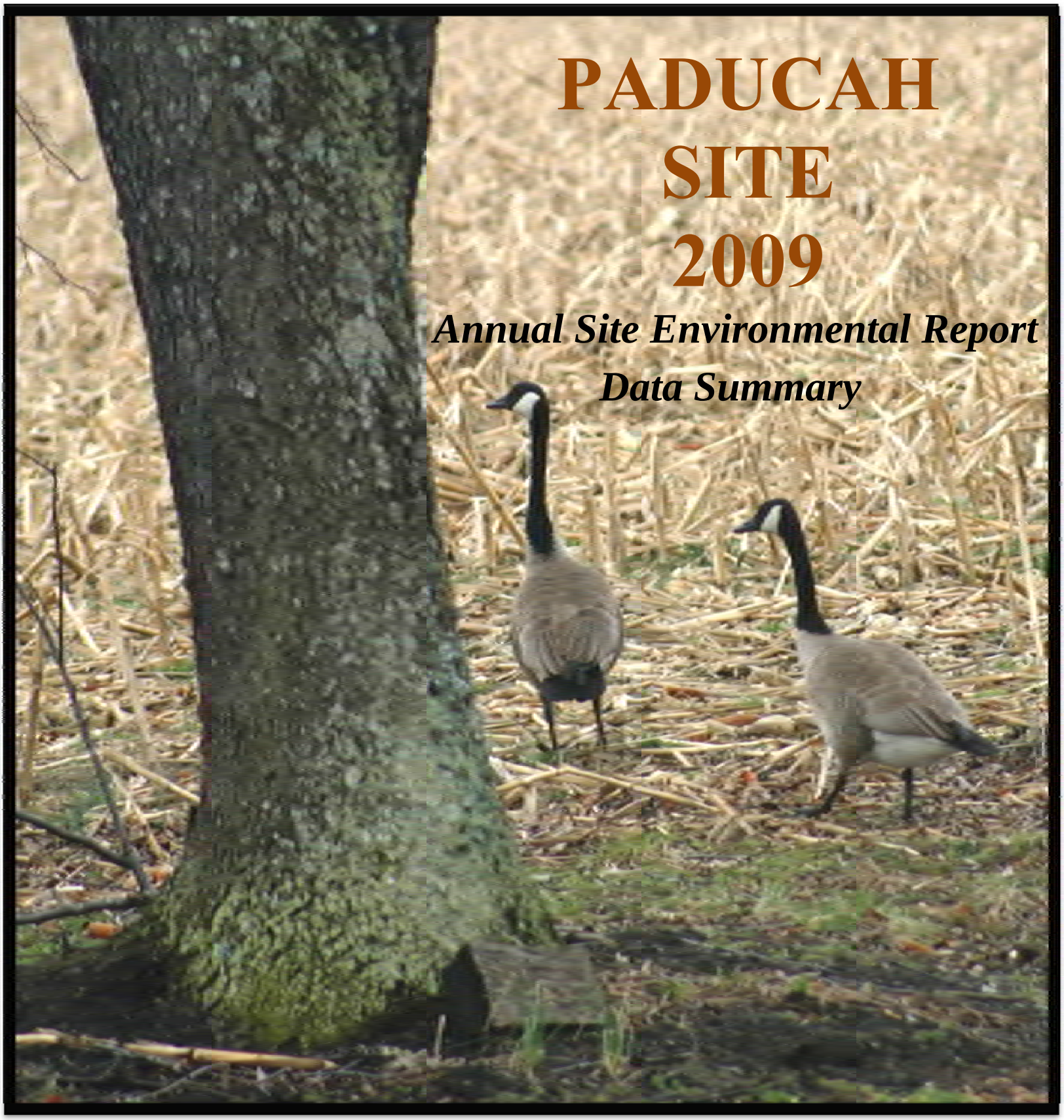
PAD-ENM-0053
Volume II



PADUCAH SITE 2009

Annual Site Environmental Report Data Summary

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

PAD-ENM-0053
Volume II

Paducah Site

Annual Site Environmental Report for Calendar Year 2009

Data Summary

October 2010

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

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

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Notes:

