Table C-27. Summary Statistics for CFA-08 Drainfield (By Depth Zone)

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Normal 95% UCL [a]	Lognormal 95% UCL [a]
Cs-137	pCi/g	0-0.5	30	29	96.7%	0.094	169	2.48E+01	4.52E+01	3.88E+01	1.87E+02
Pu-239/240	pCi/g	0-0.5	8	3	37.5%	0.11	2.9	4.27E-01	1.01E+00	1.10E+00	8.14E+01
U-235	pCi/g	0-0.5	30	1	3.3%	0.221	0.221	2.45E-02	6.03E-02	4.33E-02	9.97E+00
Cs-137	pCi/g	0.5-4	25	14	56.0%	0.0795	180	2.74E+01	5.18E+01	4.52E+01	1.59E+05
Pu-239/240	pCi/g	0.5-4	5	1	20.0%	0.07	0.07	2.00E-02	3.08E-02	4.94E-02	3.44E+07
U-235	pCi/g	0.5-4	25	4	16.0%	0.14	0.44	7.06E-02	1.06E-01	1.07E-01	3.61E-01
Cs-137	pCi/g	4-10	4	4	100.0%	17	29	2.20E+01	6.00E+00	2.91E+01	3.39E+01
Pu-239/240	pCi/g	4-10	5	0	0.0%						
U-235	pCi/g	4-10	5	1	20.0%	0.14	0.14	6.20E-02	4.49E-02	1.05E-01	1.69E-01
Cs-137	pCi/g	>10	6	0	0.0%						
Pu-239/240	pCi/g	>10	9	0	0.0%						
U-235	pCi/g	>10	21	8	38.1%	0.031	0.13	5.36E-02	3.53E-02	6.69E-02	1.16E-01

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum sample requirements are met.

NS = Not sampled.

Table C-28. Supplemental contaminant screening for OU 4-08, CFA-08: Pipeline

			Step 1			Step 2			
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?	Site COPC?
Aroclor-1254	mg/kg	0.034	–		–	0.32	[d]	NO	NO
Aroclor-1260	mg/kg	0.034	–		–	0.32	[d]	NO	NO
Arsenic	mg/kg	9.6	7.4	[b]	YES	0.43	[d]	YES	NO[f]
Carbazole	mg/kg	NS							NO
Isophorone	mg/kg	NS							NO
Am-241	pCi/g	ND	0.019	[b]	NO	2.9	[e]	NO	NO
Co-60	pCi/g	ND	–		–	7,400	[e]	NO	NO
Cs-137	pCi/g	0.075	1.28	[b]	NO	0.23	[e]	NO	NO
Eu-152	pCi/g	ND	–		–	2.7	[e]	NO	NO
Eu-154	pCi/g	ND	–		–	52	[e]	NO	NO
Pu-239/240	pCi/g	NS							NO
U-235	pCi/g	0.0596	–		–	0.13	[e]	NO	NO

Notes:

– = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentration at the* Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] Toxic Substance Control Act (TSCA). Cleanup of PCB Spills. Federal Register, 7 Feb. 1978, 43 FR 7150 and 31 May 1979, 44 FR 31514.

[d] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. October 22.

[e] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.

[f] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentrations for INEEL soils. Arsenic is therefore eliminated as a COPC.

Table C-29. Summary Statistics for CFA-08 Pipeline

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Rad Uncrt (+/-)	Maximum Detected	Rad Uncrt (+/-)	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	INEEL Background Concentration	Number of Samples Greater than Background
Aroclor-1254	mg/kg	10	1	10.0%	0.034		0.034		1.89E-02	5.33E-03	2.16E-02	--	NA
Aroclor-1260	mg/kg	10	1	10.0%	0.034		0.034		1.89E-02	5.33E-03	2.16E-02	--	NA
Arsenic	mg/kg	10	10	100.0%	2.5		9.6		6.19E+00	2.37E+00	8.88E+00	7.4	4
Carbazole	mg/kg	NS											
Isophorone	mg/kg	NS											
Am-241	pCi/g	3	0	0.0%								0.019	0
Co-60	pCi/g	3	0	0.0%								--	NA
Cs-137	pCi/g	3	1	33.3%	0.075	0.04	0.075	0.04	2.42E-02	4.48E-02	3.81E+34	1.28	0
Eu-152	pCi/g	3	0	0.0%								--	NA
Eu-154	pCi/g	3	0	0.0%								--	NA
Pu-239/240	pCi/g	NS											
U-235	pCi/g	6	3	50.0%	0.0421	0.01	0.0596	0.01	3.03E-02	3.20E-02	5.51E+00	--	NA

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum samples requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

NS = Not Sampled.

