

Table D-70. Cr(VI) Concentrations in Ringold Upper Mud Surface Material – Remedial Process Optimization Wells

Well ID	Sample Number	Sample Depth Interval (m bgs)		Sample Depth Interval (ft bgs)		Cr(VI) (mg/kg)	Lab Qualifier
199-H1-1	B24D86	10.3	10.8	33.8	35.5	0.10	NU
199-H1-2	B24D85	13.4	14.1	43.8	46.3	0.10	NU
	B24DD4	11.0	11.8	36.2	38.7	0.10	NU
	B24DD6	11.9	12.6	38.9	41.4	0.10	NU
	B24DD8	12.7	13.5	41.8	44.3	0.10	NU
	B24DF0	15.9	16.6	52.0	54.5	0.10	NU
199-H1-20	B25VR8	16.6	17.3	54.3	56.8	0.10	U
199-H1-3	B24D84	13.3	13.9	43.6	45.6	0.10	U
199-H1-4	B24D94	12.5	13.4	41.0	43.8	0.10	NU
	B24DD5	11.4	12.0	37.3	39.5	0.10	NU
	B24DF1	14.3	15.0	46.8	49.1	0.10	NU
199-H1-5	B24D98	13.4	14.0	44.0	46.0	0.10	NU
199-H1-6	B24D96	11.4	12.2	37.5	40.0	0.10	NU
199-H1-7	B28MP5	9.8	10.5	32.0	34.5	0.14	BN
199-H1-21	B22Y14	10.9	11.6	35.7	38.2	0.10	U
199-H1-25	B22Y16	10.9	11.7	35.8	38.3	0.10	U
199-H1-27	B22Y17	11.6	12.3	38.0	40.5	0.10	U
199-H1-32	B22Y07	14.6	15.2	48.0	50.0	0.10	U
199-H1-33	B22Y10	12.8	13.4	42.0	44.0	0.10	NU
199-H1-34	B22Y12	12.7	13.5	41.7	44.2	0.10	U

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199-H1-35	B22HX7	9.2	9.7	30.2	31.7	0.10	U
	B22HX8	9.8	10.5	32.0	34.5	0.10	U
	B22HX9	10.9	11.7	35.9	38.4	0.10	U
	B22HY0	13.9	14.6	45.5	48.0	0.10	U
	B22HY2	13.9	14.6	45.5	48.0	0.10	U
	B238F7	13.2	13.9	43.2	45.7	0.10	U
199-H1-36	B23506	8.8	9.6	29.0	31.5	0.10	NU
	B23507	10.3	11.1	33.8	36.3	0.10	NU
	B23508	11.1	11.8	36.3	38.8	0.10	U
	B23509	13.4	14.2	44.0	46.5	0.10	U
	B23511	13.4	14.2	44.0	46.5	0.10	U
	B238F8	11.9	12.7	39.0	41.5	0.10	U
199-H1-37	B22Y06	13.5	14.1	44.3	46.4	0.10	U
199-H1-38	B22Y05	13.4	14.1	43.8	46.3	0.10	U
	B230T5	13.4	14.1	43.8	46.3	0.10	U
199-H1-39	B22Y13	-	12.2	-	40.0	0.10	U
199-H1-40	B22Y09	12.7	13.4	41.5	44.0	0.10	U
199-H1-42	B21ND3	12.5	13.2	40.9	43.4	0.10	NU
199-H1-43	B21NF5	13.1	13.8	43.0	45.3	0.10	NU
199-H1-45	B21ND8	17.0	17.6	55.8	57.8	0.30	U

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Well ID	Sample Number	Sample Depth Interval (m bgs)		Sample Depth Interval (ft bgs)		Cr(VI) (mg/kg)	Lab Qualifier
199-H3-6	B28JK1	16.7	17.3	54.9	56.9	0.14	NU
199-H3-7	B28N28	16.3	17.1	53.6	56.1	0.13	NU
199-H3-9	B29YV7	15.5	16.3	51.0	53.5	0.12	NU
199-H3-10	B2B4H1	17.0	17.7	55.7	58.2	0.13	U
199-H3-25	B21ND4	17.2	17.7	56.3	58.0	0.30	U
	B21ND5	17.2	17.7	56.3	58.0	0.30	U
199-H3-26	B21ND7	15.9	16.7	52.3	54.8	0.30	U
199-H3-27	B21ND6	17.8	18.4	58.4	60.5	0.30	U
199-H4-69	B21NF1	18.1	18.9	59.5	62.0	0.30	U
199-H4-70	B21ND9	17.5	18.1	57.4	59.4	0.30	U
199-H4-71	B21NF2	19.1	20.0	62.7	65.7	0.30	U
199-H4-72	B21NF3	17.4	18.1	57.0	59.5	0.30	U
199-H4-73	B21NF0	18.9	19.7	62.0	64.5	0.30	U
199-H4-74	B24D93	12.8	13.4	42.0	44.0	0.10	NU
199-H4-75	B24D92	15.5	16.1	50.8	52.8	0.10	NU
199-H4-76	B24D88	14.7	15.3	48.3	50.1	0.11	UN
199-H4-77	B24D95	13.6	14.3	44.5	47.0	0.10	NU
199-H4-78	B24D89	18.1	18.8	59.5	61.5	0.10	NU
	B24DB3	18.1	18.8	59.5	61.5	0.10	NU
199-H4-79	B24D87	18.3	18.9	60.1	62.1	0.10	NU

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Well ID	Sample Number	Sample Depth Interval (m bgs)		Sample Depth Interval (ft bgs)		Cr(VI) (mg/kg)	Lab Qualifier
199-H4-80	B24D90	21.6	22.4	71.0	73.5	0.10	U
199-H4-81	B24D91	12.6	13.2	41.4	43.4	0.10	U
199-H4-82	B24D97	17.1	17.9	56.2	58.7	0.10	NU
199-H6-2	B21NF4	15.2	15.9	50.0	52.0	0.30	U
199-H6-3	B28KF5	18.4	19.2	60.5	63.0	0.13	NU
199-H6-4	B273M2	17.9	18.4	58.8	60.6	0.12	U
199-D2-10	B22Y18	8.2	8.9	27.0	29.2	0.10	U
199-D2-12	B22Y19	8.7	9.3	28.4	30.5	0.10	U
199-D4-95	B22X25	35.8	36.6	117.5	120.0	0.10	U
199-D4-96	B22HT5	Grab	25.9	Grab	85.0	0.10	U
	B22HT6	27.3	27.7	89.4	90.7	0.10	U
	B22HT7	30.5	31.1	100.0	102.0	0.10	U
	B22HT8	Grab	29.3	Grab	96.0	0.10	U
	B22HT9	30.5	31.1	100.0	102.0	0.10	U
	B22HV0	31.7	32.5	104.1	106.6	0.10	U
199-D4-97	B22D11	32.3	33.0	105.9	108.4	0.10	U
	B22D28	32.3	33.0	105.9	108.4	0.10	U
199-D4-98	B22X26	31.4	32.2	103.0	105.5	0.10	U
199-D4-99	B22X27	33.5	34.1	110.0	112.0	0.10	U
199-D5-129	B23MT1	32.2	32.8	105.8	107.8	0.10	U

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Well ID	Sample Number	Sample Depth Interval (m bgs)		Sample Depth Interval (ft bgs)		Cr(VI) (mg/kg)	Lab Qualifier
199-D5-128	B23MT2	30.2	30.9	99.0	101.5	0.10	U
	B23MT7	Grab	26.2	Grab	86.0	0.10	U
	B23MT8	26.8	27.6	88.0	90.5	0.10	U
	B23MV2	29.0	29.6	95.2	97.0	0.10	U
	B23MV3	31.5	32.3	103.4	105.9	0.10	U
199-D5-130	B23PH9	29.3	30.0	96.0	98.4	0.10	U
	B23PX0	29.3	30.0	96.0	98.4	0.10	U
199-D5-131	B23R36	33.8	34.6	111.0	113.5	0.10	U
199-D6-1	B23PT5	31.0	31.6	101.6	103.6	0.10	U
199-D6-2	B23R64	23.8	24.5	78.0	80.4	0.10	U
	B23R65	23.8	24.5	78.0	80.4	0.10	U
199-D7-3	B23R26	26.2	27.0	86.0	88.5	0.16	N
199-D7-4	B23R10	22.9	23.5	75.0	77.1	0.10	U
199-D7-5	B23RD4	11.9	12.2	39.0	40.0	0.10	NU
	B23RD5	13.4	14.1	43.9	46.1	0.10	NU
	B23RD6	14.8	15.5	48.5	50.7	0.10	NU
	B23RD8	18.6	19.4	61.0	63.5	0.10	NU
	B243D4	16.5	17.1	54.0	56.2	0.10	NU
199-D7-6	B23R66	11.1	11.9	36.5	39.0	0.10	NU
199-D8-89	B22HX1	18.8	19.5	61.6	64.1	0.10	NU

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Well ID	Sample Number	Sample Depth Interval (m bgs)		Sample Depth Interval (ft bgs)		Cr(VI) (mg/kg)	Lab Qualifier
	B22HX2	21.1	21.7	69.2	71.1	0.10	NU
	B22HX3	24.0	24.6	78.8	80.8	0.10	NU
	B22HX4	24.0	24.6	78.8	80.8	0.10	NU
	B22HX6	25.1	25.9	82.3	84.9	0.10	NU
199-D8-96	B23R61	30.2	30.9	99.0	101.5	0.10	U
199-D8-97	B23PH7	30.1	30.8	98.7	101.0	0.10	U
199-D8-98	B23R39	27.0	27.6	88.6	90.6	0.10	U
199-D8-99	B23PX1	25.0	25.8	82.0	84.5	0.10	U
199-D4-101	B23R67	31.2	32.2	102.5	105.5	0.10	U
199-D5-101	B24277	33.2	33.8	108.9	110.9	0.10	U
199-D5-127	B24278	31.7	32.3	103.9	105.9	0.10	U
199-D5-134	B2B8D8	33.8	34.6	111.0	113.5	0.11	NU
199-D5-141	B2B8H5	34.6	35.4	113.5	116.0	0.12	U
199-D5-143	B2C646	32.1	32.8	105.2	107.7	0.14	U
199-D7-6	B244W2	6.7	7.5	22.1	24.6	0.10	NU
	B244W3	10.0	10.8	32.7	35.4	0.10	NU
	B244W5	12.5	13.3	41.0	43.5	0.10	NU

B = Above the method detection limit, but below the quantitation limit.

N = Matrix spike interference, due to oxidation-reduction reaction occurring in sample. (Environment not favorable for Cr(VI) to exist.)

U = Analyzed for but not detected above limiting criteria.

Table D-71. 100-D-4 Trench—Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution						
		Cleanup Verification Data ^a		Remedial Investigation Test Pit ^b				
		Shallow Zone ^c		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 5.8 m (19 ft) bgs		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d								
		Original	Decayed	Original	Decayed		Original	Decayed
Cesium-137	NA	0.119	0.082	U	NA	NA	U	NA
Europium-152	NA	0.265	0.117	U	NA	NA	U	NA
Strontium-90	NA	0.126	0.086	U	NA	NA	U	NA
Uranium-238	1.06	1.16 ^e	1.16	0.575 (<Background)	0.575	NA	0.575 (<Background)	0.575
Nonradionuclides (mg/kg)								
Strontium	NA	NA		26.7 (5.8/19)		5.8/19	26.7	
Tin	NA	NA		2.19 (5.8/19)		5.8/19	2.19	
Cr(VI)	NA	0.179		U		NA	U	
Aroclor-1254	NA	0.071		U		NA	U	
Aroclor-1260	NA	0.120		U		NA	U	
Acenaphthene	NA	NA		0.00107 (4.0/13)		4.0/13	U	
Acenaphthylene	NA	NA		0.0354 (4.0/13)		4.0/13	U	

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s). Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 100-D-4 Sludge Pit (CVP-98-00004)*. The maximum depth of interim remedial action at 100-D-4 was 2.9 m (9.5 ft) bgs.

b. Test pit data obtained from Hanford Environmental Information System (Hanford Environmental Information System). Test pit was excavated to 5.8 m (19 ft) bgs.

c. Shallow zone value represents the excavation area unless otherwise noted.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

e. Result is from overburden.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-72. 100-D-12 French Drain - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution						
		Cleanup Verification Data ^a		Remedial Investigation Test Pit ^b				
		Shallow Zone		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 7.6m (25 ft) bgs		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^c								
		Original	Decayed	Original	Decayed		Original	Decayed
Strontium-90	NA	NA	NA	U	U	NA	U	U
Tritium	NA	NA	NA	10.5 (5.2/17)	9.38	5.2/17	U	NA
Nonradionuclides (mg/kg)								
Chromium	18.5	NA		74.4 (4.6/15)		7.0/23	13.7 (<Background)	
Cr(IV)	NA	0.56		1.98 (5.2/17)		7.0/23	U	
Molybdenum	0.47	NA		0.371 (<Background)		NA	U	
Nickel	19.1	NA		17.8 (<Background)		NA	17.8 (<Background)	
Strontium	NA	NA		23.3 (3.4/10)		7.6/25	7.76	
Tin	NA	NA		1.86 (3.4/10)		7.6/25	1.22	
Vanadium	85.1	NA		75.2 (<Background)		NA	30.7 (<Background)	

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 100-D-12 Sodium Dichromate Pump Station* (CVP-2000-00016). The maximum depth of interim remedial action at 100-D-12 was 2.4 m (7.9 ft). The water table is 25.9 m (85.1 ft) bgs.

b. Test pit data obtained from Hanford Environmental Information System. Test pit was excavated to 7.6 m (25 ft) bgs.

c. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-73. 100-D-12 French Drain – Borehole Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C8668 (Well 199-D5-144) ^{a,b}				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs		Result at Maximum Sample Depth ^c (m/ft) bgs	
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d						
		Original	Decayed		Original	Decayed
Strontium-90	NA	2.33 (26.1/85.7)	2.1	26.1/85.7	0.552	0.51
Tritium	NA	U	U	NA	U	U
Nonradionuclides (mg/kg)						
Chromium	18.5	19.2 (26.1/85.7)		26.1/85.7	12.5 (<Background)	
Cr(IV)	NA	1.89 (26.1/85.7)		26.1/85.7	U	
Molybdenum	0.47	1.4 (11.1/36.4)		11.1/36.4	0.827 (<Background)	
Nickel	19.1	27.3 (11.1/36.4)		11.1/36.4	10.5 (<Background)	
Strontium	NA	41.8 (22.5/73.9)		28.3/92.9	22.5	
Tin	NA	1.69 (15.9/52.1)		28.3/92.9	1.15	
Vanadium	85.1	86.1 (15.9/52.1)		15.9/52.1	30 (<Background)	

a. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at 24.9 m (81.75 ft) bgs. Well was drilled to 35.2 m (115.6 ft) bgs.

b. Maximum depth of radiological sample collection in borehole C8668 is 28.3 m (92.9 ft) bgs.

c. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

U = Analyzed for but not detected above limiting criteria.

Table D-74. 100-D-56:1 – Summary of Contaminant Soil Radiological Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C8375 (Well 199-D5-143) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 27.7 m (91.0 ft) ^{b,c}		
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^d						
		Original	Decayed		Original	Decayed
Strontium-90	NA	1.06 (21.9/72.0)	1.01	21.9/72.0	U	NA
Tritium	NA	3.60 (17.5/57.5)	3.22	23.0/75.6	U	NA

a. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 25.1 m (82.5 ft). Well was drilled to 36.0 m (118.0 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Maximum depth of sample collection in borehole C8375 is 27.7 m (91.0 ft) bgs.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

U = Analyzed for but not detected above limiting criteria.

Table D-75. 100-D-56:1 – Summary of Contaminant Soil Non-Radiological Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C8375 (Well 199-D5-143) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 27.7 m (91.0 ft) ^{b,c}
Nonradionuclides (mg/kg)				
Chromium	18.5	39.5 (23.0/75.6)	24.6/80.6	6.13 (<Background)
Lithium	13.3	15.9 (22.0/72)	(15.9/72.0)	U
Molybdenum	0.47	5.9 (23.0/75.6)	27.7/91.0	0.394
Strontium	NA	57.0 (21.9/72.0)	27.7/91.0	15.6
Tin	NA	1.32 (19.1/62.5)	27.7/91.0	1.10

a. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 25.1 m (82.5 ft). Well was drilled to 36.0 m (118.0 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Maximum depth of sample collection in borehole C8375 is 27.7 m (91.0 ft) bgs.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

U = Analyzed for but not detected above limiting criteria.