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

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

3. For 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.

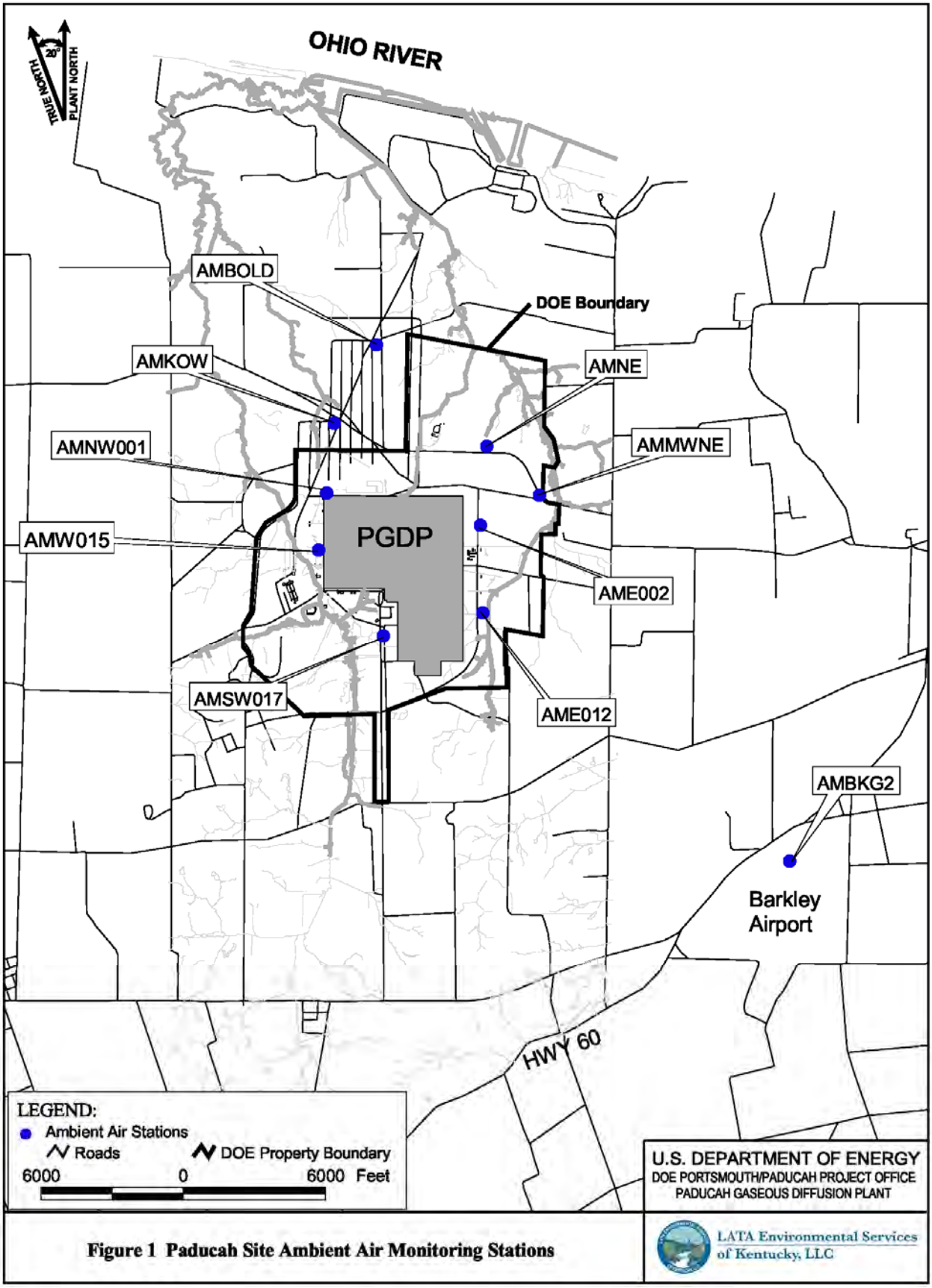

Figure 1 Paducah Site Ambient Air Monitoring Stations

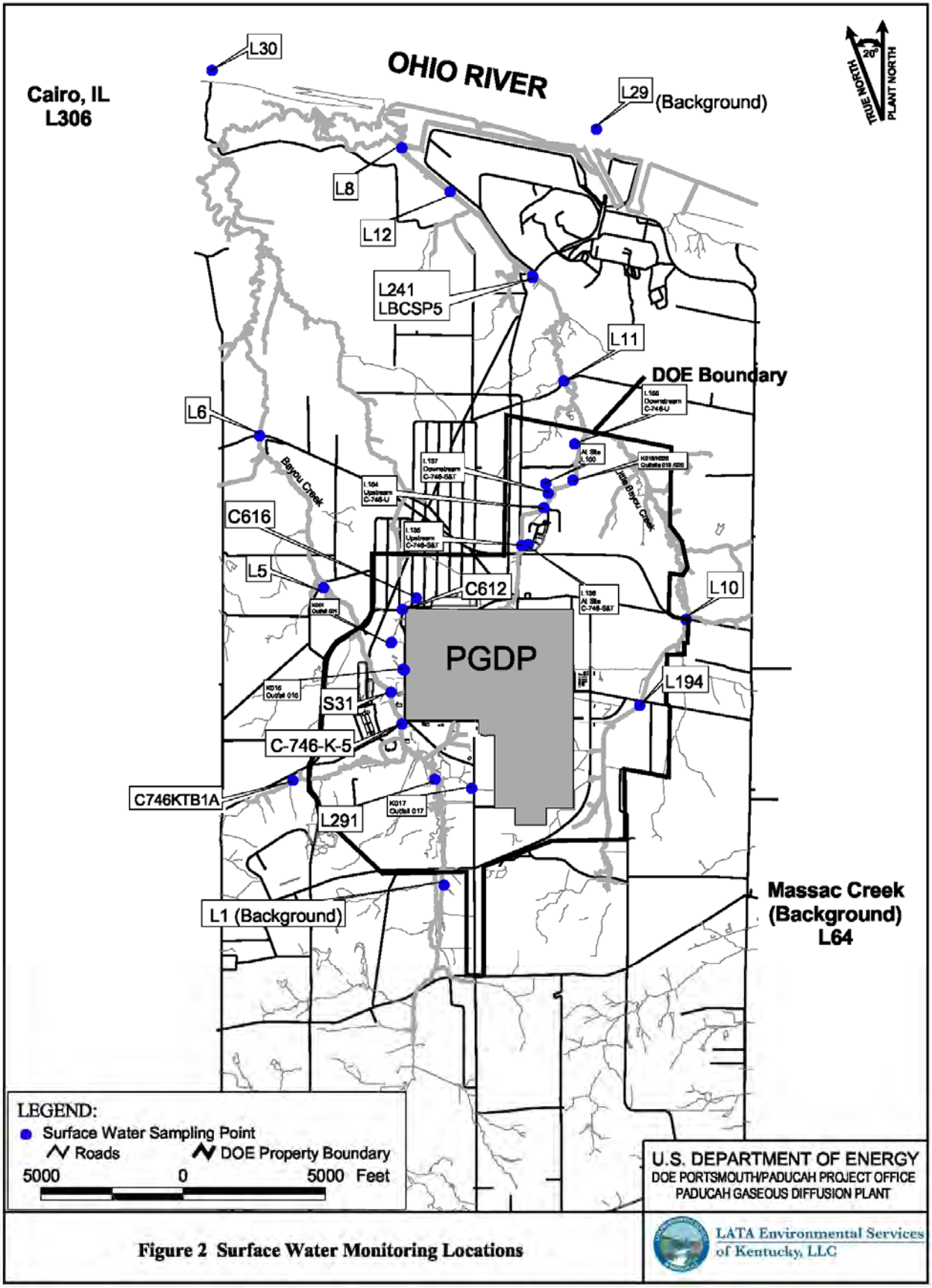

Figure 2 Surface Water Monitoring Locations

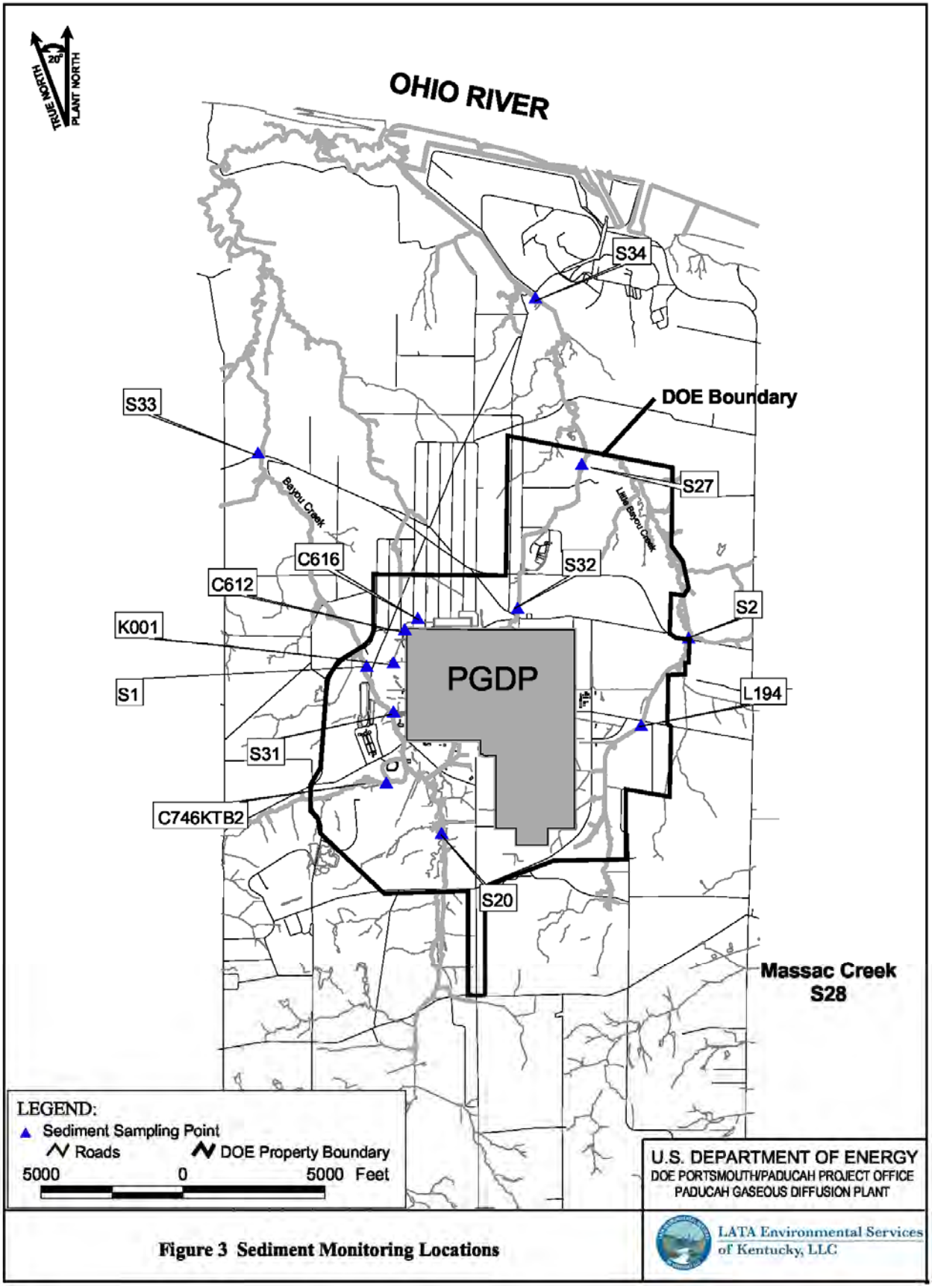

Figure 3 Sediment Monitoring Locations

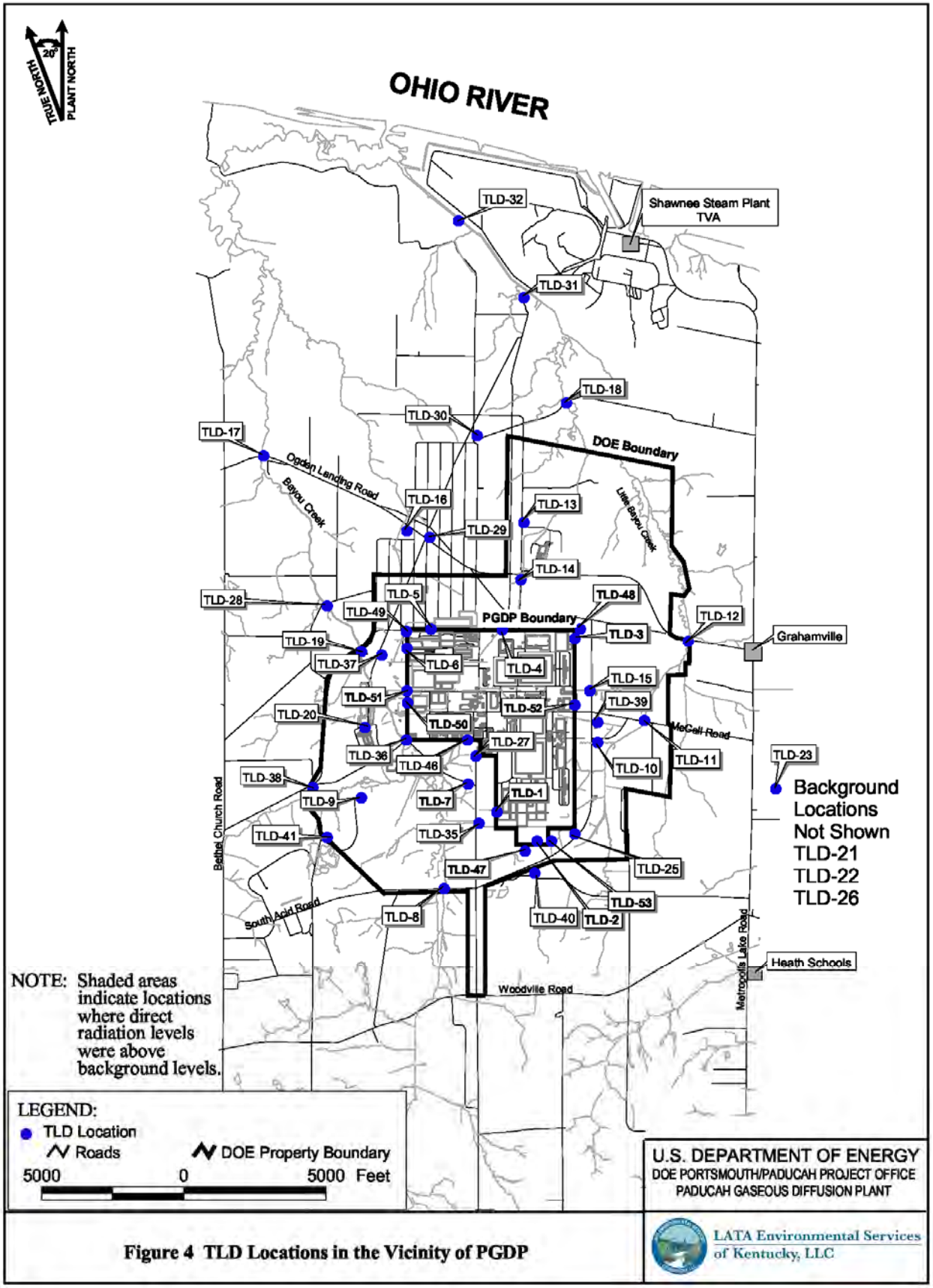

Figure 4 TLD Locations in the Vicinity of PGDP

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	-5.27	180	12.7	7	55		
Beta activity	pCi/L	17.2	133	38.4	55	55		
Technetium-99	pCi/L	5.78	38.9	20.4	2	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	1.5	73.6	34.3	8	10		
Beta activity	pCi/L	7.65	65.8	34.8	10	10		
Technetium-99	pCi/L	11.6	31.9	21.7	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	-0.169	4.83	1.72	0	22		
Beta activity	pCi/L	1.9	9.22	5.64	12	22		
Technetium-99	pCi/L	1.41	12.8	5.7	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	-0.162	18.3	4.79	2	14		
Beta activity	pCi/L	2.49	25.8	14	12	14		
Technetium-99	pCi/L	-5.34	36	9.33	1	9	ActionLimit	900

Table 1.5. Radiological Effluent Data for Outfall 020

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	4.59	4.59	4.59	0	1		
Beta activity	pCi/L	12.3	12.3	12.3	1	1		
Technetium-99	pCi/L	10.9	10.9	10.9	0	1	ActionLimit	900

Surface Water Radiological Data

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

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

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	1.14	4.07	2.64	2	4		
Beta activity	pCi/L	9.18	32.3	19.5	4	4		

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

At the C-746-S&T Closed Landfills

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	-0.602	4.23	2.26	1	5		
Beta activity	pCi/L	7.11	9.99	8.29	4	5		

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	-0.17	2.38	0.813	0	5		
Beta activity	pCi/L	0.687	11.1	7.52	4	5		

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	0.231	3.95	2.22	1	4		
Beta activity	pCi/L	12	25.8	17.1	4	4		

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

Downstream of the C-746-U Landfill

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/L	0.157	4.78	2.84	4	5		
Beta activity	pCi/L	11.5	18.7	14.2	5	5		

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[3]	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	-3.41E-17	3.16E-16	6.98E-17	3.43E-17	-6.53E-16	1.26E-16	-1.84E-16	-7.22E-18	-2.65E-16	-9.12E-16
	^{237}Np	-1.02E-16	6.58E-16	-2.05E-16	-1.91E-16	1.40E-16	-1.49E-16	1.84E-16	-2.02E-16	-4.05E-16	-2.54E-16
	^{99}Tc	-3.13E-16	-4.71E-16	-3.29E-16	-4.20E-16	-1.47E-16	-1.45E-16	-3.55E-16	-6.30E-16	-7.59E-16	1.13E-17
	^{238}U/^{234}Th	1.64E-16	1.09E-16	1.14E-16	2.57E-16	2.06E-16	2.13E-16	9.02E-17	1.83E-16	1.59E-16	1.51E-16
2	^{241}Am	-5.42E-17	3.76E-16	8.48E-18	-1.89E-16	3.15E-16	6.43E-19	2.63E-16	-2.57E-16	-8.97E-17	-9.09E-17
	^{237}Np	4.89E-17	2.71E-16	-5.36E-17	-1.69E-16	-1.78E-16	-1.91E-16	9.40E-17	-3.56E-16	2.95E-16	7.15E-17
	^{99}Tc	3.69E-16	3.50E-16	1.75E-16	-2.69E-16	5.94E-18	-4.26E-17	-5.65E-18	-1.09E-16	-8.16E-17	1.18E-16
	^{238}U/^{234}Th	1.23E-16	1.13E-16	8.40E-17	6.06E-17	1.28E-16	4.87E-17	7.81E-17	1.83E-16	1.13E-16	3.51E-16
3	^{241}Am	3.08E-16	1.20E-16	-1.48E-17	1.76E-18	-3.67E-17	-4.56E-17	1.84E-16	1.54E-16	1.05E-16	5.17E-16
	^{237}Np	2.34E-17	8.40E-16	2.06E-16	6.47E-17	1.70E-16	-2.25E-16	2.15E-16	1.50E-16	-3.80E-18	1.93E-17
	^{99}Tc	1.64E-16	3.80E-16	3.09E-16	1.84E-16	2.58E-16	5.45E-17	2.33E-16	2.12E-16	3.80E-16	2.82E-16
	^{238}U/^{234}Th	1.59E-16	2.48E-16	2.63E-16	2.16E-16	2.04E-16	1.84E-16	1.41E-16	4.92E-16	3.11E-16	1.39E-16
4	^{241}Am	-1.19E-16	-2.14E-17	-2.31E-17	2.01E-16	6.85E-17	-8.70E-17	2.25E-17	2.54E-17	3.79E-16	-3.93E-17
	^{237}Np	1.93E-16	-6.88E-17	-2.07E-16	2.36E-16	7.01E-17	8.64E-17	-9.55E-17	1.08E-16	-2.05E-17	6.52E-18
	^{99}Tc	4.55E-16	-3.92E-16	-7.37E-17	2.78E-17	-1.22E-16	6.12E-16	4.56E-16	1.98E-16	3.91E-16	-1.26E-16
	^{238}U/^{234}Th	3.36E-17	-8.15E-18	6.22E-17	1.34E-16	9.07E-17	4.14E-17	1.52E-18	7.19E-17	8.67E-17	7.18E-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.
[3] AME002 data for the last week in June were not included in the analysis due to an unplanned USEC release.