Table C-30. Supplemental contaminant screening for OU 4-08, CFA-08: Sewage Plant (CFA-691) and Hot Laundry Drain Pipe (CFA-49)

			Step 1			Step 2			
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?	Site COPC?
Aroclor-1254	mg/kg	ND	–		–	25	[c]	NO	NO
Aroclor-1260	mg/kg	ND	–		–	25	[c]	NO	NO
Arsenic	mg/kg	7.46	7.4	[b]	YES	0.43	[d]	YES	NO[f]
Carbazole	mg/kg	ND	–		–	32	[d]	NO	NO
Isophorone	mg/kg	ND	–		–	670	[d]	NO	NO
Am-241	pCi/g	0.143	0.019	[b]	YES	2.9	[e]	NO	NO
Co-60	pCi/g	0.093	–		–	7,400	[e]	NO	NO
Cs-137	pCi/g	0.212	1.28	[b]	NO	0.23	[e]	NO	NO
Eu-152	pCi/g	ND	–		–	2.7	[e]	NO	NO
Eu-154	pCi/g	ND	–		–	52	[e]	NO	NO
Pu-239	pCi/g	0.0045	0.19	[b]	NO	2.5	[e]	NO	NO
Ra-226	pCi/g	3.04	–		–	0.0055	[e]	YES	YES
U-235	pCi/g	0.232	–		–	0.13	[e]	YES	YES

Notes:

ND = Not detected.

-- = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentration at the* Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] Toxic Substance Control Act (TSCA). Cleanup of PCB Spills. Federal Register, 7 Feb. 1978, 43 FR 7150 and 31 May 1979, 44 FR 31514.

[d] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. October 22.

[e] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.

[f] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentrations for INEEL soils. Arsenic is therefore eliminated as a COPC.

Table C-31. Summary Statistics for CFA-08 Sewage Treatment Plant and Hot Laundry Drain Pipe (CFA-49)

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Rad Uncrt (+/-)	Maximum Detected	Rad Uncrt (+/-)	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	INEEL Background Concentration	Number of Samples Greater than Background
Aroclor-1254	mg/kg	8	0	0.0%								--	NA
Aroclor-1260	mg/kg	8	0	0.0%								--	NA
Arsenic	mg/kg	12	12	100.0%	3.21		7.46		4.70E+00	1.41E+00	5.54E+00	7.4	1
Carbazole	mg/kg	8	0	0.0%								--	NA
Isophorone	mg/kg	8	0	0.0%								--	NA
Am-241	pCi/g	26	8	30.8%	0.0075	0	0.143	0.06	7.77E-03	4.23E-02	2.50E+00	0.019	1
Co-60	pCi/g	13	2	15.4%	0.039	0.02	0.093	0.02	1.17E-02	2.72E-02	1.21E+03	--	NA
Cs-137	pCi/g	13	2	15.4%	0.039	0.02	0.212	0.02	1.98E-02	5.92E-02	3.43E+02	1.28	0
Eu-152	pCi/g	13	0	0.0%								--	NA
Eu-154	pCi/g	13	0	0.0%								--	NA
Pu-239	pCi/g	13	1	7.7%	0.0045	0	0.0045	0	4.62E-04	2.02E-03	3.83E+09	0.19	0
Ra-226	pCi/g	13	13	100.0%	1.25	0.44	3.04	0.47	2.27E+00	5.20E-01	2.60E+00	--	NA
U-235	pCi/g	26	19	73.1%	0.0195	0.01	0.232	0.07	7.73E-02	7.21E-02	1.52E-01	--	NA

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum samples requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

Table C-32. Summary Statistics for CFA-08 Sewage Treatment Plant and Hot Laundry Drain Pipe (CFA-49) (By Depth Zone)

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Normal 95% UCL [a]	Lognormal 95% UCL [a]
Ra-226	pCi/g	0-0.5	NS								
U-235	pCi/g	0-0.5	NS								
Ra-226	pCi/g	0.5-4	NS								
U-235	pCi/g	0.5-4	NS								
Ra-226	pCi/g	4-10	NS								
U-235	pCi/g	4-10	NS								
Ra-226	pCi/g	>10	13	13	100.0%	1.25	3.04	2.27E+00	5.20E-01	2.53E+00	2.60E+00
U-235	pCi/g	>10	26	19	73.1%	0.0195	0.232	7.73E-02	7.21E-02	1.01E-01	1.52E-01

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum sample requirements are met.

