L	0.24	0.24	0.24	1	1	10%DCG	60
Uranium-238	pCi/L	1.11	4.57	2.37	4	4	10%DCG	60

Surface Water Radiological Data

Table 2.18 Radiological Monitoring Data for Surface Water Location L29

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.00607	0.0116	0.00247	0	3		
Americium-241	pCi/L	-0.0113	0.0145	0.00108	0	4	10%DCG	3
Cesium-134	pCi/L	-0.97	-0.0133	-0.353	0	4		
Cesium-137	pCi/L	-0.482	0.49	-0.149	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.36	0.383	-0.571	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	0.208	7.55	2.59	1	4		
Dissolved Beta	pCi/L	3.28	9.33	5.45	1	4		
Neptunium-237	pCi/L	-0.00862	0.0124	0.00599	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00358	0.00028	-0.00158	0	4		
Plutonium-239/240	pCi/L	-0.00182	0.00811	0.00346	0	4	10%DCG	3
Potassium-40	pCi/L	-12.3	1.72	-3.48	0	4		
Suspended Alpha	pCi/L	-1.67	12.5	2.92	1	4		
Suspended Beta	pCi/L	0.567	27.5	9.14	1	4		
Technetium-99	pCi/L	-11.1	7.04	-1.57	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0521	0.149	0.105	0	4		
Thorium-230	pCi/L	-0.0283	0.106	0.0389	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0405	0.00932	-0.0113	0	4		
Thorium-234	pCi/L	-43.7	-3.06	-16.3	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.289	0.461	0.343	0	4	10%DCG	60
Uranium-234	pCi/L	0.136	0.223	0.182	0	4	10%DCG	50
Uranium-235	pCi/L	-0.0126	-0.0126	-0.0126	0	1	10%DCG	60
Uranium-238	pCi/L	0.0982	0.26	0.163	2	4	10%DCG	60

Surface Water Radiological Data

Table 2.19 Radiological Monitoring Data for Surface Water Location L30

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.00683	0.0111	0.00887	0	3		
Americium-241	pCi/L	-0.00888	0.0405	0.012	0	4	10%DCG	3
Cesium-134	pCi/L	-0.809	0.675	0.129	0	4		
Cesium-137	pCi/L	-0.717	0.949	0.056	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.76	1.1	-0.112	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-2.01	2.13	0.629	0	4		
Dissolved Beta	pCi/L	0.449	13.2	4.58	1	4		
Neptunium-237	pCi/L	0.000224	0.013	0.00737	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00358	0.0125	0.00412	0	4		
Plutonium-239/240	pCi/L	-0.00706	0.0137	0.00138	0	4	10%DCG	3
Potassium-40	pCi/L	-32.5	47.5	6.91	1	4		
Suspended Alpha	pCi/L	-0.672	0.589	0.197	0	4		
Suspended Beta	pCi/L	-1.67	2.93	1.14	0	4		
Technetium-99	pCi/L	-13.9	5.32	-0.62	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0839	0.144	0.105	0	4		
Thorium-230	pCi/L	0.0193	0.0511	0.0329	0	4	10%DCG	30
Thorium-232	pCi/L	-0.00885	0.0193	0.00373	0	4		
Thorium-234	pCi/L	-34.1	39.6	6.68	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.287	0.533	0.366	0	4	10%DCG	60
Uranium-234	pCi/L	0.132	0.235	0.173	0	4	10%DCG	50
Uranium-235	pCi/L	0.0154	0.0154	0.0154	0	1	10%DCG	60
Uranium-238	pCi/L	0.147	0.282	0.183	3	4	10%DCG	60

Surface Water Radiological Data

Table 2.20 Radiological Monitoring Data for Surface Water Location L306

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	0.0081	0.0152	0.0124	0	3		
Americium-241	pCi/L	-0.0114	0.0195	0.00872	0	4	10%DCG	3
Cesium-134	pCi/L	-0.514	0.947	-0.0235	0	4		
Cesium-137	pCi/L	-0.346	0.827	0.0155	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.59	1.2	0.319	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.235	3.92	2.18	0	4		
Dissolved Beta	pCi/L	5.49	7.67	6.47	0	4		
Neptunium-237	pCi/L	-0.000774	0.017	0.00847	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00142	0.0168	0.00632	0	4		
Plutonium-239/240	pCi/L	-0.00388	0.0159	0.00423	0	4	10%DCG	3
Potassium-40	pCi/L	-41.1	3.6	-14.4	0	4		
Suspended Alpha	pCi/L	0.182	1.46	0.778	0	4		
Suspended Beta	pCi/L	1.28	8.72	4.29	1	4		
Technetium-99	pCi/L	-13.6	6.02	-4.38	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0259	0.195	0.124	0	4		
Thorium-230	pCi/L	0.00341	0.0915	0.0439	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0251	-0.0049	-0.0126	0	4		
Thorium-234	pCi/L	-32.7	0.676	-16	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.349	0.419	0.39	0	4	10%DCG	60
Uranium-234	pCi/L	0.202	0.225	0.212	0	4	10%DCG	50
Uranium-235	pCi/L	0.00544	0.00544	0.00544	0	1	10%DCG	60
Uranium-238	pCi/L	0.132	0.188	0.168	3	4	10%DCG	60

Surface Water Radiological Data

Table 2.21 Radiological Monitoring Data for Surface Water Location L64

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.00634	0.0395	0.0134	0	3		
Americium-241	pCi/L	-0.0171	0.00113	-0.00836	0	4	10%DCG	3
Cesium-134	pCi/L	-0.75	0.108	-0.351	0	4		
Cesium-137	pCi/L	-0.332	0.339	0.025	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.32	1.5	0.139	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.469	1.79	0.638	0	4		
Dissolved Beta	pCi/L	1.19	5.58	2.91	0	4		
Neptunium-237	pCi/L	-0.0139	0.0217	0.00221	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00358	0.0125	0.00145	0	4		
Plutonium-239/240	pCi/L	-0.0012	0.0191	0.00632	0	4	10%DCG	3
Potassium-40	pCi/L	-20	30.5	4.58	1	4		
Suspended Alpha	pCi/L	-0.479	1.58	0.208	0	4		
Suspended Beta	pCi/L	-2.28	3.89	0.17	0	4		
Technetium-99	pCi/L	-11.7	3.94	-0.757	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0134	0.17	0.0837	0	4		
Thorium-230	pCi/L	-0.00948	0.0383	0.019	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0333	-0.0045	-0.018	0	4		
Thorium-234	pCi/L	-41.6	-3.9	-19.1	0	4		
Uranium	mg/L	0.005	0.009	0.006	1	4	10%DCG	0.0901
Uranium	pCi/L	0.0411	1.2	0.367	0	4	10%DCG	60
Uranium-234	pCi/L	0.0424	0.603	0.206	1	4	10%DCG	50
Uranium-235	pCi/L	0.00796	0.00796	0.00796	0	1	10%DCG	60
Uranium-238	pCi/L	0.000577	0.556	0.149	1	4	10%DCG	60

Table 2.22 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	-3.51	1.23	-1.14	0	2		
Beta activity	pCi/L	97.8	135	116	2	2		
Technetium-99	pCi/L	86.9	141	114	2	2	ActionLimit	900
Uranium	pCi/L	0.115	0.135	0.125	0	2	10%DCG	60

Table 2.23 Radiological Monitoring Data for Surface Water Seep Location LBCSP7

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	-0.064	7.03	3.48	1	2		
Beta activity	pCi/L	49.8	54.2	52	2	2		
Technetium-99	pCi/L	54.1	61.6	57.8	2	2	ActionLimit	900
Uranium	pCi/L	0.0226	0.128	0.0753	0	2	10%DCG	60

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	0.00394	0.00583	0.00488	0	2		
Alpha activity	pCi/g	0.966	3.32	2.14	1	2		
Americium-241	pCi/g	0.00448	0.0057	0.00509	0	2		
Beta activity	pCi/g	2.49	3.08	2.79	2	2		
Cesium-137	pCi/g	-0.00177	-0.0016	-0.00169	0	2		
Cobalt-60	pCi/g	0.0025	0.0167	0.0096	0	2		
Neptunium-237	pCi/g	0.00296	0.00357	0.00326	0	2		
Plutonium-239/240	pCi/g	0.000446	0.00338	0.00191	0	2		
Potassium-40	pCi/g	6.93	7.47	7.2	2	2		
Technetium-99	pCi/g	0.108	0.489	0.298	1	2		
Thorium-230	pCi/g	0.243	0.341	0.292	2	2		
Uranium	pCi/kg	187	267	227	0	2		
Uranium-234	pCi/g	0.0851	0.127	0.106	1	2		
Uranium-238	pCi/g	0.0964	0.136	0.116	2	2		

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	0.0488	0.0596	0.0542	2	2		
Alpha activity	pCi/g	3.16	3.73	3.44	2	2		
Americium-241	pCi/g	0.00531	0.00554	0.00542	0	2		
Beta activity	pCi/g	12	12.8	12.4	2	2		
Cesium-137	pCi/g	0.0234	0.0407	0.0321	2	2		
Cobalt-60	pCi/g	-0.000906	0.00795	0.00352	0	2		
Neptunium-237	pCi/g	0.0326	0.0337	0.0331	2	2		
Plutonium-239/240	pCi/g	0.0194	0.0245	0.0219	2	2		
Potassium-40	pCi/g	4.7	5.34	5.02	2	2		
Technetium-99	pCi/g	3.31	4.03	3.67	2	2		
Thorium-230	pCi/g	0.306	0.348	0.327	2	2		
Uranium	pCi/kg	2130	2160	2140	2	2		
Uranium-234	pCi/g	0.904	0.936	0.92	2	2		
Uranium-238	pCi/g	1.16	1.18	1.17	2	2		

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	0.0888	0.0947	0.0917	2	2		
Alpha activity	pCi/g	7.41	10.7	9.05	2	2		
Americium-241	pCi/g	0.013	0.0131	0.0131	1	2		
Beta activity	pCi/g	10.4	31.1	20.7	2	2		
Cesium-137	pCi/g	0.0217	0.0579	0.0398	1	2		
Cobalt-60	pCi/g	-0.00518	0.00814	0.00148	0	2		
Neptunium-237	pCi/g	0.0887	0.129	0.109	2	2		
Plutonium-239/240	pCi/g	0.0173	0.0396	0.0284	2	2		
Potassium-40	pCi/g	7.56	8.75	8.15	2	2		
Technetium-99	pCi/g	3.95	5.77	4.86	2	2		
Thorium-230	pCi/g	0.351	0.488	0.419	2	2		
Uranium	pCi/kg	3370	3490	3430	2	2		
Uranium-234	pCi/g	1.37	1.46	1.42	2	2		
Uranium-238	pCi/g	1.91	1.94	1.93	2	2		

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	0.0613	0.107	0.0841	2	2		
Alpha activity	pCi/g	3.61	5.77	4.69	2	2		
Americium-241	pCi/g	0.00213	0.00414	0.00313	0	2		
Beta activity	pCi/g	10.5	23.9	17.2	2	2		
Cesium-137	pCi/g	0.0221	0.0504	0.0362	1	2		
Cobalt-60	pCi/g	0.00812	0.0113	0.00971	0	2		
Neptunium-237	pCi/g	0.00978	0.0229	0.0163	0	2		
Plutonium-239/240	pCi/g	0.0165	0.0182	0.0174	2	2		
Potassium-40	pCi/g	4.51	6.71	5.61	2	2		
Technetium-99	pCi/g	3.81	5.32	4.57	2	2		
Thorium-230	pCi/g	0.254	0.478	0.366	2	2		
Uranium	pCi/kg	2550	3950	3250	2	2		
Uranium-234	pCi/g	0.973	2.71	1.84	2	2		
Uranium-238	pCi/g	1.13	1.51	1.32	2	2		

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	0.0951	0.191	0.143	2	2		
Alpha activity	pCi/g	6.89	13	9.95	2	2		
Americium-241	pCi/g	0.00414	0.00445	0.00429	0	2		
Beta activity	pCi/g	12.4	31.1	21.7	2	2		
Cesium-137	pCi/g	0.0377	0.0464	0.042	2	2		
Cobalt-60	pCi/g	-0.000363	0.0073	0.00347	0	2		
Neptunium-237	pCi/g	0.0943	0.111	0.103	2	2		
Plutonium-239/240	pCi/g	0.00898	0.0133	0.0111	2	2		
Potassium-40	pCi/g	1.9	3.96	2.93	2	2		
Technetium-99	pCi/g	-0.132	4.36	2.11	1	2		
Thorium-230	pCi/g	0.208	0.398	0.303	2	2		
Uranium	pCi/kg	3420	8900	6160	2	2		
Uranium-234	pCi/g	1.25	3.02	2.13	2	2		
Uranium-238	pCi/g	2.07	5.7	3.88	2	2		