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	-0.00486	0.0232	0.0134	0	3		
Americium-241	pCi/L	-0.00863	0.0256	0.00922	0	4	10%DCG	3
Cesium-134	pCi/L	-0.174	0.766	0.148	0	4		
Cesium-137	pCi/L	0.00919	2.19	1.28	0	4	10%DCG	300
Cobalt-60	pCi/L	0.728	2.52	1.3	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-2.68	-0.0872	-1.12	0	4		
Dissolved Beta	pCi/L	-1.38	8.31	4.26	0	4		
Neptunium-237	pCi/L	0.00505	0.0763	0.0256	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00904	0.00492	-0.00218	0	4		
Plutonium-239/240	pCi/L	0.000395	0.0187	0.00868	0	4	10%DCG	3
Potassium-40	pCi/L	-19	42.9	10.7	1	4		
Suspended Alpha	pCi/L	-0.0677	1.8	0.717	0	4		
Suspended Beta	pCi/L	-0.845	3.18	0.201	0	4		
Technetium-99	pCi/L	-3.15	1.28	-0.472	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0309	0.255	0.114	0	4		
Thorium-230	pCi/L	-0.0638	0.113	0.0314	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0404	0.0086	-0.00809	0	4		
Thorium-234	pCi/L	-17.1	-0.346	-7.43	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	-0.0555	0.249	0.0739	0	4	10%DCG	60
Uranium-234	pCi/L	-0.0984	0.144	0.0194	0	4	10%DCG	50
Uranium-235	pCi/L	0.000951	0.00095	0.000951	0	1	10%DCG	60
Uranium-238	pCi/L	-0.00522	0.0819	0.0443	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	0.0285	0.0906	0.0584	0	3		
Americium-241	pCi/L	-0.0229	0.0166	0.000763	0	4	10%DCG	3
Cesium-134	pCi/L	-0.502	0.156	-0.305	0	4		
Cesium-137	pCi/L	-0.605	1.19	-0.0402	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.633	1.67	0.568	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-2.55	7.29	1.81	0	4		
Dissolved Beta	pCi/L	14.5	41.2	23.6	4	4		
Neptunium-237	pCi/L	0.00287	0.0312	0.0139	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00904	0.00938	-0.000135	0	4		
Plutonium-239/240	pCi/L	-0.0147	-0.0022	-0.00967	0	4	10%DCG	3
Potassium-40	pCi/L	-14.8	6.14	-4.31	0	4		
Suspended Alpha	pCi/L	-0.939	2.05	0.389	0	4		
Suspended Beta	pCi/L	0.374	2.04	1.2	0	4		
Technetium-99	pCi/L	-1.78	9.03	4	0	4	ActionLimit	900
Thorium-228	pCi/L	-0.0462	0.281	0.0899	0	4		
Thorium-230	pCi/L	-0.0196	0.0329	0.0131	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0208	0.0302	-0.000915	0	4		
Thorium-234	pCi/L	-17.4	81.3	10.4	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	1.14	2.42	1.75	0	4	10%DCG	60
Uranium-234	pCi/L	0.507	0.987	0.697	2	4	10%DCG	50
Uranium-235	pCi/L	0.0517	0.0517	0.0517	0	1	10%DCG	60
Uranium-238	pCi/L	0.578	1.41	0.996	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	0.031	0.0744	0.0562	0	3		
Americium-241	pCi/L	0.00264	0.0382	0.0203	0	5	10%DCG	3
Cesium-134	pCi/L	-0.594	0.514	-0.259	0	5		
Cesium-137	pCi/L	-1.14	0.286	-0.263	0	5	10%DCG	300
Cobalt-60	pCi/L	0.244	3.51	1.54	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	2.35	5.4	3.46	0	5		
Dissolved Beta	pCi/L	12.8	17.6	15.7	5	5		
Neptunium-237	pCi/L	-0.0329	0.0426	0.00914	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.0073	0.0218	0.00864	0	5		
Plutonium-239/240	pCi/L	-0.0142	0.00979	0.000356	0	5	10%DCG	3
Potassium-40	pCi/L	3.64	53	18.6	1	5		
Suspended Alpha	pCi/L	-0.52	0.756	-0.0716	0	5		
Suspended Beta	pCi/L	-1.1	1.44	0.311	0	5		
Technetium-99	pCi/L	-2.59	12.6	7.78	0	5	ActionLimit	900
Thorium-228	pCi/L	0.00761	0.297	0.151	0	5		
Thorium-230	pCi/L	0.0143	0.103	0.0427	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0229	0.0363	0.00703	0	5		
Thorium-234	pCi/L	-34.9	13.7	-6.86	0	5		
Uranium	mg/L	0.005	0.005	0.005	0	5	10%DCG	0.0901
Uranium	pCi/L	0.866	2.51	1.63	1	5	10%DCG	60
Uranium-234	pCi/L	0.358	0.991	0.682	2	5	10%DCG	50
Uranium-235	pCi/L	0.0189	0.0351	0.027	0	2	10%DCG	60
Uranium-238	pCi/L	0.449	1.45	0.903	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	0.0818	0.833	0.375	2	3		
Americium-241	pCi/L	-0.00576	0.0185	0.00235	0	4	10%DCG	3
Cesium-134	pCi/L	-0.316	0.812	0.209	0	4		
Cesium-137	pCi/L	-1.15	0.841	-0.0275	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.779	2.56	0.763	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-6.48	46.2	13.7	2	4		
Dissolved Beta	pCi/L	19	56.8	35	4	4		
Neptunium-237	pCi/L	-0.0335	0.0643	0.00965	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00838	0.0144	0.00253	0	4		
Plutonium-239/240	pCi/L	-0.00734	1.5E-05	-0.00275	0	4	10%DCG	3
Potassium-40	pCi/L	-9.08	63.8	21.2	1	4		
Suspended Alpha	pCi/L	-0.124	1.94	0.938	0	4		
Suspended Beta	pCi/L	-1.04	9.26	2.85	1	4		
Technetium-99	pCi/L	4.9	16.2	9.36	0	4	ActionLimit	900
Thorium-228	pCi/L	-0.0122	0.329	0.0999	0	4		
Thorium-230	pCi/L	-0.0103	0.137	0.0347	0	4	10%DCG	30
Thorium-232	pCi/L	-0.042	0.0247	-0.00948	0	4		
Thorium-234	pCi/L	-18.2	5.22	-8.18	0	4		
Uranium	pCi/L	0.698	38.9	13.1	3	4	10%DCG	60
Uranium-234	pCi/L	0.154	14.6	4.82	3	4	10%DCG	50
Uranium-235	pCi/L	0.0355	0.0355	0.0355	0	1	10%DCG	60
Uranium-238	pCi/L	0.509	23.5	8.04	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	0.533	1.12	0.796	3	3		
Americium-241	pCi/L	-0.019	0.0576	0.0223	0	4	10%DCG	3
Cesium-134	pCi/L	-1.08	0.899	-0.196	0	4		
Cesium-137	pCi/L	-0.234	0.738	0.252	0	4	10%DCG	300
Cobalt-60	pCi/L	1.03	2.76	1.8	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	24.2	63	37	4	4		
Dissolved Beta	pCi/L	23.1	51	35.1	4	4		
Neptunium-237	pCi/L	0.0031	0.0997	0.0371	0	4	10%DCG	3
Plutonium-238	pCi/L	0.00247	0.027	0.0163	0	4		
Plutonium-239/240	pCi/L	0.0172	0.0752	0.0472	0	4	10%DCG	3
Potassium-40	pCi/L	-7.42	23.2	3.2	0	4		
Suspended Alpha	pCi/L	3.79	5.44	4.75	3	4		
Suspended Beta	pCi/L	9.42	23.3	13.7	4	4		
Technetium-99	pCi/L	4.19	22.1	14.4	1	4	ActionLimit	900
Thorium-228	pCi/L	0.0666	0.471	0.216	0	4		
Thorium-230	pCi/L	0.0825	0.285	0.165	1	4	10%DCG	30
Thorium-232	pCi/L	-0.0218	0.048	0.0167	0	4		
Thorium-234	pCi/L	-6.28	79.6	19.2	1	4		
Uranium	pCi/L	30	58.9	43.6	4	4	10%DCG	60
Uranium-234	pCi/L	6.85	13.5	9.68	4	4	10%DCG	50
Uranium-235	pCi/L	0.567	0.567	0.567	1	1	10%DCG	60
Uranium-238	pCi/L	22.6	44.3	33.2	4	4	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	-0.00531	0.0181	0.00314	0	3		
Americium-241	pCi/L	-0.0188	0.103	0.0395	0	4	10%DCG	3
Cesium-134	pCi/L	0.0151	1.67	0.763	0	4		
Cesium-137	pCi/L	-0.7	-0.421	-0.536	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.789	0.689	0.019	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	1.8	6.14	3.49	1	4		
Dissolved Beta	pCi/L	9.22	20.3	15	4	4		
Neptunium-237	pCi/L	-0.00699	0.21	0.0565	1	4	10%DCG	3
Plutonium-238	pCi/L	-0.00904	0.00626	-0.0011	0	4		
Plutonium-239/240	pCi/L	-0.00729	-0.0022	-0.00503	0	4	10%DCG	3
Potassium-40	pCi/L	-36.1	-10.5	-18.5	0	4		
Suspended Alpha	pCi/L	-3.39	0.691	-0.44	0	4		
Suspended Beta	pCi/L	-1.68	1.79	-0.21	0	4		
Technetium-99	pCi/L	12.4	27.6	20.9	3	4	ActionLimit	900
Thorium-228	pCi/L	0.00929	0.176	0.121	1	4		
Thorium-230	pCi/L	-0.0165	0.21	0.0923	0	4	10%DCG	30
Thorium-232	pCi/L	-0.024	0.00487	-0.0149	0	4		
Thorium-234	pCi/L	-24.5	-9.14	-18.7	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	-0.0765	0.197	0.0136	0	4	10%DCG	60
Uranium-234	pCi/L	-0.086	0.146	-0.0043	0	4	10%DCG	50
Uranium-235	pCi/L	0.00579	0.00579	0.00579	0	1	10%DCG	60
Uranium-238	pCi/L	-0.0124	0.0322	0.0139	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	0.0272	0.0503	0.0404	0	3		
Americium-241	pCi/L	-0.017	0.0881	0.0188	0	4	10%DCG	3
Cesium-134	pCi/L	-0.703	-0.118	-0.349	0	4		
Cesium-137	pCi/L	-0.976	0.937	0.0195	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.765	1.69	0.38	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-8.37	4.49	-2.9	0	4		
Dissolved Beta	pCi/L	23.2	68.7	43.3	4	4		
Neptunium-237	pCi/L	-0.0126	0.0526	0.0223	0	4	10%DCG	3
Plutonium-238	pCi/L	0.00363	0.0272	0.0174	0	4		
Plutonium-239/240	pCi/L	-0.00863	0.0111	0.00319	0	4	10%DCG	3
Potassium-40	pCi/L	38.6	64.3	49.8	4	4		
Suspended Alpha	pCi/L	-2.25	0.279	-0.405	0	4		
Suspended Beta	pCi/L	0.956	6.87	3.41	0	4		
Technetium-99	pCi/L	-2.7	10.2	3.43	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0447	0.158	0.111	1	4		
Thorium-230	pCi/L	-0.0153	0.115	0.0625	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0106	0.00339	-0.00688	0	4		
Thorium-234	pCi/L	-26.1	-1.39	-16.3	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.656	0.971	0.838	0	4	10%DCG	60
Uranium-234	pCi/L	0.299	0.455	0.385	1	4	10%DCG	50
Uranium-235	pCi/L	0.000384	0.00038	0.000384	0	1	10%DCG	60
Uranium-238	pCi/L	0.307	0.489	0.423	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	-0.0207	0.00725	-0.00815	0	3		
Americium-241	pCi/L	-0.0243	0.0323	0.0117	0	4	10%DCG	3
Cesium-134	pCi/L	-0.543	-0.0048	-0.314	0	4		
Cesium-137	pCi/L	-0.918	0.747	-0.374	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.42	0.436	-0.36	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.626	1.85	0.628	0	4		
Dissolved Beta	pCi/L	0.417	10.4	6.41	2	4		
Neptunium-237	pCi/L	-0.00125	0.0401	0.0174	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.0139	0.016	0.00123	0	4		
Plutonium-239/240	pCi/L	-0.0168	-0.0024	-0.0108	0	4	10%DCG	3
Potassium-40	pCi/L	-37.6	15.5	-5.5	0	4		
Suspended Alpha	pCi/L	-0.75	2.31	0.682	0	4		
Suspended Beta	pCi/L	-3.1	4.54	1.48	0	4		
Technetium-99	pCi/L	-6.84	11	2.67	0	4	ActionLimit	900
Thorium-228	pCi/L	0.00701	0.226	0.101	0	4		
Thorium-230	pCi/L	-0.00698	0.136	0.0641	0	4	10%DCG	30
Thorium-232	pCi/L	-0.00609	0.0435	0.0177	0	4		
Thorium-234	pCi/L	-28.4	29.3	-6.97	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	-0.0784	0.441	0.147	0	4	10%DCG	60
Uranium-234	pCi/L	-0.0931	0.226	0.0673	0	4	10%DCG	50
Uranium-235	pCi/L	0.00724	0.00724	0.00724	0	1	10%DCG	60
Uranium-238	pCi/L	0.0136	0.208	0.084	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	0.0147	0.0308	0.0201	0	3		
Americium-241	pCi/L	-0.0194	0.0221	-0.00334	0	4	10%DCG	3
Cesium-134	pCi/L	-0.595	0.719	-0.153	0	4		
Cesium-137	pCi/L	-0.56	0.516	0.00492	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.322	2.6	1.2	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	1.18	3.09	2.05	0	4		
Dissolved Beta	pCi/L	4.27	9.29	5.68	0	4		
Neptunium-237	pCi/L	-0.0203	0.0417	0.00283	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00951	0.0233	0.00764	0	4		
Plutonium-239/240	pCi/L	-0.0154	0.00398	-0.00159	0	4	10%DCG	3
Potassium-40	pCi/L	-23.2	-11.1	-18.5	0	4		
Suspended Alpha	pCi/L	0.0314	0.525	0.299	0	4		
Suspended Beta	pCi/L	0.383	4.05	2.46	0	4		
Technetium-99	pCi/L	-6.1	7.37	2.49	0	4	ActionLimit	900
Thorium-228	pCi/L	0.00994	0.235	0.151	1	4		
Thorium-230	pCi/L	0.00149	0.11	0.0455	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0314	0.031	0.00295	0	4		
Thorium-234	pCi/L	-31.3	-5.53	-18.9	0	4		
Uranium	mg/L	0.005	0.009	0.00625	3	4	10%DCG	0.0901
Uranium	pCi/L	1.25	2.93	2.36	0	4	10%DCG	60
Uranium-234	pCi/L	0.243	0.414	0.348	1	4	10%DCG	50
Uranium-235	pCi/L	0.0162	0.0162	0.0162	0	1	10%DCG	60
Uranium-238	pCi/L	0.889	2.51	2	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	0.0264	0.112	0.0649	1	3		
Americium-241	pCi/L	-0.0274	0.00454	-0.00982	0	4	10%DCG	3
Cesium-134	pCi/L	-1.86	0.486	-0.776	0	4		
Cesium-137	pCi/L	-0.116	1.1	0.639	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.25	1.18	0.187	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	2.31	5.69	3.96	1	4		
Dissolved Beta	pCi/L	3.31	9.54	6.75	0	4		
Neptunium-237	pCi/L	-0.02	0.0212	-0.00301	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00915	0.00502	0.00126	0	4		
Plutonium-239/240	pCi/L	-0.0137	0.00145	-0.0032	0	4	10%DCG	3
Potassium-40	pCi/L	-29.2	41.4	4.41	1	4		
Suspended Alpha	pCi/L	0.547	1.85	1.02	0	4		
Suspended Beta	pCi/L	-0.973	6.03	1.97	0	4		
Technetium-99	pCi/L	-7.27	9.79	0.0125	0	4	ActionLimit	900
Thorium-228	pCi/L	0.00691	0.286	0.132	0	4		
Thorium-230	pCi/L	-0.0812	0.146	0.0465	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0318	0.0773	0.0021	0	4		
Thorium-234	pCi/L	-14.7	0.709	-8.4	0	4		
Uranium	mg/L	0.005	0.01	0.00775	3	4	10%DCG	0.0901
Uranium	pCi/L	1.96	4	3.03	1	4	10%DCG	60
Uranium-234	pCi/L	0.321	0.571	0.483	2	4	10%DCG	50
Uranium-235	pCi/L	0.00659	0.00659	0.00659	0	1	10%DCG	60
Uranium-238	pCi/L	1.59	3.32	2.5	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	0.0147	0.0693	0.0334	0	4		
Americium-241	pCi/L	-0.0109	0.0114	0.000929	0	5	10%DCG	3
Cesium-134	pCi/L	-1.03	-0.322	-0.665	0	5		
Cesium-137	pCi/L	-1.16	0.405	-0.438	0	5	10%DCG	300
Cobalt-60	pCi/L	-2.04	2.13	0.195	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	-0.998	3.39	2.07	0	5		
Dissolved Beta	pCi/L	6.99	12	9.17	3	5		
Neptunium-237	pCi/L	-0.0115	0.0152	0.00255	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.00308	0.0174	0.00615	0	5		
Plutonium-239/240	pCi/L	-0.00661	0.0067	0.00156	0	5	10%DCG	3
Potassium-40	pCi/L	-29.4	5.5	-7.76	0	5		
Suspended Alpha	pCi/L	-1.65	2.12	-0.103	0	5		
Suspended Beta	pCi/L	0.599	5.71	2.37	0	5		
Technetium-99	pCi/L	-10.5	10.8	2.47	0	5	ActionLimit	900
Thorium-228	pCi/L	0.0488	0.408	0.191	0	5		
Thorium-230	pCi/L	0.0109	0.0801	0.0518	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0249	0.073	0.0184	0	5		
Thorium-234	pCi/L	-10.4	2.15	-5.24	0	5		
Uranium	mg/L	0.005	0.011	0.0092	4	5	10%DCG	0.0901
Uranium	pCi/L	1.61	4.42	3.45	1	5	10%DCG	60
Uranium-234	pCi/L	0.316	0.665	0.536	3	5	10%DCG	50
Uranium-235	pCi/L	0.0111	0.0111	0.0111	0	1	10%DCG	60
Uranium-238	pCi/L	1.28	3.68	2.88	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	0.00753	0.0334	0.0197	0	3		
Americium-241	pCi/L	-0.00199	0.0479	0.0235	0	4	10%DCG	3
Cesium-134	pCi/L	-0.49	1.27	0.31	0	4		
Cesium-137	pCi/L	-0.329	0.458	0.156	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.195	3.53	1.44	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.801	3.2	1.03	0	4		
Dissolved Beta	pCi/L	7.82	14.8	11	3	4		
Neptunium-237	pCi/L	-0.00726	0.0294	0.00953	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00494	0.0258	0.0108	0	4		
Plutonium-239/240	pCi/L	-0.0178	-0.0017	-0.0085	0	4	10%DCG	3
Potassium-40	pCi/L	-15.4	2.7	-3.25	0	4		
Suspended Alpha	pCi/L	-0.234	5.38	1.3	1	4		
Suspended Beta	pCi/L	-0.0865	2.49	1.27	0	4		
Technetium-99	pCi/L	-5.73	17.3	5.91	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0653	0.371	0.157	0	4		
Thorium-230	pCi/L	-0.0831	0.213	0.0393	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0259	0.0378	0.0114	0	4		
Thorium-234	pCi/L	-48.1	-1.25	-17.3	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.726	1.77	1.18	0	4	10%DCG	60
Uranium-234	pCi/L	0.22	0.452	0.331	1	4	10%DCG	50
Uranium-235	pCi/L	0.0247	0.0247	0.0247	0	1	10%DCG	60
Uranium-238	pCi/L	0.498	1.28	0.831	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	0.0326	0.0898	0.0552	0	4		
Americium-241	pCi/L	-0.00993	0.0314	0.00876	0	5	10%DCG	3
Cesium-134	pCi/L	-0.962	0.417	-0.272	0	5		
Cesium-137	pCi/L	-0.758	0.377	-0.307	0	5	10%DCG	300
Cobalt-60	pCi/L	-0.724	0.532	-0.0768	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	0.618	4.56	2.84	0	5		
Dissolved Beta	pCi/L	4.58	18.5	9.97	3	5		
Neptunium-237	pCi/L	-0.0167	0.0471	0.0163	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.0028	0.0255	0.0104	0	5		
Plutonium-239/240	pCi/L	-0.0161	0.0172	0.00116	0	5	10%DCG	3
Potassium-40	pCi/L	-26	1.21	-11.4	0	5		
Suspended Alpha	pCi/L	-0.277	1.89	0.324	0	5		
Suspended Beta	pCi/L	-1.82	4.26	0.292	0	5		
Technetium-99	pCi/L	2.39	16	11.4	0	5	ActionLimit	900
Thorium-228	pCi/L	-0.0144	0.233	0.0826	0	5		
Thorium-230	pCi/L	0.00596	0.108	0.0464	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0365	0.0362	0.00575	0	5		
Thorium-234	pCi/L	-32.5	1.63	-22.3	0	5		
Uranium	mg/L	0.005	0.007	0.0058	2	5	10%DCG	0.0901
Uranium	pCi/L	0.89	2.63	1.71	1	5	10%DCG	60
Uranium-234	pCi/L	0.0569	0.611	0.317	1	5	10%DCG	50
Uranium-235	pCi/L	0.0368	0.0368	0.0368	0	1	10%DCG	60
Uranium-238	pCi/L	0.513	1.96	1.34	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	-0.0303	0.0393	0.00961	0	4		
Americium-241	pCi/L	-0.000464	0.0793	0.0258	0	5	10%DCG	3
Cesium-134	pCi/L	-1.38	0.231	-0.622	0	5		
Cesium-137	pCi/L	-1.61	0.514	-0.141	0	5	10%DCG	300
Cobalt-60	pCi/L	-0.499	0.646	0.141	0	5	10%DCG	1000
Dissolved Alpha	pCi/L	-1.48	4.23	0.842	0	5		
Dissolved Beta	pCi/L	3.77	9.3	5.73	1	5		
Neptunium-237	pCi/L	-0.0149	0.0309	0.00289	0	5	10%DCG	3
Plutonium-238	pCi/L	-0.0146	0.0224	0.00241	0	5		
Plutonium-239/240	pCi/L	-0.0086	0.0137	0.00269	0	5	10%DCG	3
Potassium-40	pCi/L	-14.6	43.2	12.2	1	5		
Suspended Alpha	pCi/L	-0.803	1.06	0.0359	0	5		
Suspended Beta	pCi/L	-1.57	4.2	0.0544	0	5		
Technetium-99	pCi/L	-14.6	10.3	-0.335	0	5	ActionLimit	900
Thorium-228	pCi/L	0.0329	0.386	0.169	0	5		
Thorium-230	pCi/L	-0.0254	0.0988	0.0425	0	5	10%DCG	30
Thorium-232	pCi/L	-0.0237	0.00164	-0.0065	0	5		
Thorium-234	pCi/L	-37	56.3	7.57	0	5		
Uranium	mg/L	0.005	0.005	0.005	0	5	10%DCG	0.0901
Uranium	pCi/L	-0.0186	0.427	0.19	0	5	10%DCG	60
Uranium-234	pCi/L	-0.0526	0.205	0.0526	0	5	10%DCG	50
Uranium-235	pCi/L	-0.0253	-0.0253	-0.0253	0	1	10%DCG	60
Uranium-238	pCi/L	0.0642	0.203	0.135	2	5	10%DCG	60