NS = Not sampled.

Table C-33. Supplemental contaminant screening for OU 4-09, CFA-10: Transformer Yard Oil Spills

			Step 1			Step 2			
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?	Site COPC?
Aroclor-1254	mg/kg	1.4	–		–	0.32	[d]	YES	YES
Aroclor-1260	mg/kg	1.3	–		–	25	[c]	NO	NO
Arsenic	mg/kg	11.6	7.4	[b]	YES	0.43	[d]	YES	NO [f]
Lead	mg/kg	3300	23	[b]	YES	400	[e]	YES	YES

Notes:

– = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentration at the* Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] Toxic Substance Control Act (TSCA). Cleanup of PCB Spills. Federal Register, 7 Feb. 1978, 43 FR 7150 and 31 May 1979, 44 FR 31514.

[d] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. October 22.

[e] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. Office of Solid Waste and Emergency Response, Washington, C.C. OSWER Directive #9355.4-12. July.

[f] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentrations for INEEL soils. Arsenic is therefore eliminated as a COPC.

Table C-34. Summary Statistics for CFA-10

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	INEEL Background Concentration	Number of Samples Greater Than Background
Aroclor-1254	mg/kg	6	6	100.0%	0.17	1.4	8.02E-01	5.57E-01	4.08E+00	--	NA
Aroclor-1260	mg/kg	6	4	66.7%	0.32	1.3	5.61E-01	4.79E-01	1.22E+01	--	NA
Arsenic	mg/kg	4	4	100.0%	4.2	11.6	7.10E+00	3.52E+00	2.06E+01	7.4	2
Lead	mg/kg	4	4	100.0%	256	3300	1.28E+03	1.39E+03	1.66E+05	23	4

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum samples requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

Table C-35. Summary Statistics for CFA-10 (By Depth Zone)

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Normal 95% UCL [a]	Lognormal 95% UCL [a]
Lead	mg/kg	0 - 0.5	4	4	100.0%	256	3300	1.28E+03	1.39E+03	2.92E+03	1.66E+05
Lead	mg/kg	0.5-4	NS								
Lead	mg/kg	4-10	NS								
Lead	mg/kg	>10	NS								

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum samples requirements are met.

NS = Not sampled.

Table C-36. Supplemental contaminant screening for OU 4-09, CFA-42: Tank Farm Pump Station Spills

			Step 1		Step 2		
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration	Is the maximum concentration greater than background value?	Soil Risk-Based Concentration	Is the maximum concentration greater than RBC?	Site COPC?
2-Methylnaphthalene	mg/kg	NS					NO
Phenanthrene	mg/kg	0.0157	–	–	–	–	YES

Notes:

NS = Not sampled.

– = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

Table C-37. Summary Statistics for CFA-42

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	INEEL Background Concentration	Number of Samples Greater Than Background
Phenanthrene	mg/kg	42	2	4.8%	0.00428	0.0157	2.25E-03	2.16E-03	2.35E-03	--	NA

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum samples requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

Table C-38. Summary Statistics for CFA-42 (By Depth Zone)

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Normal 95% UCL [a]	Lognormal 95% UCL [a]
Phenanthrene	mg/kg	0-0.5	NS								
Phenanthrene	mg/kg	0.5-4	3	0	0.0%						
Phenanthrene	mg/kg	4-10	10	0	0.0%						
Phenanthrene	mg/kg	>10	29	2	6.9%	0.00428	0.0157	2.45E-03	2.59E-03	3.27E-03	2.66E-03

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum samples requirements are met.

NS = Not sampled.