Table D-76. 116-D-1A Trench - Summary of Contaminant Soil Data

Contaminant	Back-ground	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5567 (Well 199-D5-21) ^b						Remedial Investigation Borehole C7622 ^c			
		Shallow Zone		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs		Result at Maximum Sample Depth 15.6 m (53.1 ft) bgs		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	
Radionuclides (Original and Decayed Concentrations) (pCi/g)^f															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	U	NA	1.12	1.10	1.4 (10.8/35.5)	1.35	14.0/46	1.3	1.25	U	NA	NA	U	NA
Carbon-14	NA	ND	NA	ND	NA	U	NA	NA	U	NA	3.24 (15.8/51.8)	3.24	15.8/51.8	U	NA
Cesium-137	NA	0.724	0.562	324	252	305 (9.0/29.5)	184	16.2/53.2	0.252	0.15	U	NA	NA	U	NA
Cobalt-60	NA	U	NA	6.30	1.48	10.9 (6.0/19.6)	0.6	16.2/53.2	3.22	0.18	U	NA	NA	U	NA
Europium-152	NA	0.248	0.14	157	89	112 (6.0/19.6)	36.2	16.2/53.2	20.2	6.53	U	NA	NA	U	NA
Europium-154	NA	U	NA	12.8	5.3	62.5 (9.0/29.5)	10.6	16.2/53.2	2.65	0.45	U	NA	NA	U	NA
Neptunium-237	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	0.275 (26.4/86.5)	0.275	26.4/86.5	0.275	0.27
Plutonium-239/240	NA	U	NA	8.76	8.75	8.3 (10.8/35.5)	8.3	16.2/53.2	8.3	8.3	U	NA	NA	U	NA
Strontium-90	NA	0.202	0.155	19.1	14.7	5.0 (0.61/2)	2.96	16.2/53.2	5	2.96	2.07 (14.5/47.5)	1.93	26.4/86.5	0.800	0.7
Tritium	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	3.81 (25.7/84.4)	3.22	26.4/86.5	U	NA
Nonradionuclides (mg/kg)															
Arsenic	6.47	ND	ND	ND	ND	1.3 (<Background)	NA	0.52 (<Background)	167 (26.4/86.5)	26.4/86.5	1.77 (<Background)				
Barium	132	ND	ND	ND	ND	78.6 (<Background)	NA	36.8 (<Background)	274 (25.7/84.7)	25.7/84.7	59.2 (<Background)				
Cadmium	0.563	ND	ND	ND	ND	1.0 (6.0/19.6), (12.5/41), and (15.2/50)	16.2/53.2	0.67	0.151 (<Background)	NA	0.0465 (<Background)				
Chromium	18.5	ND	ND	ND	ND	108 (10.8/35.5)	16.2/53.2	21	172 (28.1/92.3) ^g	28.1/92.3	172				
Cr(VI)	NA	0.610	2.6	ND	NA	ND	NA	ND	0.29 (19.1/62.6)	22/72.3	U				
Lead	10.2	ND	ND	ND	ND	51.6 (10.8/35.5)	16.2/53.2	13	10.4 (23.6/77.3)	23.6/77.3	5.27 (<Background)				
Mercury	0.013	ND	ND	ND	ND	0.56 (6.0/19.6)	14.0/46.0	U	0.0312	28.1/92.3	0.0312				
Molybdenum	0.47	ND	ND	ND	ND	ND	NA	ND	4.09 (23.6/77.3)	28.1/92.3	1.52				
Nickel	19.1	ND	ND	ND	ND	42.5 (10.8/35.5)	16.2/53.2	8.3 (<Background)	87.3 (28.1/92.3) ^g	28.1/92.3	87.3				
Strontium	NA	ND	ND	ND	ND	ND	NA	ND	43.3 (19.1/62.6)	28.1/92.3	40.9				
Tin	NA	ND	ND	ND	ND	ND	NA	ND	2.51 (23.6/77.3)	28.1/92.3	1.64				
1,3 Dichlorobenzene	NA	ND	ND	ND	ND	0.038 (8.0/26.3)	8.0/26.3	U	U	NA	U				
Dimethyl phthalate	NA	ND	ND	ND	ND	U	NA	U	0.0842 (9.8/32.2)	9.8/32.2	U				
delta-BHC	NA	ND	ND	ND	ND	U	NA	U	0.00229 (12.8/41.8)	12.8/41.8	U				

Table D-76. 116-D-1A Trench - Summary of Contaminant Soil Data

Contaminant	Back-ground	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5567 (Well 199-D5-21) ^b				Remedial Investigation Borehole C7622 ^c					
		Shallow Zone		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.6 m (53.1 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 28.1 m (92.3 ft) bgs ^{d,e}				
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^f															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Endrin aldehyde	NA	ND		ND		ND		NA	ND		0.00189 (16.0/52.5)		16.0/52.5		U
Aldrin	NA	ND		ND		U		NA	U		0.00339 (25.0/82.2)		25.8/84.7		U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-D-1A/116-D-1B Storage Basin Trenches and 100-D-46 Burial Ground* (CVP-2000-00010), which presented cleanup verification data for the 116-D-1A, 116-D-1B, and 100-D-46 waste sites. The maximum depth of interim remedial action at 116-D-1A was 4.6 m (15 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System. Twelve soil samples taken in 1992 for limited field investigation and the total borehole depth was 16.2 m (53.1 ft) bgs.

c. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at 26.1 m (85.5 ft) bgs. Well was drilled to 34.1 m (112.0 ft) bgs.

d. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

e. Maximum depth of radiological sample collection in borehole C7622 was 26.4 m (86.5 ft) bgs.

f. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

g. Results of total chromium in B28BV3 and B28C22 collected at 6.8 and 28.1 m (22.2 and 92.3 ft) bgs are considered anomalous.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-77. 116-D-1B Trench - Summary of Contaminant Soil Data

Contaminant	Back-ground	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5575 (Well 199-D5-29 ^b)				Remedial Investigation Borehole C7855 ^c					
		Shallow Zone		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Back-ground (m/ft) bgs		Result at Maximum Sample Depth 11.2 m (36.8 ft) bgs		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Back-ground (m/ft) bgs	
Radionuclides (Original and Decayed Concentrations) (pCi/g)^f															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	U	NA	1.12	1.10	1.3 (5.0/16.3)	1.3	8.1/26.7	U	NA	U	NA	NA	U	NA
Carbon-14	NA	ND	NA	ND	NA	U	NA	NA	U	NA	3.38 (13.0/42.5)	3.38	25.8/84.5	U	NA
Cesium-137	NA	0.724	0.562	324	252	322 (5.0/16.3)	194	11.2/36.8	0.0535	0.0330	29.5 (5.5/18.2)	27.5	8.4/27.5	U	NA
Cobalt-60	NA	U	NA	6.3	1.5	16.3 (5.0/16.3)	0.9	11.2/36.8	0.03	0.002	0.188 (5.5/18.2)	0.127	7.1/23.2	U	NA
Europium-152	NA	0.248	0.141	157	89.3	147 (5.0/16.3)	47.5	11.2/36.8	1.42	0.46	7.88 (5.5/18.2)	6.76	15.8/52.0	U	NA
Europium-154	NA	U	NA	12.8	5.3	15.9 (5.0/16.3)	2.7	11.2/36.8	0.1	0.02	0.421 (5.5/18.2)	0.331	7.1/23.2	U	NA
Neptunium-237	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	0.105 (26.5/86.9)	0.105	26.5/86.9	0.105	0.105
Nickel-63	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	35.0 (7.1/23.2)	34.3	8.4/27.5	U	NA
Plutonium-239/240	NA	U	NA	8.76	8.75	5.3 (5.0/16.3)	5.3	8.1/26.7	U	NA	0.448 (5.5/18.2)	0.448	11.4/37.5	U	NA
Strontium-90	NA	0.202	0.155	19.1	14.7	32 (5.0/16.3)	19	9.3/30.4	U	NA	4.06 (7.1/23.2)	3.78	27.3/89.4	0.443	0.412
Technetium -99	NA	ND	NA	ND	NA	1.1 (9.3/30.4)	1.1	9.3/30.4	U	NA	U	NA	NA	U	NA
Tritium	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	5.77 (11.4/37.5)	4.36	13.0/42.5	U	NA
Nonradionuclides (mg/kg)															
Antimony	0.130	ND	ND	ND	ND	ND	NA	ND	ND	ND	0.484 (28.6/93.7)	(28.6/93.7)	0.484		
Barium	132	ND	ND	ND	ND	72.7 (<Background)	NA	59.3 (<Background)	59.3 (<Background)	182 (24.6/80.6)	182 (24.6/80.6)	25.8/84.5	130 (<Background)		
Cadmium	0.563	ND	ND	ND	ND	1.1 (9.3/30.4)	9.3/30.4	9.3/30.4	U	U	0.274 (<Background)	0.274 (<Background)	NA	0.0561 (<Background)	
Chromium	18.5	ND	ND	ND	ND	30.4 (5.0/16.3)	11.2/36.8	11.2/36.8	2.6 (<Background)	2.6 (<Background)	45.2 (24.6/80.6) ^g	45.2 (24.6/80.6) ^g	25.8/84.5	11.5 (<Background)	
Copper	22.0	ND	ND	ND	ND	26 (5.0/16.3)	5.0/16.3	5.0/16.3	9.7 (<Background)	9.7 (<Background)	17.3 (<Background)	17.3 (<Background)	NA	8.57 (<Background)	
Cr(VI)	NA	0.610	2.6	2.6	2.6	ND	NA	ND	ND	ND	3.4 (17.4/57.0)	3.4 (17.4/57.0)	28.6/93.7	0.47	
Lead	10.2	ND	ND	ND	ND	22 (5.0/16.3)	6.0/19.6	6.0/19.6	1.9 (<Background)	1.9 (<Background)	5.85 (<Background)	5.85 (<Background)	NA	4.78 (<Background)	
Mercury	0.013	ND	ND	ND	ND	0.130 (5.0/16.3)	6.0/19.7	6.0/19.7	U	U	0.02 (22.0/72.3)	0.02 (22.0/72.3)	22.0/72.3	U	
Molybdenum	0.47	ND	ND	ND	ND	ND	NA	ND	ND	ND	3.75 (27.3/89.4)	3.75 (27.3/89.4)	28.6/93.7	2.08	
Nickel	19.1	ND	ND	ND	ND	12.2 (<Background)	NA	4.3 (<Background)	4.3 (<Background)	4.3 (<Background)	27.1 (24.6/80.6) ^g	27.1 (24.6/80.6) ^g	24.6/80.6	8.91 (<Background)	
Silver	0.167	ND	ND	ND	ND	2 (3.0/10)	3.0/10	3.0/10	U	U	U	U	NA	U	
Strontium	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	42.1 (23.4/76.7)	42.1 (23.4/76.7)	28.6/93.7	31.8	
Thallium	0.185	ND	ND	ND	ND	U	NA	U	U	U	0.211 (8.4/27.5)	0.211 (8.4/27.5)	8.4/27.5	U	
Tin	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	6.31 (28.6/93.7)	6.31 (28.6/93.7)	28.6/93.7	6.31	
Vanadium	85.1	ND	ND	ND	ND	51.5 (<Background)	NA	22.6 (<Background)	22.6 (<Background)	22.6 (<Background)	88.6 (11.4/37.5)	88.6 (11.4/37.5)	11.4/37.5	35.5 (<Background)	
Zinc	67.8	ND	ND	ND	ND	106 (5.0/16.3)	6.0/19.6	6.0/19.6	22.6 (<Background)	22.6 (<Background)	52.4 (<Background)	52.4 (<Background)	NA	24.9 (<Background)	
Chrysene	NA	ND	ND	ND	ND	U	NA	U	U	U	0.0715 (5.5/18.2)	0.0715 (5.5/18.2)	5.5/18.2	U	
delta-BHC	NA	ND	ND	ND	ND	U	NA	U	U	U	0.0175 (26.5/86.9)	0.0175 (26.5/86.9)	27.3/89.4	0.0151	
Endrin aldehyde	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	0.00537 (9.7/31.8)	0.00537 (9.7/31.8)	9.7/31.8	U	

Table D-77. 116-D-1B Trench - Summary of Contaminant Soil Data

Contaminant	Back-ground	Concentration and Distribution							
		Cleanup Verification Data ^a		1992 LFI Borehole A5575 (Well 199-D5-29 ^b)			Remedial Investigation Borehole C7855 ^c		
		Shallow Zone	Deep Zone	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Back-ground (m/ft) bgs	Result at Maximum Sample Depth 11.2 m (36.8 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Back-ground (m/ft) bgs	Result at Maximum Sample Depth 28.6 m (93.7 ft) bgs ^{d,e}
Fluoranthene	NA	ND	ND	U	NA	U	0.132 (5.5/18.2)	5.5/18.2	U
Aldrin	NA	ND	ND	0.0075 (0.61/2.0)	0.61/2.0	U	0.00189 (24.6/80.6)	24.6/80.6	U
Phenanthrene	NA	ND	ND	U	NA	U	0.0599 (5.5/18.2)	5.5/18.2	U
Pyrene	NA	ND	ND	U	NA	U	0.108 (5.5/18.2)	5.5/18.2	U
Aroclor-1254	NA	ND	ND	U	NA	U	0.0199 (5.5/18.2)	5.5/18.2	U
Aroclor-1260	NA	ND	ND	U	NA	U	0.00768 (5.5/18.2)	5.5/18.2	U
Beta-BHC	NA	ND	ND	ND	NA	ND	0.00631 (27.3/89.4)	27.3/89.4	0.00631
Endrin Ketone	NA	ND	ND	U	NA	U	0.00389 (23.4/76.7)	23.4/76.7	U
Heptachlor epoxide	NA	ND	ND	U	NA	U	0.00221 (15.8/52.0)	15.8/52.0	U
Heptachlor	NA	ND	ND	U	NA	U	0.00168 (9.7/31.8)	9.7/31.8	U
4,4'-DDT	NA	ND	ND	ND	NA	ND	0.00368 (5.5/18.2)	9.7/31.8	U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-D-1A/116-D-1B Storage Basin Trenches and 100-D-46 Burial Ground* (CVP-2000-00010), which presented cleanup verification data for the 116-D-1A, 116-D-1B, and 100-D-46 waste sites. The maximum depth of interim remedial action at 116-D-1B was 4.6 m (15 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System. Eight soil samples taken in 1992 for limited field investigation and the total borehole depth was 11.2 m (36.8 ft) bgs.

c. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 26.5 m (87.0 ft). Well was drilled to 28.6 m (93.7 ft) bgs.

d. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

e. Maximum depth of radiological and organics sample collection in borehole C7855 was 27.3 m (89.4 ft) bgs.

f. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

g. Results of total chromium in B29868 collected at 24.6 m (80.6 ft) bgs are anomalous.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-78. 116-D-4 Crib - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution											
		Cleanup Verification Data ^a		1992 LFI Borehole A5570 (Well 199-D5-24) ^b			Remedial Investigation Test Pit ^c						
		Shallow Zone ^d	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 7 m (23 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 5.8 m (19.0 ft) bgs	Original	Decayed	Original	Decayed	
Radionuclides (Original and Decayed Concentrations) (pCi/g)^e													
		Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Carbon-14	NA	ND	NA	U	NA	NA	U	NA	21.2 (4.0/13)	21.2	4.0/13	U	NA
Strontium-90	NA	ND	NA	0.46 (3.8/12.5)	0.27	7.0/23	0.13	0.08	U	NA	NA	U	NA
Nonradionuclides (mg/kg)													
Copper	22.0	ND	15.3 (<Background)	NA	13.0 (<Background)	23.2 (4.6/15)	4.6/15	18.3 (<Background)					
Cr(VI)	NA	U	ND	NA	ND	0.39 (4.0/13)	4.0/13	U					
Silver	0.167	ND	2.1 (4.9/16.1)	7.0/23	2.0	U	NA	U					
Strontium	NA	ND	ND	NA	ND	36.7 (4.0/13)	5.8/19	26.7					
Tin	NA	ND	ND	NA	ND	1.82 (3.4/11)	5.8/19	1.49					
4-Methyl-2-pentanone	NA	ND	0.004 (3.8/12.5)	3.8/12.5	U	U	NA	U					
1,1,1-Trichloroethane	NA	ND	U	NA	U	0.00487 (3.4/11)	3.4/11	U					

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-D-4 Crib* (CVP-2000-00008). The maximum depth of interim remedial action at 116-D-4 is 2.7 m (9.0 ft).

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System. Four soil samples taken in 1992 for limited field investigation at 1.6, 3.8, 4.9, and 7.0 m (5.5, 12.5, 16.1, and 23.0 ft) bgs. Total borehole depth was 7.0 m (23 ft) bgs.

c. Test pit data obtained from Hanford Environmental Information System. Test pit was excavated to 5.8 m (19 ft) bgs.

d. Shallow zone value represents the excavation area unless otherwise noted.

e. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-79. 116-D-7 Retention Basin - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution															
		Cleanup Verification Data ^a						1992 LFI Borehole (A5631 (Well199-D8-60)) ^b					Remedial Investigation Borehole C7851 ^c				
		Shallow Zone		Deep Zone Level I ^{d,e}		Deep Zone Level II		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs		Result at Maximum Sample Depth 11.2 m (36.6 ft) bgs		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	
Radionuclides (Original and Decayed Concentrations) (pCi/g)^g																	
		Original	Decayed	Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed	Original	Decayed	
Americium-241	NA	0.055	0.054	0.23	0.23	0.23	0.22	U	NA	NA	U	NA	U	NA	NA	U	NA
Cesium-137	NA	0.181	0.131	30.1	21.8	0.06	0.04	9.55 (2.2/7.3)	5.90	11.2/36.6	1.63	1.01	15.1 (6.8/22.4)	14.4	16.7/54.7	U	NA
Cobalt-60	NA	0.039	0.006	17.9	2.8	0.25	0.04	U	NA	NA	U	NA	0.035 (6.8/22.4)	0.027	6.8/22.4	U	NA
Europium-152	NA	0.355	0.173	176	86	1.20	0.58	ND	NA	NA	ND	NA	0.877 (6.8/22.4)	0.791	6.8/22.4	U	NA
Europium-154	NA	0.066	0.021	24.4	7.9	0.90	0.29	ND	NA	NA	ND	NA	0.179 (6.8/22.4)	0.152	6.8/22.4	U	NA
Europium-155	NA	U	NA	1.50	0.20	1.50	0.20	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Nickel-63	NA	4.40	3.99	547	496	1.40	1.27	ND	NA	NA	ND	NA	5.16 (6.8/22.4)	5.09	6.8/22.4	U	NA
Plutonium-238	NA	U	NA	0.038	0.034	0.038	0.034	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Plutonium-239/240	NA	U	NA	0.801	0.801	0.801	0.801	0.016 (2.2/7.3)	0.016	2.2/7.3	U	NA	U	NA	NA	U	NA
Strontium-90	NA	U	NA	1.57	1.12	0.35	0.25	1.9 (2.2/7.3)	1.5	11.2/36.6	0.57	0.35	0.457 (6.8/22.4)	0.436	17.6/57.9	U	NA
Tritium	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	9.25 (19.0/62.2)	8.27	19.0/62.2	U	NA
Nonradionuclides (mg/kg)																	
Antimony	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.34	18.2/59.7	U		
Barium	132	ND	ND	ND	ND	ND	ND	106 (<Background)	NA	27.1 (<Background)	165 (17.7/57.9)	18.2/59.7	85.4				
Chromium	18.5	8.0 (<Background)	206	27	51.6 (2.2/7.3)	9.4/30.8	U	106 (6.8/22.4)	18.2/59.7	10.4 (<Background)							
Cr(VI)	NA	1.3	3.26	<2.2	ND	NA	ND	1.72 (18.2/59.7)	19.8/64.8	U							
Mercury	0.0013	U	1.13	0.28	0.07 (2.2/7.3)	(2.2/7.3)	U	0.112 (6.8/22.4)	14.4/47.4	U							
Molybdenum	0.47	ND	ND	ND	ND	NA	ND	1.43 (15.9/52.3)	20.2/66.4	0.565							
Nickel	19.1	ND	ND	ND	6.6 (<Background)	NA	4.5 (<Background)	28.1 (18.2/59.7)	18.2/59.7	8.16 (<Background)							
Strontium	NA	ND	ND	ND	ND	NA	ND	41.4 (5.2/17.1)	20.2/66.4	23.4							
Tin	NA	ND	ND	ND	ND	NA	ND	3.05 (19.0/62.2)	20.2/66.4	1.41							
Vanadium	85.1	ND	ND	ND	23.6 (<Background)	NA	U	91.5 (8.4/27.4)	8.4/27.4	51.2 (<Background)							

Table D-79. 116-D-7 Retention Basin - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution								
		Cleanup Verification Data ^a			1992 LFI Borehole (A5631 (Well199-D8-60)) ^b			Remedial Investigation Borehole C7851 ^c		
		Shallow Zone	Deep Zone Level I ^{d,e}	Deep Zone Level II	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.2 m (36.6 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 20.2 m (66.4 ft) bgs ^f

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-D-7 Retention Basin* (CVP-99-00007). The maximum depth of interim remedial action at 116-D-7 was 7.4 m (24.3 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System. Five soil samples taken in 1992 for limited field investigation. Total borehole depth was 11.4 m (36.6 ft) bgs.

c. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at 19.0 m (62.3 ft) bgs. Well was drilled to 20.2 m (66.4 ft) bgs.

d. The deep zone at 116-D-7 was divided into two sections for site-specific modeling of contaminants. Deep zone level I was the 2.0 m (6.6 ft) soil beneath the shallow zone extending from 4.6 to 6.6 m (15.0 to 21.6 ft) bgs. Deep zone level II included the zone beneath deep zone level I extending from 6.6 m (21.6 ft) to groundwater.

e. Two potholes were excavated in the 116-D-7 deep zone to characterize the extent of Cr(VI) contamination below the excavation. The potholes were excavated and sampled in deep zone composite sampling areas with elevated Cr(VI). Samples were collected at approximate 1.0 m (3.3 ft) intervals up to 8.6 m (28.2 ft) below the depth of remediation, for a total depth up to 14.4 m (47.2 ft) bgs.

f. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

g. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-80. Cr(VI) Results from 116-D-7 Deep Zone Cleanup Verification Sample Areas B5 and C8

Sample Identification	Sample depth (m/ft) below ground surface	Cr(VI)
		mg/kg
B0TK68 (B5 sample area)	5.6/18.4	4.36
B0TK70 (C8 sample area)	5.6/18.4	3.36

Source: *Cleanup Verification Package for the 116-D-7 Retention Basin (CVP-99-00007)*.

Table D-81. 116-D-7 Deep Zone Excavation Pothole B5 and C8 Results (March 1999)

B5 Pothole Sample Results		C8 Pothole Sample Results	
Sample Depth (m/ft) bgs	Cr(VI)	Sample Depth (m/ft) bgs	Cr(VI)
	mg/kg		mg/kg
5.8/19.0	2.94	5.8/19.0	3.23
6.7/22.0	2.64	6.7/22.0	2.12
6.7/22.0	2.30	6.7/22.0	1.80
7.6/24.9	2.10	7.8/25.6	2.00
8.8/28.9	1.88	8.9/29.2	1.52
9.5/31.2	2.26	9.8/32.1	1.88
10.4/34.1	2.20	11.1/36.4	0.92
11.3/37.1	1.56	12.5/41.0	1.56
12.2/40.0	1.70	14.4/47.2	0.72

Source: *Cleanup Verification Package for the 116-D-7 Retention Basin (CVP-99-00007)*

bgs = below ground surface.

Table D-82. 116-DR-1&2 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5632 (Well 199-D8-61) ^b				1992 LFI Borehole A5633 (199-D8-62) ^b					
		Shallow Zone		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs		Result at Maximum Sample Depth 9.6 m (31.5 ft) ^c		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^f															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	U	NA	U	NA	0.15 (5.3/17.5)	0.14	9.6/31.5	0.013	0.013	U	NA	NA	U	NA
Carbon-14	NA	ND	NA	ND	NA	U	NA	NA	U	NA	0.68 (6.9/22.6)	0.68	6.9/22.6	U	NA
Cesium-137	NA	0.305	0.221	69.3	50.3	147 (5.3/17.5)	88.7	9.6/31.5	0.198	0.120	233 (5.2/17)	141	8.2/27	15.4	9.30
Cobalt-60	NA	0.050	0.0079	1.86	0.30	23.1 (5.3/17.5)	1.28	6.8/22.3	U	NA	3.75 (5.2/17)	0.208	8.2/27	0.111	0.006
Europium-152	NA	0.160	0.078	64.8	31.6	258 (5.3/17.5)	83.4	9.6/31.5	0.339	0.110	24 (5.2/17)	7.8	6.9/22.6	6.39	2.07
Europium-154	NA	U	NA	4.23	1.37	25.7 (5.3/17.5)	4.36	6.8/22.3	1.59	0.270	2.53 (5.2/17)	0.429	5.2/17	U	NA
Nickel-63	NA	U	NA	44.1	40.0	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Plutonium-238	NA	0.103	0.092	0.0452	0.0405	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Plutonium-239/240	NA	U	NA	2.66	2.66	0.82 (5.3/17.5)	0.82	9.6/31.5	0.011	0.011	0.14 (5.2/17)	0.14	6.9/22.6	0.034	0.034
Strontium-90	NA	U	NA	13.2	9.46	10 (5.3/17.5)	5.9	9.6/31.5	1.6	0.95	1.7 (11.3/37)	1.0	11.3/37	1.7	1.0
Technetium-99	NA	ND	NA	ND	NA	U	NA	NA	U	NA	0.34 (8.2/27)	0.34	8.2/27	U	NA
Nonradionuclides (mg/kg)															
Cadmium	0.563	ND	ND	ND	ND	1.5 (5.3/17.5)	5.3/17.5	U	U	U	1.1 (5.2/17)	5.2/17	U	U	U
Chromium	18.5	ND	ND	ND	ND	186 (5.3/17.5)	5.3/17.5	7.5 (<Background)	U	U	U	U	NA	U	U
Cr(VI)	NA	U	0.90	0.90	0.90	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
Mercury	0.013	ND	ND	ND	ND	NA	ND	U	U	U	0.36 (5.2/17)	6.9/22.6	U	U	U
Molybdenum	0.47	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
Nickel	19.1	ND	ND	ND	ND	10.0 (<Background)	NA	7.9 (<Background)	U	U	8.9 (<Background)	NA	5.6 (<Background)	U	U

Table D-82. 116-DR-1&2 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution							
		Cleanup Verification Data ^a		1992 LFI Borehole A5632 (Well 199-D8-61) ^b			1992 LFI Borehole A5633 (199-D8-62) ^b		
		Shallow Zone	Deep Zone	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.6 m (31.5 ft) ^c	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.3 m (37 ft) ^c
Silver	0.167	ND	ND	3.5 (5.3/17.5)	8.3/27.1	U	3.7 (5.2/17)	11.3/37	1.99
Strontium	NA	ND	ND	ND	NA	ND	ND	NA	ND
Thallium	0.185	ND	ND	U	NA	U	0.57 (5.2/17)	5.2/17	U
Zinc	67.8	ND	ND	109 (5.3/17.5)	5.3/17.5	21.6 (<Background)	46.7 (<Background)	NA	25.5 (<Background)
1,3-Dichloro-benzene	NA	ND	ND	0.047 (6.8/22.3)	6.8/22.3	U	U	NA	U
1,4-Dichloro-benzene	NA	ND	ND	0.037 (6.8/22.3)	6.8/22.3	U	U	NA	U
2-Chlorophenol	NA	ND	ND	0.047 (6.8/22.3)	6.8/22.3	U	U	NA	U
4-Chloro-3-methyl-phenol	NA	ND	ND	0.038 (6.8/22.3)	6.8/22.3	U	U	NA	U
4-Methyl-2-Pentanone	NA	ND	ND	0.003 (8.3/27.1)	8.3/27.1	U	U	NA	U
Aroclor-1260	NA	ND	ND	0.038 (5.3/17.5)	5.3/17.5	U	U	NA	U

bgs = below ground surface

LFI =

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

U = Analyzed for but not detected above limiting criteria.

Table D-83. 116-DR-1&2 – Summary of Contaminant Soil Data in Vadose Zone

Contaminant	Background	Concentration and Distribution									
		Excavation Borehole B8786 (1999) ^c					Remedial Investigation Borehole C7852 ^d				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 18.9 m (61.9 ft) ^e	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 21.7 m (71.1) ^e				
Radionuclides (Original and Decayed Concentrations) (pCi/g)^f											
		Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	0.833 (15.5/50.9)	0.815	15.5/50.9	U	NA	U	NA	NA	U	NA
Carbon-14	NA	ND	NA	NA	ND	NA	4.98 (17.4/57.2)	4.98	19.9/65.2	4.64	4.64
Cesium-137	NA	91.3 (6.4/20.9)	66.2	18.9/61.9	0.038	0.028	0.453 (8.3/27.3)	0.433	8.3/27.3	U	NA
Cobalt-60	NA	1.88 (6.4/20.9)	0.30	7.0/22.9	U	NA	U	NA	NA	U	NA
Europium-152	NA	26.5 (6.4/20.9)	12.9	10.5/34.4	U	NA	U	NA	NA	U	NA
Europium-154	NA	2.46 (6.4/20.9)	0.80	7.0/22.9	U	NA	U	NA	NA	U	NA
Nickel-63	NA	129 (6.4/20.9)	117	7.0/22.9	U	NA	U	NA	NA	U	NA
Plutonium-238	NA	U	NA	NA	U	NA	U	NA	NA	U	NA
Plutonium-239/240	NA	0.137 (6.4/20.9)	0.137	6.4/20.9	U	NA	U	NA	NA	U	NA
Strontium-90	NA	5.69 (6.4/20.9)	4.08	18.9/61.9	0.258	0.185	U	NA	NA	U	NA
Technetium-99	NA	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Nonradionuclides (mg/kg)											
Chromium	18.5	102 (6.4/20.9)	7.0/22.9	7.3 (<Background)			48.1 (21.7/71.1) ^g	21.7/71.1		48.1	
Cr(VI)	NA	2.3 (7.0/22.9)	9.7/31.9	U			0.35 (19.0/62.2)	19.9/65.2		U	
Mercury	0.013	0.080 (6.4/20.9)	6.6/22.6	U			0.0141	21.7/71.1		0.0141	
Molybdenum	0.47	U	NA	U			2.43 (21.7/71.1)	21.7/71.1		2.43	
Silver	0.167	U	NA	U			U	NA		U	
Strontium	NA	U	NA	U			49.4 (6.8/22.4)	21.7/71.1		21.2	
Thallium	0.185	U	NA	U			U	NA		U	
Tin	NA	U	NA	U			2.29 (17.4/57.2)	21.7/71.1		2.13	
Zinc	67.8	U	NA	U			43.8 (<Background)	NA		26.6 (<Background)	
1,3-Dichloro-benzene	NA	ND	NA	ND			U	NA		U	
1,4-Dichloro-benzene	NA	ND	NA	ND			U	NA		U	

Table D-83. 116-DR-1&2 – Summary of Contaminant Soil Data in Vadose Zone

Contaminant	Background	Concentration and Distribution					
		Excavation Borehole B8786 (1999) ^c			Remedial Investigation Borehole C7852 ^d		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 18.9 m (61.9 ft) ^e	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 21.7 m (71.1) ^e
2-Chlorophenol	NA	ND	NA	ND	U	NA	U
4-Chloro-3-methyl-phenol	NA	ND	NA	ND	U	NA	U
4-Methyl-2-Pentanone	NA	ND	NA	ND	U	NA	U
Aroclor-1260	NA	ND	NA	ND	ND	NA	ND

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-DR-1&2 Process Effluent Trenches* (CVP-2000-00002). The maximum depth of interim remedial action at 116-DR-1&2 was 5.0 m (16.4 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System.

c. Borehole data obtained from Hanford Environmental Information System and reported in CVP-2000-00002. Borehole was drilled in 1999 in the remedial excavation near the influent end of 116-DR-1 to a total depth of 14.0 m (45.5 ft) below the floor of the deep zone excavation. Groundwater was encountered at approximately 12.7 m (41.6 ft) below the excavation floor for a total depth of approximately 17.3 m (56.6 ft) bgs.

d. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 19.6 m (64.2 ft). Well was drilled to 21.9 m (72.0 ft) bgs.

e. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

f. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

g. Results of total chromium in B280B2 collected at 21.7 m (71.1 ft) bgs are anomalous.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-84. 116-DR-9 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5635 (Well 199-D8-64) ^b				1992 LFI Borehole A5636 (Well 199-D8-65) ^b					
		Shallow Zone		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.2 m (36.9 ft)		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.4 m (37.4 ft) bgs	
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^c															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Carbon-14	NA	ND	NA	ND	NA	25.06 (11.2/36.9)	25.00	11.2/36.9	25.06	25.00	U	NA	NA	U	NA
Cesium-137	NA	2.84	2.06	25.8	18.7	0.0487 (5.2/17.2)	0.0301	5.2/17.2	U	NA	1.98 (3.4/11.1)	1.22	10.2/33.6	U	NA
Cobalt-60	NA	0.041	0.007	3.21	0.509	U	NA	NA	U	NA	0.275 (3.4/11.1)	0.174	3.4/11.1	U	NA
Europium-152	NA	0.405	0.197	25.2	12.3	ND	NA	NA	ND	NA	0.817 (3.4/11.1)	0.278	3.4/11.1	0.817	0.278
Europium-154	NA	0.0732	0.0237	3.47	1.12	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Europium-155	NA	U	NA	U	NA	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Nickel-63	NA	3.37	3.06	53.2	48.3	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Plutonium-238	NA	0.150	0.134	U	NA	U	NA	NA	U	NA	ND	NA	NA	ND	NA
Plutonium-239/240	NA	0.304	0.304	0.320	0.320	U	NA	NA	U	NA	0.024 (11.4/37.4)	0.024	11.4/37.4	0.024	0.024
Strontium-90	NA	0.266	0.191	2.01	1.44	2.1 (3.6/11.8)	1.3	11.2/36.9	0.19	0.12	2.4 (2.3/7.5)	1.5	11.4/37.4	0.84	0.51
Technetium-99	NA	ND	NA	ND	NA	U	NA	NA	U	NA	0.92 (10.2/33.6)	0.92	10.2/33.6	U	NA
Nonradionuclides (mg/kg)															
Arsenic	6.5	ND	ND	ND	ND	12.4 (2.1/6.8)	2.1/6.8	3.0 (<Background)	0.96 (<Background)	NA	0.82 (<Background)	NA	0.82 (<Background)	NA	0.82 (<Background)
Cadmium	0.56	ND	ND	ND	ND	0.68 (0.9/3.0)	(0.9/3.0)	U	1.1 (10.2/33.6)	10.2/33.6	U	10.2/33.6	U	U	U
Chromium	18.5	ND	ND	ND	ND	24.0 (2.1/6.8)	2.1/6.8	10.8 (<Background)	30.0 (2.3/7.5)	3.4/11.1	9.7 (<Background)	3.4/11.1	9.7 (<Background)	3.4/11.1	9.7 (<Background)
Copper	22.0	ND	ND	ND	ND	24.2 (11.2/36.9)	11.2/36.9	24.2	18.2 (<Background)	NA	10.7 (<Background)	18.2 (<Background)	NA	10.7 (<Background)	10.7 (<Background)
Cr(VI)	NA	1.90	0.55	0.55	0.55	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND
Mercury	0.013	ND	ND	ND	ND	0.08 (11.2/36.9 ft)	(11.2/36.9 ft)	0.08	0.06 (11.2/36.9 ft)	(8.8/33.6 ft)	U	(8.8/33.6 ft)	U	U	U
Nickel	19.1	ND	ND	ND	ND	11.7 (<Background)	NA	11.7 (<Background)	7.1 (<Background)	NA	7.1 (<Background)	NA	7.1 (<Background)	7.1 (<Background)	7.1 (<Background)
Silver	0.167	ND	ND	ND	ND	1.7 (3.6/1.8)	11.2/36.9	0.83	2.1 (3.4/11.1)	11.4/37.4	1.2	11.4/37.4	1.2	1.2	1.2
Strontium	NA	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND
Tin	NA	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND
Acenaphthene	NA	ND	ND	ND	ND	U	NA	U	U	NA	U	NA	U	U	U

Table D-84. 116-DR-9 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution							
		Cleanup Verification Data ^a		1992 LFI Borehole A5635 (Well 199-D8-64) ^b			1992 LFI Borehole A5636 (Well 199-D8-65) ^b		
		Shallow Zone	Deep Zone	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.2 m (36.9 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.4 m (37.4 ft) bgs
Aroclor-1242	NA	U	0.11	U	NA	U	U	NA	U
Aroclor-1254	NA	ND	ND	U	NA	U	U	NA	U
Aroclor-1260	NA	U	0.11	0.021 (6.7/22.1)	6.7/22.1	U	U	NA	U
Benzo(a)anthracene	NA	ND	ND	U	NA	U	0.13 (1.2/4.0)	1.2/4	U
Benzo(a)pyrene	NA	ND	ND	U	NA	U	0.11 (1.2/4.0)	1.2/4	U
Benzo(b)fluoranthene	NA	ND	ND	U	NA	U	0.12 (1.2/4.0)	1.2/4	U
Benzo(ghi)perylene	NA	ND	ND	U	NA	U	0.085 (1.2/4.0)	1.2/4	U
Benzo(k)fluoranthene	NA	ND	ND	U	NA	U	0.095 (1.2/4.0)	1.2/4	U
Chrysene	NA	ND	ND	U	NA	U	0.14 (1.2/4.0)	1.2/4	U
Fluoranthene	NA	ND	ND	U	NA	U	0.24 (1.2/4.0)	1.2/4	U
Indeno (1,2,3-cd)pyrene	NA	ND	ND	U	NA	U	0.076 (1.2/4.0)	1.2/4	U
4-Methyl-2-Pentanone	NA	ND	ND	0.005 (11.2/36.9)	11.2/36.9	0.005	U	NA	U
Pentachlorophenol	NA	ND	ND	0.056 (8.1/26.5)	8.1/26.5	U	U	NA	U
Phenanthrene	NA	ND	ND	U	NA	U	0.15 (1.2/4.0)	1.2/4.0	U
Pyrene	NA	ND	ND	U	NA	U	0.24 (1.2/4.0)	3.4/11.1	U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-DR-9 Retention Basin* (CVP-99-00006). The maximum depth of interim remedial action at 116-DR-9 was 4.75 m (15.6 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System.

c. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-85. 116-DR-9 – Summary of Contaminant Soil Data in Vadose Zone

Contaminant	Background	Concentration and Distribution									
		1992 LFI Borehole A5637 (Well 199-D8-66) ^b					Remedial Investigation Borehole C7850 ^c				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.4 m (37.5 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 22.0 m (72.3 ft) bgs ^{d,e}				
Radionuclides (Original and Decayed Concentrations) (pCi/g)^f											
		Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Carbon-14	NA	U	NA	NA	U	NA	5.25 (17.5/57.3)	5.25	20.6/67.7	4.79	4.79
Cesium-137	NA	0.0533 (3.7/12.2)	0.0329	11.4/37.5	0.03	0.02	0.163 (6.83/22.4)	0.156	6.83/22.4	U	NA
Cobalt-60	NA	0.03 (11.4/37.5)	0.002	11.4/37.5	0.03	0.002	U	NA	NA	U	NA
Europium-152	NA	0.6 (2.3/7.4)	0.2	11.4/37.5	0.07	0.02	U	NA	NA	U	NA
Europium-154	NA	0.09 (11.4/37.5)	0.02	11.4/37.5	0.09	0.02	U	NA	NA	U	NA
Europium-155	NA	0.02 (11.4/37.5)	0.0009	11.4/37.5	0.02	0.001	U	NA	NA	U	NA
Nickel-63	NA	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Plutonium-238	NA	ND	NA	NA	ND	NA	0.254 (12.8/42)	0.250	12.8/42	U	NA
Plutonium-239/240	NA	0.01 (3.7/12.2)	0.01	3.7/12.2	U	NA	0.233 (12.8/42)	0.233	12.8/42	U	NA
Strontium-90	NA	3.8 (2.3/7.4)	2.3	11.4/37.5	0.31	0.19	1.98 (6.83/22.4)	1.89	20.6/67.7	0.432	0.412
Technetium-99	NA	1.5 (2.3/7.4)	1.5	1.5	U	NA	U	NA	NA	U	NA
Nonradionuclides (mg/kg)											
Antimony	0.130	U	NA	U	0.436 (18.2/59.8)	U	U				
Arsenic	6.5	1.3 (<Background)	NA	1.0 (<Background)	5.05 (<Background)	NA	1.45 (<Background)				
Cadmium	0.563	1.2 (11.4/37.5)	11.4/37.5	1.2	0.146 (<Background)	NA	0.061 (<Background)				
Chromium	18.5	73.4 (3.7/12.2)	3.7/12.2	6.1 (<Background)	17.6 (<Background)	NA	8.78 (<Background)				
Copper	22.0	14.8 (<Background)	NA	7.0 (<Background)	16.1 (<Background)	NA	11.9 (<Background)				
Cr(VI)	NA	ND	NA	ND	1.24 (5.36/17.6)	20.6/67.7	U				
Mercury	0.013	U	NA	U	0.024 (19.1/62.9)	(19.1/62.9)	U				
Molybdenum	0.47	ND	NA	ND	6.68 (16.8/55.0)	20.6/67.7	0.749				
Nickel	19.1	37 (3.7/12.2)	3.7/12.2	6	10.5 (<Background)	NA	7.12 (<Background)				
Silver	0.167	1.8 (0.6/2)	3.7/12.2	U	U	NA	U				
Strontium	NA	ND	NA	ND	37.6 (5.4/17.6)	20.6/67.7	21.0				
Tin	NA	ND	NA	ND	4.04 (16.8/55.0)	20.6/67.7	3.62				
Acenaphthene	NA	U	NA	U	0.0022 (20.6/67.7)	20.6/67.7	0.0022				

Table D-85. 116-DR-9 – Summary of Contaminant Soil Data in Vadose Zone

Contaminant	Background	Concentration and Distribution					
		1992 LFI Borehole A5637 (Well 199-D8-66) ^b			Remedial Investigation Borehole C7850 ^c		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.4 m (37.5 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 22.0 m (72.3 ft) bgs ^{d,e}
Aroclor-1242	NA	U	NA	U	0.0376 (8.2/27.0)	8.2/27.0	U
Aroclor-1254	NA	U	NA	U	0.0146 (8.2/27.0)	8.2/27.0	U
Aroclor-1260	NA	0.13 (0.6/2)	0.6/2	U	0.0327 (8.2/27.0)	19.8/64.8	U
Benzo(a)anthracene	NA	U	NA	U	U	NA	U
Benzo(a)pyrene	NA	U	NA	U	U	NA	U
Benzo(b)fluoranthene	NA	U	NA	U	U	NA	U
Benzo(ghi)perylene	NA	U	NA	U	U	NA	U
Benzo(k)fluoranthene	NA	U	NA	U	U	NA	U
Chrysene	NA	U	NA	U	U	NA	U
Fluoranthene	NA	U	NA	U	U	NA	U
Indeno(1,2,3-cd)pyrene	NA	U	NA	U	U	NA	U
4-Methyl-2-Pentanone	NA	U	NA	U	ND	NA	ND
Pentachlorophenol	NA	0.053 (0.6/2)	0.6/2	U	U	NA	U
Phenanthrene	NA	U	NA	U	0.00104 (8.3/27.0)	8.2/27.0	U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-DR-9 Retention Basin* (CVP-99-00006). The maximum depth of interim remedial action at 116-DR-9 was 4.75 m (15.6 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-DR-1 Operable Unit* (DOE/RL-93-29), and Hanford Environmental Information System.

c. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 19.6 m (64.2 ft). Well was drilled to 22.0 m (72.3 ft) bgs.

d. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

e. Maximum depth of radiological and organic sample collection in borehole C7850 was 20.6 m (67.7 ft) bgs.

f. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-86. 118-D-6 Reactor Fuel Storage Basin - Summary of Contaminant Soil Data

Contaminant	Concentration and Distribution							
	Background	Cleanup Verification Data ^a		Remedial Investigation Borehole C7857 ^b				
				Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 27.4 m (89.8 ft) bgs ^{c,d}		
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^e								
		Original	Decayed	Original	Decayed		Original	Decayed
Carbon-14	NA	NA	NA	27.4 (25.1/82.3)	27.4	25.1/82.3	U	NA
Cesium-137	NA	NA	NA	55.1 (6.7/22.0)	52.6	10.1/33.1	U	NA
Cobalt-60	NA	NA	NA	0.08 (6.7/22.0)	0.06	6.7/22.0	U	NA
Europium-152	NA	NA	NA	3.34 (6.7/22.0)	3.01	10.1/33.1	U	NA
Neptunium-237	NA	NA	NA	0.436 (25.5/83.7)	0.436	25.5/83.7	0.436	0.436
Nickel-63	NA	NA	NA	3.4 (6.7/22.0)	3.4	6.7/22.0	U	NA
Plutonium-239/240	NA	NA	NA	4.13 (6.7/22.0)	4.13	6.7/22.0	U	NA
Strontium-90	NA	NA	NA	1.85 (11.6/37.9)	1.76	23.5/77.0	U	NA
Nonradionuclides (mg/kg)								
Barium	132	NA		209 (20.5/67.1)		14.4/79.9	63.2 (<Background)	
Chromium	18.5	NA		52.2 (20.5/67.1)		25.5/83.7	9.5 (<Background)	
Cr(VI)	NA	NA		0.4 (18.9/62.1)		25.5/83.7	U	
Lead	10.2	NA		11.2 (5.3/17.5)		5.3/17.5	1.92 (<Background)	
Mercury	0.013	NA		0.046 (6.7/22)		0.046 (6.7/22)	U	
Molybdenum	0.47	NA		2.13 (23.5/77)		25.5/83.7	0.572	
Nickel	19.1	NA		31.5 (20.5/67.1)		20.5/67.1	6.59 (<Background)	
Selenium	0.78	NA		0.862 (11.6/37.9)		11.6/37.9	U	
Strontium	NA	NA		47.4 (20.5/67.1)		25.5/83.7	25.2	
Tin	NA	NA		5.07 (23.5/77.0)		25.5/83.7	U	
Vanadium	85.1	NA		96.9 (6.7/22.0)		6.7/22.0	64.7 (<Background)	
Zinc	67.8	NA		69.6 (6.7/22.0)		6.7/22.0	27.9 (<Background)	

a. Samples collected to support the 118-D-6:3 Fuel Storage Basin cleanup verification were concrete from the fuel storage basin floor and are not presented.

b. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 25.1 m (82.2 ft). Well was drilled to 27.4 m (89.8 ft) bgs.

c. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

d. Maximum depth of radiological sample collection in borehole C7857 was 25.5 m (83.7 ft) bgs.

e. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-87. 116-H-1 Trench - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5724 (Well199-H4-58) ^b				Remedial Investigation Borehole C7864 ^c					
		Shallow Zone		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 7.7 m (25.1 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.5 m (50.8 ft) bgs ^{d,e}		
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^f															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	ND	NA	ND	NA	0.2 (3.7/12.0)	0.2	5.4/17.8	U	NA	0.266 (6.6/21.6)	0.265	6.6/21.6	U	NA
Cesium-137	NA	0.393	0.292	37.7	28.0	32 (3.7/12.0)	20	6.3/20.8	U	NA	14.9 (5.3/17.5)	14.2	14.3/46.8	0.059	0.056
Carbon-14	NA	ND	NA	ND	NA	15 (6.3/20.8)	15	6.3/20.8	U	NA	U	NA	NA	U	NA
Cobalt-60	NA	U	NA	1.29	0.23	2.5 (3.7/12.0)	0.2	5.4/17.8	U	NA	0.182 (6.6/21.6)	0.140	6.6/21.6	U	NA
Europium-152	NA	0.665	0.341	52.2	26.8	54 (3.7/12.0)	18	6.3/20.8	0.72	0.24	15.3 (6.6/21.6)	13.8	10.5/34.6	U	NA
Europium-154	NA	U	NA	3.88	1.36	5.4 (3.7/12.0)	1.0	6.3/20.8	0.34	0.06	0.957 (6.6/21.6)	0.814	6.6/21.6	U	NA
Plutonium-239/240	NA	0.073	0.073	1.09	1.09	0.74 (3.7/12.0)	0.74	7.7/25.1	0.034	0.034	0.414 (6.6/21.6)	0.414	6.6/21.6	U	NA
Strontium-90	NA	0.698	0.512	2.53	1.86	6.2 (5.2/17.0)	3.8	6.3/20.8	U	NA	1.93 (6.6/21.6)	1.84	14.3/46.8	0.418	0.398
Technetium-99	NA	ND	NA	ND	NA	0.67 (5.4/17.8)	0.67	5.4/17.8	U	NA	U	NA	NA	U	NA
Tritium	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	8.86 (7.8/25.5)	7.92	14.3/46.8	4.01	3.58
Uranium-235	0.11	ND	NA	ND	NA	0.13 (5.4/17.8)	0.13	5.4/17.8	ND	NA	U	NA	NA	U	NA
Nonradionuclides (mg/kg)															
Antimony	0.130	ND	ND	ND	ND	U	NA	U	U	U	146 (12.5/41.1)	15.5/50.8	17.1		
Arsenic	6.47	ND	ND	ND	ND	37.90 (3.7/12.0)	5.2/17.8	U	U	U	7.55 (5.3/17.5)	5.3/17.5	1.58 (<Background)		
Chromium	18.5	ND	ND	ND	ND	29.6 (5.4/17.8)	5.4/17.8	10.6	U	U	58.5 (10.5/34.6)	15.5/50.8	10.9 (<Background)		
Copper	22	ND	ND	ND	ND	20.5 (<Background)	NA	16.9	U	U	139 (12.5/41.1)	15.5/50.8	28.4		
Cr(VI)	0	0.42	U	U	U	ND	NA	ND	U	U	2.27 (6.6/21.6)	15.5/50.8	0.39		
Lead	10.2	11.7	Level I ^g 16.0	Level II ^g 0.98	Level II ^g 0.98	187.0 (3.7/12.0)	5.4/17.8	2.5	U	U	707 (12.5/41.1)	15.5/50.8	103		
Mercury	0.013	ND	ND	ND	ND	0.196 (6.6/21.6)	6.6/21.6	U	U	U	U	NA	NA	NA	NA

Table D-87. 116-H-1 Trench - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution							
		Cleanup Verification Data ^a		1992 LFI Borehole A5724 (Well199-H4-58) ^b			Remedial Investigation Borehole C7864 ^c		
		Shallow Zone	Deep Zone	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 7.7 m (25.1 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.5 m (50.8 ft) bgs ^{d,e}
Molybdenum	0.47	ND	ND	ND	NA	ND	1.43 (10.5/34.6)	15.5/50.8	1.38
Nickel	19.1	ND	ND	13.9 (<Background)	NA	9.0	46.4 (6.6/21.6)	10.5/34.6	8.10 (<Background)
Silver	0.167	ND	ND	0.600	4.8/15.6	U	U	NA	U
Strontium	NA	ND	ND	ND	NA	ND	49.7 (10.5/34.6)	15.5/50.8	24.0
Tin	NA	ND	ND	ND	NA	ND	1330 (12.5/41.1)	15.5/50.8	199
2-Methylnaphthalene	NA	ND	ND	0.35 (4.8/15.6)	4.8/15.6	U	ND	ND	ND
Acenaphthene	NA	ND	ND	2.1 (4.8/15.6)	4.8/15.6	U	0.00105 (5.3/17.5)	5.3/17.5	U
Anthracene	NA	ND	ND	4.1 (4.8/15.6)	4.8/15.6	U	U	NA	U
Benzo(a)anthracene	NA	ND	ND	8.6 (4.8/15.6)	5.4/17.8	U	0.00550 (5.3/17.5)	5.3/17.5	U
Benzo(a)pyrene	NA	ND	ND	8.7 (4.8/15.6)	5.4/17.8	U	0.00844 (5.3/17.5)	5.3/17.5	U
Benzo(b)fluoranthene	NA	ND	ND	6.5 (4.8/15.6)	5.4/17.8	U	0.0104 (5.3/17.5)	5.3/17.5	U
Benzo(ghi)perylene	NA	ND	ND	4.9 (4.8/15.6)	4.8/15.6	U	0.00606 (5.3/17.5)	5.3/17.5	U
Benzo(k)fluoranthene	NA	ND	ND	7.2 (4.8/15.6)	4.8/15.6	U	0.00398 (5.3/17.5)	5.3/17.5	U
Chrysene	NA	ND	ND	0.92 (4.8/15.6)	5.4/17.8	U	0.00356 (5.3/17.5)	12.5/41.1	U
Dibenz[a,h]anthracene	NA	ND	ND	2 (4.8/15.6)	4.8/15.6	U	U	NA	U
Dibenzofuran	NA	ND	ND	1.2 (4.8/15.6)	4.8/15.6	U	ND	ND	ND
Fluoranthene	NA	ND	ND	18 (4.8/15.6)	5.4/17.8	U	0.0134 (5.3/17.5)	13.1/43.1	U
Fluorene	NA	ND	ND	1.9 (4.8/15.6)	4.8/15.6	U	U	NA	U
Indeno(1,2,3-cd)pyrene	NA	ND	ND	4.7 (4.8/15.6)	4.8/15.6	U	0.00513 (5.3/17.5)	5.3/17.5	U
Naphthalene	NA	ND	ND	1.5 (4.8/15.6)	4.8/15.6	U	U	NA	U
N-nitrosodiphenylamine	NA	ND	ND	0.059 (5.2/17)	(5.2/17)	U	ND	ND	ND
Phenanthrene	NA	ND	ND	16 (4.8/15.6)	5.4/17.8	U	0.00405 (5.3/17.5)	12.5/41.1	U
Pyrene	NA	ND	ND	17 (4.8/15.6)	5.4/17.8	U	0.0155 (5.3/17.5)	14.3/46.8	0.00121
Bromide	NA	ND	ND	ND	ND	ND	1.2 (7.8/25.5)	(7.8/25.5)	U
Nitrite as Nitrogen	NA	ND	ND	ND	ND	ND	1.2 (7.8/25.5)	(7.8/25.5)	U

Table D-87. 116-H-1 Trench - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution							
		Cleanup Verification Data ^a		1992 LFI Borehole A5724 (Well199-H4-58) ^b			Remedial Investigation Borehole C7864 ^c		
		Shallow Zone	Deep Zone	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 7.7 m (25.1 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.5 m (50.8 ft bgs) ^{d,e}

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-H-1 Process Effluent Trench* (CVP-2000-00026). The maximum depth of interim remedial action at 116-H-1 was 4.6 m (15 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-HR-1 Operable Unit* (DOE/RL-93-51), and Hanford Environmental Information System. Six soil samples taken in 1992 for LFI investigation. Total borehole depth was 7.7 m (25.1) ft bgs.

c. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 13.3 m (43.5 ft). Well was drilled to 15.5 m (50.8 ft) bgs.

d. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

e. Maximum depth of radiological and organics sample collection in borehole C7864 was 14.3 m (46.8 ft) bgs.

f. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

g. The lead concentrations in the 116-H-1 deep zone were divided into two levels (Level I and Level II) as a more detailed analysis of lead was required to demonstrate residual concentrations were protective of groundwater and the river. The level II value is based on the site-specific cleanup verification model derived from the 116-H-1 borehole C3048 data.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-88. 116-H-1 Trench - Summary of Contaminant Soil Data in the Vadose Zone

Contaminant	Background	Concentration and Distribution								
		Cleanup Verification Data ^a				Excavation Borehole C3048 (2000) ^b				
		Shallow Zone ^c		Deep Zone		Maximum Result with Corresponding Depth (m/ft) bgs		Extent of Detection above Background (m/ft) bgs		Result at Maximum Sample Depth 12.5 m (40.9 ft) bgs
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^d										
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed
Carbon-14	NA	ND	NA	ND	NA	7.89 (6.4/20.9)	7.89	7.7/25.1	U	NA
Cesium-137	NA	0.393	0.292	37.7	28.0	33.5 (5.4/17.6)	24.9	8.6/28.1	U	NA
Cobalt-60	NA	U	NA	1.29	0.23	1.4 (5.4/17.6)	0.25	6.4/20.9	U	NA
Europium-152	NA	0.665	0.341	52.2	26.8	50.6 (5.4/17.6)	26.0	10.5/34.3	U	NA
Europium-154	NA	U	NA	3.88	1.36	4.18 (5.4/17.6)	2.15	6.4/20.9	U	NA
Plutonium-239/240	NA	0.073	0.073	1.09	1.09	0.543 (5.4/17.6)	0.543	7.7/25.1	U	NA
Strontium-90	NA	0.698	0.512	2.53	1.86	2.15 (6.4/20.9)	1.58	12.5/40.9	0.765	0.561
Nonradionuclides (mg/kg)										
Arsenic	6.47	ND		ND		16.6 (5.4/17.6)		5.4/17.6		U
Cr(VI)	0	0.42				0.59 (11.6/37.9)		11.6/37.9		U
Mercury	0.013	ND		ND		1.24 (5.3/17.5)		11.3/37.2		U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 116-H-1 Process Effluent Trench* (CVP-2000-00026). The maximum depth of interim remedial action at 116-H-1 was 4.6 m (15 ft) bgs.

b. Borehole was drilled at the bottom of the deep zone excavation at 4.6 m (15.0 ft) bgs. Borehole was drilled to a depth of 9.8 m (32.0 ft) from the floor of the deep zone excavation. Groundwater was encountered at approximately 12.6 m (41.5 ft) bgs. Data were obtained from *116-H-1 Characterization Borehole Results* (BHI-01541).

c. Shallow zone value represents the excavation area unless otherwise noted.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-89. 116-H-2 Trench - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution											
		Cleanup Verification Data ^a		1992 LFI Borehole A5725 (Well 199-H4-59) ^b				Remedial Investigation Test Pit ^c					
		Shallow Zone ^d		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 3.1 m (17.2 ft) bgs	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 5.8 (19 ft) bgs				
Radionuclides (Original and Decayed Concentrations) (pCi/g)^e													
		Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Cesium-137	NA	0.22	0.16	U	NA	NA	U	NA	U	NA	NA	U	NA
Cobalt-60	NA	0.05	0.01	U	NA	NA	U	NA	U	NA	NA	U	NA
Europium-152	NA	0.11	0.06	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Europium-154	NA	0.15	0.05	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Plutonium-239/240	NA	0.10	0.10	U	NA	NA	U	NA	U	NA	NA	U	NA
Strontium-90	NA	0.50	0.37	U	NA	NA	U	NA	U	NA	NA	U	NA
Uranium-238	1.06	0.62 (<Background)	0.62	0.54 (<Background)	0.54	NA	0.54 (<Background)	0.54	1.17 (4.6/15)	1.17	4.6/15	0.988 (<Background)	0.988
Nonradionuclides (mg/kg)													
Chromium	18.5	ND		19 (5.24/17.2)		5.2/17.2	19		11.7 (<Background)		NA	9.60 (<Background)	
Cr(VI)	NA	0.47		ND		NA	ND		U		NA	U	
Nickel	19.1	ND		24.4 (5.24/17.2)		5.2/17.2	24.4		10.4 (<Background)		NA	9.94 (<Background)	
Strontium	NA	ND		ND		NA	ND		32.9 (4.6/15)		5.8/19	29.8	
Tin	NA	ND		ND		NA	ND		2.98 (5.8/19)		5.8/19	2.98	

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 100-H-17 Overflow, 116-H-2 Liquid Waste Disposal Trench, 100-H-2 Buried Thimble Site, and the 100-H-30 Sanitary Sewer Trench* (CVP-2000-00031), which presented cleanup verification data for 100-H-17 and the co-located 116-H-2, 100-H-2, and 100-H-30 waste sites. The maximum depth of interim remedial action at the 116-H-2 trench was approximately 4.6 m (15.0 ft) bgs while the maximum depth of remediation in the surrounding 100-H-17 site was 2.6 m (8.5 ft) bgs.

b. LFI borehole data obtained from *Limited Field Investigation Report for the 100-HR-1 Operable Unit* (DOE/RL-93-51), and Hanford Environmental Information System. Two soil samples taken in 1992 for limited field investigation at 3.7 m (12.1 ft) and 5.2 m (17.2 ft) bgs. Total borehole depth was 5.5 m (18.2 ft) bgs.

c. Test pit data obtained from Hanford Environmental Information System. Test pit was excavated to 5.8 m (19 ft) bgs.

d. Shallow zone value represents the excavation area unless otherwise noted.

e. Original radiological data presented in left column with decay corrected value to December 31, 2012 in right column.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-90. 116-H-4 Crib – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution Remedial Investigation Borehole C7862 ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs		Result at Maximum Sample Depth 16.0 m (52.4 ft) ^{b,c}	
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d						
		Original	Decayed		Original	Decayed
Carbon-14	NA	19.5 (12.0/39.5)	19.5	12.0/39.5	U	NA
Tritium	NA	3.43 (42.2/12.9)	2.90	42.2/12.9	U	NA
Nonradionuclides (mg/kg)						
Chromium	18.5	62.5 (8.2/27.0) ^e		13.7/45.0	9.01 (<Background)	
Cr(VI)	NA	0.21 (6.6/21.5)		6.6/21.5	U	
Lead	10.2	16.7 (2.2/7.3)		4.4/14.3	1.9 (<Background)	
Molybdenum	0.47	2.26 (8.2/27.0)		16.0/52.4	0.662	
Nickel	19.1	32.4 (8.2/27.0) ^e		8.23/27.0	8.29 (<Background)	
Strontium	NA	56.1 (6.6/21.5)		16.0/52.4	21.5	
Tin	NA	1.4 (8.2/27.0)		13.7/45.0	U	

a. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at 13.7 m (44.8 ft) bgs. Well was drilled to 16.0 m (52.4 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Maximum depth of radiological sample collection in borehole C7862 was 13.7 m (45.0 ft) bgs.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

e. Results of total chromium in B276D6 collected at 8.2 m (27.0 ft) bgs are anomalous.

bgs = below ground surface.

NA = not applicable. No background value or contaminant was either not analyzed for or was not detected.

ND = not detected

U = Analyzed for but not detected above limiting criteria.

UCL = upper confidence limit.

Table D-91. 116-H-6 – Summary of Contaminant Soil Data (Boreholes A5716 to A5718)

Contaminant	Background	Concentration and Distribution														
		Borehole A5716 (199-H4-50) ^a					Borehole A5717 (Well 199-H4-51) ^a					Borehole A5718 (Well 199-H4-52) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 10.2 m (33.4 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.6 m (31.5 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.75 m (32.0 ft)						
Radionuclides (Original and Decayed Concentrations) (pCi/g)^b																
		Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Cesium-137	NA	0.1 (8.4/27.6)	0.06	8.4/27.6	U	NA	U	NA	NA	U	NA	U	NA	NA	U	NA
Cobalt-60	NA	U	NA	NA	U	NA	U	NA	NA	U	NA	ND	NA	NA	ND	NA
Strontium-90	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Technetium-99	NA	39.0 (2.7/9.0)	39.0	10.2/33.4	6.6	6.6	6.7 (2.7/9.0)	6.7	9.6/31.5	1.0	1.0	176 (2.7/9.0)	176	9.8/32.0	0.5	0.5
Tritium	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Uranium-233/234	1.10	7.8 (3.5/11.4)	7.8	10.2/33.4	2.5	2.5	0.6 (<Background)	0.6	NA	0.5 (<Background)	0.5	1.6 (2.7/9.0)	1.6	2.7/9.0	0.5 (<Background)	0.5
Uranium-235	0.109	1.0 (3.5/11.4)	1.0	10.2/33.4	0.3	0.3	U	NA	NA	U	NA	U	NA	NA	U	NA
Uranium-238	1.06	5.7 (3.5/11.4)	5.7	10.2/33.4	2	2	0.5 (<Background)	0.5	NA	0.5 (<Background)	0.5	1.5 (2.7/9.0)	1.5	2.7/9.0	0.5 (<Background)	0.5
Nonradionuclides (mg/kg)																
Antimony	0.130	13.9 (2.7/9.0)		8.4/27.6	U		U		NA	U		19.2 (9.8/32.0)		9.8/32.0	19.2	
Arsenic	6.5	3.6 (<Background)		NA	1.8 (<Background)		6.3 (<Background)		NA	1.0 (<Background)		5.7 (<Background)		NA	0.9 (<Background)	
Barium	132	79.3 (<Background)		NA	56.3 (<Background)		81.3 (<Background)		NA	51 (<Background)		91 (<Background)		NA	91 (<Background)	
Beryllium	1.51	2.1 (2.7/9.0)		2.7/9.0	U		0.5 (<Background)		NA	U		0.3 (<Background)		NA	0.2 (<Background)	
Cadmium	0.56	U		NA	U		4.0 (9.6/31.5)		9.6/31.5	4.0		0.6 (9.6/32)		(9.6/32)	0.6	
Chromium	18.5	44.9 (2.7/9.0)		2.7/9.0	13.8 (<Background)		24.8 (5.3/17.3)		8.3/27.2	16.9 (<Background)		21.7 (6.9/22.5)		6.9/22.5	11.8 (<Background)	
Cobalt	15.7	12.8 (<Background)		NA	12.8 (<Background)		23.2 (2.7/9.0)		2.7/9.0	10.4 (<Background)		12.5 (<Background)		NA	11.6 (<Background)	
Copper	22.0	815 (2.7/9.0)		5.1/16.6	16.3 (<Background)		20.1 (<Background)		NA	20.1 (<Background)		22.2 (2.7/9.0)		2.7/9.0	13.8 (<Background)	
Cr(VI)	NA	ND		NA	ND		ND		NA	ND		ND		NA	ND	
Lead	10.2	9.4 (<Background)		NA	2.3 (<Background)		17.4 (2.7/9.0)		2.7/9.0	4.8 (<Background)		10.7 (6.9/22.5)		6.9/22.5	4.9 (<Background)	
Mercury	0.013	0.7 (2.7/9.0)		2.7/9.0	U		U		NA	U		0.1 (9.75/32)		(9.75/32)	0.1	

Table D-91. 116-H-6 – Summary of Contaminant Soil Data (Boreholes A5716 to A5718)

Contaminant	Background	Concentration and Distribution								
		Borehole A5716 (199-H4-50) ^a			Borehole A5717 (Well 199-H4-51) ^a			Borehole A5718 (Well 199-H4-52) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 10.2 m (33.4 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.6 m (31.5 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.75 m (32.0 ft)
Molybdenum	0.47	ND	NA	ND	ND	NA	ND	ND	NA	ND
Nickel	19.1	15.6 (<Background)	NA	10.3 (<Background)	16.2 (<Background)	NA	8.8 (<Background)	15.8 (<Background)	NA	8.5 (<Background)
Selenium	0.78	U	NA	U	U	NA	U	3.9 (9.8/32.0)	9.8/32.0	3.9
Silver	0.167	12.9 (2.7/9.0)	2.7/9.0	U	U	NA	U	0.8 (9.8/32.0)	9.8/32.0	0.8
Strontium	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND
Thallium	0.185	U	NA	U	U	NA	U	0.3 (3.3/11)	7.6/25	0.2
Tin	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND
Zinc	67.8	51.5 (<Background)	NA	31.7 (<Background)	50.4 (<Background)	NA	29.7 (<Background)	54.2 (<Background)	NA	31.8 (<Background)
Cyanide	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND
Fluoride	2.81	223 (3.5/11.4)	10.2/33.4	10.5	3.0 (4.3/14.0)	4.3/14.0	1.6 (<Background)	130 (2.7/9.0)	4.0/13.0	ND
Nitrate	52	304 (10.2/33.4)	10.2/33.4	304	227 (2.7/9.0)	2.7/9.0	5.6 (<Background)	6200 (2.7/9.0)	4.0/13.0	15.2 (<Background)
Nitrite	NA	1.6 (10.2/33.4)	10.2/33.4	1.6	1.1 (2.7/9.0)	2.7/9.0	U	15.6 (2.7/9.0)	9.75/32.0	5.0
Sulfate	237	156 (<Background)	NA	156 (<Background)	68.4 (<Background)	NA	60.7 (<Background)	4420 (2.7/9.0)	4.0/13.0	64.6 (<Background)

a. Borehole data obtained from Hanford Environmental Information System.

b. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-92. 116-H-6 – Summary of Contaminant Soil Data (Boreholes A5719 to A5721)

Contaminant	Background	Concentration and Distribution														
		Borehole A5719 (Well 199-H4-53) ^a					Borehole A5720 (Well 199-H4-54) ^a					Borehole A5721 (Well 199-H4-55) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.94 m (32.6 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 14.3 m (46.9 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.3 m (37. ft)						
Radionuclides (Original and Decayed Concentrations) (pCi/g)^b																
		Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Cesium-137	NA	U	NA	NA	U	NA	U	NA	NA	U	NA	0.2 (2.7/9.0)	0.1	2.7/9.0	U	NA
Cobalt-60	NA	U	NA	NA	U	NA	0.1 (7.8/25.6)	0.01	7.8/25.6	U	NA	U	NA	NA	U	NA
Strontium-90	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Technetium-99	NA	2.8 (2.7/9.0)	2.8	10.0/32.6	0.2	0.2	2.0 (0.7/2.5)	2.0	14.3/46.9	0.5	0.5	3.0 (5.5/18.0)	3.0	11.3/37.0	0.2	0.2
Tritium	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA
Uranium-233/234	1.10	0.8 (<Background)	0.8	NA	0.4 (<Background)	0.4	0.8 (<Background)	0.8	NA	0.5 (<Background)	0.5	0.7 (<Background)	0.7	NA	0.4 (<Background)	0.4
Uranium-235	0.109	U	NA	NA	U	NA	U	NA	NA	U	NA	0.1 (<Background)	0.1	NA	U	NA
Uranium-238	1.06	0.8 (<Background)	0.8	NA	0.4 (<Background)	0.4	0.8 (<Background)	0.8	NA	0.5 (<Background)	0.5	0.7 (<Background)	0.7	NA	0.4 (<Background)	0.4
Nonradionuclides (mg/kg)																
Antimony	0.130	4.5 (10.4/34.0)	(10.4/34.0)	4.5	11.9 (0.8/2.5)	1.9/6.1	U	25.3 (2.7/9.0)	11.3/37.0	16.3						
Arsenic	6.5	4.0 (<Background)	NA	1.1 (<Background)	12.6 (-2.4/-8.0) ^f	0.8/2.5	0.7 (<Background)	12.7 (2.7/9.0)	2.7/9.0	1.5 (<Background)						
Barium	132	78 (<Background)	NA	66.2 (<Background)	65.9 (<Background)	NA	38.4 (<Background)	288 (2.7/9.0)	2.7/9.0	43.8 (<Background)						
Beryllium	1.51	0.3 (<Background)	NA	U	0.2 (<Background)	NA	U	0.6 (<Background)	NA	U						
Boron	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND						
Cadmium	0.53	U	NA	U	0.7 (7/23)	(7/23)	U	4.5 (6.4/21.0)	6.4/21.0	U						
Chromium	18.5	16.0 (<Background)	NA	10.2 (<Background)	13.7 (<Background)	NA	7.3 (<Background)	18.5 (5.6/18.5)	5.6/18.5	8.7 (<Background)						
Cobalt	15.7	9.1 (<Background)	NA	8.9 (<Background)	10.4 (<Background)	NA	7.2 (<Background)	13.3 (<Background)	NA	7.9 (<Background)						
Copper	22.0	19.7 (<Background)	NA	11.9 (<Background)	18.7 (<Background)	NA	17.4 (<Background)	57 (2.7/9.0)	6.4/21.0	10.8 (<Background)						
Cr(VI)	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND						
Lead	10.2	7.3 (<Background)	NA	2.4 (<Background)	25.2 (0.8/2.5)	0.8/2.5	1.9 (<Background)	9.8 (<Background)	NA	2.2 (<Background)						

Table D-92. 116-H-6 – Summary of Contaminant Soil Data (Boreholes A5719 to A5721)

Contaminant	Background	Concentration and Distribution								
		Borehole A5719 (Well 199-H4-53) ^a			Borehole A5720 (Well 199-H4-54) ^a			Borehole A5721 (Well 199-H4-55) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.94 m (32.6 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 14.3 m (46.9 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.3 m (37. ft)
Mercury	0.0.013	0.1 (4.0/13.0)	(4.0/13.0)	U	U	NA	U	0.3 (2.7/9.0)	(2.7/9.0)	U
Molybdenum	0.47	ND	NA	ND	ND	NA	ND	ND	NA	ND
Nickel	19.1	16.7 (<Background)	NA	8.8 (<Background)	12.4 (<Background)	NA	8 (<Background)	24.4 (2.7/9.0)	2.7/9.0	8.8 (<Background)
Selenium	0.78	U	NA	U	U	NA	U	0.9 (8.2/27.0)	8.2/27.0	U
Silver	0.167	U	NA	U	U	NA	U	U	NA	U
Strontium	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND
Tin	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND
Zinc	67.8	46.9 (<Background)	NA	33.6 (<Background)	34.3 (<Background)	NA	27.3 (<Background)	81.8 (2.7/9.0)	2.7/9.0	28.1 (<Background)
Cyanide	NA	ND	NA	ND	ND	NA	ND	ND	NA	ND
Fluoride	2.81	3.1 (6.6/21.5)	6.6/21.5	1.6 (<Background)	2.7 (<Background)	NA	U	48.8 (2.7/9.0)	2.7/9.0	1.0 (<Background)
Nitrate	52	52.3 (2.7/9.0)	2.7/9.0	5.6 (<Background)	30.1 (<Background)	NA	4.8 (<Background)	60.1 (2.7/9.0)	2.7/9.0	5.6 (<Background)
Nitrite	NA	U	NA	U	U	NA	U	U	NA	U
Sulfate	237	56.5 (<Background)	NA	30.4 (<Background)	85.5 (<Background)	NA	13.9 (<Background)	7564 (2.7/9.0)	2.7/9.0	29.3 (<Background)

a Borehole data obtained from Hanford Environmental Information System.

b. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-93. 116-H-6 – Summary of Contaminant Soil Data (Boreholes A5722, A5723, and RI Borehole C7860)

Contaminant	Background	Concentration and Distribution														
		Borehole A5722 (Well 199-H4-56) ^a					Borehole A5723 (Well 199-H4-57) ^a					Remedial Investigation Borehole C7860 ^b				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.4 m (37.4 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.7 m (38.3 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 14.8 m (48.6 ft) ^{c,d}						
Radionuclides (Original and Decayed Concentrations) (pCi/g)^e																
		Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Cesium-137	NA	U	NA	NA	U	NA	U	NA	NA	U	NA	U	NA	NA	U	NA
Cobalt-60	NA	U	NA	NA	U	NA	U	NA	NA	U	NA	U	NA	NA	U	NA
Strontium-90	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA	0.383 (11.3/37.0)	0.365	11.3/37.0	U	NA
Technetium-99	NA	0.4 (11.4/37.4)	0.4	11.4/37.4	0.4	0.4	0.6 (2.7/9.0)	0.6	11.7/38.3	0.2	0.2	0.544 (12.1/39.8)	0.544	13.1/43.0	0.148	0.148
Tritium	NA	ND	NA	NA	ND	NA	ND	NA	NA	ND	NA	7.10 (8.3/27.1)	6.35	13.1/43.0	5.55	4.96
Uranium-233/234	1.10	0.6 (<Back-ground)	0.6	NA	0.5 (<Back-ground)	0.5	0.5 (<Back-ground)	0.5	NA	0.4 (<Back-ground)	0.4	0.605 (<Back-ground)	0.605	NA	0.549 (<Back-ground)	0.549
Uranium-235	0.109	U	NA	NA	U	NA	U	NA	NA	U	NA	0.05 (<Back-ground)	0.05	NA	U	NA
Uranium-238	1.06	0.6 (<Back-ground)	0.6	NA	0.5 (<Back-ground)	0.5	0.5 (<Back-ground)	0.5	NA	0.4 (<Back-ground)	0.4	0.613 (<Back-ground)	0.613	NA	0.613 (<Back-ground)	0.613
Nonradionuclides (mg/kg)																
Antimony	0.130	15.1 (11.3/37)	4.0/13.0	3.7	5.1 (6.9/22.5)	6.9/22.5	U	1.53 (10.6/34.8)	14.8/48.6	0.292						
Arsenic	6.5	8.2 (4.0/13.0)	4.0/13.0	1.1 (<Background)	2.3 (<Background)	NA	0.9 (<Background)	12.1 (3.8/12.6)	4.6/15.1	1.15 (<Background)						
Barium	132	105 (<Background)	NA	105 (<Background)	67.3 (<Background)	NA	44.4 (<Background)	65.0 (<Background)	NA	31.2 (<Background)						
Beryllium	1.51	0.3 (<Background)	NA	U	0.2 (<Background)	NA	U	0.218 (<Background)	NA	0.121 (<Background)						
Cadmium	0.563	U	NA	U	U	NA	U	0.217 (<Background)	NA	0.0916 (<Background)						
Chromium	18.5	24.3 (8.2/26.9)	8.2/26.9	14.4 (<Background)	12.6 (<Background)	NA	U	13.9 (<Background)	NA	6.69 (<Background)						
Cobalt	15.7	11.6 (<Background)	NA	9.5 (<Background)	11.8 (<Background)	NA	U	6.54 (<Background)	NA	2.99 (<Background)						
Copper	22.0	20.1 (<Background)	NA	16.3 (<Background)	22.0 (9.8/32.1)	9.8/32.1	13.1 (<Background)	18.3 (<Background)	NA	7.11 (<Background)						
Cr(VI)	NA	ND	NA	ND	ND	NA	ND	1.07 (11.3/37.0)	14.8/48.6	0.30						
Lead	10.2	32.9 (2.7/9.0)	11.4/37.4	11.9	11.0 (9.8/32.1)	9.8/32.1	2.0 (<Background)	36.5 (3.8/12.6)	4.6/15.1	3.14 (<Background)						

Table D-93. 116-H-6 – Summary of Contaminant Soil Data (Boreholes A5722, A5723, and RI Borehole C7860)

Contaminant	Background	Concentration and Distribution								
		Borehole A5722 (Well 199-H4-56) ^a			Borehole A5723 (Well 199-H4-57) ^a			Remedial Investigation Borehole C7860 ^b		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.4 m (37.4 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 11.7 m (38.3 ft)	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 14.8 m (48.6 ft) ^{c,d}
Mercury	0.013	U	NA	U	U	NA	U	0.021 (4.6/15.1)	14.8/48.6	0.017
Molybdenum	0.47	ND	NA	ND	ND	NA	ND	1.47 (6.6/21.8)	14.8/48.6	0.507
Nickel	19.1	14.2 (<Background)	NA	13.6 (<Background)	9.7 (<Background)	NA	5.8 (<Background)	11.4 (<Background)	NA	5.06 (<Background)
Selenium	0.78	U	NA	U	U	NA	U	0.263 (<Background)	NA	U
Silver	0.167	U	NA	U	U	NA	U	U	NA	U
Strontium	NA	ND	NA	ND	ND	NA	ND	39.0 (6.6/21.8)	14.8/48.6	29.7
Tin	NA	ND	NA	ND	ND	NA	ND	25.1 (10.6/34.8)	14.8/48.6	1.69
Zinc	67.8	38.5 (<Background)	NA	36.8 (<Background)	46 (<Background)	NA	26.3 (<Background)	37.8 (<Background)	NA	20.8 (<Background)
Cyanide	NA	ND	NA	ND	ND	NA	ND	0.38 (12.1/39.8)	12.1/39.8	U
Fluoride	2.81	4.2 (11.4/37.4)	11.4/37.4	4.2	4.1 (6.9/22.5)	9.78/32.1	2.6 (<Background)	2.6 (<Background)	NA	U
Nitrate	52	11.4 (<Background)	NA	9.6 (<Background)	8 (<Background)	NA	5.6 (<Background)	81.7 (11.3/37.0)	11.3/37.0	25.3 (<Background)
Nitrite	NA	U	NA	U	U	NA	U	U	NA	U
Sulfate	237	127.4 (<Background)	NA	55.2 (<Background)	119 (<Background)	NA	29 (<Background)	185 (<Background)	NA	35.2 (<Background)

a. 116-H-6 borehole data from 1991 sampling obtained from the RCRA Closure Data Evaluation Report: 183-H Solar Evaporation Basins Soil and Concrete (DOE/RL-95-29). Boreholes in 183-H Basins 1, 2, 3, and 4 are numbered A5716, A5718, A5717, and A5719, respectively. Soil removal in the Basins 2, 3, and 4 extended to at least 2.7 m (9.0 ft) bgs. Soil removal in Basin 1 extended to up to 6.1 m (20 ft) bgs.

b. Borehole data obtained from Hanford Environmental Information System (HEIS). The water table was encountered at approximately 12.6 m (41.5 ft). The borehole was drilled to 14.8 m (48.6 ft) bgs.

c. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

d. Maximum depth of radiological and organic sample collection in borehole C7860 was 13.1 m (43.0 ft) bgs.

e. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

f. Negative depths presented at this borehole indicate elevations that were above previously referenced ground surface for the other boreholes at 116-H-6.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-94. 116-H-7 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution													
		Cleanup Verification Data ^a				1992 LFI Borehole A5727 (Well 199-H4-61) ^b				Remedial Investigation Borehole C7861 ^c					
		Shallow Zone ^d		Deep Zone ^e		Maximum Result with Corresponding Depth (m/ft bgs)		Extent of Detection above Background (m/ft bgs)		Result at Maximum Sample Depth 6.34 m (20.8 ft)		Maximum Result with Corresponding Depth (m/ft bgs)		Extent of Detection above Background (ft bgs)	
Radionuclides (Original and Decayed Concentrations) (pCi/g) ^h															
		Original	Decayed	Original	Decayed	Original	Decayed		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	ND	NA	ND	NA	0.72 (3.8/12.4)	0.70	3.8/12.4	U	NA	U	NA	NA	U	NA
Carbon-14	NA	ND	NA	ND	NA	34 (6.3/20.8)	33.9	6.3/20.8	34	33.9	U	NA	NA	U	NA
Cesium-137	NA	0.121 ⁱ	0.090	19.2	14.2	35 (3.8/12.4)	21.6	5.0/16.4	U	NA	3.85 (6.9/22.7)	3.68	11.4/37.5	0.055	0.053
Cobalt-60	NA	U	NA	19.7	3.56	36 (3.8/12.4)	2.28	5.0/16.4	U	NA	U	NA	NA	U	NA
Europium-152	NA	0.272	0.140	241.7	124.0	260 (3.8/12.4)	88.5	5.0/16.4	4 (5.0/16.4)	1.36	0.074 (5.5/17.9)	0.067	5.5/17.9	U	NA
Europium-154	NA	U	NA	18.8	6.59	37 (3.8/12.4)	6.8	5.0/16.4	0.5 (5.0/16.4)	0.09	U	NA	NA	U	NA
Europium-155	NA	U	NA	U	NA	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Nickel-63	NA	U	NA	1224	1119	ND	NA	NA	ND	NA	13.7 (6.9/22.7)	13.5	6.9/22.7	U	NA
Plutonium-238	NA	U	NA	0.147	0.133	ND	NA	NA	ND	NA	U	NA	NA	U	NA
Plutonium-239/240	NA	U	NA	1.6	1.6	1.3 (3.8/12.4)	1.3	5.0/16.4	U	NA	U	NA	NA	U	NA
Strontium-90	NA	U	NA	2.47	1.81	3.2 (3.0/10)	1.9	6.3/20.8	1.2	0.73	0.616 (11.4/37.5)	0.587	11.4/37.5	0.616	0.587
Uranium-235	0.11	ND	NA	ND	NA	0.38 (3.8/12.4)	0.38	3.8/12.4	U	NA	U	NA	NA	U	NA
Nonradionuclides (mg/kg)															
Antimony	0.130	ND	ND	ND	ND	U	NA	U	U	NA	0.969 (8.23/27)	8.23/27	U	NA	1.68 (<Background)
Arsenic	6.47	ND	ND	ND	ND	47 (0.9/3.0)	3.1/10.0	U	U	NA	2.59 (<Background)	NA	U	NA	1.68 (<Background)
Chromium	18.5	18.5	57.1	28.3 (3.8/12.4)	5.0/16.4	13.1	38.2 (9.1/29.9)	12.9/42.3	19.9	U	NA	21.4 (<Background)	NA	21.4 (<Background)	
Copper	22	ND	ND	23.40 (3.8/12.4)	3.8/12.4	13.5	21.4 (<Background)	NA	21.4 (<Background)						
Cr(VI)	0	0.898	4.07	ND	NA	ND	0.60 (11.4/37.5)	12.9/42.3	0.48						
Lead	10.2	19.3	19.7	540 (0.9/3.0)	3.1/10.0	2.4	5.02 (<Background)	NA	4.45 (<Background)						

Table D-94. 116-H-7 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution							
		Cleanup Verification Data ^a		1992 LFI Borehole A5727 (Well 199-H4-61) ^b			Remedial Investigation Borehole C7861 ^c		
		Shallow Zone ^d	Deep Zone ^e	Maximum Result with Corresponding Depth (m/ft bgs)	Extent of Detection above Background (m/ft bgs)	Result at Maximum Sample Depth 6.34 m (20.8 ft)	Maximum Result with Corresponding Depth (m/ft bgs)	Extent of Detection above Background (ft bgs)	Result at Maximum Sample Depth 12.9 m (42.3 ft) ^{f,g}
Lithium	13.3	ND	ND	ND	NA	ND	14 (12.9/42.3)	12.9/42.3	14
Molybdenum	0.47	ND	ND	ND	NA	ND	3.23 (9.1/29.9)	12.9/42.3	1.86
Mercury	0.013	ND	ND	1.10 (3.8/12.4)	3.8/12.4	U	0.055 (6.9/22.7)	11.4/37.5	0.015 (<Background)
Selenium	0.78	ND	ND	4.2 (0.9/3.0)	0.9/3.0	U	U	NA	U
Strontium	NA	ND	ND	ND	NA	ND	28.8 (5.5/17.9)	12.9/42.3	27.7
Tin	NA	ND	ND	ND	NA	ND	8.73 (8.2/27.0)	12.9/42.3	6.59
Zinc	67.8	ND	ND	83.10 (3.8/12.4)	3.8/12.4	40.30	38.7 (<Background)	NA	34.8 (<Background)
Aroclor-1242	NA	U	0.33	U	NA	U	U	NA	U
Aroclor-1260	NA	0.084	0.240	U	NA	U	U	NA	U

a. Verification sample results represent the maximum 95 percent upper confidence limit (UCL) concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from Cleanup Verification Package for the 116-H-7 Retention Basin (CVP-2000-00027). The maximum depth of interim remedial action at 116-H-7 was 4.8 m (15.7 ft) below ground surface (bgs).

b. Limited Field Investigation (LFI) borehole data obtained from Limited Field Investigation Report for the 100-HR-1 Operable Unit (DOE/RL-93-51) and Hanford Environmental Information System. Five soil samples taken in 1992 for limited field investigation. Total borehole depth was 6.3 m (20.8 ft) bgs.

c. Borehole data obtained from Hanford Environmental Information System (HEIS). The water table was encountered at approximately 10.7 m (35.0 ft). Well was drilled to 12.9 m (42.3 ft) bgs.

d. Shallow zone value represents the excavation area unless otherwise noted.

e. Additional deep zone data for nickel-63, strontium-90, and Cr(VI) collected during excavation of a 5.0 m (16.4 ft) test pit within deep zone excavation.

f. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

g. Maximum depth of radiological and organics sample collection in borehole C7861 was 11.4 m (37.5 ft) bgs.

h. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

i. Maximum 95 percent UCL value is from the overburden decision unit.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-95. 116-H-7 Deep Zone Cleanup Verification Sample A1 Results (CVP-2000-00027)

Sample Depth bgs (m/ft)	Cr(VI)	Nickel-63	Strontium-90
	mg/kg	pCi/g	pCi/g
4.8/15.7	10.4	458	1.52

bgs = below ground surface

Table D-96. 116-H-7 Deep Zone Excavation Test Pit Results (November 2000)

Sample Depth bgs (m/ft)	Cr(VI)	Nickel-63	Strontium-90
	mg/kg	pCi/g	pCi/g
4.8/15.7	10.4	1810	8.61
5.8/19.0	8.5	222	5.35
5.8/19.0	7.6	228	5.44
6.8/22.3	1.7	2.54 J	9.78
7.8/25.6	1.8	1.13 U	8.24
8.8/28.9	2.6	38.1	3.43
9.8/32.2	0.43 U	0.867 U	3.23

bgs = below ground surface

J = estimated value

U = undetected

Table D-97. 118-H-6 - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution						
		Cleanup Verification Data ^a		Remedial Investigation Borehole C7863 ^b				
		Deep Zone Beneath Fuel Storage Basin Floor	Maximum Result with Corresponding Depth (m/ft bgs)	Extent of Detection above Background (ft bgs)	Result at Maximum Sample Depth 17.0 m (55.8 ft) bgs ^c			
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d								
		Original	Decayed	Original	Decayed		Original	Decayed
Americium-241	NA	0.369	0.364	U	NA	NA	U	NA
Carbon-14	NA	7.6	7.6	12.1 (8.3/27.1)	12.1	13.7/44.9	U	NA
Cesium-137	NA	11.3	9.2	U	NA	NA	U	NA
Cobalt-60	NA	0.199	0.061	U	NA	NA	U	NA
Europium-152	NA	2.76	1.74	U	NA	NA	U	NA
Europium-154	NA	0.35	0.17	U	NA	NA	U	NA
Neptunium-237	NA	0.030	0.030	0.192 (6.7/21.9)	0.192	11.4/37.4	U	NA
Nickel-63	NA	25.9	24.3	U	NA	NA	U	NA
Plutonium-239	NA	0.726	0.726	ND	NA	NA	ND	NA
Plutonium-240	NA	0.174	0.174	ND	NA	NA	ND	NA
Strontium-90	NA	5.9	4.76	0.335 (14.5/47.5)	0.319	14.5/47.5	0.335	0.319
Tritium	NA	0.332 ^e	0.200	4.14 (8.3/27.1)	3.70	8.3/27.1	U	NA
Nonradionuclides (mg/kg)								
Chromium	18.5	ND		24.8 (13.7/44.9)		13.7/44.9		12.5
Cr(VI)	NA	0.094		U		NA		U
Lead	10.2	18.9		3.84 (<Background)		NA		2.38
Mercury	0.013	U		0.014 (14.5/47.5)		14.5/47.5		U

Table D-97. 118-H-6 - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution			
		Cleanup Verification Data ^a	Remedial Investigation Borehole C7863 ^b		
		Deep Zone Beneath Fuel Storage Basin Floor	Maximum Result with Corresponding Depth (m/ft bgs)	Extent of Detection above Background (ft bgs)	Result at Maximum Sample Depth 17.0 m (55.8 ft) bgs ^c
Molybdenum	0.47	ND	3.81 (13.7/44.9)	17.0/55.8	0.562
Strontium	NA	ND	46.6 (8.3/27.1)	17.0/55.8	32
Tin	NA	ND	2.71 (17.0/55.8)	17.0/55.8	2.71
Sulfate	237	ND	362 (8.3/27.1)	8.3/27.1	94.3
Aroclor-1254	NA	0.024	U	NA	U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Values that are followed by (U) indicate that none of the data used for 95 percent UCL calculation were detected above the sample minimum detectable activity. Verification 95 percent UCL values were obtained from the *Cleanup Verification Package for the 118-H-6:2, 105-H Reactor Ancillary Support Areas, Below-Grade Structures, and Underlying Soils; the 118-H-6:3, 105-H Reactor Fuel Storage Basin and Underlying Soils; the 118-H-6:6 Fuel Storage Basin Deep Zone Side-Slope Soils; the 100-H-9, 100-H-10, and 100-H-13 French Drains; the 100-H-11 and 100-H-12 Expansion Box French Drains; and the 100-H-14 and 100-H-31 Surface Contamination Zones* (CVP-2006-00003). The maximum depth of interim remedial action at 118-H-6 was 4.6 m (15 ft) bgs. Deep zone soil samples were collected either directly beneath, or from 2.4 to 3.0 m (8 to 10 ft), below the former fuel storage basin floor. Reported values are from the sample directly below the former fuel storage basin floor unless otherwise noted.

b. Borehole data obtained from Hanford Environmental Information System (HEIS). The water table was encountered at approximately 14.6 m (48.0 ft). Well was drilled to 17.0 m (55.8 ft) bgs.

c. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

d. Maximum depth of radiological and organics sample collection in borehole C7863 was 14.5 m (47.5 ft) bgs.

e. Original radiological data presented in left column with decay corrected value to year 2012 in right column. Data from closeout sampling 95 percent UCL values obtained using U-flagged datasets is not decayed.

f. The more elevated tritium result from the deep zone was obtained from 2.4 to 3.0 m (8 to 10 ft) below the former fuel storage basin floor.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-98. 1607-H4 Septic System - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution						
		Cleanup Verification Data ^a		Remedial Investigation Test Pit ^b				
		Shallow Zone ^c		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 5.8 m (19 ft) bgs		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d								
		Original	Decayed	Original	Decayed		Original	Decayed
Cesium-137	NA	0.114	0.085	U	NA	NA	U	NA
Nonradionuclides (mg/kg)								
Cr(VI)	NA	U		0.28 (5.8/19)	5.8/19	0.28		
Lead	10.2	Shallow 36.0	Deep ^e 2.2 (<Back-ground)	15.4 (5.8/19)	5.8/19	15.4		
Strontium	NA	ND		37.5 (4.0/13)	5.8/19	24.8		
Tin	NA	ND		3.14 (4.0/13)	5.8/19	2.85		
Acenaphthene	NA	ND		2.63 (4.6/15)	5.8/19	0.00374		
Acenaphthylene	NA	ND		0.526 (4.6/15)	5.8/19	0.0241		
Anthracene	NA	ND		0.754 (4.6/15)	5.8/19	0.00286		
Benzo(a)anthracene	NA	0.059		2.09 (4.6/15)	5.8/19	0.0147		
Benzo(a)pyrene	NA	0.065		2.12 (4.6/15)	5.8/19	0.0150		
Benzo(b)fluoranthene	NA	0.031		2.10 (4.6/15)	5.8/19	0.0186		
Benzo(ghi)perylene	NA	ND		1.78 (4.6/15)	4.6/15	U		
Benzo(k)fluoranthene	NA	0.031		1.14 (4.6/15)	5.8/19	0.0046		

Table D-98. 1607-H4 Septic System - Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution			
		Cleanup Verification Data ^a	Remedial Investigation Test Pit ^b		
		Shallow Zone ^c	Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 5.8 m (19 ft) bgs
Chrysene	NA	0.110	1.64 (4.6/15)	5.8/19	0.0958
Dibenz(a,h)anthracene	NA	0.022	0.241 (4.6/15)	4.6/15	U
Fluoranthene	NA	0.96	4.37 (4.6/15)	5.8/19	0.0486
Fluorene	NA	ND	0.234 (4.6/15)	5.8/19	0.00118
Indeno(1,2,3-cd)pyrene	NA	0.039	1.28 (4.6/15)	4.6/15	U
Phenanthrene	NA	ND	2.88 (4.6/15)	5.8/19	0.0162
Pyrene	NA	0.90	4.31 (4.6/15)	5.8/19	0.201
Endrin aldehyde	NA	ND	0.00637 (5.2/17)	5.2/17	U

a. Verification sample results represent the maximum 95 percent UCL concentration from the given decision unit(s) for analytes with at least one detection. Verification 95 percent UCL values were obtained from *Cleanup Verification Package for the 1607-H4 Septic System (CVP-2000-00025)*. The maximum depth of interim remedial action at 1607-H4 was 3.6 m (11.8 ft) bgs.

b. Test pit data obtained from Hanford Environmental Information System (HEIS). Test pit was excavated to 5.8 m (19 ft) bgs.

c. Shallow zone value represents the excavation area unless otherwise noted.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

e. As discussed in CVP-2000-00025, the lead deep zone value is based on the site-specific cleanup verification model derived from the 116-H-1 borehole data. A more detailed analysis of lead was required to demonstrate groundwater and river protection remedial action goal attainment.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-99. Borehole C7620 (Well 199-D3-5) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7620 (Well 199-D3-5) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 28.1 m (92.3 ft) bgs ^b
Nonradionuclides (mg/kg)				
Cr(VI)	NA	0.21 (26.5/87.1)	28.1/92.3	0.56U
Molybdenum	0.47	4.66 (27.2/89.3)	28.1/92.3	0.311
Strontium	NA	51.6 (27.2/89.3)	28.1/92.3	25.8
Tin	NA	2.88 (21.7/71.3)	28.1/92.3	1.64

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 34.2 m (112.2 ft) bgs. The water table was encountered at 26.2 m (86.0 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

NA = not applicable

U = undetected

Table D-100. Borehole C7621 (Well 199-D5-133) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7621 (Well 199-D5-133) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 27.6 m (90.4 ft) bgs ^b
Nonradionuclides (mg/kg)				
Cr(VI)	NA	0.51 (21.5/70.5)	24.1/79.2	U
Molybdenum	0.47	1.71 (26.1/85.5)	27.6/90.4	0.249
Strontium	NA	48.2 (26.1/85.5)	27.6/90.4	24.5
Tin	NA	2.23 (24.1/79.2)	27.6/90.4	1.67

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 34.1 m (112.0 ft) bgs. The water table was encountered at 25.3 m (83.0 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

NA = not applicable

U = undetected

Table D-101. Borehole C7623 (Well 199-D6-3) - Summary of Contaminant Data

Contaminants	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7623 (Well 199-D6-3) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 29.4 m (96.5 ft) bgs ^b		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^c						
		Original	Decayed		Original	Decayed
Cesium-137	NA	0.241 (26.4/86.5)	0.23	26.4/86.5	ND	NA
Nonradionuclide (mg/kg)						
Barium	132	155 (24.7/81.0)		24.7/81.0	45.4 (<Background)	
Chromium	18.5	30.6 (21.6/71.0)		23.0/75.5	3.36 (<Background)	
Cr(VI)	NA	0.85 (23.0/75.5)		23.0/75.5	U	
Molybdenum	0.47	0.982 (27.6/90.5)		29.4/96.5	0.352	
Strontium	NA	52.1 (25.6/84.0)		29.4/96.5	10.2	
Tin	NA	3.33 (23.0/75.5)		29.4/96.5	2.47	

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 33.7 m (110.5 ft) bgs. The water table was encountered at 26.7 m (87.5 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-102. Borehole C7624 (Well 199-D5-134) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7624 (Well 199-D5-134) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 28.8 m (94.5 ft) bgs ^b		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^c						
		Original	Decayed		Original	Decayed
Strontium-90	NA	0.906 (27.3/89.5)	0.86	27.3/89.5	ND	NA
Nonradionuclide (mg/kg)						
Antimony	0.130	0.442 (24.7/81)		28.8/94.5	U	
Barium	132	192 (28.8/94.5)		28.8/94.5	192	
Chromium	18.5	44.7 (26.7/87.5) ^d		26.7/87.5	8.83 (<Background)	
Cr(VI)	NA	0.80 (27.3/89.5)		28.8/94.5	0.65	
Molybdenum	0.47	0.847 (23.0/75.3)		28.8/94.5	0.564	
Nickel	19.1	27.5 (25.5/83.5 and 26.7/87.5) ^d		28.8/94.5	20.5	
Strontium	NA	61.6 (27.3/89.5)		28.8/94.5	31.8	
Tin	NA	2.22 (24.7/81.0)		28.8/94.5	1.22	

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole was 83.3 m (270 ft) bgs. The water table was encountered at 25.7 m (84.2 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

d.

NA = not applicable

ND = no data, not a COC/COPC

U = undetected

Table D-103. Borehole C7625 (Well 199-D5-141) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7625 (Well 199-D5-141) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 28.3 m (92.9 ft) bgs ^{b,c}		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d						
		Original	Decayed		Original	Decayed
Tritium	NA	18.6 (9.2/69.7)	16.6	26.8/87.9	10.2	9.1
Nonradionuclide (mg/kg)						
Antimony	0.130	0.386 (26.7/87.5)		28.3/92.9	0.015	
Chromium	18.5	67.8 (19.0/62.3) ^e		25.8/84.8	10.5 (<Background)	
Molybdenum	0.47	4.00 (19.0/62.3)		28.3/92.9	0.280	
Nickel	19.1	30.7 (19.0/62.3) ^e		19.0/62.3	8.75 (<Background)	
Strontium	NA	62.8 (19.0/62.3)		28.3/92.9	22.2	
Tin	NA	1.65 (24.4/79.9)		28.3/92.9	0.987	
Vanadium	85.1	90.7 (9.9/32.4)		9.9/32.4	34.0 (<Background)	

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 96.5 m (316.7 ft) bgs. The water table was encountered at 26.0 m (85.2 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Maximum depth of radiological sample collection in borehole C7625 was 26.8 m (87.9 ft) bgs.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

Table D-104. Borehole C7626 (Well 199-H3-6) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7626 (Well 199-H3-6) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.8 m (51.8 ft) bgs ^b		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^c						
		Original	Decayed		Original	Decayed
Strontium-90	NA	0.392 (13.7/44.8)	0.37	13.7/44.8	ND	NA
Tritium	NA	2.93 (9.2/30.1)	2.62	9.2/30.1	ND	NA
Nonradionuclide (mg/kg)						
Antimony	0.130	0.281 (15.8/51.8)		15.8/51.8		0.281
Chromium	18.5	996 (15.8/51.8) ^d		15.8/51.8		996
Copper	22	30.5 (15.8/51.8)		15.8/51.8		30.5
Cr(VI)	NA	0.28 (13.7/44.8)		13.7/44.8		U
Molybdenum	0.47	9.13 (15.8/51.8)		15.8/51.8		9.13
Nickel	19.1	533 (15.8/51.8) ^d		15.8/51.8		533
Strontium	NA	29.9 (13.7/44.8)		15.8/51.8		17.3
Tin	NA	4.21 (12.2/39.9)		15.8/51.8		2.53
Uranium (metal)	3.21	9.73 (12.2/39.9)		12.2/39.9		0.931 (<Background)

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 18.8 m (61.6 ft) bgs. The water table was encountered at 13.6 m (44.7 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Original radiological data presented in left column with decay corrected value to year 2012 in right column

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-105. Borehole C7627 (Well 199-H3-7) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7627 (Well 199-H3-7) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.7 m (51.5 ft) bgs ^{b,c}		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d						
		Original	Decayed		Original	Decayed
Tritium	NA	5.61 (11.7/38.5)	4.74	11.7/38.5	ND	NA
Nonradionuclide (mg/kg)						
Lead	10.2	10.3 (13.6/44.5)	13.6/44.5	2.05 (<Background)		
Mercury	0.013	0.015 (14.5/47.5)	(14.5/47.5)	U		
Molybdenum	0.47	2.03 (12.6/41.5)	15.7/51.5	0.468		
Strontium	NA	26.2 (13.6/44.5)	15.7/51.5	19.6		
Thallium	0.185	0.278 (8.9/29.3)	12.6/41.5	U		
Tin	NA	2.29 (12.6/41.5)	15.7/51.5	1.88		
2-Hexanone	NA	0.00391 (10.4/34.0)	10.4/34.0	U		
Styrene	NA	0.000983 (10.4/34.0)	10.4/34.0	U		

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 15.7 m (51.5 ft) bgs. The water table was encountered at 13.6 m (44.6 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Maximum depth of radiological sample collection in borehole C7627 was 14.5 m (47.5 ft) bgs

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

ND = no data, not a contaminant of concern/contaminant of potential concern

U = undetected

Table D-106. Borehole C7628 (Well 199-H6-3) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7628 (Well 199-H6-3) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 15.3 m (50.2 ft) bgs ^b
Nonradionuclide (mg/kg)				
Chromium	18.5	2900 (13.2/43.4) ^c	15.3/50.2	28.2
Cobalt	15.7	18.1 (13.2/43.4)	13.2/43.4	5.38 (<Background)
Copper	22	45.2 (13.2/43.4)	13.2/43.4	15.0 (<Background)
Cr(VI)	NA	1.06 (12.6/41.4)	12.6/41.4	U
Mercury	0.131	0.014 (13.8/45.2)	13.8/45.2	0.014
Molybdenum	0.47	43.6 (13.2/43.4)	15.3/50.2	0.545
Nickel	19.1	1390 (13.2/43.4) ^c	13.2/43.4	18.3
Strontium	NA	28.4 (10.5/34.5)	15.3/50.2	22.7
Tin	NA	2.72 (13.2/43.4)	13.8/45.2	U

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 15.3 m (50.2 ft) bgs. The water table was encountered at 13.9 m (45.5 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c.

NA = not applicable

U = undetected

Table D-107. Borehole C7629 (Well 199-H6-4) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7629 (Well 199-H6-4) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 13.9 m (45.7 ft) bgs ^b
Nonradionuclide (mg/kg)				
Chromium (total)	18.5	19.6 (10.2/33.6)	10.2/33.6	8.93 (<Background)
Cr(VI)	NA	1.17 (13.9/45.7)	13.9/45.7	1.17
Molybdenum	0.47	2.17 (7.2/23.7)	13.9/45.7	0.583
Strontium	NA	30.1 (13.9/45.7)	13.9/45.7	30.1
Tin	NA	2.88 (11.4/37.4)	13.9/45.7	1.31
2-Hexanone	NA	0.00390 (11.4/37.4)	11.4/37.4	0.0039
Styrene	NA	0.000934 (8.8/28.9)	8.8/28.9	U

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 13.9 m (45.7 ft) bgs. The water table was encountered at 11.6 m (38.0 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

NA = not applicable

U = undetected

Table D-108. Borehole C7630 (Well 199-H1-7) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7630 (Well 199-H1-7) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.8 m (32.3 ft) bgs ^b		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^c						
		Original	Decayed		Original	Decayed
Tritium	NA	3.15 (6.9/22.5)	2.66	6.9/22.5	U	NA
Nonradionuclide (mg/kg)						
Chromium	18.5	31.1 (8.9/29.3)		9.8/32.3		21.4
Molybdenum	0.47	2.51 (9.8/32.3)		9.8/32.3		2.51
Strontium	NA	29.0 (8.0/26.2)		9.8/32.3		23.2
Thallium	0.185	0.215 (7.5/24.6)		7.5/24.6		U
Tin	NA	2.18 (8.9/29.3)		9.8/32.3		1.74

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 11.3 m (37.0 ft) bgs. The water table was not encountered during drilling.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

U = undetected

Table D-109. Borehole C7639 (Well 199-H3-9) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution				
		Remedial Investigation Borehole C7639 (Well 199-H3-9) ^a				
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 13.2 m (43.2 ft) bgs ^{b,c}		
Radionuclides (Original and Decayed Concentrations) (pCi/g)^d						
		Original	Decayed		Original	Decayed
Strontium-90	NA	3.98 (10.5/34.6)	3.79	11.6/38.2	ND	NA
Nonradionuclide (mg/kg)						
Antimony	0.13	0.606 (10.0/32.8)		10.0/32.8)	U	
Chromium	18.5	271 (10.0/32.8)		10.5/34.6	9.62 (<Background)	
Copper	22	45.7 (10.0/32.8)		10.5/34.6	9.35 (<Background)	
Cr(VI)	NA	0.45 (10.5/34.6)		13.2/43.2	0.38	
Lithium	13.3	17.3 (10.0/32.8)		10.0/32.8	U	
Molybdenum	0.47	52.9 (10.0/32.8)		13.2/43.2	0.530	
Nickel	19.1	34.4 (10.0/32.8)		10.5/34.6	8.06 (<Background)	
Strontium	NA	24.7 (8.4/27.6)		13.2/43.2	19.3	
Tin	NA	4.67 (10.0/32.8)		13.2/43.2	1.20	

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 13.2 m (43.2 ft) bgs. The water table was encountered at approximately 12.3 m (40.4 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Maximum depth of radiological sample collection in borehole C7639 was 11.6 m (38.2 ft) bgs.

d. Original radiological data presented in left column with decay corrected value to year 2012 in right column.

NA = not applicable

ND = no data, not a COC/COPC

U = undetected

Table D-110. Borehole C7640 (Well 199-H3-10) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7640 (Well 199-H3-10) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 14.6 m (47.9 ft) bgs ^b
Nonradionuclide (mg/kg)				
Chromium (total)	18.5	21.1 (9.8/32.3)	9.8/32.3	9.00 (<Background)
Cr(VI)	NA	0.30 (12.9/42.2)	12.9/42.2	U
Molybdenum	0.47	1.09 (12.9/42.2)	14.6/47.9	0.355
Strontium	NA	26.7 (9.8/32.3)	14.6/47.9	20.0
Tin	NA	1.49 (11.5/37.7)	14.6/47.9	1.46

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 14.6 m (47.9 ft) bgs. The water table was encountered at approximately 13.9 m (45.5 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

NA = not applicable

U = undetected

Table D-111. Borehole C7631 (Well 199-H2-1) - Summary of Contaminant Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7631 (Well 199-H2-1) ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 9.8 m (32.2 ft) bgs ^b
Nonradionuclide (mg/kg)				
Chromium (total)	18.5	115 (8.5/27.9) ^c	8.5/27.9	8.44 (<Background)
Copper	22	31.3 (8.5/27.9)	8.5/27.9	15.8 (<Background)
Cr(VI)	NA	0.50 (8.5/27.9)	8.5/27.9	U
Molybdenum	0.47	23.0 (8.5/27.9)	9.8/32.2	0.295
Strontium	NA	30.9 (8.5/27.9)	9.8/32.2	18.9
Tin	NA	3.06 (8.5/27.9)	9.8/32.2	1.39

a. Data obtained from Hanford Environmental Information System (HEIS). Maximum depth of the borehole 9.8 m (32.2 ft) bgs. The water table was encountered at 7.2 m (23.7 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

c. Analysis of five batch leach samples from this sample interval show that concentrations in this zone are <10 mg/kg. Therefore, the 115 mg/kg appears to be an outlier.

bgs = below ground surface

NA = not applicable

U = undetected

Table D-112. 100-D-101 – Summary of Contaminant Soil Data

Contaminant	Background	Concentration and Distribution		
		Remedial Investigation Borehole C7866 ^a		
		Maximum Result with Corresponding Depth (m/ft) bgs	Extent of Detection above Background (m/ft) bgs	Result at Maximum Sample Depth 28 m (91.8 ft) ^b
Nonradionuclides (mg/kg)				
Chromium	18.5	436 (24.6/80.8)	24.6/80.8	9.24
Mercury	0.0131	0.018 (19.1/62.7)	19.1/62.7	0.0141
Molybdenum	0.47	3.78 (24.6/80.8)	24.6/80.8	0.885
Nickel	19.1	225 (24.6/80.8)	24.6/80.8	8.75
Strontium	N/A	33.9 (7.3/23.9)	25/82.7	30.1
Tin	N/A	4.68 (5.5/18.2)	25/82.7	2.21
Vanadium	85.1	91.5 (5.5/18.2)	8.8/28.8	50.6

a. Borehole data obtained from Hanford Environmental Information System. The water table was encountered at approximately 25.8 m (84.7 ft). Well was drilled to 28 m (91.8 ft) bgs.

b. The maximum depth from which samples were collected is in the rewetted zone/aquifer.

N/A = not applicable