Surface Water Radiological Data

Table 2.16. Radiological Monitoring Data for Surface Water Location C746KTB1A

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Activity of U-235	pCi/L	-0.00589	0.00174	-0.00295	0	3		
Americium-241	pCi/L	-0.0145	0.0264	-0.00171	0	4	10%DCG	3
Cesium-134	pCi/L	-2.14	0.184	-0.429	0	4		
Cesium-137	pCi/L	-0.404	1.37	0.604	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.409	0.509	-0.00953	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	0.0644	2.36	1.25	0	4		
Dissolved Beta	pCi/L	1.99	6.68	3.86	0	4		
Neptunium-237	pCi/L	-0.0241	0.0374	0.00409	0	4	10%DCG	3
Plutonium-238	pCi/L	0	0.0376	0.0163	0	4		
Plutonium-239/240	pCi/L	-0.0137	0.0239	0.000283	0	4	10%DCG	3
Potassium-40	pCi/L	-17.8	-1.61	-9.28	0	4		
Suspended Alpha	pCi/L	-1.4	1.58	0.0173	0	4		
Suspended Beta	pCi/L	-0.367	4.77	2.48	0	4		
Technetium-99	pCi/L	-6.26	13	1.67	0	4	ActionLimit	900
Thorium-228	pCi/L	-0.0076	0.436	0.134	0	4		
Thorium-230	pCi/L	0.0573	0.181	0.097	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0231	0.0242	-0.00085	0	4		
Thorium-234	pCi/L	-27.6	12.9	0.632	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	-0.128	0.132	0.0187	0	4	10%DCG	60
Uranium-234	pCi/L	-0.154	0.0638	-0.0152	0	4	10%DCG	50
Uranium-235	pCi/L	0.00613	0.00613	0.00613	0	1	10%DCG	60
Uranium-238	pCi/L	0.00677	0.0625	0.0347	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	0.0897	0.141	0.115	1	3		
Americium-241	pCi/L	-0.00385	0.0215	0.00792	0	4	10%DCG	3
Cesium-134	pCi/L	-0.669	0.157	-0.154	0	4		
Cesium-137	pCi/L	-0.263	1.17	0.224	0	4	10%DCG	300
Cobalt-60	pCi/L	0.354	2.57	1.09	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.079	8.19	3.96	1	4		
Dissolved Beta	pCi/L	7.97	10.7	9.48	2	4		
Neptunium-237	pCi/L	0.00178	0.191	0.0623	1	4	10%DCG	3
Plutonium-238	pCi/L	-0.000561	0.0186	0.00998	0	4		
Plutonium-239/240	pCi/L	-0.0111	0.00666	-0.002	0	4	10%DCG	3
Potassium-40	pCi/L	-25.8	7.47	-11.5	0	4		
Suspended Alpha	pCi/L	-1.11	1.43	0.227	0	4		
Suspended Beta	pCi/L	1.8	30.3	10	1	4		
Technetium-99	pCi/L	-6.47	4.9	-1.17	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0317	0.205	0.115	0	4		
Thorium-230	pCi/L	0.0303	0.133	0.0762	0	4	10%DCG	30
Thorium-232	pCi/L	-0.05	0.0163	-0.0125	0	4		
Thorium-234	pCi/L	-8.65	53.5	10.2	0	4		
Uranium	mg/L	0.005	0.009	0.006	1	4	10%DCG	0.0901
Uranium	pCi/L	2.7	8.43	4.78	4	4	10%DCG	60
Uranium-234	pCi/L	1.69	5.84	3.12	4	4	10%DCG	50
Uranium-235	pCi/L	0.0791	0.0791	0.0791	0	1	10%DCG	60
Uranium-238	pCi/L	0.924	2.45	1.55	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	-0.0248	0.00763	-0.00734	0	3		
Americium-241	pCi/L	-0.0126	0.00486	-0.00148	0	4	10%DCG	3
Cesium-134	pCi/L	-0.544	1.39	0.413	0	4		
Cesium-137	pCi/L	-0.637	0.035	-0.269	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.927	2.95	0.654	1	4	10%DCG	1000
Dissolved Alpha	pCi/L	-0.00214	2.93	1.57	0	4		
Dissolved Beta	pCi/L	3.48	6.5	4.98	0	4		
Neptunium-237	pCi/L	-0.0268	0.0456	0.0078	0	4	10%DCG	3
Plutonium-238	pCi/L	0.00191	0.014	0.00681	0	4		
Plutonium-239/240	pCi/L	-0.00772	0.00901	-0.000408	0	4	10%DCG	3
Potassium-40	pCi/L	-18.8	7.84	-5.02	0	4		
Suspended Alpha	pCi/L	-0.767	4.03	1.6	0	4		
Suspended Beta	pCi/L	-3.23	7.99	2.75	0	4		
Technetium-99	pCi/L	2.3	15.2	10.1	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0378	0.21	0.132	1	4		
Thorium-230	pCi/L	-0.0842	0.0782	0.00103	0	4	10%DCG	30
Thorium-232	pCi/L	-0.00494	0.0289	0.0108	0	4		
Thorium-234	pCi/L	-33.7	-4.96	-16.5	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.1	0.257	0.177	0	4	10%DCG	60
Uranium-234	pCi/L	0.0203	0.155	0.101	0	4	10%DCG	50
Uranium-235	pCi/L	-0.0196	-0.0196	-0.0196	0	1	10%DCG	60
Uranium-238	pCi/L	0.0512	0.105	0.087	0	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	-0.0194	0.0136	-0.00086	0	3		
Americium-241	pCi/L	-0.00712	0.0161	0.00189	0	4	10%DCG	3
Cesium-134	pCi/L	-1.04	0.496	-0.321	0	4		
Cesium-137	pCi/L	-0.866	0.204	-0.367	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.925	3.52	1.15	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	1.06	4.49	2.87	0	4		
Dissolved Beta	pCi/L	1.59	4.22	2.84	0	4		
Neptunium-237	pCi/L	-0.0473	0.0212	-0.00828	0	4	10%DCG	3
Plutonium-238	pCi/L	0.00511	0.0132	0.0109	0	4		
Plutonium-239/240	pCi/L	-0.00734	0.0032	-0.00116	0	4	10%DCG	3
Potassium-40	pCi/L	-4.04	33.4	14.7	0	4		
Suspended Alpha	pCi/L	-2.31	7.64	2.07	0	4		
Suspended Beta	pCi/L	0.428	10.3	4.03	1	4		
Technetium-99	pCi/L	0.67	26	9.78	1	4	ActionLimit	900
Thorium-228	pCi/L	0.0728	0.283	0.165	1	4		
Thorium-230	pCi/L	-0.0134	0.0518	0.0284	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0332	0.0028	-0.0153	0	4		
Thorium-234	pCi/L	-22.8	14	-5.66	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.186	0.489	0.345	0	4	10%DCG	60
Uranium-234	pCi/L	0.0931	0.217	0.157	0	4	10%DCG	50
Uranium-235	pCi/L	0.0244	0.0244	0.0244	0	1	10%DCG	60
Uranium-238	pCi/L	0.112	0.327	0.183	1	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	-0.0141	0.00995	-0.00314	0	3		
Americium-241	pCi/L	-0.0182	0.0154	-0.000625	0	4	10%DCG	3
Cesium-134	pCi/L	-1.2	1.04	-0.077	0	4		
Cesium-137	pCi/L	-0.682	0.187	-0.263	0	4	10%DCG	300
Cobalt-60	pCi/L	-0.83	2.86	0.856	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-1.58	0.297	-0.655	0	4		
Dissolved Beta	pCi/L	1	5.84	3.53	0	4		
Neptunium-237	pCi/L	0.00672	0.0173	0.0116	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.00868	0.0226	0.00402	0	4		
Plutonium-239/240	pCi/L	-0.0139	0.00945	-0.00568	0	4	10%DCG	3
Potassium-40	pCi/L	-31.3	15.8	-2.9	0	4		
Suspended Alpha	pCi/L	-1.03	2.23	0.726	0	4		
Suspended Beta	pCi/L	-3.26	12.8	5.23	1	4		
Technetium-99	pCi/L	-3.93	10.6	0.115	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0276	0.217	0.118	1	4		
Thorium-230	pCi/L	0.0217	0.0806	0.0512	0	4	10%DCG	30
Thorium-232	pCi/L	-0.00509	0.0155	0.00496	0	4		
Thorium-234	pCi/L	-12.1	24.6	0.247	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	0.119	0.467	0.301	0	4	10%DCG	60
Uranium-234	pCi/L	-0.00605	0.294	0.146	0	4	10%DCG	50
Uranium-235	pCi/L	0.0136	0.0136	0.0136	0	1	10%DCG	60
Uranium-238	pCi/L	0.139	0.16	0.153	1	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	-0.047	0.0122	-0.00856	0	3		
Americium-241	pCi/L	-0.013	0.00463	-0.00648	0	4	10%DCG	3
Cesium-134	pCi/L	-0.845	0.595	-0.185	0	4		
Cesium-137	pCi/L	-0.356	0.829	0.122	0	4	10%DCG	300
Cobalt-60	pCi/L	-1.3	4.26	1.33	0	4	10%DCG	1000
Dissolved Alpha	pCi/L	-1.3	4.52	1.37	0	4		
Dissolved Beta	pCi/L	4.54	6.63	5.46	0	4		
Neptunium-237	pCi/L	-0.0366	0.0183	-0.00733	0	4	10%DCG	3
Plutonium-238	pCi/L	-0.0105	0.0122	0.000195	0	4		
Plutonium-239/240	pCi/L	-0.00166	0.0221	0.00742	0	4	10%DCG	3
Potassium-40	pCi/L	-13.6	10.8	-3.04	0	4		
Suspended Alpha	pCi/L	-0.407	1.78	0.696	0	4		
Suspended Beta	pCi/L	-2.67	2.36	0.0975	0	4		
Technetium-99	pCi/L	-2.24	10.6	1.93	0	4	ActionLimit	900
Thorium-228	pCi/L	0.0153	0.265	0.137	1	4		
Thorium-230	pCi/L	-0.0634	0.132	0.0596	0	4	10%DCG	30
Thorium-232	pCi/L	-0.0113	0.0375	0.014	0	4		
Thorium-234	pCi/L	-16.5	-3.87	-9.07	0	4		
Uranium	mg/L	0.005	0.005	0.005	0	4	10%DCG	0.0901
Uranium	pCi/L	-0.16	0.113	0.0064	0	4	10%DCG	60
Uranium-234	pCi/L	-0.154	0.0707	-0.0114	0	4	10%DCG	50
Uranium-235	pCi/L	0.0139	0.0139	0.0139	0	1	10%DCG	60
Uranium-238	pCi/L	-0.0178	0.0548	0.0209	0	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	1.31	2	1.65	0	2		
Beta activity	pCi/L	68.9	83.3	76.1	2	2		
Technetium-99	pCi/L	71.9	87.8	79.8	2	2	ActionLimit	900
Uranium	pCi/L	0.143	0.194	0.169	0	2	10%DCG	60

Sediment Radiological Data

Table 2.23. Radiological Data for Sediment Location S20

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	0.119	1.95	1.03	1	2		
Americium-241	pCi/g	0.00165	0.00371	0.00268	0	2		
Beta activity	pCi/g	0.876	1.21	1.04	0	2		
Cesium-137	pCi/g	0.00877	0.0282	0.0185	0	2		
Cobalt-60	pCi/g	-0.00226	0.00644	0.00209	0	2		
Neptunium-237	pCi/g	-0.00373	0.00354	-0.000095	0	2		
Plutonium-239/240	pCi/g	0.00186	0.00221	0.00203	0	2		
Potassium-40	pCi/g	1.8	3.41	2.6	2	2		
Technetium-99	pCi/g	0.975	3.41	2.19	2	2		
Thorium-230	pCi/g	0.138	0.261	0.2	2	2		
Uranium	pCi/kg	142	333	238	0	2		
Uranium-234	pCi/g	0.0718	0.168	0.12	2	2		
Uranium-235	pCi/g	0.00228	0.00336	0.00282	0	2		
Uranium-238	pCi/g	0.0672	0.163	0.115	2	2		

Table 2.24. Radiological Data for Sediment Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	4.47	23.2	13.8	2	2		
Americium-241	pCi/g	0.0115	0.0134	0.0124	0	2		
Beta activity	pCi/g	9.37	34.8	22.1	2	2		
Cesium-137	pCi/g	0.0341	0.128	0.081	2	2		
Cobalt-60	pCi/g	-0.00495	0.00392	-0.000515	0	2		
Neptunium-237	pCi/g	0.0317	0.0591	0.0454	2	2		
Plutonium-239/240	pCi/g	0.0201	0.0381	0.0291	2	2		
Potassium-40	pCi/g	6.1	10.5	8.3	2	2		
Technetium-99	pCi/g	0.711	4.65	2.68	2	2		
Thorium-230	pCi/g	0.348	0.667	0.507	2	2		
Uranium	pCi/kg	1870	13900	7880	2	2		
Uranium-234	pCi/g	0.812	5.29	3.05	2	2		
Uranium-235	pCi/g	0.0425	0.301	0.172	2	2		
Uranium-238	pCi/g	1.02	8.28	4.65	2	2		

Sediment Radiological Data

Table 2.25. Radiological Data for Sediment Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	7.39	11.6	9.49	2	2		
Americium-241	pCi/g	0.00864	0.00985	0.00924	0	2		
Beta activity	pCi/g	14.8	16.9	15.8	2	2		
Cesium-137	pCi/g	0.0237	0.0364	0.03	1	2		
Cobalt-60	pCi/g	-0.00693	0.00676	-0.000085	0	2		
Neptunium-237	pCi/g	0.103	0.11	0.106	2	2		
Plutonium-239/240	pCi/g	0.0308	0.0493	0.0401	2	2		
Potassium-40	pCi/g	6.32	6.49	6.41	2	2		
Technetium-99	pCi/g	5.99	6.02	6	2	2		
Thorium-230	pCi/g	0.278	0.65	0.464	2	2		
Uranium	pCi/kg	5150	5270	5210	2	2		
Uranium-234	pCi/g	2.22	2.24	2.23	2	2		
Uranium-235	pCi/g	0.113	0.115	0.114	2	2		
Uranium-238	pCi/g	2.8	2.93	2.87	2	2		

Table 2.26. Radiological Data for Sediment Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	6.55	8.06	7.3	2	2		
Americium-241	pCi/g	0.00545	0.00794	0.00669	0	2		
Beta activity	pCi/g	6.94	13.4	10.2	2	2		
Cesium-137	pCi/g	0.0314	0.0506	0.041	2	2		
Cobalt-60	pCi/g	-0.0015	0.00436	0.00143	0	2		
Neptunium-237	pCi/g	0.0193	0.0446	0.0319	2	2		
Plutonium-239/240	pCi/g	0.012	0.0281	0.02	2	2		
Potassium-40	pCi/g	7.26	7.69	7.47	2	2		
Technetium-99	pCi/g	1.41	12	6.7	2	2		
Thorium-230	pCi/g	0.391	0.487	0.439	2	2		
Uranium	pCi/kg	2400	3970	3180	2	2		
Uranium-234	pCi/g	0.891	1.48	1.19	2	2		
Uranium-235	pCi/g	0.0464	0.0828	0.0646	2	2		
Uranium-238	pCi/g	1.46	2.41	1.94	2	2		

Sediment Radiological Data

Table 2.27. Radiological Data for Sediment Location S1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	4.41	5.51	4.96	2	2		
Americium-241	pCi/g	0.00365	0.0127	0.00817	0	2		
Beta activity	pCi/g	4.36	9.7	7.03	2	2		
Cesium-137	pCi/g	0.0261	0.042	0.034	2	2		
Cobalt-60	pCi/g	-0.00337	0.00038	-0.0015	0	2		
Neptunium-237	pCi/g	0.00908	0.035	0.022	1	2		
Plutonium-239/240	pCi/g	0.00776	0.0159	0.0118	2	2		
Potassium-40	pCi/g	3.05	3.27	3.16	2	2		
Technetium-99	pCi/g	1.81	7.11	4.46	2	2		
Thorium-230	pCi/g	0.233	0.255	0.244	2	2		
Uranium	pCi/kg	1700	3530	2620	2	2		
Uranium-234	pCi/g	0.624	1.27	0.947	2	2		
Uranium-235	pCi/g	0.0409	0.0647	0.0528	2	2		
Uranium-238	pCi/g	1.03	2.2	1.61	2	2		

Table 2.28. Radiological Data for Sediment Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	12.2	27.7	18.7	3	3		
Americium-241	pCi/g	0.00798	0.0173	0.0138	2	3		
Beta activity	pCi/g	11	24.1	16	3	3		
Cesium-137	pCi/g	0.0653	0.0847	0.0719	3	3		
Cobalt-60	pCi/g	-0.00361	0.0109	0.00419	0	3		
Neptunium-237	pCi/g	0.0161	0.0398	0.0267	2	3		
Plutonium-239/240	pCi/g	0.0531	0.186	0.103	3	3		
Potassium-40	pCi/g	3.09	7.44	5.63	3	3		
Technetium-99	pCi/g	0.141	1.79	1.08	2	3		
Thorium-230	pCi/g	0.595	1.71	1.07	3	3		
Uranium	pCi/kg	11200	17400	14400	3	3		
Uranium-234	pCi/g	7.72	11.8	9.87	3	3		
Uranium-235	pCi/g	0.303	0.471	0.402	3	3		
Uranium-238	pCi/g	3.15	5.21	4.15	3	3		

Sediment Radiological Data

Table 2.29. Radiological Data for Sediment Location S33

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	3.56	5.38	4.2	3	3		
Americium-241	pCi/g	0.00234	0.00488	0.00359	0	3		
Beta activity	pCi/g	3.21	8.74	5.5	3	3		
Cesium-137	pCi/g	0.0331	0.0377	0.0351	3	3		
Cobalt-60	pCi/g	0.000391	0.0253	0.00952	0	3		
Neptunium-237	pCi/g	-0.000513	0.00827	0.00445	0	3		
Plutonium-239/240	pCi/g	0.00387	0.00913	0.00655	1	3		
Potassium-40	pCi/g	4.97	7.82	5.96	3	3		
Technetium-99	pCi/g	0.0985	0.513	0.24	1	3		
Thorium-230	pCi/g	0.167	0.319	0.25	3	3		
Uranium	pCi/kg	744	1060	935	3	3		
Uranium-234	pCi/g	0.326	0.479	0.419	3	3		
Uranium-235	pCi/g	0.0121	0.0286	0.0212	3	3		
Uranium-238	pCi/g	0.406	0.549	0.495	3	3		

Table 2.30. Radiological Data for Sediment Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	8.44	9.26	8.85	2	2		
Americium-241	pCi/g	0.00373	0.00464	0.00419	0	2		
Beta activity	pCi/g	11.1	13.3	12.2	2	2		
Cesium-137	pCi/g	0.00225	0.0317	0.017	1	2		
Cobalt-60	pCi/g	0.0107	0.0206	0.0156	0	2		
Neptunium-237	pCi/g	0.00844	0.00989	0.00916	0	2		
Plutonium-239/240	pCi/g	0.000885	0.00329	0.00209	0	2		
Potassium-40	pCi/g	4.02	5.15	4.58	2	2		
Technetium-99	pCi/g	0.409	0.449	0.429	2	2		
Thorium-230	pCi/g	0.287	0.297	0.292	2	2		
Uranium	pCi/kg	3510	9420	6460	2	2		
Uranium-234	pCi/g	0.523	1.17	0.847	2	2		
Uranium-235	pCi/g	0.0545	0.136	0.0952	2	2		
Uranium-238	pCi/g	2.93	8.11	5.52	2	2		

Sediment Radiological Data

Table 2.31. Radiological Data for Sediment Location S2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	7.38	12.6	9.99	2	2		
Americium-241	pCi/g	0.00273	0.00337	0.00305	0	2		
Beta activity	pCi/g	13.9	22.5	18.2	2	2		
Cesium-137	pCi/g	0.0158	0.0224	0.0191	0	2		
Cobalt-60	pCi/g	0.000833	0.00538	0.00311	0	2		
Neptunium-237	pCi/g	0.00669	0.0125	0.00959	1	2		
Plutonium-239/240	pCi/g	-1.03E-06	0.00215	0.00107	0	2		
Potassium-40	pCi/g	4.22	4.58	4.4	2	2		
Technetium-99	pCi/g	0.126	0.39	0.258	1	2		
Thorium-230	pCi/g	0.256	0.291	0.274	2	2		
Uranium	pCi/kg	8340	16500	12400	2	2		
Uranium-234	pCi/g	0.972	1.63	1.3	2	2		
Uranium-235	pCi/g	0.129	0.192	0.161	2	2		
Uranium-238	pCi/g	7.24	14.7	11	2	2		

Table 2.32. Radiological Data for Sediment Location S27

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	2.58	3.66	3.12	2	2		
Americium-241	pCi/g	0.0196	0.025	0.0223	2	2		
Beta activity	pCi/g	4.54	5.52	5.03	2	2		
Cesium-137	pCi/g	0.0186	0.0283	0.0234	2	2		
Cobalt-60	pCi/g	-0.00703	-0.0003	-0.00368	0	2		
Neptunium-237	pCi/g	0.00776	0.013	0.0104	0	2		
Plutonium-239/240	pCi/g	0.0344	0.0739	0.0541	2	2		
Potassium-40	pCi/g	1.78	3.82	2.8	2	2		
Technetium-99	pCi/g	1.52	1.55	1.53	2	2		
Thorium-230	pCi/g	0.937	1.39	1.16	2	2		
Uranium	pCi/kg	2030	2110	2070	2	2		
Uranium-234	pCi/g	0.43	0.446	0.438	2	2		
Uranium-235	pCi/g	0.032	0.0381	0.035	2	2		
Uranium-238	pCi/g	1.55	1.64	1.59	2	2		