Table C-39. Supplemental contaminant screening for OU 4-09, CFA-46: Cafeteria Oil Tank Spill

			Step 1			Step 2			
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?	Site COPC?[d]
Benzene	mg/kg	0.76	--		--	22	[c]	NO	NO
Diesel	mg/kg	9630	1000	[b]	YES	162,000	[a]	NO	NO
Ethylbenzene	mg/kg	10	--		--	7,800	[c]	NO	NO
Gasoline	mg/kg	ND	--		--	16,200	[a]	NO	NO
Toluene	mg/kg	3.8	--		--	16,000	[c]	NO	NO
Xylene (total)	mg/kg	13	--		--	160,000	[c]	NO	NO

Notes:

-- = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

[b] Correspondence from G. C. Bowman, Director of the Environmental Protection Division, U.S. Department of Energy, Idaho Operations Office, Idaho Falls, Idaho to Dr. Walton C. Poole, Idaho Department of Health and Welfare, Division of Environmental Quality, Pocatello, ID, November 29, 1989.

[c] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. October 22.

[d] All contaminant concentrations are less than the EPA Region III RBCs, but the site is still retained for evaluation of the groundwater pathway. See Section 4.1.14.

Table C-40. Summary Statistics for CFA-46

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	Background Concentration	Number of Samples Greater Than Background Concentration
Benzene	mg/kg	7	5	71.4%	0.025	0.76	1.95E-01	2.68E-01	1.07E+04	--	NA
Diesel	mg/kg	2	2	100.0%	87	9630	4.86E+03	6.75E+03		1000[b]	1
Ethylbenzene	mg/kg	7	5	71.4%	0.66	10	2.52E+00	3.47E+00	7.62E+10	--	NA
Gasoline	mg/kg	2	0	0.0%						--	NA
Toluene	mg/kg	7	5	71.4%	0.13	3.8	1.05E+00	1.41E+00	1.29E+08	--	NA
Xylene	mg/kg	7	5	71.4%	2.4	13	5.77E+00	5.65E+00	1.01E+12	--	NA

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum samples requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable; no background value available

[b] = Correspondence from G.C. Bowman, Director of the Environmental Protection Division, U.S. Department of Energy, Idaho Operations Office, Idaho Falls, Idaho to Dr. Walton C. Poole, Idaho Department of Health and Welfare, Division of Environmental Quality, Pocatello, ID, November 29, 1989.

Table C-41. Supplemental contaminant screening for OU 4-11, CFA-05: Motor Pond Pool

			Step 1			Step 2			
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?	Site COPC?
Aroclor-1260	mg/kg	1.01	–		–	0.32	[c]	YES	YES
Arsenic	mg/kg	19.8	7.4	[a]	YES	0.43	[c]	No[f]	No[f]
Lead	mg/kg	631	23	[a]	YES	400	[d]	YES	YES
Sulfide	mg/kg	9.2	–		–	–		No[g]	NO
Thallium	mg/kg	ND	0.68	[a]	–	–		–	NO
Ac-228	pCi/g	1.4	–		–	0.0549	[a]	YES	YES
Am-241	pCi/g	9.46	0.019	[a]	YES	2.9	[e]	YES	YES
Bi-212	pCi/g	1.72	–		–	0.165	[a]	YES	YES
Bi-214	pCi/g	1.37	–		–	0.0299	[a]	YES	YES
Cs-137	pCi/g	8.41	1.28	[a]	YES	0.23	[e]	YES	YES
Pb-212	pCi/g	1.5	–		–	0.6	[a]	YES	YES
Pb-214	pCi/g	1.39	–		–	1.E+13	[e]	NO	NO
Ra-226	pCi/g	3.33	–		–	0.0055	[e]	YES	YES
Tl-208	pCi/g	1.41	–		–	0.0124	[a]	YES	YES

Notes:

ND = Not detected.

– = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

[b] Toxic Substance Control Act (TSCA). Cleanup of PCB Spills. Federal Register, 7 Feb. 1978, 43 FR 7150 and 31 May 1979, 44 FR 31514.

[c] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. October 22.

[d] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. Office of Solid Waste and Emergency Response, Washington, C.C. OSWER Directive #9355.4-12. July.

[e] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.

[f] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentrations for INEEL soils. Arsenic is therefore eliminated as a COPC.

[g] Sulfide was not retained as a COPC beause it was detected only once.