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	0.0737	0.513	0.353	3	3		
Alpha activity	pCi/g	11.1	19.7	16.7	3	3		
Americium-241	pCi/g	0.00698	0.0459	0.0282	2	3		
Beta activity	pCi/g	9.1	24.5	18.3	3	3		
Cesium-137	pCi/g	0.0327	0.199	0.133	3	3		
Cobalt-60	pCi/g	-0.0106	0.00923	-0.00326	0	3		
Neptunium-237	pCi/g	0.0693	0.244	0.134	3	3		
Plutonium-239/240	pCi/g	0.0305	0.31	0.17	3	3		
Potassium-40	pCi/g	3.98	5.21	4.48	3	3		
Technetium-99	pCi/g	0.672	2.19	1.67	3	3		
Thorium-230	pCi/g	0.409	2.91	1.6	3	3		
Uranium	pCi/kg	3120	20100	14000	3	3		
Uranium-234	pCi/g	1.12	12.8	8.47	3	3		
Uranium-238	pCi/g	1.92	6.97	5.22	3	3		

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	0.0219	0.0394	0.0301	3	3		
Alpha activity	pCi/g	2.3	3.51	3	3	3		
Americium-241	pCi/g	-0.00045	0.00389	0.00148	0	3		
Beta activity	pCi/g	2.3	3.87	3.29	3	3		
Cesium-137	pCi/g	0.0272	0.0401	0.0351	3	3		
Cobalt-60	pCi/g	-0.00562	0.00787	-0.000347	0	3		
Neptunium-237	pCi/g	0.00614	0.0115	0.00843	0	3		
Plutonium-239/240	pCi/g	0.00896	0.0125	0.0111	3	3		
Potassium-40	pCi/g	2.92	4.22	3.55	3	3		
Technetium-99	pCi/g	0.417	7.74	2.92	3	3		
Thorium-230	pCi/g	0.142	0.585	0.306	3	3		
Uranium	pCi/kg	1050	1610	1390	3	3		
Uranium-234	pCi/g	0.48	0.734	0.637	3	3		
Uranium-238	pCi/g	0.547	0.832	0.725	3	3		

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	0.0257	0.0642	0.0449	2	2		
Alpha activity	pCi/g	3.43	7.1	5.26	2	2		
Americium-241	pCi/g	0.00293	0.00496	0.00394	0	2		
Beta activity	pCi/g	6.29	8.92	7.61	2	2		
Cesium-137	pCi/g	-0.00779	0.0209	0.00655	0	2		
Cobalt-60	pCi/g	-0.00638	0.00382	-0.00128	0	2		
Neptunium-237	pCi/g	0.00319	0.0073	0.00524	0	2		
Plutonium-239/240	pCi/g	0.00151	0.0034	0.00245	0	2		
Potassium-40	pCi/g	2.81	4.08	3.44	2	2		
Technetium-99	pCi/g	0.0497	0.13	0.0898	0	2		
Thorium-230	pCi/g	0.185	0.24	0.212	2	2		
Uranium	pCi/kg	1650	3620	2640	2	2		
Uranium-234	pCi/g	0.24	0.769	0.504	2	2		
Uranium-238	pCi/g	1.38	2.78	2.08	2	2		

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	0.0482	0.0741	0.0612	2	2		
Alpha activity	pCi/g	4.7	5.95	5.33	2	2		
Americium-241	pCi/g	0.00139	0.00209	0.00174	0	2		
Beta activity	pCi/g	5.92	7.98	6.95	2	2		
Cesium-137	pCi/g	0.0019	0.0152	0.00855	0	2		
Cobalt-60	pCi/g	0.00147	0.00483	0.00315	0	2		
Neptunium-237	pCi/g	-0.0000112	0.0033	0.00164	0	2		
Plutonium-239/240	pCi/g	0.000434	0.00163	0.00103	0	2		
Potassium-40	pCi/g	2.75	3.19	2.97	2	2		
Technetium-99	pCi/g	-0.0644	0.126	0.0308	0	2		
Thorium-230	pCi/g	0.147	0.161	0.154	2	2		
Uranium	pCi/kg	2640	5350	4000	2	2		
Uranium-234	pCi/g	0.352	0.614	0.483	2	2		
Uranium-238	pCi/g	2.24	4.66	3.45	2	2		

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	0.0352	0.0439	0.0395	2	2		
Alpha activity	pCi/g	4.03	4.22	4.12	2	2		
Americium-241	pCi/g	0.0132	0.0181	0.0156	1	2		
Beta activity	pCi/g	5.86	7.26	6.56	2	2		
Cesium-137	pCi/g	0.00787	0.0165	0.0122	0	2		
Cobalt-60	pCi/g	0.00665	0.00787	0.00726	0	2		
Neptunium-237	pCi/g	0.0113	0.0125	0.0119	1	2		
Plutonium-239/240	pCi/g	0.0509	0.0564	0.0537	2	2		
Potassium-40	pCi/g	2.24	2.69	2.46	2	2		
Technetium-99	pCi/g	1.23	2.34	1.78	2	2		
Thorium-230	pCi/g	0.844	0.893	0.869	2	2		
Uranium	pCi/kg	2000	2560	2280	2	2		
Uranium-234	pCi/g	0.428	0.494	0.461	2	2		
Uranium-238	pCi/g	1.54	2.02	1.78	2	2		

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	0.0129	0.0423	0.0276	2	2		
Alpha activity	pCi/g	4.77	13.9	9.34	2	2		
Americium-241	pCi/g	0.00702	0.0212	0.0141	0	2		
Beta activity	pCi/g	5.13	9.75	7.44	2	2		
Cesium-137	pCi/g	-0.0113	0.0372	0.0129	1	2		
Cobalt-60	pCi/g	-0.00411	0.0125	0.00419	0	2		
Neptunium-237	pCi/g	0.00307	0.00558	0.00432	0	2		
Plutonium-239/240	pCi/g	0.011	0.108	0.0595	2	2		
Potassium-40	pCi/g	3.46	3.81	3.63	2	2		
Technetium-99	pCi/g	0.465	1.07	0.767	2	2		
Thorium-230	pCi/g	0.382	1.62	1	2	2		
Uranium	pCi/kg	780	2340	1560	2	2		
Uranium-234	pCi/g	0.287	0.549	0.418	2	2		
Uranium-238	pCi/g	0.479	1.75	1.11	2	2		

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	0.00532	0.0457	0.0255	1	2		
Alpha activity	pCi/g	2.66	5.46	4.06	2	2		
Americium-241	pCi/g	0.000529	0.00739	0.00396	0	2		
Beta activity	pCi/g	3.5	5.44	4.47	2	2		
Cesium-137	pCi/g	0.0135	0.0216	0.0175	0	2		
Cobalt-60	pCi/g	0.00255	0.00639	0.00447	0	2		
Neptunium-237	pCi/g	0.00236	0.015	0.00868	0	2		
Plutonium-239/240	pCi/g	0.00289	0.0322	0.0175	1	2		
Potassium-40	pCi/g	2.91	4.13	3.52	2	2		
Technetium-99	pCi/g	0.199	0.46	0.33	2	2		
Thorium-230	pCi/g	0.149	0.253	0.201	2	2		
Uranium	pCi/kg	174	2090	1130	1	2		
Uranium-234	pCi/g	0.0828	0.852	0.467	1	2		
Uranium-238	pCi/g	0.0859	1.2	0.643	2	2		

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	0.218	0.224	0.221	2	2		
Alpha activity	pCi/g	51.2	154	103	2	2		
Americium-241	pCi/g	0.445	1.62	1.03	2	2		
Beta activity	pCi/g	55.3	111	83.2	2	2		
Cesium-137	pCi/g	0.471	0.833	0.652	2	2		
Cobalt-60	pCi/g	-0.0197	-0.0015	-0.0106	0	2		
Neptunium-237	pCi/g	0.472	1.64	1.06	2	2		
Plutonium-239/240	pCi/g	2.03	4.5	3.27	2	2		
Potassium-40	pCi/g	5.63	8.17	6.9	2	2		
Technetium-99	pCi/g	6.25	8.92	7.58	2	2		
Thorium-230	pCi/g	38.6	72.4	55.5	2	2		
Uranium	pCi/kg	9890	10600	10200	2	2		
Uranium-234	pCi/g	4.16	4.63	4.39	2	2		
Uranium-238	pCi/g	5.51	5.77	5.64	2	2		

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	0.000963	0.00433	0.00265	0	2		
Alpha activity	pCi/g	0.922	3.9	2.41	1	2		
Americium-241	pCi/g	0.00143	0.00247	0.00195	0	2		
Beta activity	pCi/g	0.992	1.82	1.41	1	2		
Cesium-137	pCi/g	-0.00271	0.00491	0.0011	0	2		
Cobalt-60	pCi/g	-0.00346	0.0046	0.00057	0	2		
Neptunium-237	pCi/g	-0.0022	-0.0010	-0.0016	0	2		
Plutonium-239/240	pCi/g	0.000872	0.00122	0.00105	0	2		
Potassium-40	pCi/g	2.01	2.78	2.39	2	2		
Technetium-99	pCi/g	0.0123	0.654	0.333	1	2		
Thorium-230	pCi/g	0.0732	0.145	0.109	2	2		
Uranium	pCi/kg	89.5	139	114	0	2		
Uranium-234	pCi/g	0.0441	0.0655	0.0548	1	2		
Uranium-238	pCi/g	0.0444	0.0687	0.0566	0	2		

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	249	326	217	266	298
TLD-2	294	355	260	328.5	289
TLD-3	82	77	44	65	247
TLD-4	21	22	18	23	286
TLD-5	22	23	18	24	274
TLD-6	18	19	16	20	292
TLD-7	24.5	26	22	26	309
TLD-8	18	18	15	18	304
TLD-9	18.5	19	16	21	278
TLD-10	21	20	16	21	278
TLD-11	20	21	16	24	243
TLD-12	19	20	16	21	278
TLD-13	22	25	20	25	292
TLD-14	19	21	15	20	274
TLD-15	18	19	15	18	304
TLD-16	22	25	19	25	277
TLD-17	19	19	15	19	288
TLD-18	19	20	16	19	307
TLD-19	19	20	16	20	292
TLD-20	22	23	17	23	270
TLD-25	32	32	26	34	279
TLD-27	18	22	18.5	24	281
TLD-28	19	22	19	21	330
TLD-29	18	18	14	19	269
TLD-30	19	21	18	21	313
TLD-31	22	24	21	25	307
TLD-32	23	26	21	28	274
TLD-35	22	28	19	24	289
TLD-36	17	18	14	17	301
TLD-37	20	20	17	21	295
TLD-38	17	21	18	NA	77
TLD-39	18	18	15	18	304
TLD-40	24	25	20	NA	95
TLD-41	19	18	15	20	274
TLD-46	19	18.5	15	22	249
TLD-47	82	100	75	84	326
TLD-48	40	36	25	33	277
TLD-49	20	24	15	20	274
TLD-50	24	30	21	26	295
TLD-51	20	23	16	23	254
TLD-52	22	27	23	26	323
TLD-53	88	124	90	110.5	297
TLD-21	24	27	21	26	295
TLD-22	23	24	19	27	257
TLD-23	22	23	19	24	289
TLD-26	21	21	17	18	345

[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.

NA - TLD missing upon collection.