Sediment Radiological Data

Table 2.33. Radiological Data for Sediment Location S34

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	8.75	9.58	9.16	2	2		
Americium-241	pCi/g	0.0261	0.0307	0.0284	2	2		
Beta activity	pCi/g	8.59	12.6	10.6	2	2		
Cesium-137	pCi/g	0.041	0.0995	0.0703	2	2		
Cobalt-60	pCi/g	0.000111	0.00088	0.000496	0	2		
Neptunium-237	pCi/g	0.00827	0.00855	0.00841	0	2		
Plutonium-239/240	pCi/g	0.0799	0.118	0.0989	2	2		
Potassium-40	pCi/g	3.57	5.58	4.58	2	2		
Technetium-99	pCi/g	1.04	1.47	1.25	2	2		
Thorium-230	pCi/g	2.17	2.35	2.26	2	2		
Uranium	pCi/kg	3100	4390	3740	2	2		
Uranium-234	pCi/g	0.753	0.924	0.839	2	2		
Uranium-235	pCi/g	0.0585	0.0815	0.07	2	2		
Uranium-238	pCi/g	2.29	3.39	2.84	2	2		

Table 2.34. Radiological Data for Sediment Location C746KTB2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	1.07	2.15	1.61	1	2		
Americium-241	pCi/g	0.00194	0.00219	0.00206	0	2		
Beta activity	pCi/g	1.35	2.6	1.98	1	2		
Cesium-137	pCi/g	0.00739	0.0157	0.0115	0	2		
Cobalt-60	pCi/g	-0.00537	-0.0037	-0.00455	0	2		
Neptunium-237	pCi/g	0.00172	0.00216	0.00194	0	2		
Plutonium-239/240	pCi/g	0.00172	0.00323	0.00248	0	2		
Potassium-40	pCi/g	2.29	2.92	2.6	2	2		
Technetium-99	pCi/g	0.0235	0.456	0.24	1	2		
Thorium-230	pCi/g	0.175	0.219	0.197	2	2		
Uranium	pCi/kg	203	1100	652	1	2		
Uranium-234	pCi/g	0.0963	0.482	0.289	2	2		
Uranium-235	pCi/g	0.00378	0.0192	0.0115	1	2		
Uranium-238	pCi/g	0.103	0.6	0.351	2	2		

Sediment Radiological Data

Table 2.35. Radiological Data for Sediment Location S32

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	53.1	90.7	71.9	2	2		
Americium-241	pCi/g	0.476	1.57	1.02	2	2		
Beta activity	pCi/g	51.7	109	80.3	2	2		
Cesium-137	pCi/g	0.544	0.91	0.727	2	2		
Cobalt-60	pCi/g	-0.0141	-0.0072	-0.0106	0	2		
Neptunium-237	pCi/g	0.475	0.841	0.658	2	2		
Plutonium-239/240	pCi/g	2.01	5.57	3.79	2	2		
Potassium-40	pCi/g	5.53	5.67	5.6	2	2		
Technetium-99	pCi/g	8.91	9.44	9.18	2	2		
Thorium-230	pCi/g	46.1	66.6	56.3	2	2		
Uranium	pCi/kg	4250	30600	17400	2	2		
Uranium-234	pCi/g	1.93	12.6	7.26	2	2		
Uranium-235	pCi/g	0.096	0.621	0.358	2	2		
Uranium-238	pCi/g	2.23	17.5	9.87	2	2		

Table 2.36. Radiological Data for Sediment Location S28

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Alpha activity	pCi/g	1.16	1.31	1.24	0	2		
Americium-241	pCi/g	-0.0000104	0.00091	0.00045	0	2		
Beta activity	pCi/g	0.699	0.78	0.74	0	2		
Cesium-137	pCi/g	-0.00159	0.00096	-0.000315	0	2		
Cobalt-60	pCi/g	-0.00183	-0.0006	-0.00122	0	2		
Neptunium-237	pCi/g	-0.000957	0.00175	0.000397	0	2		
Plutonium-239/240	pCi/g	0.00131	0.00143	0.00137	0	2		
Potassium-40	pCi/g	1.01	4.07	2.54	2	2		
Technetium-99	pCi/g	0.0803	0.224	0.152	1	2		
Thorium-230	pCi/g	0.0749	0.159	0.117	1	2		
Uranium	pCi/kg	81.3	177	129	0	2		
Uranium-234	pCi/g	0.0483	0.103	0.0756	2	2		
Uranium-235	pCi/g	0.00231	0.00449	0.0034	0	2		
Uranium-238	pCi/g	0.0308	0.0695	0.0501	1	2		

Direct Gamma Radiation (TLD) Data

Table 2.37. Radiological Exposure Due to Gamma Radiation (mrem)

Location	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Annualized[1]
TLD-1	239	247	323	206	1001
TLD-2	353	290	353	326	1301
TLD-3	71	63	94	103	326
TLD-4	20	22	29	23	92
TLD-5	20	21	24	19	83
TLD-6	17	18	20	17	71
TLD-7	23	24	27	21	94
TLD-8	14	16	21	16	66
TLD-9	18	18	21	17	73
TLD-10	18	19	21	19	76
TLD-11	19	20	22	21	81
TLD-12	18	18	20	19	74
TLD-13	23	22	30	23	96
TLD-14	20	18	20	17	74
TLD-15	15	16	19	18	67
TLD-16	20	22	29	22	91
TLD-17	17	17	21	19	73
TLD-18	17	18	24	19	77
TLD-19	18	18	20	17	72
TLD-20	20	21	23	23	86
TLD-25	28	29	33	33	121
TLD-27		20	22	20	84
TLD-28	21	19	19	18	76
TLD-29	16	16	19	18	68
TLD-30	18	18	19	20	74
TLD-31	22	20	23	22	86
TLD-32	22	20	24	21	86
TLD-35	23	22	25	22	91
TLD-36	15	17	18	18	67
TLD-37	20	18	19	19	75
TLD-38	18	20	22	20	79
TLD-39	17	16	17	17	66
TLD-40	21	22	30	26	97
TLD-41	16	17	18	17	67
TLD-46	16	16	19	18	68
TLD-47	84	80	103	79	339
TLD-48	23	37	46	57	181
TLD-49	18	16	17	17	67
TLD-50	23	24	33	28	106
TLD-51	19	21	21	21	81
TLD-52	20	22	28	24	92
TLD-53	92	97	131	107	419
TLD-21	24	23	27	23	96
TLD-22		23	23	23	93
TLD-23	22	22	22	21	85
TLD-26	17	17	21	16	70

[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 2.38. Radiological Analysis of Deer Bone Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Neptunium-237	pCi/g	-0.00742	1.4E-06	-0.00322	0	6		
Plutonium-239/240	pCi/g	-0.00687	0	-0.00213	0	6		
Technetium-99	pCi/g	-0.101	0.0419	-0.0412	0	6		
Thorium-230	pCi/g	-0.00283	0.00988	0.00616	0	6		
Uranium-233/234	pCi/g	-0.00472	0.0064	0.00185	0	6		
Uranium-235	pCi/g	0	0.00102	0.00017	0	6		
Uranium-238	pCi/g	0.00000213	0.00247	0.00152	0	6		

Table 2.39. Radiological Analysis of Deer Thyroid Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Technetium-99	pCi/g	-0.00277	0.253	0.099	0	5		

Table 2.40. Radiological Analysis of Deer Muscle Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Neptunium-237	pCi/g	-0.00766	0.00069	-0.00333	0	6		
Plutonium-239/240	pCi/g	-0.00421	0	-0.00224	0	6		
Technetium-99	pCi/g	-0.0884	0.0824	-0.015	0	6		
Thorium-230	pCi/g	-0.00358	0.00238	0.000375	0	6		
Uranium-233/234	pCi/g	-0.00462	0.00331	0.000468	0	6		
Uranium-235	pCi/g	0	0.00082	0.000136	0	6		
Uranium-238	pCi/g	-0.00198	0.00233	0.000205	0	6		

Table 2.41. Radiological Analysis of Deer Liver Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples	Reference Criteria	Reference Value
Neptunium-237	pCi/g	-0.00249	0.00074	-0.000402	0	6		
Plutonium-239/240	pCi/g	-0.00196	0.00138	-0.000339	0	6		
Technetium-99	pCi/g	-0.112	0.0471	-0.0381	0	6		
Thorium-230	pCi/g	-0.00311	0.00223	-0.000991	0	6		
Uranium-233/234	pCi/g	-0.00462	0.00133	-0.000688	0	6		
Uranium-235	pCi/g	0	0.00095	0.000159	0	6		
Uranium-238	pCi/g	-0.000725	0.00266	0.000323	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	0.0041	0.00852	1	4
4,4'-DDE	ug/L	ND	0.0154	0.0102	2	4
4,4'-DDT	ug/L	ND	0.006	0.00737	2	4
Acrylonitrile	ug/L	ND	0.025	0.01	1	4
Aldrin	ug/L	ND	0.0039	0.0535	1	4
alpha-BHC	ug/L	ND	ND	ND	0	4
alpha-Chlordane	ug/L	ND	0.0137	0.0297	1	4
Benz(a)anthracene	ug/L	ND	0.02	0.00992	3	4
Benzidine	ug/L	ND	0.15	0.0975	1	4
Benzo(a)pyrene	ug/L	ND	ND	ND	0	4
Benzo(k)fluoranthene	ug/L	ND	0.0048	0.00432	3	4
beta-BHC	ug/L	ND	ND	ND	0	4
Bis(2-ethylhexyl)phthalate	ug/L	ND	0.36	0.362	3	4
Cadmium	mg/L	0.000032	0.000046	0.0000395	4	4
Carbon tetrachloride	ug/L	ND	ND	ND	0	4
Chlorine, Total Residual	mg/L	0.03	0.03	0.03	36	36
Chrysene	ug/L	ND	0.015	0.0508	1	4
Conductivity	umho/cm	9.41	1850	1300	71	71
Copper	mg/L	0.0043	0.0074	0.00535	4	4
Cyanide	mg/L	ND	0.0068	0.00357	1	4
Dibenz(a,h)anthracene	ug/L	ND	0.035	0.023	1	4
Dieldrin	ug/L	ND	0.0118	0.0104	1	4
Dissolved Oxygen	mg/L	5.05	12.4	8.47	71	71
Endosulfan I	ug/L	ND	0.0184	0.0158	1	4
Endosulfan II	ug/L	ND	ND	ND	0	4
Endrin	ug/L	ND	0.0051	0.0144	1	4
Flow Rate	mgd	1.2	4.79	2.13	71	71
gamma-Chlordane	ug/L	ND	0.0196	0.0311	1	4
Hardness - Total as CaCO3	mg/L	160	370	258	4	4
Heptachlor	ug/L	ND	0.0531	0.0226	1	4
Heptachlor epoxide	ug/L	ND	0.0093	0.0042	1	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	0.01	0.0107	1	4
Lead	mg/L	ND	0.00053	0.000275	3	4
Lindane	ug/L	ND	0.0022	0.00617	1	4
Mercury	mg/L	0.00000346	0.000026	0.0000123	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 (Continued)

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	6.23	8.34	6.91	71	71
Phosphorous	mg/L	0.15	0.62	0.298	55	55
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	55
Selenium	mg/L	0.0013	0.0033	0.0024	4	4
Silver	mg/L	ND	ND	ND	0	4
Suspended Solids	mg/L	ND	52	11.1	11	55
Temperature	deg F	43.9	81.5	64.5	71	71
Tetrachloroethene	ug/L	ND	ND	ND	0	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	55
Uranium	mg/L	ND	0.314	0.0284	53	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	0.0022	0.00205	1	4
Acrylonitrile	ug/L	ND	ND	ND	0	4
Aldrin	ug/L	ND	ND	ND	0	4
alpha-BHC	ug/L	ND	0.0073	0.00381	1	4
alpha-Chlordane	ug/L	ND	0.005	0.0065	1	4
Benz(a)anthracene	ug/L	ND	0.0037	0.00202	2	4
Benzidine	ug/L	ND	0.029	0.03	2	4
Benzo(a)pyrene	ug/L	ND	ND	ND	0	4
Benzo(k)fluoranthene	ug/L	ND	ND	ND	0	4
beta-BHC	ug/L	ND	0.017	0.00602	2	4
Bis(2-ethylhexyl)phthalate	ug/L	0.12	2.8	0.822	4	4
Cadmium	mg/L	0.000056	0.000082	0.0000645	4	4
Carbon tetrachloride	ug/L	ND	ND	ND	0	4
Chrysene	ug/L	ND	ND	ND	0	4
Conductivity	umho/cm	156	1420	604	23	23
Copper	mg/L	0.0034	0.0045	0.00395	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	0.0037	0.00242	1	4
Dissolved Oxygen	mg/L	6.53	11.2	8.69	23	23
Endosulfan I	ug/L	ND	0.0022	0.00225	2	4
Endosulfan II	ug/L	ND	ND	ND	0	4
Endrin	ug/L	ND	ND	ND	0	4
Flow Rate	mgd	0.0014	4.63	0.443	23	23
gamma-Chlordane	ug/L	ND	0.0654	0.0216	1	4
Hardness - Total as CaCO3	mg/L	140	260	198	4	4
Heptachlor	ug/L	ND	0.0137	0.00645	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	ND	ND	0	4
Iron	mg/L	0.44	2.06	1	4	4
Lead	mg/L	0.00065	0.0011	0.000852	4	4
Lindane	ug/L	ND	0.0044	0.00222	1	4
Mercury	mg/L	0.0000061	0.000013	0.00000917	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	10
PCB-1016	ug/L	ND	ND	ND	0	10
PCB-1221	ug/L	ND	ND	ND	0	10
PCB-1232	ug/L	ND	ND	ND	0	10

KPDES Outfall Non-Radiological Data

Table 3.2. Non-Radiological Effluent Data for Outfall 015 (Continued)

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
PCB-1242	ug/L	ND	ND	ND	0	10
PCB-1248	ug/L	ND	ND	ND	0	10
PCB-1254	ug/L	ND	ND	ND	0	10
PCB-1260	ug/L	ND	ND	ND	0	10
PCB-1268	ug/L	ND	ND	ND	0	10
Pentachlorophenol	ug/L	ND	ND	ND	0	4
pH	Std Unit	6.59	8.03	7.25	23	23
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	10
Selenium	mg/L	0.00053	0.0016	0.000865	4	4
Silver	mg/L	ND	ND	ND	0	4
Suspended Solids	mg/L	ND	87	32	7	11
Temperature	deg F	42.9	72.9	58.2	23	23
Tetrachloroethene	ug/L	ND	ND	ND	0	4
Thallium	mg/L	ND	ND	ND	0	4
Uranium	mg/L	0.0112	0.185	0.114	10	10
Zinc	mg/L	ND	ND	ND	0	1

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	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	0.0018	0.00184	2	5
4,4'-DDE	ug/L	ND	ND	ND	0	5
4,4'-DDT	ug/L	ND	ND	ND	0	5
Acrylonitrile	ug/L	ND	ND	ND	0	5
Aldrin	ug/L	ND	ND	ND	0	5
alpha-BHC	ug/L	ND	0.0116	0.00771	4	5
alpha-Chlordane	ug/L	ND	0.0031	0.00498	2	5
Benz(a)anthracene	ug/L	ND	ND	ND	0	5
Benzidine	ug/L	ND	0.016	0.03	2	5
Benzo(a)pyrene	ug/L	ND	ND	ND	0	5
Benzo(k)fluoranthene	ug/L	ND	ND	ND	0	5
beta-BHC	ug/L	ND	0.0088	0.00458	3	5
Bis(2-ethylhexyl)phthalate	ug/L	0.087	2.1	0.891	5	5
Cadmium	mg/L	0.000011	0.000018	0.0000148	5	5
Carbon tetrachloride	ug/L	ND	ND	ND	0	5
Chrysene	ug/L	ND	ND	ND	0	5
Conductivity	umho/cm	157	600	342	37	37
Copper	mg/L	0.0011	0.0019	0.00154	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	0.0038	0.0026	2	5
Dissolved Oxygen	mg/L	5.76	10.7	8.71	37	37
Endosulfan I	ug/L	ND	ND	ND	0	5
Endosulfan II	ug/L	ND	0.0065	0.0017	1	5
Endrin	ug/L	ND	0.0066	0.00412	1	5
Flow Rate	mgd	0.0321	3.37	0.783	37	37
gamma-Chlordane	ug/L	ND	0.0039	0.00512	2	5
Hardness - Total as CaCO3	mg/L	64	230	114	5	5
Heptachlor	ug/L	0.0012	0.0132	0.00482	5	5
Heptachlor epoxide	ug/L	ND	0.0028	0.0013	2	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
Lead	mg/L	ND	0.00081	0.000498	4	5
Lindane	ug/L	ND	0.0078	0.00402	3	5
Mercury	mg/L	.000000965	00000286	0.00000238	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	ND	ND	0	22
PCB-1016	ug/L	ND	ND	ND	0	22
PCB-1221	ug/L	ND	ND	ND	0	22
PCB-1232	ug/L	ND	ND	ND	0	22
PCB-1242	ug/L	ND	ND	ND	0	22