Table C-42. Summary Statistics for CFA-05

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Rad Uncrt (+/-)	Maximum Detected	Rad Uncrt (+/-)	Arithmetic Mean	Lognormal 95 UCL [a]	INEEL Background Concentration	Number of Samples Greater Than Background
Aroclor-1260	mg/kg	4	1	25.0%	1.01		1.01		3.13E-01	1.55E+02	--	0
Arsenic	mg/kg	52	45	86.5%	2.3		19.8		5.68E+00	6.98E+00	7.4	14
Lead	mg/kg	52	52	100.0%	10.6		631		6.47E+01	7.43E+01	23	23
Sulfide	mg/kg	4	1	25.0%	9.2		9.2		4.50E+00	1.75E+01	--	NA
Thallium	mg/kg	52	0	0.0%						2.24E-01	0.68	2
Ac-228	pCi/g	38	38	100.0%	0.661	0.14	1.4	0.73	1.15E+00	1.22E+00	--	NA
Am-241	pCi/g	3	3	100.0%	1.07	0.03	9.46	0.62	3.94E+00	3.48E+06	0.019	3
Bi-212	pCi/g	28	28	100.0%	0.871	0.38	1.72	0.28	1.26E+00	1.35E+00	--	NA
Bi-214	pCi/g	38	38	100.0%	0.647	0.09	1.37	0.13	1.03E+00	1.09E+00	--	NA
Cs-137	pCi/g	21	21	100.0%	0.172	0.07	8.41	0.11	1.59E+00	2.62E+00	1.28	5
Pb-212	pCi/g	37	37	100.0%	0.686	0.12	1.5	0.15	1.15E+00	1.22E+00	--	NA
Pb-214	pCi/g	38	38	100.0%	0.613	0.14	1.39	0.23	1.07E+00	1.15E+00	--	NA
Ra-226	pCi/g	34	34	100.0%	0.888	0.08	3.33	0.14	2.03E+00	2.28E+00	--	NA
Tl-208	pCi/g	38	38	100.0%	0.637	0.11	1.41	0.14	1.07E+00	1.13E+00	--	NA

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum sample requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

Table C-43. Summary Statistics for CFA-05 (By Depth Zone)

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Normal 95 UCL [a]	Lognormal 95 UCL [a]
Arsenic	mg/kg	0 - 0.5	14	13	92.9%	6.2	19.2	9.43E+00	4.55E+00	1.16E+01	1.29E+01
Lead	mg/kg	0 - 0.5	14	14	100.0%	12.4	631	1.04E+02	1.77E+02	1.88E+02	2.61E+02
Ac-228	pCi/g	0 - 0.5	8	8	100.0%	0.911	1.4	1.19E+00	1.41E-01	1.28E+00	1.31E+00
Am-241	pCi/g	0 - 0.5	2	2	100.0%	1.07	9.46	5.27E+00	5.93E+00		
Bi-212	pCi/g	0 - 0.5	6	6	100.0%	0.893	1.46	1.26E+00	2.00E-01	1.43E+00	1.49E+00
Bi-214	pCi/g	0 - 0.5	8	8	100.0%	0.936	1.37	1.17E+00	1.27E-01	1.25E+00	1.27E+00
Cs-137	pCi/g	0 - 0.5	7	7	100.0%	0.172	8.41	2.61E+00	2.77E+00	4.65E+00	3.47E+01
Pb-212	pCi/g	0 - 0.5	8	8	100.0%	0.89	1.42	1.23E+00	1.52E-01	1.33E+00	1.36E+00
Ra-226	pCi/g	0 - 0.5	8	8	100.0%	1.38	3.33	2.26E+00	7.01E-01	2.73E+00	2.93E+00
Tl-208	pCi/g	0 - 0.5	8	8	100.0%	0.901	1.3	1.17E+00	1.43E-01	1.26E+00	1.29E+00
Arsenic	mg/kg	0.5 - 4	19	18	94.7%	2.3	19.8	5.46E+00	4.07E+00	7.08E+00	7.00E+00
Lead	mg/kg	0.5 - 4	19	19	100.0%	11.3	369	8.21E+01	9.85E+01	1.21E+02	1.46E+02
Ac-228	pCi/g	0.5 - 4	14	14	100.0%	1.22	1.36	1.30E+00	4.64E-02	1.32E+00	1.32E+00
Am-241	pCi/g	0.5 - 4	1	1	100.0%	1.29	1.29	1.29E+00	0.00E+00		
Bi-212	pCi/g	0.5 - 4	13	13	100.0%	0.947	1.72	1.41E+00	2.29E-01	1.52E+00	1.54E+00
Bi-214	pCi/g	0.5 - 4	14	14	100.0%	1.05	1.35	1.18E+00	9.62E-02	1.23E+00	1.23E+00
Cs-137	pCi/g	0.5 - 4	14	14	100.0%	0.267	2.31	1.08E+00	5.75E-01	1.35E+00	1.66E+00
Pb-212	pCi/g	0.5 - 4	14	14	100.0%	1.18	1.37	1.28E+00	5.73E-02	1.30E+00	1.30E+00
Ra-226	pCi/g	0.5 - 4	14	14	100.0%	1.5	3.06	2.41E+00	3.65E-01	2.58E+00	2.62E+00
Tl-208	pCi/g	0.5 - 4	14	14	100.0%	0.982	1.41	1.20E+00	1.21E-01	1.26E+00	1.26E+00
Arsenic	mg/kg	4 - 10	4	3	75.0%	6	8.3	5.56E+00	3.15E+00	9.27E+00	2.38E+02
Lead	mg/kg	4 - 10	4	4	100.0%	18.2	70.9	3.24E+01	2.57E+01	6.26E+01	1.78E+02
Ac-228	pCi/g	4 - 10	2	2	100.0%	1.31	1.4	1.36E+00	6.36E-02		
Am-241	pCi/g	4 - 10	NS								
Bi-212	pCi/g	4 - 10	1	1	100.0%	0.933	0.933	9.33E-01	0.00E+00		
Bi-214	pCi/g	4 - 10	2	2	100.0%	0.998	0.999	9.99E-01	7.07E-04		
Cs-137	pCi/g	4 - 10	NS								
Pb-212	pCi/g	4 - 10	1	1	100.0%	1.5	1.5	1.50E+00	0.00E+00		
Ra-226	pCi/g	4 - 10	1	1	100.0%	2.15	2.15	2.15E+00	0.00E+00		
Tl-208	pCi/g	4 - 10	2	2	100.0%	0.669	1.27	9.70E-01	4.25E-01		
Arsenic	mg/kg	>10	15	11	73.3%	2.3	3.4	2.49E+00	1.02E+00	2.95E+00	3.57E+00
Lead	mg/kg	>10	15	15	100.0%	10.6	20.6	1.43E+01	3.08E+00	1.57E+01	1.58E+01
Ac-228	pCi/g	>10	14	14	100.0%	0.661	1.22	9.53E-01	1.69E-01	1.03E+00	1.05E+00
Am-241	pCi/g	>10	NS								
Bi-212	pCi/g	>10	8	8	100.0%	0.871	1.21	1.08E+00	1.44E-01	1.17E+00	1.19E+00
Bi-214	pCi/g	>10	14	14	100.0%	0.647	0.961	7.90E-01	1.07E-01	8.41E-01	8.46E-01
Cs-137	pCi/g	>10	NS								
Pb-212	pCi/g	>10	14	14	100.0%	0.686	1.25	9.54E-01	1.59E-01	1.03E+00	1.04E+00
Ra-226	pCi/g	>10	11	11	100.0%	0.888	2.23	1.36E+00	3.86E-01	1.57E+00	1.60E+00
Tl-208	pCi/g	>10	14	14	100.0%	0.637	1.04	8.96E-01	1.30E-01	9.58E-01	9.69E-01

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

NS = Not Sampled.

Table C-44. Supplemental contaminant screening for OU-4-13, CFA-51: Dry Well at North End of CFA-640

			Step 1			Step 2			
Workplan COPC [a]	Units	Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?	Site COPC?
Lead	mg/kg	37	23	[b]	YES	400	[c]	NO	NO

Notes:

– = Screening concentration is not available for this chemical.

Reference:

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Idaho Falls, ID.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentration at the* Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. Office of Solid Waste and Emergency Response, Washington, C.C. OSWER Directive #9355.4-12. July.

Table C-45. Summary Statistics for CFA-51

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	Background Concentration	Number of Samples Greater Than Background Concentration
Lead	mg/kg	1	1	100.0%	37	37	3.70E+01	0.00E+00		23	1

Notes:

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.
UCL values are shown only if these minimum samples requirements are met.