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	-0.00813	0.00162	-0.00427	0	6		
Plutonium-239/240	pCi/g	-0.00616	0.00652	0.00107	0	6		
Thorium-230	pCi/g	0.00764	0.0615	0.0229	0	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	-0.0061	10.9	3.98	0	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	-0.00659	0.00722	0.000187	0	6		
Plutonium-239/240	pCi/g	-0.00288	1.4E-06	-0.0015	0	6		
Technetium-99	pCi/g	-0.115	-0.0244	-0.0565	0	6		
Thorium-230	pCi/g	-0.0024	0.0109	0.00366	0	6		
Uranium-233/234	pCi/g	0.000907	0.0325	0.011	1	6		
Uranium-235	pCi/g	-0.00133	0.00356	0.000556	0	6		
Uranium-238	pCi/g	-0.00269	0.00365	0.00126	0	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	-0.00954	3.4E-06	-0.00304	0	6		
Plutonium-239/240	pCi/g	-0.00408	0.00483	0.000112	0	6		
Technetium-99	pCi/g	-0.0876	0.00131	-0.0313	0	6		
Thorium-230	pCi/g	-0.00609	0.00835	0.00221	1	6		
Uranium-233/234	pCi/g	-0.00968	0.0868	0.0262	2	6		
Uranium-235	pCi/g	-0.00159	0.00412	0.00067	0	6		
Uranium-238	pCi/g	-0.0052	0.00518	0.000945	0	6		

3. NON-RADIOLOGICAL EFFLUENT DATA

KPDES Outfall Non-Radiological Data

Table 3.1 Non-Radiological Effluent Data for Outfall 001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,2,2-Tetrachloroethane	ug/L	ND	ND	ND	0	4
1,1-Dichloroethene	ug/L	ND	ND	ND	0	4
1,2-Diphenylhydrazine	ug/L	ND	ND	ND	0	4
2,4,6-Trichlorophenol	ug/L	ND	ND	ND	0	4
2,4-Dinitrotoluene	ug/L	ND	ND	ND	0	4
3,3'-Dichlorobenzidine	ug/L	ND	ND	ND	0	4
4,4'-DDD	ug/L	ND	0.0028	0.0082	1	4
4,4'-DDE	ug/L	ND	ND	ND	0	4
4,4'-DDT	ug/L	ND	ND	ND	0	4
Acrylonitrile	ug/L	ND	0.044	0.023	2	4
Aldrin	ug/L	ND	ND	ND	0	4
alpha-BHC	ug/L	ND	ND	ND	0	4
alpha-Chlordane	ug/L	ND	ND	ND	0	4
Benz(a)anthracene	ug/L	ND	0.011	0.0043	2	4
Benzidine	ug/L	ND	ND	ND	0	4
Benzo(a)pyrene	ug/L	ND	0.013	0.0141	1	4
Benzo(k)fluoranthene	ug/L	ND	0.011	0.00475	2	4
beta-BHC	ug/L	ND	ND	ND	0	4
Bis(2-ethylhexyl)phthalate	ug/L	0.057	0.71	0.232	4	4
Cadmium	mg/L	0.000021	0.000073	0.0000468	4	4
Carbon tetrachloride	ug/L	ND	ND	ND	0	4
Chlorine, Total Residual	mg/L	ND	ND	ND	0	76
Chrysene	ug/L	ND	0.011	0.0264	1	4
Conductivity	umho/cm	178	2760	1580	76	76
Copper	mg/L	0.0036	0.0095	0.0058	4	4
Cyanide	mg/L	ND	0.0082	0.0056	3	4
Dibenz(a,h)anthracene	ug/L	ND	0.016	0.0125	2	4
Dieldrin	ug/L	ND	0.0039	0.00847	1	4
Dissolved Oxygen	mg/L	5.03	12.6	8.35	76	76
Endosulfan I	ug/L	ND	0.012	0.0114	3	4
Endosulfan II	ug/L	ND	ND	ND	0	4
Endrin	ug/L	ND	ND	ND	0	4
Flow Rate	mgd	1.53	6.06	2.44	76	76
gamma-Chlordane	ug/L	ND	0.0085	0.0214	1	4
Hardness - Total as CaCO3	mg/L	210	430	300	4	4
Heptachlor	ug/L	ND	0.065	0.0387	3	4
Heptachlor epoxide	ug/L	ND	ND	ND	0	4
Hexachlorobenzene	ug/L	ND	ND	ND	0	4
Hexachloroethane	ug/L	ND	ND	ND	0	4
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.015	0.0121	3	4
Lead	mg/L	ND	0.00054	0.000285	3	4
Lindane	ug/L	ND	0.005	0.00547	2	4
Mercury	mg/L	0.00000464	0.000029	0.000014	4	4
N-Nitrosodimethylamine	ug/L	ND	ND	ND	0	4
N-Nitroso-di-n-propylamine	ug/L	ND	ND	ND	0	4
N-Nitrosodiphenylamine/Diphenylamine	ug/L	ND	ND	ND	0	4
Oil and Grease	mg/L	ND	ND	ND	0	55
PCB-1016	ug/L	ND	ND	ND	0	55

KPDES Outfall Non-Radiological Data

Table 3.1 Non-Radiological Effluent Data for Outfall 001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
PCB-1221	ug/L	ND	ND	ND	0	55
PCB-1232	ug/L	ND	ND	ND	0	55
PCB-1242	ug/L	ND	ND	ND	0	55
PCB-1248	ug/L	ND	ND	ND	0	55
PCB-1254	ug/L	ND	ND	ND	0	55
PCB-1260	ug/L	ND	ND	ND	0	55
PCB-1268	ug/L	ND	ND	ND	0	55
Pentachlorophenol	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.85	8.17	7.61	76	76
Phosphorous	mg/L	0.15	0.55	0.321	55	55
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	55
Selenium	mg/L	0.0012	0.0032	0.00217	4	4
Silver	mg/L	ND	ND	ND	0	4
Suspended Solids	mg/L	ND	49	11.6	22	55
Temperature	deg F	38.7	87.2	66.2	76	76
Tetrachloroethene	ug/L	ND	ND	ND	0	4
Thallium	mg/L	ND	0.00017	0.000118	1	4
Trichloroethene	ug/L	ND	ND	ND	0	55
Uranium	mg/L	ND	0.218	0.0143	46	55

KPDES Outfall Non-Radiological Data

Table 3.2 Non-Radiological Effluent Data for Outfall 015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,2,2-Tetrachloroethane	ug/L	ND	ND	ND	0	4
1,1-Dichloroethene	ug/L	ND	ND	ND	0	4
1,2-Diphenylhydrazine	ug/L	ND	ND	ND	0	4
2,4,6-Trichlorophenol	ug/L	ND	ND	ND	0	4
2,4-Dinitrotoluene	ug/L	ND	ND	ND	0	4
3,3'-Dichlorobenzidine	ug/L	ND	ND	ND	0	4
4,4'-DDD	ug/L	ND	ND	ND	0	4
4,4'-DDE	ug/L	ND	ND	ND	0	4
4,4'-DDT	ug/L	ND	0.0084	0.00362	2	4
Acrylonitrile	ug/L	ND	0.025	0.01	1	4
Aldrin	ug/L	ND	ND	ND	0	4
Alkalinity	mg/L	20	20	20	4	4
alpha-BHC	ug/L	ND	0.0046	0.00314	1	4
alpha-Chlordane	ug/L	ND	ND	ND	0	4
Benz(a)anthracene	ug/L	ND	0.0024	0.00135	1	4
Benzidine	ug/L	ND	0.046	0.0415	1	4
Benzo(a)pyrene	ug/L	ND	ND	ND	0	4
Benzo(k)fluoranthene	ug/L	ND	0.0027	0.00142	1	4
beta-BHC	ug/L	ND	0.0083	0.00342	1	4
Bis(2-ethylhexyl)phthalate	ug/L	0.085	0.22	0.144	4	4
Cadmium	mg/L	0.000056	0.000068	0.0000617	4	4
Carbon tetrachloride	ug/L	ND	ND	ND	0	4
Chrysene	ug/L	ND	ND	ND	0	4
Conductivity	umho/cm	253	1470	488	21	21
Copper	mg/L	0.0036	0.0045	0.00417	4	4
Cyanide	mg/L	ND	ND	ND	0	4
Dibenz(a,h)anthracene	ug/L	ND	ND	ND	0	4
Dieldrin	ug/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.67	11.6	9.11	21	21
Endosulfan I	ug/L	ND	0.0058	0.0037	1	4
Endosulfan II	ug/L	ND	ND	ND	0	4
Endrin	ug/L	ND	0.007	0.00438	1	4
Flow Rate	mgd	0.0014	1.32	0.227	21	21
gamma-Chlordane	ug/L	ND	0.0015	0.00562	1	4
Hardness - Total as CaCO3	mg/L	140	180	160	4	4
Heptachlor	ug/L	0.0017	0.007	0.00392	4	4
Heptachlor epoxide	ug/L	ND	ND	ND	0	4
Hexachlorobenzene	ug/L	ND	ND	ND	0	4
Hexachloroethane	ug/L	ND	ND	ND	0	4
Indeno(1,2,3-cd)pyrene	ug/L	ND	ND	ND	0	4
Iron	mg/L	0.622	1.37	0.958	4	4
Lead	mg/L	0.00047	0.00093	0.000708	4	4
Lindane	ug/L	ND	ND	ND	0	4
Mercury	mg/L	0.00000684	0.000012	0.00000852	4	4
N-Nitrosodimethylamine	ug/L	ND	ND	ND	0	4
N-Nitroso-di-n-propylamine	ug/L	ND	ND	ND	0	4
N-Nitrosodiphenylamine/Diphenylamine	ug/L	ND	ND	ND	0	4
Oil and Grease	mg/L	ND	ND	ND	0	9
PCB-1016	ug/L	ND	ND	ND	0	9
PCB-1221	ug/L	ND	ND	ND	0	9

KPDES Outfall Non-Radiological Data

Table 3.2 Non-Radiological Effluent Data for Outfall 015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
PCB-1232	ug/L	ND	ND	ND	0	9
PCB-1242	ug/L	ND	ND	ND	0	9
PCB-1248	ug/L	ND	ND	ND	0	9
PCB-1254	ug/L	ND	ND	ND	0	9
PCB-1260	ug/L	ND	ND	ND	0	9
PCB-1268	ug/L	ND	ND	ND	0	9
Pentachlorophenol	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.27	8.39	7.87	21	21
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	9
Selenium	mg/L	ND	0.00076	0.000503	1	4
Silver	mg/L	ND	ND	ND	0	4
Suspended Solids	mg/L	ND	97	30.2	4	9
Temperature	deg F	38.9	77.5	55.7	21	21
Tetrachloroethene	ug/L	ND	ND	ND	0	4
Thallium	mg/L	ND	0.00013	0.000108	1	4
Turbidity	NTU	27.1	27.1	27.1	1	1
Uranium	mg/L	0.0669	0.343	0.137	9	9

KPDES Outfall Non-Radiological Data

Table 3.3 Non-Radiological Effluent Data for Outfall 017

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,2,2-Tetrachloroethane	ug/L	ND	ND	ND	0	5
1,1-Dichloroethene	ug/L	ND	0.14	0.0414	2	5
1,2-Diphenylhydrazine	ug/L	ND	ND	ND	0	5
2,4,6-Trichlorophenol	ug/L	ND	ND	ND	0	5
2,4-Dinitrotoluene	ug/L	ND	ND	ND	0	5
3,3'-Dichlorobenzidine	ug/L	ND	ND	ND	0	5
4,4'-DDD	ug/L	ND	0.0034	0.00242	2	5
4,4'-DDE	ug/L	ND	ND	ND	0	5
4,4'-DDT	ug/L	ND	0.0026	0.00212	1	5
Acrylonitrile	ug/L	ND	ND	ND	0	5
Aldrin	ug/L	ND	0.0031	0.00342	1	5
alpha-BHC	ug/L	ND	0.0254	0.0107	3	5
alpha-Chlordane	ug/L	ND	ND	ND	0	5
Benz(a)anthracene	ug/L	ND	0.017	0.0042	1	5
Benzidine	ug/L	ND	0.081	0.0544	2	5
Benzo(a)pyrene	ug/L	ND	0.027	0.017	1	5
Benzo(k)fluoranthene	ug/L	ND	0.004	0.0016	1	5
beta-BHC	ug/L	ND	0.0049	0.00242	1	5
Bis(2-ethylhexyl)phthalate	ug/L	0.074	0.82	0.295	5	5
Cadmium	mg/L	0.00001	0.000022	0.0000141	5	5
Carbon tetrachloride	ug/L	ND	ND	ND	0	5
Chrysene	ug/L	ND	0.018	0.0288	1	5
Conductivity	umho/cm	148	633	312	26	26
Copper	mg/L	0.0014	0.0025	0.00164	5	5
Cyanide	mg/L	ND	ND	ND	0	5
Dibenz(a,h)anthracene	ug/L	ND	ND	ND	0	5
Dieldrin	ug/L	ND	0.0032	0.0021	2	5
Dissolved Oxygen	mg/L	5.42	15.1	9.3	26	26
Endosulfan I	ug/L	ND	0.0227	0.00682	2	5
Endosulfan II	ug/L	ND	0.0019	0.00096	2	5
Endrin	ug/L	ND	ND	ND	0	5
Flow Rate	mgd	ND	4.37	1.21	25	26
gamma-Chlordane	ug/L	ND	0.0017	0.0047	2	5
Hardness - Total as CaCO3	mg/L	51	110	84.2	5	5
Heptachlor	ug/L	ND	0.0449	0.0112	4	5
Heptachlor epoxide	ug/L	ND	0.0018	0.00076	1	5
Hexachlorobenzene	ug/L	ND	ND	ND	0	5
Hexachloroethane	ug/L	ND	ND	ND	0	5
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.036	0.0139	2	5
Lead	mg/L	0.0005	0.00079	0.000656	5	5
Lindane	ug/L	ND	0.0128	0.0038	2	5
Mercury	mg/L	0.00000114	).0000062	0.00000344	5	5
N-Nitrosodimethylamine	ug/L	ND	ND	ND	0	5
N-Nitroso-di-n-propylamine	ug/L	ND	ND	ND	0	5
N-Nitrosodiphenylamine/Diphenylamine	ug/L	ND	ND	ND	0	5
Oil and Grease	mg/L	ND	11	3.58	1	13
PCB-1016	ug/L	ND	ND	ND	0	13
PCB-1221	ug/L	ND	ND	ND	0	13
PCB-1232	ug/L	ND	ND	ND	0	13
PCB-1242	ug/L	ND	ND	ND	0	13

KPDES Outfall Non-Radiological Data

Table 3.3 Non-Radiological Effluent Data for Outfall 017

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
PCB-1248	ug/L	ND	ND	ND	0	13
PCB-1254	ug/L	ND	ND	ND	0	13
PCB-1260	ug/L	ND	ND	ND	0	13
PCB-1268	ug/L	ND	ND	ND	0	13
Pentachlorophenol	ug/L	ND	ND	ND	0	5
pH	Std Unit	7.12	8.29	7.77	26	26
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	13
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Suspended Solids	mg/L	ND	15	7.73	2	13
Temperature	deg F	43.3	77.9	62.3	26	26
Tetrachloroethene	ug/L	ND	0.014	0.0068	1	5
Thallium	mg/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.00579	0.00226	8	13
Zinc	mg/L	ND	0.16	0.0746	12	13

KPDES Outfall Non-Radiological Data

Table 3.4 Non-Radiological Effluent Data for Outfall 019

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,2,2-Tetrachloroethane	ug/L	ND	ND	ND	0	5
1,1-Dichloroethene	ug/L	ND	ND	ND	0	5
1,2-Diphenylhydrazine	ug/L	ND	ND	ND	0	5
2,4,6-Trichlorophenol	ug/L	ND	ND	ND	0	5
2,4-Dinitrotoluene	ug/L	ND	ND	ND	0	5
3,3'-Dichlorobenzidine	ug/L	ND	ND	ND	0	5
4,4'-DDD	ug/L	ND	ND	ND	0	5
4,4'-DDE	ug/L	ND	0.0122	0.00404	1	5
4,4'-DDT	ug/L	ND	ND	ND	0	5
4-Methylphenol	ug/L	ND	ND	ND	0	17
Acrylonitrile	ug/L	ND	ND	ND	0	5
Aldrin	ug/L	ND	ND	ND	0	5
alpha-BHC	ug/L	ND	0.0016	0.00244	1	5
alpha-Chlordane	ug/L	ND	0.0033	0.00626	1	5
alpha-Terpineol	ug/L	ND	ND	ND	0	17
Ammonia as Nitrogen	mg/L	ND	0.3	0.0676	1	17
Benz(a)anthracene	ug/L	ND	ND	ND	0	5
Benzidine	ug/L	ND	ND	ND	0	5
Benzo(a)pyrene	ug/L	ND	ND	ND	0	5
Benzo(k)fluoranthene	ug/L	ND	ND	ND	0	5
Benzoic acid	ug/L	ND	ND	ND	0	17
beta-BHC	ug/L	ND	0.0023	0.0019	1	5
Biochemical Oxygen Demand (BOD)	mg/L	ND	ND	ND	0	18
Bis(2-ethylhexyl)phthalate	ug/L	0.048	0.79	0.373	5	5
Cadmium	mg/L	ND	0.00005	0.0000204	3	5
Carbon tetrachloride	ug/L	ND	ND	ND	0	5
Chrysene	ug/L	ND	ND	ND	0	5
Conductivity	umho/cm	182	1430	935	32	32
Copper	mg/L	0.001	0.0017	0.00132	5	5
Cyanide	mg/L	ND	ND	ND	0	5
Dibenz(a,h)anthracene	ug/L	ND	ND	ND	0	5
Dieldrin	ug/L	ND	0.0096	0.00352	1	5
Dissolved Oxygen	mg/L	6.75	10.5	8.18	32	32
Endosulfan I	ug/L	ND	0.0227	0.00694	1	5
Endosulfan II	ug/L	ND	ND	ND	0	5
Endrin	ug/L	ND	ND	ND	0	5
Flow Rate	mgd	0.0498	0.8	0.199	32	32
gamma-Chlordane	ug/L	ND	0.0019	0.00598	1	5
Hardness - Total as CaCO3	mg/L	94	530	286	6	6
Heptachlor	ug/L	ND	0.002	0.0024	1	5
Heptachlor epoxide	ug/L	ND	ND	ND	0	5
Hexachlorobenzene	ug/L	ND	ND	ND	0	5
Hexachloroethane	ug/L	ND	ND	ND	0	5
Indeno(1,2,3-cd)pyrene	ug/L	ND	ND	ND	0	5
Iron	mg/L	ND	0.606	0.323	3	6
Lead	mg/L	ND	0.00036	0.000172	2	5
Lindane	ug/L	ND	0.0019	0.00158	1	5
Mercury	mg/L	.000000925	00000234	0.00000169	5	5
N-Nitrosodimethylamine	ug/L	ND	ND	ND	0	5
N-Nitroso-di-n-propylamine	ug/L	ND	ND	ND	0	5

KPDES Outfall Non-Radiological Data

Table 3.4 Non-Radiological Effluent Data for Outfall 019

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
N-Nitrosodiphenylamine/Diphenylamine	ug/L	ND	ND	ND	0	5
Oil and Grease	mg/L	ND	ND	ND	0	17
PCB-1016	ug/L	ND	ND	ND	0	17
PCB-1221	ug/L	ND	ND	ND	0	17
PCB-1232	ug/L	ND	ND	ND	0	17
PCB-1242	ug/L	ND	ND	ND	0	17
PCB-1248	ug/L	ND	ND	ND	0	17
PCB-1254	ug/L	ND	ND	ND	0	17
PCB-1260	ug/L	ND	ND	ND	0	17
PCB-1268	ug/L	ND	ND	ND	0	17
Pentachlorophenol	ug/L	ND	ND	ND	0	5
pH	Std Unit	6.99	7.86	7.59	32	32
Phenol	ug/L	ND	ND	ND	0	17
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	17
Selenium	mg/L	ND	0.00083	0.000516	1	5
Silver	mg/L	ND	ND	ND	0	5
Suspended Solids	mg/L	ND	43	10.4	4	17
Temperature	deg F	39.9	87.3	63.9	32	32
Tetrachloroethene	ug/L	ND	ND	ND	0	5
Thallium	mg/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.0158	0.00643	14	17
Zinc	mg/L	ND	0.0398	0.0126	2	17

Surface Water Non-Radiological Data

Table 3.5 Non-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
Chemical Oxygen Demand (COD)	mg/L	ND	58	33.1	3	4
Chloride	mg/L	ND	17	7.37	3	4
Conductivity	umho/cm	96	282	184	4	4
Dissolved Oxygen	mg/L	5.7	10.4	8.53	4	4
Dissolved Solids	mg/L	95	207	144	4	4
Flow Rate	mgd	0.007	5.12	1.88	4	4
Iron	mg/L	0.539	3.4	1.71	4	4
pH	Std Unit	7.23	7.95	7.64	4	4
Sodium	mg/L	2.02	8.35	5.23	4	4
Sulfate	mg/L	3.2	17	10.2	4	4
Suspended Solids	mg/L	ND	39	26.9	3	4
Temperature	deg F	46.6	76.3	56.7	4	4
Total Organic Carbon (TOC)	mg/L	12.3	24.3	17.4	4	4
Total Solids	mg/L	111	253	170	4	4
Uranium	mg/L	0.00211	0.00466	0.0038	4	4

Table 3.6 Non-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
Chemical Oxygen Demand (COD)	mg/L	ND	35	23.2	3	5
Chloride	mg/L	ND	3.4	1.88	3	5
Conductivity	umho/cm	169	607	320	5	5
Dissolved Oxygen	mg/L	3.22	9.95	8.34	5	5
Dissolved Solids	mg/L	120	363	206	5	5
Flow Rate	mgd	0.004	0.717	0.241	5	5
Iron	mg/L	ND	0.425	0.217	2	5
pH	Std Unit	7.53	8.01	7.86	5	5
Sodium	mg/L	1.17	7.31	2.83	5	5
Sulfate	mg/L	9.9	82	29.8	5	5
Suspended Solids	mg/L	ND	ND	ND	0	5
Temperature	deg F	47.6	80.6	56.3	5	5
Total Organic Carbon (TOC)	mg/L	8.8	14.9	10.6	5	5
Total Solids	mg/L	136	350	212	5	5
Uranium	mg/L	ND	0.0138	0.00392	3	5

Surface Water Non-Radiological Data

Table 3.7 Non-Radiological Effluent Data for Landfill Surface Water Location L137

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

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	29	51	37	3	3
Chloride	mg/L	ND	9.7	4.87	2	3
Conductivity	umho/cm	83	150	123	3	3
Dissolved Oxygen	mg/L	6.3	9.8	8.44	3	3
Dissolved Solids	mg/L	98	156	133	3	3
Flow Rate	mgd	1.73	7.17	4.45	2	2
Iron	mg/L	2.9	3.48	3.17	3	3
pH	Std Unit	7.53	7.87	7.74	3	3
Sodium	mg/L	1.77	5.35	3.13	3	3
Sulfate	mg/L	3.7	8	6.5	3	3
Suspended Solids	mg/L	26	43	36.3	3	3
Temperature	deg F	51.8	72.9	59.2	3	3
Total Organic Carbon (TOC)	mg/L	13.3	28.4	19.8	3	3
Total Solids	mg/L	116	221	170	3	3
Uranium	mg/L	0.00185	0.00402	0.00289	3	3

Table 3.8 Non-Radiological 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	ND	ND	ND	0	4
Chloride	mg/L	ND	6.4	3.12	3	4
Conductivity	umho/cm	115	342	216	4	4
Dissolved Oxygen	mg/L	7.9	11.1	9.82	4	4
Dissolved Solids	mg/L	104	187	155	4	4
Flow Rate	mgd	0.096	0.604	0.272	4	4
Iron	mg/L	1.19	9.15	3.83	4	4
pH	Std Unit	7.44	8.34	7.86	4	4
Sodium	mg/L	1.99	5.29	3.08	4	4
Sulfate	mg/L	14	23	19.5	4	4
Suspended Solids	mg/L	22	95	46.7	4	4
Temperature	deg F	47.4	78	57.2	4	4
Total Organic Carbon (TOC)	mg/L	5	11.3	7.95	4	4
Total Solids	mg/L	130	284	196	4	4
Uranium	mg/L	ND	0.00129	0.00099	3	4

Surface Water Non-Radiological Data

Table 3.9 Non-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
Chemical Oxygen Demand (COD)	mg/L	ND	62	35.4	3	4
Chloride	mg/L	ND	10	5.5	3	4
Conductivity	umho/cm	132	146	139	4	4
Dissolved Oxygen	mg/L	5.25	9.62	8.25	4	4
Dissolved Solids	mg/L	86	183	134	4	4
Flow Rate	mgd	0.006	11.8	3.9	4	4
Iron	mg/L	1.54	3.57	2.15	4	4
pH	Std Unit	7.3	8.09	7.66	4	4
Sodium	mg/L	1.51	5.7	4.2	4	4
Sulfate	mg/L	3.4	10	7.65	4	4
Suspended Solids	mg/L	ND	47	27.6	3	4
Temperature	deg F	46.4	73.8	56.2	4	4
Total Organic Carbon (TOC)	mg/L	13.4	30.6	18.8	4	4
Total Solids	mg/L	103	228	164	4	4
Uranium	mg/L	0.00158	0.00384	0.00259	4	4

Table 3.10 Non-Radiological Effluent Data for Landfill Surface Water Location L155

Downstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Chemical Oxygen Demand (COD)	mg/L	ND	31	22.8	2	3
Chloride	mg/L	2.1	15	8.23	3	3
Conductivity	umho/cm	66	229	132	3	3
Dissolved Oxygen	mg/L	6.4	10.1	8.56	3	3
Dissolved Solids	mg/L	ND	138	96.7	2	3
Flow Rate	mgd	4.81	18.3	11.6	2	2
Iron	mg/L	2.16	6.4	4.93	3	3
pH	Std Unit	7.45	7.88	7.69	3	3
Sodium	mg/L	2.46	18	8.53	3	3
Sulfate	mg/L	4.2	34	15.6	3	3
Suspended Solids	mg/L	46	324	183	3	3
Temperature	deg F	50.9	77	60.3	3	3
Total Organic Carbon (TOC)	mg/L	9.3	17.7	12.2	3	3
Total Solids	mg/L	182	377	300	3	3
Uranium	mg/L	0.00362	0.00489	0.00427	3	3

Surface Water Non-Radiological Data

Table 3.11 Non-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
Chemical Oxygen Demand (COD)	mg/L	ND	ND	ND	0	1
Chloride	mg/L	6.6	6.6	6.6	1	1
Conductivity	umho/cm	144	144	144	1	1
Dissolved Oxygen	mg/L	11.4	11.4	11.4	1	1
Dissolved Solids	mg/L	122	122	122	1	1
Flow Rate	mgd	2.51	2.51	2.51	1	1
Iron	mg/L	2.05	2.05	2.05	1	1
pH	Std Unit	7.71	7.71	7.71	1	1
Sodium	mg/L	4.14	4.14	4.14	1	1
Sulfate	mg/L	12	12	12	1	1
Suspended Solids	mg/L	26	26	26	1	1
Temperature	deg F	45.8	45.8	45.8	1	1
Total Organic Carbon (TOC)	mg/L	13.8	13.8	13.8	1	1
Total Solids	mg/L	166	166	166	1	1
Uranium	mg/L	0.00395	0.00395	0.00395	1	1

4. NON-RADIOLOGICAL ENVIRONMENTAL SURVEILLANCE DATA

Surface Water Non-Radiological Data

Table 4.1 Non-Radiological Monitoring Data for Surface Water Location L1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	11	15	13.2	4	4
Aluminum	mg/L	ND	1.49	0.482	2	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0413	0.0654	0.0511	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	14.4	19	15.6	4	4
Chloride	mg/L	10	13	11.2	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	171	266	220	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	7.39	11.1	8.61	4	4
Flow Rate	mgd	0.756	2.27	1.43	4	4
Hardness - Total as CaCO3	mg/L	46	62	56	4	4
Iron	mg/L	0.2	1.2	0.518	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.73	4.66	3.62	4	4
Manganese	mg/L	0.0599	0.174	0.0946	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.11	2	0.868	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.14	7.81	7.6	4	4
Phosphorous	mg/L	ND	0.18	0.115	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.51	4.24	3.32	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	9.6	36.4	21.5	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	42.3	79	60.5	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	2.2	1.18	2	4
Uranium	mg/L	ND	ND	ND	0	8

Surface Water Non-Radiological Data

Table 4.1 Non-Radiological Monitoring Data for Surface Water Location L1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.2 Non-Radiological Monitoring Data for Surface Water Location L5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	10	19	14.2	4	4
Aluminum	mg/L	ND	2.17	0.644	2	4
Ammonia as Nitrogen	mg/L	ND	0.17	0.117	3	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0384	0.0486	0.0431	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	23.2	61.3	46	4	4
Chloride	mg/L	44	140	85.7	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	482	1340	915	4	4
Copper	mg/L	ND	0.00571	0.00338	1	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	4.32	10.8	7.39	4	4
Flow Rate	mgd	2.82	19.3	9.41	4	4
Hardness - Total as CaCO3	mg/L	91	320	208	4	4
Iron	mg/L	0.261	1.37	0.547	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	7	39.3	21.8	4	4
Manganese	mg/L	0.0391	0.0615	0.0501	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	0.00714	0.00366	1	4
Nitrate/Nitrite as Nitrogen	mg/L	1.1	2.9	1.93	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.24	7.62	7.43	4	4
Phosphorous	mg/L	0.27	0.31	0.28	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	4.75	19.8	12.1	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	40.7	150	96.2	4	4
Suspended Solids	mg/L	ND	13	8.12	1	4
Temperature	deg F	47.2	79.5	65.2	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.00394	0.00234	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.3 Non-Radiological Monitoring Data for Surface Water Location L6

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	11.5	39	24	5	5
Aluminum	mg/L	ND	2.43	0.566	1	5
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.0364	0.0535	0.0457	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	21.4	74.1	51.5	5	5
Chloride	mg/L	35	150	95.2	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	399	1380	964	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	8.77	12.7	11	5	5
Flow Rate	mgd	2.99	12.8	6.56	5	5
Hardness - Total as CaCO3	mg/L	81	350	226	5	5
Iron	mg/L	ND	1.7	0.42	1	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	6.09	42.9	25.3	5	5
Manganese	mg/L	0.0512	0.0683	0.0605	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	0.00701	0.00428	2	5
Nitrate/Nitrite as Nitrogen	mg/L	1.1	2.6	1.8	5	5
PCB-1016	ug/L	ND	ND	ND	0	5
PCB-1221	ug/L	ND	ND	ND	0	5
PCB-1232	ug/L	ND	ND	ND	0	5
PCB-1242	ug/L	ND	ND	ND	0	5
PCB-1248	ug/L	ND	ND	ND	0	5
PCB-1254	ug/L	ND	ND	ND	0	5
PCB-1260	ug/L	ND	ND	ND	0	5
PCB-1268	ug/L	ND	ND	ND	0	5
pH	Std Unit	7.29	7.78	7.5	5	5
Phosphorous	mg/L	0.21	0.24	0.214	4	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	4.31	21.3	13.2	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	32.4	155	101	5	5
Suspended Solids	mg/L	ND	17	8.6	1	5
Temperature	deg F	45.9	80.8	59.5	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.00285	0.00201	3	10
Vanadium	mg/L	ND	ND	ND	0	5
Zinc	mg/L	ND	ND	ND	0	5

Surface Water Non-Radiological Data

Table 4.4 Non-Radiological Monitoring Data for Surface Water Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	13	18	15.7	4	4
Aluminum	mg/L	ND	0.233	0.133	1	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0254	0.0401	0.0329	4	4
Beryllium	mg/L	ND	0.00538	0.00172	1	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	87.2	156	121	4	4
Chloride	mg/L	170	310	238	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	0.00102	0.00309	0.00169	4	4
Conductivity	umho/cm	1650	3160	2390	4	4
Copper	mg/L	ND	0.0131	0.00875	3	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	6.27	11.2	9.52	4	4
Flow Rate	mgd	1.9	3.24	2.26	4	4
Hardness - Total as CaCO3	mg/L	380	710	540	4	4
Iron	mg/L	ND	0.579	0.431	3	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	40.4	79.7	55.6	4	4
Manganese	mg/L	0.0556	0.0826	0.0706	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	0.00648	0.0179	0.0119	4	4
Nitrate/Nitrite as Nitrogen	mg/L	3.9	10.3	5.97	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.93	8.85	8.42	4	4
Phosphorous	mg/L	0.44	0.62	0.485	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	23.7	44.9	34.8	4	4
Selenium	mg/L	ND	0.00537	0.00322	1	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	183	327	267	4	4
Suspended Solids	mg/L	ND	15	8.62	1	4
Temperature	deg F	56.2	90.5	71.2	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.00192	0.00186	3	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.5 Non-Radiological Monitoring Data for Surface Water Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	11	18	14	3	3
Conductivity	umho/cm	1230	1620	1390	4	4
Dissolved Oxygen	mg/L	5.52	11.9	7.3	4	4
Flow Rate	mgd	1.83	6.27	3.26	4	4
pH	Std Unit	7.47	8.33	7.83	4	4
Temperature	deg F	42.9	82.8	66.1	4	4

Table 4.6 Non-Radiological Monitoring Data for Surface Water Location K015

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	17	20	18.5	2	2
Conductivity	umho/cm	415	1480	871	3	3
Dissolved Oxygen	mg/L	5.67	8.31	7.05	3	3
Flow Rate	mgd	0.0014	0.076	0.0281	3	3
pH	Std Unit	8	8.39	8.15	3	3
Temperature	deg F	52.6	61.6	56.2	3	3

Surface Water Non-Radiological Data

Table 4.7 Non-Radiological Monitoring Data for Surface Water Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	20	30	24.5	4	4
Aluminum	mg/L	ND	ND	ND	0	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.127	0.142	0.135	4	4
Beryllium	mg/L	ND	0.00609	0.0019	1	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	22.7	23.8	23.5	4	4
Chloride	mg/L	35	43	40.5	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	333	398	364	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	8.02	10.5	9.2	4	4
Hardness - Total as CaCO3	mg/L	91	110	100	4	4
Iron	mg/L	ND	ND	ND	0	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	8.52	11.3	9.65	4	4
Manganese	mg/L	ND	ND	ND	0	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	1.8	2.5	2.05	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	8.2	8.4	8.29	4	4
Phosphorous	mg/L	ND	0.08	0.065	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	1.11	1.52	1.28	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	25.8	33.1	29.9	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	60	65.2	61.9	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	2.9	1.77	3	4
Uranium	mg/L	ND	ND	ND	0	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.8 Non-Radiological Monitoring Data for Surface Water Location L291

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	13	40	21.7	4	4
Aluminum	mg/L	ND	1.58	0.622	3	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0386	0.0648	0.0487	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	16.8	24.1	19.1	4	4
Chloride	mg/L	12	14	13	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	205	282	248	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.81	13.4	8.36	4	4
Flow Rate	mgd	0.297	5.76	1.69	4	4
Hardness - Total as CaCO3	mg/L	55	76	63.2	4	4
Iron	mg/L	0.224	1.17	0.587	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	3.05	5.03	3.91	4	4
Manganese	mg/L	0.0493	0.0783	0.0637	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.21	1.4	0.715	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.89	7.92	7.56	4	4
Phosphorous	mg/L	0.12	0.14	0.115	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.53	4.39	3.37	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	12.3	35.5	22.6	4	4
Suspended Solids	mg/L	ND	18	9.37	1	4
Temperature	deg F	43.2	76.2	56.9	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	ND	ND	0	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.9 Non-Radiological Monitoring Data for Surface Water Location L10

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	13	25	18.1	4	4
Aluminum	mg/L	ND	2.64	0.858	3	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0353	0.0656	0.0534	4	4
Beryllium	mg/L	ND	0.00604	0.00188	1	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	18.8	27	21.9	4	4
Chloride	mg/L	34	44	38	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	384	482	440	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.3	14.7	8.52	4	4
Flow Rate	mgd	0.07	2.41	1.7	4	4
Hardness - Total as CaCO3	mg/L	72	110	92.2	4	4
Iron	mg/L	0.321	1.84	0.753	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	5.23	15	9.35	4	4
Manganese	mg/L	0.0275	0.0799	0.0509	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.49	1.1	0.73	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.26	8.75	7.87	4	4
Phosphorous	mg/L	0.25	0.48	0.315	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.76	5.11	3.51	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	36.3	53.8	48.2	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	60.3	71.6	64	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.0135	0.00696	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.10 Non-Radiological Monitoring Data for Surface Water Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	18	21	19.5	4	4
Aluminum	mg/L	ND	1.26	0.728	3	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0268	0.0561	0.0419	4	4
Beryllium	mg/L	ND	0.006	0.00187	1	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	19.5	27.8	22.8	4	4
Chloride	mg/L	31	50	40	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	399	483	456	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	4.23	12.3	7.54	4	4
Flow Rate	mgd	0.368	1.15	0.875	4	4
Hardness - Total as CaCO3	mg/L	83	120	101	4	4
Iron	mg/L	0.298	1.25	0.827	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	6.19	14.3	9.52	4	4
Manganese	mg/L	0.0282	0.0365	0.0337	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.66	1.1	0.84	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.91	8.15	7.68	4	4
Phosphorous	mg/L	0.38	0.41	0.37	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	3.1	4.83	3.64	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	45.1	50.7	48.1	4	4
Suspended Solids	mg/L	ND	28	13.7	2	4
Temperature	deg F	63.9	80.6	70.1	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.0194	0.00833	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.11 Non-Radiological Monitoring Data for Surface Water Location L11

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	12	17	14.7	5	5
Aluminum	mg/L	0.348	2.7	0.943	5	5
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.0427	0.0704	0.0587	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	15.7	24.4	20.9	5	5
Chloride	mg/L	17	42	28	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	226	452	352	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	7.63	12.1	8.69	5	5
Flow Rate	mgd	0.096	3.11	0.862	5	5
Hardness - Total as CaCO3	mg/L	61	120	83.6	5	5
Iron	mg/L	0.359	2.07	0.94	5	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	3.79	14.2	7.56	5	5
Manganese	mg/L	0.0252	0.113	0.0806	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	0.11	0.69	0.482	5	5
PCB-1016	ug/L	ND	ND	ND	0	5
PCB-1221	ug/L	ND	ND	ND	0	5
PCB-1232	ug/L	ND	ND	ND	0	5
PCB-1242	ug/L	ND	ND	ND	0	5
PCB-1248	ug/L	ND	ND	ND	0	5
PCB-1254	ug/L	ND	ND	ND	0	5
PCB-1260	ug/L	ND	ND	ND	0	5
PCB-1268	ug/L	ND	ND	ND	0	5
pH	Std Unit	6.64	7.7	7.33	5	5
Phosphorous	mg/L	0.18	0.21	0.184	4	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	2.39	4.94	3.19	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	19.9	47.8	35.9	5	5
Suspended Solids	mg/L	ND	ND	ND	0	5
Temperature	deg F	41.3	73.6	59.6	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.008	0.00527	5	10
Vanadium	mg/L	ND	ND	ND	0	5
Zinc	mg/L	ND	ND	ND	0	5

Surface Water Non-Radiological Data

Table 4.12 Non-Radiological Monitoring Data for Surface Water Location L12

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	15	19	17.2	4	4
Aluminum	mg/L	ND	2.37	0.786	2	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.04	0.0787	0.0621	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	32.2	37.5	35	4	4
Chloride	mg/L	15	30	22.7	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.00216	0.000915	1	4
Conductivity	umho/cm	270	427	354	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	6	7.77	7.23	4	4
Flow Rate	mgd	0.626	2.61	1.82	3	3
Hardness - Total as CaCO3	mg/L	88	140	114	4	4
Iron	mg/L	ND	2.11	0.76	3	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	4.4	8.91	7.09	4	4
Manganese	mg/L	0.0426	0.315	0.209	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.72	1.4	0.988	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.91	8.23	7.54	4	4
Phosphorous	mg/L	0.1	0.14	0.11	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.48	4.23	3.08	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	13.2	32.4	22.7	4	4
Suspended Solids	mg/L	ND	59	19.6	1	4
Temperature	deg F	45	71.1	60.6	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	1.1	6	3.02	4	4
Uranium	mg/L	ND	0.00451	0.00222	3	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.13 Non-Radiological Monitoring Data for Surface Water Location L241

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	14	19	16.1	5	5
Aluminum	mg/L	ND	4.2	1.64	4	5
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.0629	0.11	0.0794	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	14.1	24.3	18.7	5	5
Chloride	mg/L	12	39	24.2	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	166	423	288	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	7.58	11.6	9.41	5	5
Flow Rate	mgd	1.19	3.61	2.06	3	3
Hardness - Total as CaCO3	mg/L	51	110	77.4	5	5
Iron	mg/L	0.231	2.76	1.27	5	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	3.09	11.3	6.42	5	5
Manganese	mg/L	0.0188	0.0811	0.056	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	0.33	1.7	0.85	5	5
PCB-1016	ug/L	ND	ND	ND	0	5
PCB-1221	ug/L	ND	ND	ND	0	5
PCB-1232	ug/L	ND	ND	ND	0	5
PCB-1242	ug/L	ND	ND	ND	0	5
PCB-1248	ug/L	ND	ND	ND	0	5
PCB-1254	ug/L	ND	ND	ND	0	5
PCB-1260	ug/L	ND	ND	ND	0	5
PCB-1268	ug/L	ND	ND	ND	0	5
pH	Std Unit	6.74	7.5	7.21	5	5
Phosphorous	mg/L	0.13	0.19	0.152	4	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	2.13	4.05	2.69	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	11.8	42.7	26.9	5	5
Suspended Solids	mg/L	ND	19	9	1	5
Temperature	deg F	41.6	70.5	53.3	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	ND	54	23.8	3	5
Uranium	mg/L	ND	0.00423	0.00283	5	10
Vanadium	mg/L	ND	ND	ND	0	5
Zinc	mg/L	ND	ND	ND	0	5

Surface Water Non-Radiological Data

Table 4.14 Non-Radiological Monitoring Data for Surface Water Location C746K-5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	12	18	16.4	5	5
Aluminum	mg/L	ND	2.67	0.614	1	5
Ammonia as Nitrogen	mg/L	ND	0.22	0.084	1	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.0319	0.0558	0.0412	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	13	25.2	19.4	5	5
Chloride	mg/L	17	24	20.2	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	200	342	279	5	5
Copper	mg/L	ND	0.00753	0.00359	1	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	7.53	11.1	9.37	5	5
Flow Rate	mgd	0.438	18.6	5.35	5	5
Hardness - Total as CaCO3	mg/L	49	91	72.6	5	5
Iron	mg/L	0.22	1.82	0.624	5	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	2.55	8.21	5.19	5	5
Manganese	mg/L	0.0233	0.102	0.0451	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	0.11	1.5	0.518	5	5
PCB-1016	ug/L	ND	ND	ND	0	5
PCB-1221	ug/L	ND	ND	ND	0	5
PCB-1232	ug/L	ND	ND	ND	0	5
PCB-1242	ug/L	ND	ND	ND	0	5
PCB-1248	ug/L	ND	ND	ND	0	5
PCB-1254	ug/L	ND	ND	ND	0	5
PCB-1260	ug/L	ND	ND	ND	0	5
PCB-1268	ug/L	ND	ND	ND	0	5
pH	Std Unit	7.24	8.07	7.71	5	5
Phosphorous	mg/L	0.09	0.21	0.13	3	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	2.52	4.01	3.41	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	13.1	34.2	25	5	5
Suspended Solids	mg/L	ND	ND	ND	0	5
Temperature	deg F	42.7	76	63.3	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	ND	ND	ND	0	5
Uranium	mg/L	ND	ND	ND	0	10
Vanadium	mg/L	ND	ND	ND	0	5
Zinc	mg/L	ND	ND	ND	0	5

Surface Water Non-Radiological Data

Table 4.15 Non-Radiological Monitoring Data for Surface Water Location C746KTB1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	14	40	22.7	4	4
Aluminum	mg/L	ND	1.04	0.335	1	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0464	0.0543	0.0499	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	13.1	16.9	14.5	4	4
Chloride	mg/L	10	27	18	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	142	321	231	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.15	12	7.44	4	4
Flow Rate	mgd	0.161	3.8	1.09	4	4
Hardness - Total as CaCO3	mg/L	41	68	52	4	4
Iron	mg/L	ND	0.805	0.276	1	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.42	5.36	3.56	4	4
Manganese	mg/L	0.0178	0.0425	0.031	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	ND	1	0.552	3	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.77	7.82	7.42	4	4
Phosphorous	mg/L	0.12	0.12	0.095	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	1.8	5.28	3.82	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	9.7	44.9	26.3	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	36.3	69.2	52.1	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	ND	ND	0	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.16 Non-Radiological Monitoring Data for Surface Water Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	11	19	14.3	3	3
Aluminum	mg/L	ND	ND	ND	0	4
Ammonia as Nitrogen	mg/L	0.22	1.1	0.75	4	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0139	0.0247	0.0168	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	15.1	25.3	18.4	4	4
Chloride	mg/L	21	92	45.5	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	327	677	447	4	4
Copper	mg/L	ND	0.00653	0.00434	2	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	4.4	9.47	6.09	4	4
Flow Rate	mgd	0.75	1.3	1.02	4	4
Hardness - Total as CaCO3	mg/L	64	100	80.5	4	4
Iron	mg/L	ND	0.406	0.279	3	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	5.82	12.1	7.67	4	4
Manganese	mg/L	0.0129	0.0314	0.019	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	1.2	2.2	1.8	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.64	7.86	7.76	4	4
Phosphorous	mg/L	0.51	0.68	0.542	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.64	5.43	3.75	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	35	73.9	48.5	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	53.6	91.1	73.2	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.014	0.00685	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.17 Non-Radiological Monitoring Data for Surface Water Location L29

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	13	25	17.7	4	4
Aluminum	mg/L	0.546	11.8	5.6	4	4
Ammonia as Nitrogen	mg/L	ND	0.12	0.0675	1	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0474	0.129	0.0745	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	27.1	39	34.7	4	4
Chloride	mg/L	12	32	19	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.0102	0.00405	1	4
Conductivity	umho/cm	251	444	334	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	4.68	11.9	8.61	4	4
Hardness - Total as CaCO3	mg/L	97	160	129	4	4
Iron	mg/L	0.806	15.9	6.88	4	4
Lead	mg/L	ND	0.0152	0.0071	2	4
Magnesium	mg/L	5.66	14.5	10.8	4	4
Manganese	mg/L	0.0726	1.01	0.359	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.54	0.91	0.67	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.41	8.36	7.77	4	4
Phosphorous	mg/L	0.37	0.37	0.252	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.59	4.53	3.43	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	9.19	28.9	16.2	4	4
Suspended Solids	mg/L	ND	920	286	3	4
Temperature	deg F	43.6	84.9	63.2	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	ND	ND	0	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.18 Non-Radiological Monitoring Data for Surface Water Location L30

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	14	22	17.5	4	4
Aluminum	mg/L	2.87	4.59	3.52	4	4
Ammonia as Nitrogen	mg/L	ND	0.3	0.133	2	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0511	0.0753	0.0619	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	28.3	41.4	35.6	4	4
Chloride	mg/L	13	32	20.2	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	0.00137	0.00242	0.00175	4	4
Conductivity	umho/cm	270	430	349	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.24	10.8	8.29	4	4
Hardness - Total as CaCO3	mg/L	99	160	137	4	4
Iron	mg/L	3.11	4.79	3.69	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	5.69	15.7	11.1	4	4
Manganese	mg/L	0.112	0.311	0.208	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	0.00642	0.00348	1	4
Nitrate/Nitrite as Nitrogen	mg/L	0.62	0.86	0.738	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.52	8.52	7.83	4	4
Phosphorous	mg/L	0.37	0.38	0.305	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.39	4.29	3.23	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	9.38	29.4	17	4	4
Suspended Solids	mg/L	62	98	75.5	4	4
Temperature	deg F	44.6	87.3	64.8	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	ND	ND	0	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.19 Non-Radiological Monitoring Data for Surface Water Location L306

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	14	140	90.5	4	4
Aluminum	mg/L	0.361	9.12	3.34	4	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.041	0.0875	0.0583	4	4
Beryllium	mg/L	ND	0.00102	0.00063	1	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	33.7	39.8	35.7	4	4
Chloride	mg/L	17	33	22	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.00117	0.00179	1	4
Conductivity	umho/cm	335	461	380	4	4
Copper	mg/L	ND	0.0183	0.0172	3	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	3.32	8.03	5.92	4	4
Hardness - Total as CaCO3	mg/L	130	160	140	4	4
Iron	mg/L	0.375	8.99	3.18	4	4
Lead	mg/L	ND	0.0076	0.00377	1	4
Magnesium	mg/L	8.91	15.5	11.9	4	4
Manganese	mg/L	0.0335	0.364	0.132	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.63	1.2	0.947	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.98	8.81	7.96	4	4
Phosphorous	mg/L	0.1	0.47	0.23	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.91	4.25	3.52	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	10.7	31.3	18	4	4
Suspended Solids	mg/L	ND	176	48.9	1	4
Temperature	deg F	39.8	84	63.3	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	ND	ND	0	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.20 Non-Radiological Monitoring Data for Surface Water Location L64

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	10.5	25	16.9	4	4
Aluminum	mg/L	ND	0.749	0.47	3	4
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0342	0.0518	0.0442	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	10.2	14	11.9	4	4
Chloride	mg/L	11	18	14	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	151	1510	497	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	7.4	12.1	10.2	4	4
Flow Rate	mgd	1.61	8.43	4.3	4	4
Hardness - Total as CaCO3	mg/L	37	50	43.5	4	4
Iron	mg/L	0.696	1.12	0.925	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.5	2.98	2.83	4	4
Manganese	mg/L	0.153	0.295	0.218	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.13	1.4	0.583	4	4
PCB-1016	ug/L	ND	ND	ND	0	4
PCB-1221	ug/L	ND	ND	ND	0	4
PCB-1232	ug/L	ND	ND	ND	0	4
PCB-1242	ug/L	ND	ND	ND	0	4
PCB-1248	ug/L	ND	ND	ND	0	4
PCB-1254	ug/L	ND	ND	ND	0	4
PCB-1260	ug/L	ND	ND	ND	0	4
PCB-1268	ug/L	ND	ND	ND	0	4
pH	Std Unit	7.47	8.43	7.85	4	4
Phosphorous	mg/L	0.07	0.11	0.0825	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	1.98	2.37	2.11	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	8.37	16.5	12.3	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	37.4	77.6	55.8	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.009	0.00231	1	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

Table 4.21 Non-Radiological Monitoring Data for Surface Water Seep Location LBCSP5

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,1-Trichloroethane	ug/L	ND	ND	ND	0	2
1,1,2-Trichloroethane	ug/L	ND	ND	ND	0	2
1,1-Dichloroethane	ug/L	ND	ND	ND	0	2
1,1-Dichloroethene	ug/L	ND	ND	ND	0	2
1,2-Dichloroethane	ug/L	ND	ND	ND	0	2
1,2-Dimethylbenzene	ug/L	ND	ND	ND	0	2
Alkalinity	mg/L	15	19	17	2	2
Benzene	ug/L	ND	ND	ND	0	2
Bromodichloromethane	ug/L	ND	ND	ND	0	2
Calcium	mg/L	23.3	24.1	23.7	2	2
Carbon tetrachloride	ug/L	ND	ND	ND	0	2
Chloride	mg/L	29	30	29.5	2	2
Chloroform	ug/L	ND	ND	ND	0	2
cis-1,2-Dichloroethene	ug/L	ND	ND	ND	0	2
Conductivity	umho/cm	344	345	344	2	2
Dissolved Oxygen	mg/L	3.18	3.61	3.39	2	2
Ethylbenzene	ug/L	ND	ND	ND	0	2
m,p-Xylene	ug/L	ND	ND	ND	0	2
Magnesium	mg/L	7.56	8.21	7.88	2	2
Manganese	mg/L	ND	ND	ND	0	2
pH	Std Unit	6.52	7.19	6.86	2	2
Potassium	mg/L	1.75	1.75	1.75	2	2
Sodium	mg/L	31.2	33.8	32.5	2	2
Sulfate	mg/L	17	17	17	2	2
Temperature	deg F	57.9	61.4	59.6	2	2
Tetrachloroethene	ug/L	ND	ND	ND	0	2
Toluene	ug/L	ND	ND	ND	0	2
trans-1,2-Dichloroethene	ug/L	ND	ND	ND	0	2
Trichloroethene	ug/L	350	380	365	2	2
Vinyl chloride	ug/L	ND	ND	ND	0	2

Surface Water Non-Radiological Data

Table 4.22 Non-Radiological Monitoring Data for Surface Water Seep Location LBCSP7

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,1-Trichloroethane	ug/L	ND	ND	ND	0	2
1,1,2-Trichloroethane	ug/L	ND	ND	ND	0	2
1,1-Dichloroethane	ug/L	ND	ND	ND	0	2
1,1-Dichloroethene	ug/L	ND	ND	ND	0	2
1,2-Dichloroethane	ug/L	ND	ND	ND	0	2
1,2-Dimethylbenzene	ug/L	ND	ND	ND	0	2
Alkalinity	mg/L	13	16	14.5	2	2
Benzene	ug/L	ND	ND	ND	0	2
Bromodichloromethane	ug/L	ND	ND	ND	0	2
Calcium	mg/L	25.5	25.6	25.5	2	2
Carbon tetrachloride	ug/L	ND	ND	ND	0	2
Chloride	mg/L	32	33	32.5	2	2
Chloroform	ug/L	ND	ND	ND	0	2
cis-1,2-Dichloroethene	ug/L	ND	ND	ND	0	2
Conductivity	umho/cm	359	365	362	2	2
Dissolved Oxygen	mg/L	2.77	3.4	3.08	2	2
Ethylbenzene	ug/L	ND	ND	ND	0	2
m,p-Xylene	ug/L	ND	ND	ND	0	2
Magnesium	mg/L	8.72	9.01	8.87	2	2
Manganese	mg/L	ND	ND	ND	0	2
pH	Std Unit	6.15	6.95	6.55	2	2
Potassium	mg/L	1.76	1.86	1.81	2	2
Sodium	mg/L	32.3	34.1	33.2	2	2
Sulfate	mg/L	20	20	20	2	2
Temperature	deg F	57.9	59.7	58.8	2	2
Tetrachloroethene	ug/L	ND	ND	ND	0	2
Toluene	ug/L	ND	ND	ND	0	2
trans-1,2-Dichloroethene	ug/L	ND	ND	ND	0	2
Trichloroethene	ug/L	150	160	155	2	2
Vinyl chloride	ug/L	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.23 Non-Radiological Data for Sediment Location S20

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	3720	3990	3860	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	44.8	49.2	47	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	315	345	330	2	2
Chromium	mg/kg	5.98	6.47	6.22	2	2
Cobalt	mg/kg	3.11	3.75	3.43	2	2
Copper	mg/kg	ND	3.77	3.1	1	2
Iron	mg/kg	3760	4640	4200	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	426	463	444	2	2
Manganese	mg/kg	74.8	81.2	78	2	2
Mercury	mg/kg	ND	0.012	0.0095	1	2
Nickel	mg/kg	ND	5.46	3.87	1	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	184	215	200	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	9.51	9.72	9.62	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.24 Non-Radiological Data for Sediment Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2970	4510	3740	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	32.8	54.3	43.5	2	2
Beryllium	mg/kg	ND	0.661	0.449	1	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	1090	3110	2100	2	2
Chromium	mg/kg	12.3	12.6	12.4	2	2
Cobalt	mg/kg	3.33	4.95	4.14	2	2
Copper	mg/kg	19.7	20.8	20.2	2	2
Iron	mg/kg	6150	11200	8680	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	616	690	653	2	2
Manganese	mg/kg	38.5	88.5	63.5	2	2
Mercury	mg/kg	0.02	0.042	0.031	2	2
Nickel	mg/kg	7.82	10.8	9.31	2	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	278	520	399	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	200	203	202	2	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	8.94	10.4	9.67	2	2
Zinc	mg/kg	30.6	40.2	35.4	2	2

Sediment Non-Radiological Data

Table 4.25 Non-Radiological Data for Sediment Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	4180	5770	4980	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	53.4	67	60.2	2	2
Beryllium	mg/kg	ND	0.612	0.424	1	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	812	886	849	2	2
Chromium	mg/kg	13.7	16.5	15.1	2	2
Cobalt	mg/kg	4.57	5.32	4.95	2	2
Copper	mg/kg	11.6	13.5	12.6	2	2
Iron	mg/kg	8760	17300	13000	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	602	751	676	2	2
Manganese	mg/kg	132	161	146	2	2
Mercury	mg/kg	ND	0.019	0.0135	1	2
Nickel	mg/kg	8.28	10.7	9.49	2	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	370	508	439	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	207	150	1	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	11.6	24.8	18.2	2	2
Zinc	mg/kg	20	24.3	22.1	2	2

Sediment Non-Radiological Data

Table 4.26 Non-Radiological Data for Sediment Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	3460	4510	3980	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	31.8	42.8	37.3	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	810	1010	910	2	2
Chromium	mg/kg	8.72	15.8	12.3	2	2
Cobalt	mg/kg	2.76	3.2	2.98	2	2
Copper	mg/kg	12.5	14.4	13.4	2	2
Iron	mg/kg	4330	5020	4680	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	555	681	618	2	2
Manganese	mg/kg	30.6	32.4	31.5	2	2
Mercury	mg/kg	ND	0.019	0.0137	1	2
Nickel	mg/kg	6.19	7.94	7.07	2	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	383	429	406	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	6.31	8.49	7.4	2	2
Zinc	mg/kg	26.6	51	38.8	2	2

Sediment Non-Radiological Data

Table 4.27 Non-Radiological Data for Sediment Location S1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2880	5160	4020	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	27.2	40.8	34	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	647	697	672	2	2
Chromium	mg/kg	10.9	14.7	12.8	2	2
Cobalt	mg/kg	2.71	5.77	4.24	2	2
Copper	mg/kg	3.29	6.33	4.81	2	2
Iron	mg/kg	6570	9020	7800	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	289	479	384	2	2
Manganese	mg/kg	201	399	300	2	2
Mercury	mg/kg	ND	0.012	0.01	1	2
Nickel	mg/kg	ND	8.88	5.55	1	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	110	75	1	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	180	314	247	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	13.3	17.4	15.3	2	2
Zinc	mg/kg	ND	27.6	18.2	1	2

Sediment Non-Radiological Data

Table 4.28 Non-Radiological Data for Sediment Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2220	6930	4250	3	3
Antimony	mg/kg	ND	ND	ND	0	3
Arsenic	mg/kg	ND	ND	ND	0	3
Barium	mg/kg	24.1	50.5	34.6	3	3
Beryllium	mg/kg	ND	ND	ND	0	3
Cadmium	mg/kg	ND	ND	ND	0	3
Calcium	mg/kg	1850	2960	2350	3	3
Chromium	mg/kg	10.7	13.1	11.5	3	3
Cobalt	mg/kg	ND	4.05	2.52	2	3
Copper	mg/kg	8.13	26.4	20.1	3	3
Iron	mg/kg	4430	9550	6390	3	3
Lead	mg/kg	ND	ND	ND	0	3
Magnesium	mg/kg	555	933	724	3	3
Manganese	mg/kg	22.8	242	96.8	3	3
Mercury	mg/kg	0.036	0.51	0.299	3	3
Nickel	mg/kg	7.87	18.1	13.6	3	3
PCB-1016	ug/kg	ND	ND	ND	0	3
PCB-1221	ug/kg	ND	ND	ND	0	3
PCB-1232	ug/kg	ND	ND	ND	0	3
PCB-1242	ug/kg	ND	ND	ND	0	3
PCB-1248	ug/kg	ND	ND	ND	0	3
PCB-1254	ug/kg	ND	600	402	2	3
PCB-1260	ug/kg	ND	750	483	2	3
PCB-1268	ug/kg	ND	ND	ND	0	3
Polychlorinated biphenyl	ug/kg	ND	1350	873	2	3
Potassium	mg/kg	149	569	344	3	3
Selenium	mg/kg	ND	ND	ND	0	3
Silver	mg/kg	ND	ND	ND	0	3
Sodium	mg/kg	ND	ND	ND	0	3
Thallium	mg/kg	ND	ND	ND	0	3
Uranium	mg/kg	ND	ND	ND	0	3
Vanadium	mg/kg	5.96	13.5	9.15	3	3
Zinc	mg/kg	39.5	89.6	69.7	3	3

Sediment Non-Radiological Data

Table 4.29 Non-Radiological Data for Sediment Location S33

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2280	2810	2630	3	3
Antimony	mg/kg	ND	ND	ND	0	3
Arsenic	mg/kg	ND	ND	ND	0	3
Barium	mg/kg	19.9	26.8	22.9	3	3
Beryllium	mg/kg	ND	ND	ND	0	3
Cadmium	mg/kg	ND	ND	ND	0	3
Calcium	mg/kg	424	499	464	3	3
Chromium	mg/kg	6.31	7.1	6.6	3	3
Cobalt	mg/kg	ND	2.84	2.17	2	3
Copper	mg/kg	ND	4.25	3.5	2	3
Iron	mg/kg	3650	4440	3980	3	3
Lead	mg/kg	ND	ND	ND	0	3
Magnesium	mg/kg	271	315	287	3	3
Manganese	mg/kg	42.6	57.1	49.1	3	3
Mercury	mg/kg	ND	ND	ND	0	3
Nickel	mg/kg	ND	ND	ND	0	3
PCB-1016	ug/kg	ND	ND	ND	0	3
PCB-1221	ug/kg	ND	ND	ND	0	3
PCB-1232	ug/kg	ND	ND	ND	0	3
PCB-1242	ug/kg	ND	ND	ND	0	3
PCB-1248	ug/kg	ND	ND	ND	0	3
PCB-1254	ug/kg	ND	ND	ND	0	3
PCB-1260	ug/kg	ND	ND	ND	0	3
PCB-1268	ug/kg	ND	ND	ND	0	3
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	3
Potassium	mg/kg	140	197	170	3	3
Selenium	mg/kg	ND	ND	ND	0	3
Silver	mg/kg	ND	ND	ND	0	3
Sodium	mg/kg	ND	ND	ND	0	3
Thallium	mg/kg	ND	ND	ND	0	3
Uranium	mg/kg	ND	ND	ND	0	3
Vanadium	mg/kg	7.85	9.15	8.4	3	3
Zinc	mg/kg	ND	ND	ND	0	3

Sediment Non-Radiological Data

Table 4.30 Non-Radiological Data for Sediment Location S2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2520	2890	2700	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	26	26	26	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	704	748	726	2	2
Chromium	mg/kg	8.98	16.3	12.6	2	2
Cobalt	mg/kg	2.37	2.6	2.48	2	2
Copper	mg/kg	ND	3.71	3.04	1	2
Iron	mg/kg	4250	5260	4760	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	279	290	284	2	2
Manganese	mg/kg	114	135	124	2	2
Mercury	mg/kg	ND	ND	ND	0	2
Nickel	mg/kg	ND	ND	ND	0	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	120	82.5	1	2
PCB-1260	ug/kg	ND	100	75	1	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	220	142	1	2
Potassium	mg/kg	130	153	142	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	7.87	9.93	8.9	2	2
Zinc	mg/kg	20	22.6	21.3	2	2

Sediment Non-Radiological Data

Table 4.31 Non-Radiological Data for Sediment Location S27

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1220	3000	2110	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	14.6	20.4	17.5	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	235	386	310	2	2
Chromium	mg/kg	19.3	20.1	19.7	2	2
Cobalt	mg/kg	ND	ND	ND	0	2
Copper	mg/kg	ND	2.74	2.51	1	2
Iron	mg/kg	2830	3980	3400	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	137	221	179	2	2
Manganese	mg/kg	40.8	152	96.4	2	2
Mercury	mg/kg	ND	ND	ND	0	2
Nickel	mg/kg	ND	ND	ND	0	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	ND	166	106	1	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	5.49	8.19	6.84	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.32 Non-Radiological Data for Sediment Location C746KTB2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1530	5060	3300	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	15.1	33	24	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	391	956	674	2	2
Chromium	mg/kg	10	22.4	16.2	2	2
Cobalt	mg/kg	2.56	3.54	3.05	2	2
Copper	mg/kg	3.36	5.63	4.5	2	2
Iron	mg/kg	5660	9170	7420	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	173	411	292	2	2
Manganese	mg/kg	123	169	146	2	2
Mercury	mg/kg	ND	0.02	0.0137	1	2
Nickel	mg/kg	ND	5.06	3.66	1	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	220	130	1	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	220	140	1	2
Potassium	mg/kg	105	345	225	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	10	16.1	13	2	2
Zinc	mg/kg	ND	22.2	15.6	1	2

Sediment Non-Radiological Data

Table 4.33 Non-Radiological Data for Sediment Location S34

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1790	4990	3390	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	25.6	26.1	25.8	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	429	549	489	2	2
Chromium	mg/kg	9.2	13.6	11.4	2	2
Cobalt	mg/kg	ND	2.66	1.95	1	2
Copper	mg/kg	ND	3.67	2.96	1	2
Iron	mg/kg	3330	4880	4100	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	250	284	267	2	2
Manganese	mg/kg	64.2	71	67.6	2	2
Mercury	mg/kg	ND	ND	ND	0	2
Nickel	mg/kg	ND	ND	ND	0	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	110	245	178	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	5.86	7.3	6.58	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.34 Non-Radiological Data for Sediment Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	3180	3400	3290	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	23.9	54.1	39	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	661	734	698	2	2
Chromium	mg/kg	8.56	12.4	10.5	2	2
Cobalt	mg/kg	3.19	4.39	3.79	2	2
Copper	mg/kg	2.77	8.51	5.64	2	2
Iron	mg/kg	5420	5510	5460	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	315	438	376	2	2
Manganese	mg/kg	122	253	188	2	2
Mercury	mg/kg	ND	0.02	0.013	1	2
Nickel	mg/kg	ND	ND	ND	0	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	170	110	1	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	170	118	1	2
Potassium	mg/kg	110	194	152	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	8.35	8.89	8.62	2	2
Zinc	mg/kg	ND	45.8	27.1	1	2

Sediment Non-Radiological Data

Table 4.35 Non-Radiological Data for Sediment Location S32

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	3700	14000	8850	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	26.2	90.1	58.1	2	2
Beryllium	mg/kg	ND	0.556	0.4	1	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	1220	3980	2600	2	2
Chromium	mg/kg	17	45.3	31.1	2	2
Cobalt	mg/kg	ND	4.84	3.03	1	2
Copper	mg/kg	13	35.6	24.3	2	2
Iron	mg/kg	3940	12300	8120	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	456	1420	938	2	2
Manganese	mg/kg	63.5	237	150	2	2
Mercury	mg/kg	0.085	0.16	0.122	2	2
Nickel	mg/kg	11	34.4	22.7	2	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	330	430	380	2	2
PCB-1260	ug/kg	220	380	300	2	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	550	810	680	2	2
Potassium	mg/kg	345	1230	788	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	7.85	27	17.4	2	2
Zinc	mg/kg	37.4	116	76.7	2	2

Sediment Non-Radiological Data

Table 4.36 Non-Radiological Data for Sediment Location S28

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1630	2350	1990	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	21.3	21.9	21.6	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	181	218	200	2	2
Chromium	mg/kg	3.87	4.13	4	2	2
Cobalt	mg/kg	ND	ND	ND	0	2
Copper	mg/kg	ND	ND	ND	0	2
Iron	mg/kg	3480	3740	3610	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	178	208	193	2	2
Manganese	mg/kg	140	168	154	2	2
Mercury	mg/kg	ND	ND	ND	0	2
Nickel	mg/kg	ND	ND	ND	0	2
PCB-1016	ug/kg	ND	ND	ND	0	2
PCB-1221	ug/kg	ND	ND	ND	0	2
PCB-1232	ug/kg	ND	ND	ND	0	2
PCB-1242	ug/kg	ND	ND	ND	0	2
PCB-1248	ug/kg	ND	ND	ND	0	2
PCB-1254	ug/kg	ND	ND	ND	0	2
PCB-1260	ug/kg	ND	ND	ND	0	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	2
Potassium	mg/kg	103	192	148	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	ND	ND	ND	0	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	5.94	6.78	6.36	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Deer Non-Radiological Data

Table 4.37 Non-Radiological Analysis of Deer Liver Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	ND	4.08	1.88	5	6
Antimony	mg/kg	ND	0.954	0.73	5	6
Arsenic	mg/kg	ND	ND	ND	0	6
Barium	mg/kg	0.117	0.168	0.143	6	6
Beryllium	mg/kg	ND	ND	ND	0	6
Cadmium	mg/kg	0.044	0.0971	0.0648	6	6
Chromium	mg/kg	0.187	0.252	0.212	6	6
Cobalt	mg/kg	0.0636	0.112	0.09	6	6
Copper	mg/kg	42.7	89.7	69.9	6	6
Iron	mg/kg	67.6	227	111	6	6
Lead	mg/kg	ND	ND	ND	0	6
Lipids	%	5.28	7.13	6.2	6	6
Manganese	mg/kg	2.96	6.96	4.5	6	6
Mercury	mg/kg	ND	ND	ND	0	6
Nickel	mg/kg	ND	ND	ND	0	6
PCB-1016	ug/kg	ND	ND	ND	0	6
PCB-1221	ug/kg	ND	ND	ND	0	6
PCB-1232	ug/kg	ND	ND	ND	0	6
PCB-1242	ug/kg	ND	ND	ND	0	6
PCB-1248	ug/kg	ND	ND	ND	0	6
PCB-1254	ug/kg	ND	ND	ND	0	6
PCB-1260	ug/kg	ND	ND	ND	0	6
PCB-1268	ug/kg	ND	ND	ND	0	6
Polychlorinated biphenyl	ug/kg	ND	ND	ND	0	6
Selenium	mg/kg	ND	1.07	0.28	1	6
Silver	mg/kg	ND	ND	ND	0	6
Thallium	mg/kg	ND	ND	ND	0	6
Vanadium	mg/kg	ND	ND	ND	0	6
Zinc	mg/kg	34.9	48.8	42.9	6	6

Deer Non-Radiological Data

Table 4.38 Non-Radiological Analysis of Deer Muscle Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1.19	1.69	1.47	6	6
Antimony	mg/kg	ND	0.913	0.521	4	6
Arsenic	mg/kg	ND	ND	ND	0	6
Barium	mg/kg	0.0521	0.112	0.0798	6	6
Beryllium	mg/kg	ND	ND	ND	0	6
Cadmium	mg/kg	ND	ND	ND	0	6
Chromium	mg/kg	0.175	0.196	0.185	6	6
Cobalt	mg/kg	ND	ND	ND	0	6
Copper	mg/kg	1.56	2.07	1.78	6	6
Iron	mg/kg	42.6	85.7	53.5	6	6
Lead	mg/kg	ND	ND	ND	0	6
Manganese	mg/kg	0.0638	0.225	0.135	6	6
Mercury	mg/kg	ND	ND	ND	0	6
Nickel	mg/kg	ND	ND	ND	0	6
Selenium	mg/kg	ND	ND	ND	0	6
Silver	mg/kg	ND	ND	ND	0	6
Thallium	mg/kg	ND	1.05	0.49	1	6
Vanadium	mg/kg	ND	ND	ND	0	6
Zinc	mg/kg	18.3	26.9	22.3	6	6

Table 4.39 Non-Radiological Analysis of Deer Kidney Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	ND	ND	ND	0	6
Antimony	mg/kg	ND	0.627	0.36	2	6
Arsenic	mg/kg	ND	ND	ND	0	6
Barium	mg/kg	0.35	0.43	0.386	6	6
Beryllium	mg/kg	ND	ND	ND	0	6
Cadmium	mg/kg	0.384	1.72	1.1	6	6
Chromium	mg/kg	0.119	0.149	0.137	6	6
Cobalt	mg/kg	ND	0.0525	0.0333	4	6
Copper	mg/kg	3.78	4.83	4.32	6	6
Iron	mg/kg	57.1	118	84.4	6	6
Lead	mg/kg	ND	ND	ND	0	6
Manganese	mg/kg	1.32	1.99	1.71	6	6
Mercury	mg/kg	ND	0.055	0.0293	1	6
Nickel	mg/kg	ND	ND	ND	0	6
Selenium	mg/kg	ND	1.05	0.572	5	6
Silver	mg/kg	ND	ND	ND	0	6
Thallium	mg/kg	ND	ND	ND	0	6
Vanadium	mg/kg	ND	ND	ND	0	6
Zinc	mg/kg	27	40.6	33.5	6	6

Deer Non-Radiological Data

Table 4.40 Non-Radiological Analysis of Deer Fat Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Lipids	%	19.4	95.5	59.7	8	8
PCB-1016	ug/kg	ND	ND	ND	0	8
PCB-1221	ug/kg	ND	ND	ND	0	8
PCB-1232	ug/kg	ND	ND	ND	0	8
PCB-1242	ug/kg	ND	ND	ND	0	8
PCB-1248	ug/kg	ND	ND	ND	0	8
PCB-1254	ug/kg	ND	ND	ND	0	8
PCB-1260	ug/kg	ND	553	155	7	8
PCB-1268	ug/kg	ND	ND	ND	0	8
Polychlorinated biphenyl	ug/kg	ND	553	155	7	8

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