KPDES Outfall Non-Radiological Data

Table 3.3. Non-Radiological Effluent Data for Outfall 017 (Continued)

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
PCB-1248	ug/L	ND	ND	ND	0	22
PCB-1254	ug/L	ND	ND	ND	0	22
PCB-1260	ug/L	ND	ND	ND	0	22
PCB-1268	ug/L	ND	ND	ND	0	22
Pentachlorophenol	ug/L	ND	ND	ND	0	5
pH	Std Unit	6.52	7.98	7.47	37	37
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	22
Selenium	mg/L	ND	0.00082	0.00051	3	5
Silver	mg/L	ND	ND	ND	0	5
Suspended Solids	mg/L	ND	16	8.36	1	22
Temperature	deg F	48.4	76.6	61.5	37	37
Tetrachloroethene	ug/L	ND	ND	ND	0	5
Thallium	mg/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.00344	0.00197	16	22
Zinc	mg/L	ND	0.211	0.0932	21	22

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	9
1,1-Dichloroethene	ug/L	ND	ND	ND	0	9
1,2-Diphenylhydrazine	ug/L	ND	ND	ND	0	9
2,4,6-Trichlorophenol	ug/L	ND	ND	ND	0	9
2,4-Dinitrotoluene	ug/L	ND	0.202	0.0714	3	9
3,3'-Dichlorobenzidine	ug/L	ND	ND	ND	0	9
4,4'-DDD	ug/L	ND	0.0053	0.00272	2	9
4,4'-DDE	ug/L	ND	0.0022	0.00202	1	9
4,4'-DDT	ug/L	ND	0.0047	0.00282	5	9
4-Methylphenol	ug/L	ND	ND	ND	0	14
Acrylonitrile	ug/L	ND	ND	ND	0	9
Aldrin	ug/L	ND	ND	ND	0	9
alpha-BHC	ug/L	ND	ND	ND	0	9
alpha-Chlordane	ug/L	ND	0.0109	0.00722	3	9
alpha-Terpineol	ug/L	ND	ND	ND	0	14
Ammonia as Nitrogen	mg/L	ND	ND	ND	0	14
Benz(a)anthracene	ug/L	ND	0.0022	0.00113	1	9
Benzidine	ug/L	ND	ND	ND	0	9
Benzo(a)pyrene	ug/L	ND	ND	ND	0	9
Benzo(k)fluoranthene	ug/L	ND	ND	ND	0	9
Benzoic acid	ug/L	ND	7.4	3.37	3	14
beta-BHC	ug/L	ND	0.0033	0.00184	2	9
Biochemical Oxygen Demand (BOD)	mg/L	ND	10	4.82	1	14
Bis(2-ethylhexyl)phthalate	ug/L	0.052	0.59	0.199	9	9
Cadmium	mg/L	ND	0.000036	0.0000161	6	9
Carbon tetrachloride	ug/L	ND	ND	ND	0	9
Chrysene	ug/L	ND	ND	ND	0	9
Conductivity	umho/cm	207	1320	933	33	33
Copper	mg/L	0.00097	0.0028	0.0018	9	9
Cyanide	mg/L	ND	0.029	0.00583	2	9
Dibenz(a,h)anthracene	ug/L	ND	ND	ND	0	9
Dieldrin	ug/L	ND	0.004	0.00222	1	9
Dissolved Oxygen	mg/L	6.77	11.4	8.51	33	33
Endosulfan I	ug/L	ND	0.0065	0.00341	2	9
Endosulfan II	ug/L	ND	ND	ND	0	9
Endrin	ug/L	ND	ND	ND	0	9
Flow Rate	mgd	0.02	0.86	0.264	33	33
gamma-Chlordane	ug/L	ND	0.0063	0.00557	4	9
Hardness - Total as CaCO3	mg/L	90	530	353	9	9
Heptachlor	ug/L	ND	0.0074	0.00302	5	9
Heptachlor epoxide	ug/L	ND	0.0042	0.000911	1	9
Hexachlorobenzene	ug/L	ND	ND	ND	0	9
Hexachloroethane	ug/L	ND	0.0661	0.0194	2	9
Indeno(1,2,3-cd)pyrene	ug/L	ND	ND	ND	0	9
Iron	mg/L	ND	0.356	0.145	2	9
Lead	mg/L	ND	0.00036	0.000161	3	9
Lindane	ug/L	ND	0.0016	0.00147	4	9
Mercury	mg/L	.000000607	00000249	0.00000129	9	9
N-Nitrosodimethylamine	ug/L	ND	ND	ND	0	9
N-Nitroso-di-n-propylamine	ug/L	ND	ND	ND	0	9

KPDES Outfall Non-Radiological Data

Table 3.4. Non-Radiological Effluent Data for Outfall 019 (Continued)

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
N-Nitrosodiphenylamine/Diphenylamine	ug/L	ND	ND	ND	0	9
Oil and Grease	mg/L	ND	ND	ND	0	14
PCB-1016	ug/L	ND	ND	ND	0	14
PCB-1221	ug/L	ND	ND	ND	0	14
PCB-1232	ug/L	ND	ND	ND	0	14
PCB-1242	ug/L	ND	ND	ND	0	14
PCB-1248	ug/L	ND	ND	ND	0	14
PCB-1254	ug/L	ND	ND	ND	0	14
PCB-1260	ug/L	ND	ND	ND	0	14
PCB-1268	ug/L	ND	ND	ND	0	14
Pentachlorophenol	ug/L	ND	ND	ND	0	9
pH	Std Unit	6.55	7.8	7.27	33	33
Phenol	ug/L	ND	ND	ND	0	14
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	14
Selenium	mg/L	ND	0.0016	0.000917	7	9
Silver	mg/L	ND	ND	ND	0	9
Suspended Solids	mg/L	ND	25	10.1	2	14
Temperature	deg F	42.1	85.5	63.6	33	33
Tetrachloroethene	ug/L	ND	ND	ND	0	9
Thallium	mg/L	ND	ND	ND	0	9
Uranium	mg/L	ND	0.0191	0.00926	11	14
Zinc	mg/L	ND	0.0338	0.0134	3	14

KPDES Outfall Non-Radiological Data

Table 3.5. Non-Radiological Effluent Data for Outfall 020

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
1,1,1-Trichloroethane	ug/L	ND	ND	ND	0	1
Arsenic	mg/L	ND	ND	ND	0	1
Carbonaceous Biochemical Oxygen Dema	mg/L	ND	ND	ND	0	1
Chloride	mg/L	26	26	26	1	1
Conductivity	umho/cm	308	308	308	2	2
Dissolved Oxygen	mg/L	8.93	8.93	8.93	2	2
Flow Rate	mgd	0.15	0.15	0.15	2	2
Hardness - Total as CaCO3	mg/L	330	330	330	1	1
Iron	mg/L	2.1	2.1	2.1	1	1
Nickel	mg/L	0.0101	0.0101	0.0101	1	1
Nitrate as Nitrogen	mg/L	2.5	2.5	2.5	1	1
Oil and Grease	mg/L	ND	ND	ND	0	1
PCB-1016	ug/L	ND	ND	ND	0	1
PCB-1221	ug/L	ND	ND	ND	0	1
PCB-1232	ug/L	ND	ND	ND	0	1
PCB-1242	ug/L	ND	ND	ND	0	1
PCB-1248	ug/L	ND	ND	ND	0	1
PCB-1254	ug/L	ND	ND	ND	0	1
PCB-1260	ug/L	ND	ND	ND	0	1
PCB-1268	ug/L	ND	ND	ND	0	1
pH	Std Unit	8.13	8.13	8.13	2	2
Phosphorous	mg/L	0.19	0.19	0.19	1	1
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	1
Suspended Solids	mg/L	ND	ND	ND	0	1
Temperature	deg F	44.6	44.6	44.6	2	2
Trichloroethene	ug/L	ND	ND	ND	0	1
Uranium	mg/L	0.00737	0.00737	0.00737	1	1
Zinc	mg/L	ND	ND	ND	0	1

Surface Water Non-Radiological Data

Table 3.6. 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	31	42	33.7	4	4
Chloride	mg/L	2	4.9	3.42	4	4
Conductivity	umho/cm	69	176	124	4	4
Dissolved Oxygen	mg/L	6.38	8.91	7.94	4	4
Dissolved Solids	mg/L	79	183	117	4	4
Flow Rate	mgd	0.458	20.1	8.39	4	4
Iron	mg/L	0.748	3.9	2.47	4	4
pH	Std Unit	6.41	8.14	7.27	4	4
Sodium	mg/L	1.51	6.22	3.51	4	4
Sulfate	mg/L	3.4	8.8	6.2	4	4
Suspended Solids	mg/L	ND	69	30.2	2	4
Temperature	deg F	56.7	73.2	62.3	4	4
Total Organic Carbon (TOC)	mg/L	14.7	20.4	17	4	4
Total Solids	mg/L	97	230	164	4	4
Uranium	mg/L	0.0022	0.0073	0.00457	4	4

Table 3.7. 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	31	23.4	3	5
Chloride	mg/L	ND	2.7	1.34	1	5
Conductivity	umho/cm	192	590	296	5	5
Dissolved Oxygen	mg/L	4.72	8.91	6.41	5	5
Dissolved Solids	mg/L	156	408	214	5	5
Flow Rate	mgd	0.025	1.29	0.366	5	5
Iron	mg/L	ND	2.79	1.06	4	5
pH	Std Unit	6.86	8.07	7.35	5	5
Sodium	mg/L	1.38	8.46	3.11	5	5
Sulfate	mg/L	15	93	33	5	5
Suspended Solids	mg/L	ND	151	58.4	2	5
Temperature	deg F	60.3	75.5	65.9	5	5
Total Organic Carbon (TOC)	mg/L	8	17.5	12.8	5	5
Total Solids	mg/L	161	421	270	5	5
Uranium	mg/L	ND	0.0127	0.00344	2	5

Surface Water Non-Radiological Data

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	5
Chloride	mg/L	ND	14	4.76	3	5
Conductivity	umho/cm	134	345	213	5	5
Dissolved Oxygen	mg/L	7	9.77	8.44	5	5
Dissolved Solids	mg/L	140	241	176	5	5
Flow Rate	mgd	0.003	0.4	0.14	5	5
Iron	mg/L	1.24	8.22	5.97	5	5
pH	Std Unit	7.07	7.72	7.32	5	5
Sodium	mg/L	ND	11.7	4.21	3	5
Sulfate	mg/L	8.4	41	21.2	5	5
Suspended Solids	mg/L	ND	201	85.4	4	5
Temperature	deg F	58	74.4	63.5	5	5
Total Organic Carbon (TOC)	mg/L	6.9	15.5	11.2	5	5
Total Solids	mg/L	254	324	278	5	5
Uranium	mg/L	ND	0.00252	0.000904	1	5

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	38	29.1	3	4
Chloride	mg/L	2	4.9	2.9	4	4
Conductivity	umho/cm	60	171	106	4	4
Dissolved Oxygen	mg/L	6.25	8.86	7.77	4	4
Dissolved Solids	mg/L	50	187	112	4	4
Flow Rate	mgd	1.63	12.3	6.83	4	4
Iron	mg/L	1.83	4.22	2.81	4	4
pH	Std Unit	7	7.88	7.36	4	4
Sodium	mg/L	ND	6.01	2.77	3	4
Sulfate	mg/L	3.1	8.5	5.92	4	4
Suspended Solids	mg/L	ND	61	35	3	4
Temperature	deg F	56.2	73	61.9	4	4
Total Organic Carbon (TOC)	mg/L	13.7	20.5	16.2	4	4
Total Solids	mg/L	138	226	163	4	4
Uranium	mg/L	0.00214	0.00529	0.00306	4	4

Surface Water Non-Radiological Data

Table 3.10. 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	36	29.3	4	5
Chloride	mg/L	ND	4.8	3.1	4	5
Conductivity	umho/cm	61	159	108	5	5
Dissolved Oxygen	mg/L	6.36	10.7	8.91	5	5
Dissolved Solids	mg/L	62	186	124	5	5
Flow Rate	mgd	0.113	4.04	1.32	4	4
Iron	mg/L	2.16	4.51	2.96	5	5
pH	Std Unit	6.97	8.1	7.55	5	5
Sodium	mg/L	ND	6.13	3.41	4	5
Sulfate	mg/L	3.1	9.4	6.36	5	5
Suspended Solids	mg/L	ND	127	62.8	3	5
Temperature	deg F	55.6	72.8	60.2	5	5
Total Organic Carbon (TOC)	mg/L	12.7	18.9	16.3	5	5
Total Solids	mg/L	159	223	199	5	5
Uranium	mg/L	0.00166	0.00603	0.00391	5	5

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	12	17	13.7	4	4
Aluminum	mg/L	ND	1.4	0.674	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	0.0468	0.0575	0.0508	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	13.6	17.9	15.9	4	4
Chloride	mg/L	6.1	11	9.4	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	134	212	178	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	7.32	10.7	9.07	4	4
Flow Rate	mgd	0.594	1.04	0.738	4	4
Hardness - Total as CaCO3	mg/L	45	59	51.7	4	4
Iron	mg/L	0.377	1.14	0.806	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.41	4.03	3.34	4	4
Manganese	mg/L	0.12	0.397	0.234	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.25	0.74	0.39	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	6.67	7.49	7.08	4	4
Phosphorous	mg/L	0.09	0.24	0.135	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.86	5.3	3.6	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	7.57	21.9	14.8	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	41.7	76.8	58.8	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	2	1.12	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 (Continued)

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	16	12.9	4	4
Aluminum	mg/L	ND	0.677	0.244	1	4
Ammonia as Nitrogen	mg/L	ND	0.15	0.095	2	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0335	0.0452	0.0385	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	43.1	54.2	49	4	4
Chloride	mg/L	50	75	65.2	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	597	893	743	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	6.14	10.1	7.94	4	4
Flow Rate	mgd	0.016	7.92	4.99	4	4
Hardness - Total as CaCO3	mg/L	140	210	172	4	4
Iron	mg/L	0.227	0.616	0.356	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	13.6	20	15.9	4	4
Manganese	mg/L	0.0437	0.0672	0.0508	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	0.0065	0.0035	1	4
Nitrate/Nitrite as Nitrogen	mg/L	1.2	2.1	1.62	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	6.52	7.27	7.03	4	4
Phosphorous	mg/L	0.15	0.23	0.182	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	8.57	12.2	10.3	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	58.9	90.3	71.6	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	44.3	81.7	63	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.00503	0.00269	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	15	13.4	5	5
Aluminum	mg/L	ND	0.739	0.228	1	5
Ammonia as Nitrogen	mg/L	ND	0.1	0.06	1	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.0398	0.0556	0.046	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	38.1	58.3	49.4	5	5
Chloride	mg/L	49	82	68.2	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	559	953	795	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	8.76	11.1	9.5	5	5
Flow Rate	mgd	5.98	8.43	6.93	5	5
Hardness - Total as CaCO3	mg/L	140	220	190	5	5
Iron	mg/L	ND	0.596	0.199	1	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	12.3	20	16.8	5	5
Manganese	mg/L	0.0558	0.0907	0.0687	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	1.2	2	1.69	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	7.28	8.11	7.53	5	5
Phosphorous	mg/L	0.13	0.19	0.166	5	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	7.81	14.3	11.3	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	52.6	90	76.1	5	5
Suspended Solids	mg/L	ND	ND	ND	0	5
Temperature	deg F	43.7	83.7	60.3	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.0052	0.00261	5	10
Vanadium	mg/L	ND	ND	ND	0	5
Zinc	mg/L	ND	ND	ND	0	5

Surface Water Non-Radiological Data

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

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	10	16	11.8	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	0.0121	0.00677	1	4
Barium	mg/L	0.0284	0.0346	0.0328	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	115	185	142	4	4
Chloride	mg/L	160	260	230	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.0019	0.00125	3	4
Conductivity	umho/cm	1610	2500	2120	4	4
Copper	mg/L	0.00532	0.00991	0.00724	4	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	8.5	10.7	9.83	4	4
Flow Rate	mgd	0.265	2.58	1.56	4	4
Hardness - Total as CaCO3	mg/L	410	590	520	4	4
Iron	mg/L	ND	0.416	0.285	3	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	36.5	59.5	48.6	4	4
Manganese	mg/L	0.0267	0.127	0.0719	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	0.00915	0.0131	0.0116	4	4
Nitrate/Nitrite as Nitrogen	mg/L	3.4	6.49	4.9	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	6.82	8.69	7.71	4	4
Phosphorous	mg/L	0.23	0.47	0.39	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	26	44.3	34.7	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	152	282	227	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	55.2	83	68.7	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.00221	0.00198	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

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

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	11	13.5	12	3	3
Conductivity	umho/cm	780	1700	1410	4	4
Dissolved Oxygen	mg/L	7.31	11.4	8.77	4	4
Flow Rate	mgd	1.55	1.91	1.77	4	4
pH	Std Unit	6.76	7.27	7	4	4
Temperature	deg F	52.7	84.2	66.5	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	15	20	17.5	4	4
Conductivity	umho/cm	381	1140	649	4	4
Dissolved Oxygen	mg/L	6.53	11.2	8.54	4	4
Flow Rate	mgd	0.073	1.05	0.347	4	4
pH	Std Unit	6.59	7.43	6.99	4	4
Temperature	deg F	42.9	72	59.7	4	4

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	12.5	19	15	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	0.131	0.162	0.145	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	24	29.5	27.8	4	4
Chloride	mg/L	41	45	42.7	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	357	401	375	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	7.91	9.33	8.54	4	4
Hardness - Total as CaCO3	mg/L	100	120	108	4	4
Iron	mg/L	ND	ND	ND	0	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	8.72	11	10	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	1.9	2.9	2.29	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	7.09	8.54	7.84	4	4
Phosphorous	mg/L	0.07	0.09	0.08	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	1.28	1.64	1.46	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	32	33.1	32.5	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	58.3	65.5	61.1	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	1	2.7	1.95	4	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	11.5	19.5	16.4	4	4
Aluminum	mg/L	ND	3.06	1.47	2	4
Ammonia as Nitrogen	mg/L	ND	0.16	0.0775	1	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.051	0.0605	0.056	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	15	29.5	19.9	4	4
Chloride	mg/L	5.9	17	9.87	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	133	255	198	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	7.18	12.9	10.1	4	4
Flow Rate	mgd	0.252	11.6	3.47	4	4
Hardness - Total as CaCO3	mg/L	49	79	61.2	4	4
Iron	mg/L	ND	2.4	1.11	3	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.82	4.65	3.59	4	4
Manganese	mg/L	0.0702	0.141	0.0967	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.07	0.92	0.49	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	6.94	8.04	7.29	4	4
Phosphorous	mg/L	ND	0.31	0.142	3	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	3.18	4.82	3.88	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	4.74	16.3	12.9	4	4
Suspended Solids	mg/L	ND	21	11.2	1	4
Temperature	deg F	33.9	81.4	59.2	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 4.9. Non-Radiological Monitoring Data for Surface Water Location L10

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	11	16	13	4	4
Aluminum	mg/L	0.202	4.43	1.7	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	0.045	0.0652	0.0543	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	9.63	22.8	18.8	4	4
Chloride	mg/L	2.8	34	23.2	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	84	385	293	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	4.76	10.2	7.09	4	4
Flow Rate	mgd	0.587	2.99	1.96	3	3
Hardness - Total as CaCO3	mg/L	32	91	68.7	4	4
Iron	mg/L	0.447	3.37	1.4	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.05	8.03	5.67	4	4
Manganese	mg/L	0.0585	0.102	0.0794	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.18	0.99	0.615	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	6.86	7.45	7.1	4	4
Phosphorous	mg/L	0.23	0.28	0.245	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.59	3.5	3.01	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	3.84	42.8	31.5	4	4
Suspended Solids	mg/L	ND	64	30.5	2	4
Temperature	deg F	41.9	78.3	60.6	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.009	0.00587	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	13	16	14.9	4	4
Aluminum	mg/L	0.271	3.01	1.13	4	4
Ammonia as Nitrogen	mg/L	ND	0.1	0.0625	1	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0355	0.0682	0.0455	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	16	24.5	20.5	4	4
Chloride	mg/L	5.2	39	23.3	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	134	429	310	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	6.29	10.6	7.66	4	4
Flow Rate	mgd	0.258	6.33	2.13	4	4
Hardness - Total as CaCO3	mg/L	51	97	77.5	4	4
Iron	mg/L	0.452	2.72	1.12	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.93	9.12	5.98	4	4
Manganese	mg/L	0.0408	0.0921	0.0613	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.3	1.1	0.687	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	6.44	7.11	6.83	4	4
Phosphorous	mg/L	0.25	0.56	0.382	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.8	4.02	3.13	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	6.9	47.7	31.6	4	4
Suspended Solids	mg/L	ND	58	20.5	1	4
Temperature	deg F	50.7	80.1	65.2	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.0151	0.00874	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	0.0249	0.0137	1	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	13	20	15.5	5	5
Aluminum	mg/L	ND	2.88	0.739	3	5
Ammonia as Nitrogen	mg/L	ND	0.14	0.086	2	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.044	0.0665	0.0567	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	19.4	23.8	22.3	5	5
Chloride	mg/L	17	28	24.4	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	0.00106	0.000612	1	5
Conductivity	umho/cm	278	365	325	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	4.92	12	7.92	5	5
Flow Rate	mgd	0.838	1.85	1.34	4	4
Hardness - Total as CaCO3	mg/L	68	84	76.4	5	5
Iron	mg/L	0.509	1.93	0.991	5	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	4.86	6.53	5.9	5	5
Manganese	mg/L	0.068	0.143	0.108	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	0.18	0.64	0.322	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	0.25	0.07	1	5
PCB-1268	ug/L	ND	0.18	0.071	1	5
pH	Std Unit	6.88	7.47	7.18	5	5
Phosphorous	mg/L	0.11	0.22	0.152	5	5
Polychlorinated biphenyl	ug/L	ND	0.43	0.154	1	5
Potassium	mg/L	2.45	3.23	2.94	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	24.9	39.9	34.1	5	5
Suspended Solids	mg/L	ND	ND	ND	0	5
Temperature	deg F	48.1	77.8	61	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	ND	ND	ND	0	5
Uranium	mg/L	ND	0.011	0.00872	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	13	16	14.2	4	4
Aluminum	mg/L	ND	3.08	1.06	2	4
Ammonia as Nitrogen	mg/L	ND	0.26	0.102	1	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0539	0.0822	0.0664	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	23.4	43.5	35.5	4	4
Chloride	mg/L	8.4	25	20.4	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.00179	0.001	2	4
Conductivity	umho/cm	199	400	336	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	0.05	0.0312	1	4
Dissolved Oxygen	mg/L	5.18	9.1	6.92	4	4
Flow Rate	mgd	1.05	4.96	3.38	3	3
Hardness - Total as CaCO3	mg/L	74	120	108	4	4
Iron	mg/L	0.269	3.52	1.25	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	4.32	7.02	6.12	4	4
Manganese	mg/L	0.225	0.355	0.282	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.67	1.6	1.03	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	6.3	7.15	6.75	4	4
Phosphorous	mg/L	0.09	0.22	0.14	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.85	3.32	3.12	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	9.17	28.2	22	4	4
Suspended Solids	mg/L	ND	59	20.7	1	4
Temperature	deg F	51.7	68.4	60.7	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	2.4	5.7	3.48	4	4
Uranium	mg/L	ND	0.0046	0.00265	4	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

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

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	12.5	16	13.6	5	5
Aluminum	mg/L	ND	5.53	2.14	3	5
Ammonia as Nitrogen	mg/L	ND	0.11	0.062	1	5
Antimony	mg/L	ND	ND	ND	0	5
Arsenic	mg/L	ND	ND	ND	0	5
Barium	mg/L	0.07	0.103	0.0799	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	11.6	24.6	19.6	5	5
Chloride	mg/L	3.4	27	19.9	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	96	322	251	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	6.22	11.1	9.34	5	5
Flow Rate	mgd	0.658	2.43	1.71	5	5
Hardness - Total as CaCO3	mg/L	39	83	67.6	5	5
Iron	mg/L	0.277	3.86	1.62	5	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	2.6	6.35	5.31	5	5
Manganese	mg/L	0.0298	0.098	0.0686	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	0.37	1.6	0.832	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	6.27	7.21	6.85	5	5
Phosphorous	mg/L	0.08	0.48	0.202	5	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	2.37	2.94	2.79	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	4.18	32.1	22.9	5	5
Suspended Solids	mg/L	ND	54	17.2	1	5
Temperature	deg F	47.8	70.2	57.9	5	5
Thallium	mg/L	ND	ND	ND	0	5
Trichloroethene	ug/L	6.7	33	16.7	5	5
Uranium	mg/L	ND	0.007	0.00434	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	19	12.4	5	5
Aluminum	mg/L	ND	1.47	0.374	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	0.0388	0.0472	0.0442	5	5
Beryllium	mg/L	ND	ND	ND	0	5
Cadmium	mg/L	ND	ND	ND	0	5
Calcium	mg/L	18.3	24.2	22.1	5	5
Chloride	mg/L	14	23	16.4	5	5
Chromium	mg/L	ND	ND	ND	0	5
Cobalt	mg/L	ND	ND	ND	0	5
Conductivity	umho/cm	244	248	246	5	5
Copper	mg/L	ND	ND	ND	0	5
Cyanide	mg/L	ND	ND	ND	0	5
Dissolved Oxygen	mg/L	6.28	12.1	9.56	5	5
Flow Rate	mgd	1.23	9.06	2.92	5	5
Hardness - Total as CaCO3	mg/L	63	76	70.8	5	5
Iron	mg/L	0.408	1.21	0.646	5	5
Lead	mg/L	ND	ND	ND	0	5
Magnesium	mg/L	4.31	4.8	4.55	5	5
Manganese	mg/L	0.0578	0.121	0.0784	5	5
Mercury	mg/L	ND	ND	ND	0	5
Nickel	mg/L	ND	ND	ND	0	5
Nitrate/Nitrite as Nitrogen	mg/L	0.14	0.66	0.276	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	7.14	8.11	7.43	5	5
Phosphorous	mg/L	0.1	0.14	0.112	5	5
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	5
Potassium	mg/L	3.16	4.18	3.67	5	5
Selenium	mg/L	ND	ND	ND	0	5
Silver	mg/L	ND	ND	ND	0	5
Sodium	mg/L	17.4	20.8	19	5	5
Suspended Solids	mg/L	ND	ND	ND	0	5
Temperature	deg F	44.4	79.5	66.7	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 C746KTB1A

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	12	18	14.7	4	4
Aluminum	mg/L	ND	2.62	1.34	2	4
Ammonia as Nitrogen	mg/L	ND	0.14	0.0725	1	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0461	0.06	0.0545	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	11.3	16.2	13.4	4	4
Chloride	mg/L	5.6	17	11.9	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	111	225	179	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.13	11.9	8.26	4	4
Flow Rate	mgd	0.076	2.52	0.831	4	4
Hardness - Total as CaCO3	mg/L	39	53	45	4	4
Iron	mg/L	0.274	2.34	1.2	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.47	3.77	3.18	4	4
Manganese	mg/L	0.0399	0.29	0.115	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.17	0.63	0.367	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	6.08	8.38	7.24	4	4
Phosphorous	mg/L	0.12	0.39	0.2	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.66	4.88	3.5	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	4.85	26.6	16.8	4	4
Suspended Solids	mg/L	ND	18	10.5	1	4
Temperature	deg F	35.7	72.5	57.8	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 4.16. Non-Radiological Monitoring Data for Surface Water Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	10	20	13.7	4	4
Aluminum	mg/L	ND	0.466	0.229	2	4
Ammonia as Nitrogen	mg/L	ND	2	0.9	3	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.00881	0.0149	0.0126	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	13.5	17.7	16	4	4
Chloride	mg/L	14	30	20.5	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	226	353	282	4	4
Copper	mg/L	ND	0.00746	0.00484	2	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	4.32	8.55	6.4	4	4
Flow Rate	mgd	0.7	1	0.812	4	4
Hardness - Total as CaCO3	mg/L	47	64	54.7	4	4
Iron	mg/L	ND	0.572	0.319	2	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	3	5.47	4.08	4	4
Manganese	mg/L	0.0173	0.0331	0.0253	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.98	2.51	1.75	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	7.05	7.92	7.3	4	4
Phosphorous	mg/L	0.19	0.73	0.497	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	1.95	4.61	3.29	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	0.00305	0.00114	1	4
Sodium	mg/L	22.3	40.3	28.7	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	59	83.9	73.5	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.00939	0.00451	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	14.5	20	16.7	4	4
Aluminum	mg/L	0.58	16	6.3	4	4
Ammonia as Nitrogen	mg/L	ND	0.15	0.0925	2	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0296	0.194	0.0875	4	4
Beryllium	mg/L	ND	0.00102	0.00063	1	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	27.9	36.3	33.7	4	4
Chloride	mg/L	7.3	15	11.6	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.012	0.00425	3	4
Conductivity	umho/cm	230	308	254	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	0.05	0.0312	1	4
Dissolved Oxygen	mg/L	6.13	12.1	8.61	4	4
Hardness - Total as CaCO3	mg/L	92	120	102	4	4
Iron	mg/L	0.602	19.9	7.33	4	4
Lead	mg/L	ND	0.0214	0.00722	1	4
Magnesium	mg/L	6.54	9.78	8.02	4	4
Manganese	mg/L	0.0509	2.28	0.753	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	0.0062	0.00905	1	4
Nitrate/Nitrite as Nitrogen	mg/L	0.61	0.93	0.755	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	7.16	8.13	7.47	4	4
Phosphorous	mg/L	0.12	0.52	0.325	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.48	4.67	3.43	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	6.05	13.1	9.45	4	4
Suspended Solids	mg/L	ND	201	91.5	3	4
Temperature	deg F	43.4	83.5	64.2	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.00129	0.0016	1	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	ND	ND	0	4

Surface Water Non-Radiological Data

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

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Alkalinity	mg/L	14	23	17.9	4	4
Aluminum	mg/L	1.66	12.2	6.29	4	4
Ammonia as Nitrogen	mg/L	ND	0.19	0.115	2	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.0316	0.136	0.0802	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	23.5	41.3	34.7	4	4
Chloride	mg/L	7.5	16	11.3	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.00491	0.00273	1	4
Conductivity	umho/cm	203	509	312	4	4
Copper	mg/L	ND	0.0083	0.00987	1	4
Cyanide	mg/L	ND	0.05	0.0312	1	4
Dissolved Oxygen	mg/L	0.11	12	6.8	4	4
Hardness - Total as CaCO3	mg/L	80	160	120	4	4
Iron	mg/L	1.61	12.8	6.77	4	4
Lead	mg/L	ND	0.0104	0.0062	2	4
Magnesium	mg/L	4.67	11.1	8.26	4	4
Manganese	mg/L	0.0963	0.94	0.476	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	0.0104	0.0101	1	4
Nitrate/Nitrite as Nitrogen	mg/L	0.56	0.99	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	6.82	8.33	7.23	4	4
Phosphorous	mg/L	0.15	0.55	0.36	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.14	4.34	3.44	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	6.21	14.1	9.87	4	4
Suspended Solids	mg/L	34	586	245	4	4
Temperature	deg F	45.9	86.3	65.3	4	4
Thallium	mg/L	ND	ND	ND	0	4
Trichloroethene	ug/L	ND	ND	ND	0	4
Uranium	mg/L	ND	0.0011	0.00157	1	8
Vanadium	mg/L	ND	ND	ND	0	4
Zinc	mg/L	ND	0.0319	0.038	1	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	13	15	13.7	4	4
Aluminum	mg/L	0.387	13	4.75	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	0.0367	0.103	0.0654	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	33.8	48.6	39.4	4	4
Chloride	mg/L	11	27	19.5	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	0.0018	0.00221	2	4
Conductivity	umho/cm	303	383	352	4	4
Copper	mg/L	ND	0.0215	0.0191	3	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	5.3	9.15	7.24	4	4
Hardness - Total as CaCO3	mg/L	120	150	135	4	4
Iron	mg/L	0.613	11	4.53	4	4
Lead	mg/L	ND	0.016	0.00587	1	4
Magnesium	mg/L	9.98	13.1	11.4	4	4
Manganese	mg/L	0.0417	0.432	0.192	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	1.4	1.13	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	6.71	7.33	7.09	4	4
Phosphorous	mg/L	0.12	0.39	0.212	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	3.19	5.72	3.94	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	8.86	18.2	14.8	4	4
Suspended Solids	mg/L	ND	319	128	3	4
Temperature	deg F	46.6	83.3	64.7	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	12	14	12.9	4	4
Aluminum	mg/L	ND	0.607	0.339	2	4
Ammonia as Nitrogen	mg/L	ND	0.1	0.0625	1	4
Antimony	mg/L	ND	ND	ND	0	4
Arsenic	mg/L	ND	ND	ND	0	4
Barium	mg/L	0.043	0.0549	0.0494	4	4
Beryllium	mg/L	ND	ND	ND	0	4
Cadmium	mg/L	ND	ND	ND	0	4
Calcium	mg/L	12.5	14.7	13.5	4	4
Chloride	mg/L	8.8	13	11.4	4	4
Chromium	mg/L	ND	ND	ND	0	4
Cobalt	mg/L	ND	ND	ND	0	4
Conductivity	umho/cm	149	152	150	4	4
Copper	mg/L	ND	ND	ND	0	4
Cyanide	mg/L	ND	ND	ND	0	4
Dissolved Oxygen	mg/L	7.72	11.6	9.05	4	4
Flow Rate	mgd	1.73	22.1	8.53	4	4
Hardness - Total as CaCO3	mg/L	45	53	50	4	4
Iron	mg/L	0.808	1.18	0.952	4	4
Lead	mg/L	ND	ND	ND	0	4
Magnesium	mg/L	2.7	3.28	2.98	4	4
Manganese	mg/L	0.175	0.323	0.248	4	4
Mercury	mg/L	ND	ND	ND	0	4
Nickel	mg/L	ND	ND	ND	0	4
Nitrate/Nitrite as Nitrogen	mg/L	0.28	0.9	0.552	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	6.51	7.42	7.06	4	4
Phosphorous	mg/L	0.08	0.14	0.11	4	4
Polychlorinated biphenyl	ug/L	ND	ND	ND	0	4
Potassium	mg/L	2.32	2.9	2.63	4	4
Selenium	mg/L	ND	ND	ND	0	4
Silver	mg/L	ND	ND	ND	0	4
Sodium	mg/L	8.14	11.2	9.98	4	4
Suspended Solids	mg/L	ND	ND	ND	0	4
Temperature	deg F	45.5	79.3	62.7	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 4.21. 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	16	15.5	2	2
Benzene	ug/L	ND	ND	ND	0	2
Bromodichloromethane	ug/L	ND	ND	ND	0	2
Calcium	mg/L	23.3	23.6	23.4	2	2
Carbon tetrachloride	ug/L	ND	ND	ND	0	2
Chloride	mg/L	28	28	28	2	2
Chloroform	ug/L	ND	ND	ND	0	2
cis-1,2-Dichloroethene	ug/L	ND	ND	ND	0	2
Conductivity	umho/cm	332	348	340	2	2
Dissolved Oxygen	mg/L	3.71	4.02	3.87	2	2
Ethylbenzene	ug/L	ND	ND	ND	0	2
m,p-Xylene	ug/L	ND	ND	ND	0	2
Magnesium	mg/L	7.95	8.06	8.01	2	2
Manganese	mg/L	ND	ND	ND	0	2
pH	Std Unit	6.1	6.55	6.33	2	2
Potassium	mg/L	1.71	1.74	1.73	2	2
Sodium	mg/L	34.1	34.2	34.1	2	2
Sulfate	mg/L	17	17	17	2	2
Temperature	deg F	57.5	58.4	57.9	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	200	260	230	2	2
Vinyl chloride	ug/L	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.22. Non-Radiological Data for Sediment Location S20

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2380	2730	2560	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	24.7	39.8	32.2	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	353	702	528	2	2
Chromium	mg/kg	6.79	7.25	7.02	2	2
Cobalt	mg/kg	2.81	3.97	3.39	2	2
Copper	mg/kg	ND	2.7	1.96	1	2
Iron	mg/kg	5680	8050	6860	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	232	338	285	2	2
Manganese	mg/kg	221	372	296	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	137	187	162	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	11.5	12.6	12.1	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.23. Non-Radiological Data for Sediment Location C612

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2740	3730	3240	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	47.1	61.3	54.2	2	2
Beryllium	mg/kg	ND	0.667	0.453	1	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	1170	1290	1230	2	2
Chromium	mg/kg	11.1	14.8	12.9	2	2
Cobalt	mg/kg	4.17	5.37	4.77	2	2
Copper	mg/kg	12.3	20.4	16.4	2	2
Iron	mg/kg	5800	11400	8600	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	514	665	590	2	2
Manganese	mg/kg	44.4	267	156	2	2
Mercury	mg/kg	0.023	0.036	0.0295	2	2
Nickel	mg/kg	6.96	9.47	8.21	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	261	294	278	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	5.61	21.7	13.7	2	2
Zinc	mg/kg	24.7	30.3	27.5	2	2

Sediment Non-Radiological Data

Table 4.24. Non-Radiological Data for Sediment Location C616

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2090	3910	3000	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	43.4	51.3	47.3	2	2
Beryllium	mg/kg	ND	0.446	0.341	1	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	1050	1120	1080	2	2
Chromium	mg/kg	12.1	15.7	13.9	2	2
Cobalt	mg/kg	4.1	5.92	5.01	2	2
Copper	mg/kg	15.5	15.8	15.6	2	2
Iron	mg/kg	8580	9740	9160	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	465	567	516	2	2
Manganese	mg/kg	62.1	107	84.5	2	2
Mercury	mg/kg	0.036	0.047	0.0415	2	2
Nickel	mg/kg	7.52	7.57	7.54	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	253	468	360	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	ND	ND	0	2
Sodium	mg/kg	206	213	210	2	2
Thallium	mg/kg	ND	ND	ND	0	2
Uranium	mg/kg	ND	ND	ND	0	2
Vanadium	mg/kg	10.8	12	11.4	2	2
Zinc	mg/kg	21.1	23	22	2	2

Sediment Non-Radiological Data

Table 4.25. Non-Radiological Data for Sediment Location K001

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2320	2560	2440	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	28.2	32.3	30.2	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	792	849	820	2	2
Chromium	mg/kg	5.64	12.2	8.92	2	2
Cobalt	mg/kg	2.65	2.78	2.71	2	2
Copper	mg/kg	7.03	12	9.52	2	2
Iron	mg/kg	3600	3850	3720	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	492	499	496	2	2
Manganese	mg/kg	19	25	22	2	2
Mercury	mg/kg	ND	ND	ND	0	2
Nickel	mg/kg	ND	6.22	4.2	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	243	244	244	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	5.76	6.92	6.34	2	2
Zinc	mg/kg	20.8	44.6	32.7	2	2

Sediment Non-Radiological Data

Table 4.26. Non-Radiological Data for Sediment Location S1

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1600	3560	2580	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	23.4	29.4	26.4	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	501	622	562	2	2
Chromium	mg/kg	8.75	8.89	8.82	2	2
Cobalt	mg/kg	2.45	2.45	2.45	2	2
Copper	mg/kg	3.55	4.37	3.96	2	2
Iron	mg/kg	5170	5990	5580	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	246	340	293	2	2
Manganese	mg/kg	73.6	144	109	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	120	252	186	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	8.77	11.7	10.2	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.27. Non-Radiological Data for Sediment Location S31

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1610	2940	2280	3	3
Antimony	mg/kg	ND	ND	ND	0	3
Arsenic	mg/kg	ND	ND	ND	0	3
Barium	mg/kg	29.4	52.3	40.3	3	3
Beryllium	mg/kg	ND	ND	ND	0	3
Cadmium	mg/kg	ND	ND	ND	0	3
Calcium	mg/kg	1270	5690	2760	3	3
Chromium	mg/kg	4.16	14	7.6	3	3
Cobalt	mg/kg	ND	2.36	1.55	1	3
Copper	mg/kg	7.38	34.8	16.7	3	3
Iron	mg/kg	3180	4720	3890	3	3
Lead	mg/kg	ND	ND	ND	0	3
Magnesium	mg/kg	408	1060	654	3	3
Manganese	mg/kg	41	148	110	3	3
Mercury	mg/kg	0.122	0.19	0.156	3	3
Nickel	mg/kg	ND	14.5	6.36	1	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	220	100	1	3
PCB-1260	ug/kg	ND	270	120	1	3
PCB-1268	ug/kg	ND	ND	ND	0	3
Polychlorinated biphenyl	ug/kg	ND	490	203	1	3
Potassium	mg/kg	97.4	280	169	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	4.57	5.62	5.16	3	3
Zinc	mg/kg	27	124	59.7	3	3

Sediment Non-Radiological Data

Table 4.28. Non-Radiological Data for Sediment Location S33

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2030	2760	2490	3	3
Antimony	mg/kg	ND	ND	ND	0	3
Arsenic	mg/kg	ND	ND	ND	0	3
Barium	mg/kg	26.1	45.4	34.3	3	3
Beryllium	mg/kg	ND	ND	ND	0	3
Cadmium	mg/kg	ND	ND	ND	0	3
Calcium	mg/kg	316	523	423	3	3
Chromium	mg/kg	4.13	10.1	6.32	3	3
Cobalt	mg/kg	ND	3.2	1.85	1	3
Copper	mg/kg	2.48	4.34	3.46	3	3
Iron	mg/kg	3850	4790	4210	3	3
Lead	mg/kg	ND	ND	ND	0	3
Magnesium	mg/kg	232	302	267	3	3
Manganese	mg/kg	212	332	258	3	3
Mercury	mg/kg	ND	0.015	0.00983	1	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	115	156	130	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	6.43	8.65	7.22	3	3
Zinc	mg/kg	ND	ND	ND	0	3

Sediment Non-Radiological Data

Table 4.29. Non-Radiological Data for Sediment Location S2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1670	2150	1910	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	30.1	33.4	31.7	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	714	1280	997	2	2
Chromium	mg/kg	21.8	29.4	25.6	2	2
Cobalt	mg/kg	3.11	3.3	3.21	2	2
Copper	mg/kg	3.76	4.47	4.12	2	2
Iron	mg/kg	5120	6310	5720	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	260	305	282	2	2
Manganese	mg/kg	187	278	232	2	2
Mercury	mg/kg	ND	0.011	0.009	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	270	160	1	2
PCB-1254	ug/kg	140	150	145	2	2
PCB-1260	ug/kg	90	140	115	2	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	290	500	395	2	2
Potassium	mg/kg	ND	108	75.2	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	8.64	10.4	9.52	2	2
Zinc	mg/kg	26.9	28.1	27.5	2	2

Sediment Non-Radiological Data

Table 4.30. Non-Radiological Data for Sediment Location S27

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1210	4450	2830	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	28.2	34.2	31.2	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	552	573	562	2	2
Chromium	mg/kg	16.6	45.4	31	2	2
Cobalt	mg/kg	ND	2.5	1.78	1	2
Copper	mg/kg	2.26	5.01	3.63	2	2
Iron	mg/kg	3020	6110	4560	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	175	350	262	2	2
Manganese	mg/kg	139	186	162	2	2
Mercury	mg/kg	ND	ND	ND	0	2
Nickel	mg/kg	ND	4.57	3.35	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	17000	8520	1	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	ND	17000	8530	1	2
Potassium	mg/kg	ND	269	156	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	5.15	11.8	8.47	2	2
Zinc	mg/kg	ND	26.6	17.5	1	2

Sediment Non-Radiological Data

Table 4.31. Non-Radiological Data for Sediment Location C746KTB2

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1710	1800	1760	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	24.3	25.4	24.9	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	575	688	632	2	2
Chromium	mg/kg	5.54	9.43	7.49	2	2
Cobalt	mg/kg	ND	ND	ND	0	2
Copper	mg/kg	2.76	2.98	2.87	2	2
Iron	mg/kg	4570	6120	5340	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	222	223	222	2	2
Manganese	mg/kg	144	188	166	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	116	118	117	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	8.23	8.96	8.6	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Sediment Non-Radiological Data

Table 4.32. Non-Radiological Data for Sediment Location S34

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1540	2730	2140	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	26.1	27.1	26.6	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	367	605	486	2	2
Chromium	mg/kg	25	29.8	27.4	2	2
Cobalt	mg/kg	ND	ND	ND	0	2
Copper	mg/kg	3.87	5.53	4.7	2	2
Iron	mg/kg	3530	3830	3680	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	215	248	232	2	2
Manganese	mg/kg	74.9	147	111	2	2
Mercury	mg/kg	ND	0.027	0.0175	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	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	182	115	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	6.01	6.52	6.26	2	2
Zinc	mg/kg	ND	28	18.7	1	2

Sediment Non-Radiological Data

Table 4.33. Non-Radiological Data for Sediment Location L194

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	1530	1780	1660	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	27.7	28.8	28.2	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	838	907	872	2	2
Chromium	mg/kg	11.6	18.3	14.9	2	2
Cobalt	mg/kg	2.86	4.72	3.79	2	2
Copper	mg/kg	5.1	5.43	5.26	2	2
Iron	mg/kg	4330	5400	4860	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	327	337	332	2	2
Manganese	mg/kg	130	145	138	2	2
Mercury	mg/kg	ND	0.014	0.0107	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	400	222	1	2
PCB-1254	ug/kg	90	290	190	2	2
PCB-1260	ug/kg	100	170	135	2	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	190	860	525	2	2
Potassium	mg/kg	ND	ND	ND	0	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	5.76	6.78	6.27	2	2
Zinc	mg/kg	29.3	47.2	38.2	2	2

Sediment Non-Radiological Data

Table 4.34. Non-Radiological Data for Sediment Location S32

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	2150	4570	3360	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	32.7	50.2	41.5	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	2120	2250	2180	2	2
Chromium	mg/kg	21.8	48.5	35.1	2	2
Cobalt	mg/kg	ND	2.48	1.82	1	2
Copper	mg/kg	21.3	39.1	30.2	2	2
Iron	mg/kg	4270	5630	4950	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	346	667	506	2	2
Manganese	mg/kg	118	121	120	2	2
Mercury	mg/kg	0.08	0.139	0.109	2	2
Nickel	mg/kg	14.7	19.6	17.1	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	800	425	1	2
PCB-1254	ug/kg	250	580	415	2	2
PCB-1260	ug/kg	190	480	335	2	2
PCB-1268	ug/kg	ND	ND	ND	0	2
Polychlorinated biphenyl	ug/kg	440	1860	1150	2	2
Potassium	mg/kg	200	414	307	2	2
Selenium	mg/kg	ND	ND	ND	0	2
Silver	mg/kg	ND	3.05	2	1	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	6.85	8.59	7.72	2	2
Zinc	mg/kg	52.4	72.2	62.3	2	2

Sediment Non-Radiological Data

Table 4.35. Non-Radiological Data for Sediment Location S28

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	455	3410	1930	2	2
Antimony	mg/kg	ND	ND	ND	0	2
Arsenic	mg/kg	ND	ND	ND	0	2
Barium	mg/kg	6.76	32	19.4	2	2
Beryllium	mg/kg	ND	ND	ND	0	2
Cadmium	mg/kg	ND	ND	ND	0	2
Calcium	mg/kg	138	323	230	2	2
Chromium	mg/kg	2.84	5.92	4.38	2	2
Cobalt	mg/kg	ND	ND	ND	0	2
Copper	mg/kg	ND	2.3	1.74	1	2
Iron	mg/kg	2080	4420	3250	2	2
Lead	mg/kg	ND	ND	ND	0	2
Magnesium	mg/kg	46.7	321	184	2	2
Manganese	mg/kg	57.8	240	149	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	300	174	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	3.06	8.78	5.92	2	2
Zinc	mg/kg	ND	ND	ND	0	2

Deer Non-Radiological Data

Table 4.36. Non-Radiological Analysis of Deer Liver Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	ND	ND	ND	0	6
Antimony	mg/kg	ND	ND	ND	0	6
Arsenic	mg/kg	ND	ND	ND	0	6
Barium	mg/kg	0.105	0.385	0.186	6	6
Beryllium	mg/kg	ND	ND	ND	0	6
Cadmium	mg/kg	ND	ND	ND	0	6
Chromium	mg/kg	0.247	0.319	0.29	6	6
Cobalt	mg/kg	ND	0.273	0.148	1	6
Copper	mg/kg	2.09	33	22.8	6	6
Iron	mg/kg	82.2	209	134	6	6
Lead	mg/kg	ND	ND	ND	0	6
Lipids	%	5.25	6.59	6.13	6	6
Manganese	mg/kg	0.471	4.35	3.42	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	0.555	0.31	3	6
Silver	mg/kg	ND	ND	ND	0	6
Thallium	mg/kg	ND	3.56	1.88	4	6
Vanadium	mg/kg	ND	0.252	0.145	1	6
Zinc	mg/kg	25.8	40.2	32.5	6	6

Deer Non-Radiological Data

Table 4.37. Non-Radiological Analysis of Deer Muscle Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	ND	ND	ND	0	6
Antimony	mg/kg	ND	ND	ND	0	6
Arsenic	mg/kg	ND	ND	ND	0	6
Barium	mg/kg	ND	0.14	0.0761	2	6
Beryllium	mg/kg	ND	ND	ND	0	6
Cadmium	mg/kg	ND	ND	ND	0	6
Chromium	mg/kg	ND	0.452	0.243	5	6
Cobalt	mg/kg	ND	ND	ND	0	6
Copper	mg/kg	1.55	1.99	1.68	6	6
Iron	mg/kg	37.6	48.6	44.1	6	6
Lead	mg/kg	ND	ND	ND	0	6
Manganese	mg/kg	0.149	0.331	0.214	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	ND	ND	0	6
Vanadium	mg/kg	ND	ND	ND	0	6
Zinc	mg/kg	10.4	17.6	13.9	6	6

Table 4.38. Non-Radiological Analysis of Deer Kidney Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Aluminum	mg/kg	ND	7.95	2.13	2	6
Antimony	mg/kg	ND	ND	ND	0	6
Arsenic	mg/kg	ND	ND	ND	0	6
Barium	mg/kg	0.534	0.812	0.686	6	6
Beryllium	mg/kg	0.0163	0.0249	0.0206	6	6
Cadmium	mg/kg	0.635	2.88	1.93	6	6
Chromium	mg/kg	ND	ND	ND	0	6
Cobalt	mg/kg	ND	0.452	0.337	5	6
Copper	mg/kg	3.67	4.37	4.15	6	6
Iron	mg/kg	44.2	86.8	62.4	6	6
Lead	mg/kg	ND	ND	ND	0	6
Manganese	mg/kg	1.38	2.42	1.75	6	6
Mercury	mg/kg	ND	ND	ND	0	6
Nickel	mg/kg	ND	0.73	0.405	2	6
Selenium	mg/kg	0.603	1.01	0.761	6	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	21.6	28	25.2	6	6

Deer Non-Radiological Data

Table 4.39. Non-Radiological Analysis of Deer Fat Tissue

Analysis	Units	Minimum	Maximum	Average	Count Detects	Count Samples
Lipids	%	30.5	80.7	62.9	11	11
PCB-1016	ug/kg	ND	ND	ND	0	11
PCB-1221	ug/kg	ND	ND	ND	0	11
PCB-1232	ug/kg	ND	ND	ND	0	11
PCB-1242	ug/kg	ND	ND	ND	0	11
PCB-1248	ug/kg	ND	ND	ND	0	11
PCB-1254	ug/kg	ND	ND	ND	0	11
PCB-1260	ug/kg	23.7	54	34.4	11	11
PCB-1268	ug/kg	ND	ND	ND	0	11
Polychlorinated biphenyl	ug/kg	23.7	54	34.4	11	11

Paducah Annual Site Environmental Report 2009

Data Summary

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure