Table 1.1-1
SWMUs and AOCs within the Lower Pajarito Canyon Aggregate Area

Consolidated Unit	Site ID	Brief Description	Site Status	Reference
TA-18				
18-001(a)-00	SWMU 18-001(a)	Lagoons	Investigation in progress	Work plan section 4.1.1
	SWMU 18-001(b)	Drainline	Investigation in progress	Work plan section 4.1.2
18-001(c)-00	SWMU 18-001(c)	Sump	Investigation in progress	Work plan section 4.2.1
	SWMU 18-012(b)	Outfall	Investigation in progress	Work plan section 4.2.2
	SWMU 18-002(a)	Firing site	Investigation in progress	Work plan section 4.3
	SWMU 18-002(b)	Firing site	Investigation in progress	Work plan section 4.4
	AOC 18-002(c)	Former drop tower	Investigation in progress	Work plan section 4.5
18-003(a)-00	SWMU 18-003(a)	Settling pit	Investigation in progress	Work plan section 4.6.1
	SWMU 18-003(b)	Septic system	Investigation in progress	Work plan section 4.6.2
	SWMU 18-003(c)	Septic system	Investigation in progress	Work plan section 4.7
	SWMU 18-003(d)	Septic system	Investigation in progress	Work plan section 4.8
	SWMU 18-003(e)	Septic system	Investigation in progress	Work plan section 4.9
	SWMU 18-003(f)	Septic system	Investigation in progress	Work plan section 4.10
	SWMU 18-003(g)	Septic system	Investigation in progress	Work plan section 4.11
	SWMU 18-003(h)	Septic system	Investigation in progress	Work plan section 4.12
18-004(a)-00	SWMU 18-004(a)	Waste line	Investigation in progress	Work plan section 4.13.1
	SWMU 18-004(b)	Area of potential soil contamination	Investigation in progress	Work plan section 4.13.2
	SWMU 18-005(a)	Area of potential soil contamination	Investigation in progress	Work plan section 4.14
	AOC 18-006	Former storage pipe	Investigation in progress	Work plan section 4.15
	AOC 18-008	Former underground tank	Investigation in progress	Work plan section 4.16
	AOC 18-009(a)	Transformer	NFA approved	EPA 2005, 088464
	AOC 18-009(b)	Transformer	NFA approved	EPA 2005, 088464
	AOC 18-009(c)	Transformer	NFA approved	EPA 2005, 088464
	AOC 18-009(d)	Transformer	NFA approved	EPA 2005, 088464
	AOC 18-009(e)	Transformer	NFA approved	EPA 2005, 088464
	AOC 18-010(a)	Outfall	NFA approved	EPA 2005, 088464
	AOC 18-010(b)	Outfall	Investigation in progress	Work plan section 4.17
	AOC 18-010(c)	Outfall	Investigation in progress	Work plan section 4.18
	AOC 18-010(d)	Outfall	Investigation in progress	Work plan section 4.19

Table 1.1-1 (continued)

Consolidated Unit	Site ID	Brief Description	Site Status	Reference
	AOC 18-010(e)	Outfall	Investigation in progress	Work plan section 4.20
	AOC 18-010(f)	Outfall	Investigation in progress	Work plan section 4.21
	AOC 18-011	Area of potential soil contamination	Investigation in progress	Work plan section 4.22
	SWMU 18-012(a)	Outfall	Investigation in progress	Work plan section 4.23
	AOC 18-012(c)	Sump and drainlines	Investigation in progress	Work plan section 4.24
	AOC 18-012(d)	Drainline	NFA approved	EPA 2005, 088464
	AOC 18-013	Pit and catch tank	Investigation in progress	Work plan section 4.25
	AOC C-18-001	Former photoprocessing laboratory	NFA approved	EPA 2005, 088464
	AOC C-18-003	Storage area	NFA approved	EPA 2005, 088464
TA-27				
	SWMU 27-001	Buried naval guns	Removed from Module VIII of the Laboratory's Hazardous Waste Facility Permit, 5/02/01	NMED 2001, 070010
	SWMU 27-002	Firing sites	Investigation in progress	Work plan section 5.1
	SWMU 27-003	Bazooka impact area	Investigation in progress	Work plan section 5.2
	AOC 27-004	Former control building	NFA approved	EPA 2005, 088464
TA-54				
	AOC 54-001(f)	Storage area	NFA approved	EPA 2005, 088464
	SWMU 54-007(a)	Former septic system	Certificate of completion received 5/29/2007	NMED 2007, 096477
	SWMU 54-007(b)	Septic system (inactive)	Removed from Module VIII of the Laboratory's Hazardous Waste Facility Permit, 5/02/01	NMED 2001, 070010
	AOC 54-008	Underground tank	NFA approved	EPA 2005, 088464
	AOC 54-009	Former aboveground tanks	Investigation complete; closed under RCRA. Pending final NMED approval	LANL 2003, 094315
	AOC 54-010	Underground tank	NFA approved	EPA 2005, 088464
	AOC 54-012(a)	Former drum compactor	Delayed until TA-54 closure	Work plan section 6.0
	SWMU 54-012(b)	Drum compactor	Delayed until TA-54 closure	Work plan section 6.0
54-013(b)-99	SWMU 54-013(b)	Vehicle monitoring/decon-tamination area (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-014(b)	Retrievable TRU waste storage pit (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-014(c)	Retrievable TRU waste storage shafts (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.

Table 1.1-1 (continued)

Consolidated Unit	Site ID	Brief Description	Site Status	Reference
	SWMU 54-014(d)	Retrievable TRU waste storage trenches (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-015(k)	Subsurface retrievable TRU waste storage (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-017	Disposal pits (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-018	Disposal pits (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-019	Disposal shafts (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	SWMU 54-020	Disposal shafts (MDA G)	Included under MDA G investigations	LANL 2005, 090513; LANL 2007, 096110.
	AOC 54-014(a)	Storage shafts at Area L	Investigation complete; closed under RCRA. Pending final NMED approval	LANL 2006, 098199
	AOC 54-015(a)	Mixed waste storage area	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234
	AOC 54-015(b)	TRU waste storage area	Delayed until TA-54 closure	Work plan section 6.0
	AOC 54-015(c)	TRU waste storage area	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234
	AOC 54-015(d)	TRU waste storage area	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234
	AOC 54-015(e)	TRU waste storage area	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234
	AOC 54-015(f)	TRU waste storage area	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234
	AOC 54-015(g)	Storage area	NFA approved	EPA 2005, 088464
	AOC 54-015(i)	Storage area	NFA approved	EPA 2005, 088464
	AOC 54-015(j)	Mixed-waste storage area	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234

Table 1.1-1 (continued)

Consolidated Unit	Site ID	Brief Description	Site Status	Reference
	AOC 54-016(b)	Sump	In progress; active RCRA unit to be closed under RCRA closure requirements	DOE 2009, 109234
	AOC 54-021	Aboveground oil storage tanks (6)	NFA approved	EPA 2005, 088464
	AOC 54-022	Transformer spill site	NFA approved	EPA 2005, 088464

Note: Shading denotes NFA approved.

Table 2.3-1
Industrial Soil Screening Levels and Screening Action Levels

Chemical	Residential SSL[a] (inorganic and organic chemicals) or Residential SAL[b] (radionuclides)	Industrial SSL[a] (inorganic and organic chemicals) or Industrial SAL[b] (radionuclides)	Construction Worker SSL[a] (inorganic and organic chemicals) or Construction Worker SAL[b] (radionuclides)
Inorganic Chemicals (mg/kg)			
Aluminum	78,100	1,130,000	4070
Antimony	31.3	454	124
Arsenic	3.9	17.7	65.4
Barium	15,600	224,000	4350
Beryllium	156	2260	144
Cadmium	77.9	1120	309
Calcium	na[c]	na	na
Chromium	219[d]	2920[d]	449[d]
Cobalt	23[e]	300[e]	na
Copper	3130	45,400	12,400
Iron	54,800	795,000	217,000
Lead	400	800	800
Manganese	10,700	145,000	463
Mercury	23[e]	310[e]	na
Nickel	1560	22,700	6190
Selenium	391	5680	1550
Silver	391	5680	1550
Sodium	na	na	na
Thallium	5.16	74.9	20.4
Uranium	235	3410	929
Vanadium	391	5680	1550
Zinc	23,500	341,000	9290
Organic Chemicals (mg/kg)			
Acenaphthene	3440	36,700	18,600
Acenaphthylene	1720[f]	18,300[f]	6680[f]
Acetone	67,500	851,000	263,000
4-Amino-2,6-dinitrotoluene	150[e]	1900[e]	na
2-Amino-4,6-dinitrotoluene	150[e]	2000[e]	na
Anthracene	17,200	183,000	66,800
Aroclor-1254	1.12	8.26	4.36
Aroclor-1260	2.22	8.26	75.8
Benzo(a)anthracene	6.21	23.4	213
Benzo(a)pyrene	0.621	2.34	2.13

Table 2.3-1 (continued)

Chemical	Residential SSL[a] (inorganic and organic chemicals) or Residential SAL[b] (radionuclides)	Industrial SSL[a] (inorganic and organic chemicals) or Industrial SAL[b] (radionuclides)	Construction Worker SSL[a] (inorganic and organic chemicals) or Construction Worker SAL[b] (radionuclides)
Benzo(b)fluoranthene	6.21	23.4	213
Benzo(g,h,i)perylene	1720[g]	18,300[g]	6680[g]
Benzo(k)fluoranthene	62.1	234	2060
Benzoic acid	240,000[e]	2,500,000[e]	na
Bis(2-chloroethyl)ether	2.56	13.6	147
Bis(2-ethylhexyl)phthalate	347	1370	4760
2-Butanone	3960	369,000	148,000
Butylbenzylphthalate	260[e]	9100[e]	na
Chloroform	5.72	31.9	671
4-Chloro-3-methylphenol	6100[e]	62,000[e]	na
2-Chloronaphthalene	6260	90,800	24,800
Chrysene	621	2340	20,600
Di-n-butylphthalate	6110	68,400	23,800
Di-n-octylphthalate	6100[h]	68,400[h]	23,800[h]
Dibenz(a,h)anthracene	0.621	2.34	21.3
Dibenzofuran	142[i]	1620[i]	552[i]
1,2-Dichlorobenzene	3010	14,300	9710
1,4-Dichlorobenzene	32.2	180	3780
1,2-Dichloroethane	7.74	42.8	751
Cis-1,2-Dichloroethene	782	11,400	3100
Diethylphthalate	48,900	547,000	191,000
2,4-Dinitrotoluene	15.7	103	476
2,6-Dinitrotoluene	61.2	687	239
Ethylbenzene	69.7	385	6630
Fluoranthene	2290	24,400	8910
Fluorene	2290	24,400	8910
Hexachloroethane	61.1	684	238
HMX	3060	34,200	11,900
Indeno(1,2,3-cd)pyrene	6.21	23.4	213
Methylene chloride	199	1090	10,600
2-Methylnaphthalene	310[e]	4100[e]	na
4-Methylphenol	310[e]	3100[e]	na
Naphthalene	45	252	702
Pentachlorophenol	29.8	100	1030
Phenanthrene	1830	20,500	7150

Table 2.3-1 (continued)

Chemical	Residential SSL[a] (inorganic and organic chemicals) or Residential SAL[b] (radionuclides)	Industrial SSL[a] (inorganic and organic chemicals) or Industrial SAL[b] (radionuclides)	Construction Worker SSL[a] (inorganic and organic chemicals) or Construction Worker SAL[b] (radionuclides)
Pyrene	1720	18,300	6680
RDX	44.2	174	715
Toluene	5570	57,900	21,100
1,1,2-Trichloro-1,2,2-trifluoroethane	104,000	339,000	298,000
1,2,4-Trichlorobenzene	143	525	427
Trichloroethene	45.7	253	4600
Trichlorofluoromethane	2010	6760	5820
2,4,6-Trichlorophenol	61.1	684	238
Trimethylbenzene[1,2,4-]	62[e]	260[e]	na
2,4,6-Trinitrotoluene	35.9	469	141
Xylene (total)	1090	3610	3130
Radionuclides (pCi/g)			
Americium-241	30	180	34
Cesium-137	5.6	23	18
Plutonium-238	37	240	40
Plutonium-239/240	33	210	36
Sodium-22	1.6	6.5	5.2
Uranium-234	170	1500	220
Uranium-235/236	17	87	43
Uranium-238	87	430	160

[a] Soil screening levels (SSLs) from NMED 2009, 108070, unless otherwise noted.

[b] Soil action levels (SALs) from LANL 2009, 107655.

[c] na = Not available.

[d] SSL is for hexavalent chromium.

[e] SSL is from the EPA regional screening table (http://www.epa.gov/region06/6pd/rcra_c/pd-n/screen.htm).

[f] SSL is for pyrene, which is a surrogate for acenaphthylene.

[g] SSL is for pyrene, which is a surrogate for benzo(g,h,i)perylene.

[h] SSL is for di-n-butylphthalate, which is a surrogate for di-n-octylphthalate.

[i] SSL from NMED 2006, 092513.

Table 4.1-1
Proposed Sampling at SWMU 18-001(a)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	1a-6, 1a-10	Beneath the former sanitary sewage lagoons.	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	X	X	X	X	X
			4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			11 to 12 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			19 to 20 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1a-1 through 1a-5, 1a-11 through 1a-15	Beneath the former sanitary sewage lagoons.	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			4 to 5 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			11 to 12 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			19 to 20 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1a-7	Beneath the former berm separating the former sanitary sewage lagoons	0 to 1 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			11 to 12 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			19 to 20 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1a-8, 1a-9	Beneath the former berm separating the former sanitary sewage lagoons. Will also serve as effluent pipe characterization	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			4 to 5 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			11 to 12 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			19 to 20 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X

Table 4.1-1 (continued)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	~~Americium~~ Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	1a-16, 1a-23	Around the perimeter of the former sanitary sewage lagoons. Location 1a-23 will also serve as effluent pipe characterization	0 to 1 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
			29 to 30 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination. Sample intervals may be added to ensure a sample is collected from every geologic unit encountered. See section 4.1.1.3	1a-20	Around the perimeter of the former sanitary sewage lagoons.	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			29 to 30 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			50 to 51 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			25 ft intervals; thereafter to a depth of 180 ft bgs or contact between Cerro Toledo Interval and Otowi Member	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1a-17 through 1a-19, 1a-21, 1a-22	Around the perimeter of the former sanitary sewage lagoons. Location 1a-22 will also serve as effluent pipe characterization	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			14 to 15 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			29 to 30 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1a-24	Effluent pipe	5 to 6 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			10 to 11 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1a-25 1a-26 through 1a-29	Outfall Drainage below the outfall	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.1-2
Proposed Sampling at SWMU 18-001(b)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	1b-1, 1b-5, 1b-12	Beneath sewer line	5 to 6 ft bgs	X[a]	X	X	X	X	X	X	X	X	X	X	X	X
			10 to 11 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	1b-2 through 1b-4, 1b-6 through 1b-11	Beneath sewer line	5 to 6 ft bgs	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			10 to 11 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.2-1
Proposed Sampling at SWMU 18-012(b)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	12b-1	Drainline exit from building 18-31	Immediately below level of drainline	X[a]	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below level of drainline	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12b-2	Drainline exit from building 18-30	Immediately below level of drainline	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below level of drainline	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12b-3	Beneath sewer line	Immediately below level of drainline	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below level of drainline	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12b-~~1~~4	Outfall	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12b-~~2~~5, 12b-~~3~~6, 12b-~~4~~7, 12b-~~5~~8	Drainage below the outfall Pajarito Canyon drainage channel	0 to 1 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.3-1
Proposed Sampling at SWMU 18-002(a)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Dioxins/furans	Explosive Compounds	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	2a-2 through 2a-5	Radial distance of 10 ft	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2a-6	Radial distance of 25 ft	0 to 1 ft bgs	X	X	X	X	X	X	X	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2a-7 through 2a-9	Radial distance of 25 ft	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2a-1	Center of firing chamber	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.4-1
Proposed Sampling at SWMU 18-002(b)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Dioxins/furans	Explosive Compounds	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	2b-2	Perimeter fence of building 18-32 area	0 to 1 ft bgs	X[a]	X	X	X	X	X	X	X	—[b]	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2b-3 through 2b-11	Perimeter fence of building 18-32 area	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2b-1	Center of firing chamber	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2b-13	Radial distance of 15 ft from medium firing point	0 to 1 ft bgs	X	X	X	X	X	X	X	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2b-14 through 2b-16	Radial distance of 15 ft from medium firing point	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2b-17 through 2b-20	Radial distance of 30 ft from medium firing point	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2b-12	Center of medium firing point	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.5-1
Proposed Sampling at AOC 18-002(c)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Dioxins/furans	Explosive Compounds	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	2c-1, 2c-2	Upgradient of former drop tower Former drop tower	0 to 1 ft bgs	X[a]	X	X	X	X	X	X	X	—[b]	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2c-3 through 2c-6	Downgradient of former drop tower	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2c-11	Downgradient of former drop tower in drainage	0 to 1 ft bgs	X	X	X	X	X	X	X	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2c-7 through 2c-10	Downgradient of former drop tower in drainage	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.6-1
Samples Collected and Analyses Requested at SWMU 18-003(a)

Sample ID	Location ID	Depth (ft)	Media	HE	Isotopic Plutonium	Isotopic Uranium	TAL Metals	SVOCs	VOCs
0218-96-0200	18-10000	0.50–0.67	Soil	—*	2163	—	2162, 2163	2161	2161
0218-96-0201	18-10001	0.50–0.67	Soil	—	2163	—	2162, 2163	2161	2161
0218-97-0082	18-10048	3.50–4.50	Fill	3679R	3681R	3681R	3680R	3678R	3678R
0218-97-0081	18-10048	9.50–11.50	Soil	3679R	3681R	3681R	3680R	3678R	3678R
0218-97-0105	18-10048	13.50–13.83	Soil	3679R	3681R	3681R	3680R	3678R	3678R
0218-97-0083	18-10049	5.50–6.00	Soil	3668R	3670R	3670R	3669R	3667R	3667R
0218-97-0080	18-10049	10.50–11.00	Soil	3668R	3670R	3670R	3669R	3667R	3667R
0218-97-0104	18-10049	13.50–14.00	Soil	3668R	3670R	3670R	3669R	3667R	3667R

Note: Numbers in the analyte columns are analytical request numbers.
*— = Analyses not requested.

Table 4.6-2
Inorganic Chemicals above BVs at SWMU 18-003(a)

Sample ID	Location ID	Depth (ft)	Media	Antimony	Barium	Cadmium	Calcium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Silver	Uranium	Zinc
Soil BV[a]				**0.83**	**295**	**0.4**	**6120**	**19.3**	**8.64**	**14.7**	**22.3**	**0.1**	**15.4**	**1**	**1.82**	**48.8**
Construction Worker SSL[b]				**124**	**4350**	**309**	**na[c]**	**449**	**34.6d**	**12400**	**800**	**92.9[d]**	**6190**	**1550**	**929**	**92900**
Industrial SSL[b]				**454**	**224000**	**1120**	**na**	**2920**	**300[d]**	**45400**	**800**	**310[d]**	**22700**	**5680**	**3410**	**341000**
Recreational SSL[e]				**317**	**158000**	**784**	**na**	**1910**	**238**	**31700**	**560**	**238**	**15800**	**3960**	**2380**	**238000**
Residential SSL[b]				**31.3**	**15600**	**77.9**	**na**	**219**	**23[d]**	**3130**	**400**	**23[d]**	**1560**	**391**	**235**	**23500**
0218-96-0200	18-10000	0.50–0.67	Soil	6.8 (U)	1030 (J-)	11.9 (J-)	—[f]	—	—	60.3	181 (J-)	0.43	—	1.2 (U)	9.61	813
0218-96-0201	18-10001	0.50–0.67	Soil	7.1 (U)	—	4.2 (J-)	—	—	—	30.3	60.2 (J-)	0.17	—	1.3 (U)	11.3	364
0218-97-0082	18-10048	3.50–4.50	Fill	—	—	—	—	—	—	23.3	—	—	—	—	NA[g]	—
0218-97-0081	18-10048	9.50–11.50	Soil	—	—	—	8410	25.7	12	52.6	—	—	16.1	—	NA	50.1
0218-97-0105	18-10048	13.50–13.83	Soil	—	—	—	—	—	—	30.5	—	—	—	—	NA	—
0218-97-0083	18-10049	5.50–6.00	Soil	—	349	—	—	25.6	—	—	—	—	—	—	NA	—
0218-97-0080	18-10049	10.50–11.00	Soil	—	—	—	—	—	—	82.9	—	—	19.6	—	NA	57.1
0218-97-0104	18-10049	13.50–14.00	Soil	—	—	—	—	—	9.4 (J)	145	—	—	32.8	—	NA	105

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] BVs are from LANL 1998, 059730.

[b] SSLs from NMED 2009, 108070, unless otherwise noted.

[c] na = Not available.

[d] EPA regional screening level (http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm).

[e] SSLs from LANL 2010, 108613.

[f] — = Not detected or not above BV.

[g] NA = Not analyzed.

Table 4.6-3
Organic Chemicals Detected at SWMU 18-003(a)

Sample ID	Location ID	Depth (ft)	Media	Acetone	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Chrysene	Di-n-butylphthalate	Dibenz(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Methylnaphthalene[2-]	Naphthalene	Phenanthrene	Pyrene	Trichloroethene	Trichlorofluoromethane	Trimethylbenzene[1,2,4-]
Construction Worker SSL[a]				**263000**	**66800**	**213**	**21.3**	**213**	**6680[b]**	**2060**	**4760**	**20600**	**23800**	**21.3**	**8910**	**213**	**1240[c]**	**702**	**7150**	**6680**	**4600**	**5820**	**688[c]**
Industrial SSL[a]				**851000**	**183000**	**23.4**	**2.34**	**23.4**	**18300[b]**	**234**	**1370**	**2340**	**68400**	**2.34**	**24400**	**23.4**	**4100[c]**	**252**	**20500**	**18300**	**253**	**6760**	**260[c]**
Recreational SSL[d]				**702000**	**104000**	**30.1**	**3.01**	**30.1**	**10400[b]**	**301**	**1830**	**3010**	**39900**	**3.01**	**13900**	**30.1**	**3170**	**1950**	**12000**	**10400**	**1450**	**49800**	**6880**
Residential SSL[a]				**67500**	**17200**	**6.21**	**0.621**	**6.21**	**1720[b]**	**62.1**	**347**	**621**	**6110**	**0.621**	**2290**	**6.21**	**310[c]**	**45**	**1830**	**1720**	**45.7**	**2010**	**62[c]**
0218-96-0200	18-10000	0.50–0.67	Soil	—[e]	0.22 (J)	0.49	0.59	0.39	0.49	0.59	0.25 (J)	0.53	—	0.13 (J)	1.1	0.39	—	—	0.38 (J)	0.86	0.008	0.001 (J)	—
0218-96-0201	18-10001	0.50–0.67	Soil	—	—	0.16 (J)	0.2 (J)	0.18 (J)	—	0.15 (J)	0.07 (J)	0.17 (J)	—	—	0.4	—	—	—	0.12 (J)	0.18 (J)	0.009	—	—
0218-97-0082	18-10048	3.50–4.50	Fill	0.0099 (J+)	—	—	—	—	—	NA[f]	—	—	0.076 (J)	—	—	—	—	0.0046 (J+)	—	—	0.12 (J)	—	0.0056 (J)
0218-97-0081	18-10048	9.50–11.50	Soil	0.01 (J)	—	—	—	—	—	NA	—	—	—	—	—	—	—	—	—	—	—	—	—
0218-97-0105	18-10048	13.50–13.83	Soil	0.0049 (J)	—	—	—	—	—	NA	—	—	—	—	—	—	—	—	—	—	—	—	—
0218-97-0083	18-10049	5.50–6.00	Soil	0.01 (J)	—	—	—	—	—	NA	—	—	—	—	—	—	0.11 (J)	0.014	—	—	0.0032 (J)	—	0.003 (J)
0218-97-0080	18-10049	10.50–11.00	Soil	0.0065 (J)	—	—	—	—	—	NA	—	—	—	—	—	—	—	—	—	—	—	—	—
0218-97-0104	18-10049	13.50–14.00	Soil	0.023 (J)	—	—	—	—	—	NA	0.09 (J)	—	—	—	—	—	—	—	—	—	—	—	—

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] SSLs from NMED 2009, 108070, unless otherwise noted.

[b] Pyrene used as a surrogate.

[c] EPA regional screening level (http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm).

[d] SSLs from LANL 2010, 108613.

[e] — = Not detected.

[f] NA = Not analyzed.

Table 4.6-4
Radionuclides Detected or
Detected above BVs/FVs at SWMU 18-003(a)

Sample ID	Location ID	Depth (ft)	Media	Plutonium-239/240
Soil BV[a]				**0.054[b]**
Construction Worker SAL[c]				**36**
Industrial SAL[c]				**210**
Recreational SAL[c]				**300**
Residential SAL[c]				**33**
0218-96-0200	18-10000	0.50–0.67	Soil	0.545
0218-96-0201	18-10001	0.50–0.67	Soil	0.432

Note: Results are in pCi/g.

[a] BVs/FVs are from LANL 1998, 059730.

[b] BV applies only to samples collected from 0–1 ft.

[c] SALs from LANL 2009, 107655.

Table 4.6-5
Proposed Sampling at SWMU 18-003(a)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3a-8	Outlet line	Immediately below the line	X[a]	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3a-2, 3a-3, 3a-5, 3a-6	Inlet line, settling pit, pit outlet	Immediately below the line or pit	X	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the line or pit	X	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3a-4	Pit inlet	Immediately below the pit	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the pit	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the pit	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3a-1, 3a-7, 3a-9	Inlet line, settling pit, outlet line	Immediately below the line or pit	X	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line or pit	X	X	X	X	X	—	X	X	X	X	X	X	X	X
			10 ft below the line or pit	X	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.6-6
Samples Collected and Analyses Requested at SWMU 18-003(b)

Sample ID	Location ID	Depth (ft)	Media	HE	Isotopic Plutonium	Isotopic Uranium	TAL Metals	SVOCs	VOCs
0218-97-0060	18-10026	5.50–5.67	Fill	3684R	3686R	3686R	3685R	3683R	3683R
0218-97-0100	18-10026	7.17–7.50	Fill	3684R	3686R	3686R	3685R	3683R	3683R
0218-97-0061	18-10027	5.50–6.00	Fill	3684R	3686R	3686R	3685R	3683R	3683R
0218-97-0103	18-10027	7.00–7.50	Soil	3684R	3686R	3686R	3685R	3683R	3683R
0218-97-0062	18-10028	3.33–3.67	Soil	3672R	3674R	3674R	3673R	3671R	3671R
0218-97-0063	18-10029	2.50–2.83	Soil	3672R	3674R	3674R	3673R	3671R	3671R

Note: Numbers in the analyte columns are analytical request numbers.

Table 4.6-7
Inorganic Chemicals above BVs at SWMU 18-003(b)

Sample ID	Location ID	Depth (ft)	Media	Cadmium	Copper	Mercury	Thallium
Soil BV[a]				**0.4**	**14.7**	**0.1**	**0.73**
Construction Worker SSL[b]				**309**	**12400**	**92.9[c]**	**20.4**
Industrial SSL[b]				**1120**	**45400**	**310[c]**	**74.9**
Recreational SSL[d]				**784**	**31700**	**238**	**52.3**
Residential SSL[b]				**77.9**	**3130**	**23[c]**	**5.16**
0218-97-0060	18-10026	5.50–5.67	Fill	1.1 (J)	—[e]	—	—
0218-97-0061	18-10027	5.50–6.00	Fill	1.7	—	—	0.8 (J)
0218-97-0103	18-10027	7.00–7.50	Soil	1.2	16.4	—	—
0218-97-0062	18-10028	3.33–3.67	Soil	1.5	—	—	—
0218-97-0063	18-10029	2.50–2.83	Soil	—	21.5	2.4	—

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] BVs are from LANL 1998, 059730.

[b] SSLs from NMED 2009, 108070, unless otherwise noted.

[c] EPA regional screening level (http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm).

[d] SSLs from LANL 2010, 108613.

[e] — = Not detected or not above BV.

Table 4.6-8
Organic Chemicals Detected at SWMU 18-003(b)

Sample ID	Location ID	Depth (ft)	Media	Benzoic Acid	Bis(2-ethylhexyl)phthalate	Di-n-butylphthalate	Toluene
Construction Worker SSL[a]				**952000**	**4760**	**23800**	**21100**
Industrial SSL[a]				**2500000**	**1370**	**68400**	**57900**
Recreational SSL[b]				**1590000**	**1830**	**39900**	**60800**
Residential SSL[a]				**245000**	**347**	**6110**	**5570**
0218-97-0060	18-10026	5.50–5.67	Fill	—[c]	—	0.092 (J)	—
0218-97-0062	18-10028	3.33–3.67	Soil	0.23 (J)	0.039 (J)	0.065 (J)	—
0218-97-0063	18-10029	2.50–2.83	Soil	—	0.079 (J)	0.1 (J)	0.0032 (J)

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] SSLs from NMED 2009, 108070, unless otherwise noted.

[b] SSLs from LANL 2010, 108613.

[c] — = Not detected.

Table 4.6-9
Radionuclides Detected or Detected above BVs/FVs at SWMU 18-003(b)

Sample ID	Location ID	Depth (ft)	Media	Uranium-234	Uranium-235	Uranium-238
Soil BV[a]				**2.59**	**0.2**	**2.29**
Construction Worker SAL[b]				**220**	**43**	**160**
Industrial SAL[b]				**1500**	**87**	**430**
Recreational SAL[b]				**3200**	**520**	**2100**
Residential SAL[b]				**170**	**17**	**87**
0218-97-0060	18-10026	5.50–5.67	Fill	4.32	0.225	4.21
0218-97-0061	18-10027	5.50–6.00	Fill	3.32	—[c]	2.53
0218-97-0103	18-10027	7.00–7.50	Soil	3.08	—	2.59
0218-97-0062	18-10028	3.33–3.67	Soil	7.1	0.286	5.28
0218-97-0063	18-10029	2.50–2.83	Soil	21.1	0.836	—

Note: Results are in pCi/g.

[a] BVs/FVs are from LANL 1998, 059730.

[b] SALs from LANL 2009, 107655.

[c] — = Not detected or not above BV.

Table 4.6-10
Proposed Sampling at SWMU 18-003(b)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3b-1, 3b-10, 3b-23, 3b-26	Inlet line, outlet line, drain field	Immediately below the line or drain field	X[a]	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3b-3, 3b-5, 3b-6, 3b-7, 3b-15 through 3b-20, 3b-22, 3b-25	Inlet line, tank inlet, septic tank, drain field	Immediately below the line, tank, or drain field	X	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3b-8, 3b-12,	Tank outlet, drain field	Immediately below the tank or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the tank or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the tank or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3b-2, 3b-4, 3b-9, 3b-11, 3b-13, 3b-14, 3b-21, 3b-24	Inlet line, septic tank, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X
			10 ft below the line, tank, or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.7-1
Samples Collected and Analyses Requested at SWMU 18-003(c)

Sample ID	Location ID	Depth (ft)	Media	HE	Isotopic Plutonium	Isotopic Uranium	TAL Metals	PCBs	SVOCs	VOCs
0218-97-0070	18-10030	7.00–8.42	Soil	3659R	3661R	3661R	3660R	3658R	3658R	3658R
0218-97-0102	18-10030	9.42–10.00	Soil	3659R	3661R	3661R	3660R	3658R	3658R	3658R
0218-97-0071	18-10031	7.00–7.50	Soil	3659R	3661R	3661R	3660R	3658R	3658R	3658R
0218-97-0101	18-10031	10.00–10.50	Soil	3659R	3661R	3661R	3660R	3658R	3658R	3658R
0218-97-0072	18-10032	2.83–3.33	Fill	3659R	3661R	3661R	3660R	3658R	3658R	3658R
0218-97-0073	18-10033	2.42–2.92	Soil	3659R	3661R	3661R	3660R	3658R	3658R	3658R

Note: Numbers in the analyte columns are analytical request numbers.

Table 4.7-2
Inorganic Chemicals above BVs at SWMU 18-003(c)

Sample ID	Location ID	Depth (ft)	Media	Antimony	Cadmium	Copper	Lead	Mercury	Zinc
Soil BV[a]				**0.83**	**0.4**	**14.7**	**22.3**	**0.1**	**48.8**
Construction Worker SSL[b]				**124**	**309**	**12400**	**800**	**92.9[c]**	**92900**
Industrial SSL[b]				**454**	**1120**	**45400**	**800**	**310[c]**	**341000**
Recreational SSL[d]				**317**	**784**	**31700**	**560**	**238**	**238000**
Residential SSL[b]				**31.3**	**77.9**	**3130**	**400**	**23c**	**23500**
0218-97-0102	18-10030	9.42–10.00	Soil	0.87 (U)	—[e]	—	—	—	—
0218-97-0101	18-10031	10.00–10.50	Soil	0.87 (U)	—	—	—	—	—
0218-97-0072	18-10032	2.83–3.33	Fill	—	0.51 (J)	16.5	27.7	0.49	211
0218-97-0073	18-10033	2.42–2.92	Soil	—	0.67 (J)	—	—	0.24	73.7

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] BVs are from LANL 1998, 059730.

[b] SSLs from NMED 2009, 108070, unless otherwise noted.

[c] EPA regional screening level (http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm).

[d] SSLs from LANL 2010, 108613.

[e] — = Not detected or not above BV.

Table 4.7-3
Organic Chemicals Detected at SWMU 18-003(c)

Sample ID	Location ID	Depth (ft)	Media	Aroclor-1254	Benzo(b)fluoranthene	Bis(2-ethylhexyl)phthalate	Di-n-butylphthalate	Fluoranthene	Phenanthrene	Pyrene
Construction Worker SSL[a]				**4.36**	**213**	**4760**	**23800**	**8910**	**7150**	**6680**
Industrial SSL[a]				**8.26**	**23.4**	**1370**	**68400**	**24400**	**20500**	**18300**
Recreational SSL[b]				**6.65**	**30.1**	**1830**	**39900**	**13900**	**12000**	**10400**
Residential SSL[a]				**1.12**	**6.21**	**347**	**6110**	**2290**	**1830**	**1720**
0218-97-0102	18-10030	9.42–10.00	Soil	—[c]	0.055 (J)	—	—	0.11 (J)	0.061 (J)	0.12 (J)
0218-97-0101	18-10031	10.00–10.50	Soil	—	—	0.046 (J)	—	—	—	—
0218-97-0072	18-10032	2.83–3.33	Fill	27	—	—	0.52 (J)	—	—	—
0218-97-0073	18-10033	2.42–2.92	Soil	3.9	—	—	—	—	—	—

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] SSLs from NMED 2009, 108070, unless otherwise noted.

[b] SSLs from LANL 2010, 108613.

[c] — = Not detected.

Table 4.7-4
Radionuclides Detected or Detected above BVs/FVs at SWMU 18-003(c)

Sample ID	Location ID	Depth (ft)	Media	Plutonium-238	Plutonium-239/240	Uranium-234	Uranium-235
Soil BV[a]				**0.023[b]**	**0.054[b]**	**2.59**	**0.2**
Construction Worker SAL[c]				**40**	**36**	**220**	**43**
Industrial SAL[c]				**240**	**210**	**1500**	**87**
Recreational SAL[c]				**330**	**300**	**3200**	**520**
Residential SAL[c]				**37**	**33**	**170**	**17**
0218-97-0072	18-10032	2.83–3.33	Fill	0.067	3	43.5	1.152
0218-97-0073	18-10033	2.42–2.92	Soil	—[d]	0.327	5.71	0.217

Note: Results are in pCi/g.

[a] BVs/FVs are from LANL 1998, 059730.

[b] BV applies only to samples collected from 0–1 ft.

[c] SALs from LANL 2009, 107655.

[d] — = Not detected or not above BV.

Table 4.7-5
Proposed Sampling at SWMU 18-003(c)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3c-36	Drainline exit from building 18-32	Immediately below the line	X[a]	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X ~~X~~	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3c-6, 3c-23, 3c-24, 3c-31	Tank inlet, drain field	Immediately below the line or drain field	X[a]	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3c-2, 3c-4, 3c-34, 3c-35, 3c-8, 3c-10, 3c-12, 3c-14 through 3c-16, 3c-21, 3c-22, 3c-25, 3c-26, 3c-28 through 3c-30	Inlet line, septic tank, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3c-1, 3c-27	Inlet line, drain field	Immediately below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 4.7-5 (continued)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium ~~Hydride~~	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3c-3, 3c-5, 3c-7, 3c-9, 3c-11, 3c-13, 3c-17 through 3c-20	Inlet line, septic tank, tank outlet, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the line, tank, or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3c-32	Outfall	0 to 1 ft bgs	X	X	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3c-33	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.8-1
Samples Collected and Analyses Requested at SWMU 18-003(d)

Sample ID	Location ID	Depth (ft)	Media	TAL Metals	SVOCs	VOCs
0218-96-0500	18-10010	2.00–4.00	Soil	2756	2756	2756
0218-96-0501	18-10010	6.00–8.00	Soil	2756	2756	2756
0218-96-0504	18-10011	2.00–4.00	Soil	2772	2772	2772
0218-96-0505	18-10011	8.00–9.80	Soil	2772	2772	2772
0218-96-0506	18-10011	37.50–38.50	Soil	—*	—	2772
0218-96-0508	18-10012	2.00–4.00	Soil	2765	2765	2765
0218-96-0509	18-10012	6.00–8.00	Soil	2765	2765	2765
0218-96-0510	18-10012	42.00–42.50	QBT2	—	—	2765
0218-96-0512	18-10013	2.00–4.00	Soil	2769	2769	2769
0218-96-0513	18-10013	8.00–9.00	Soil	2769	2769	2769
0218-96-0514	18-10013	38.00–38.50	QAL	—	—	2769
0218-96-0516	18-10014	2.00–4.00	Soil	2755	2755	2755
0218-96-0517	18-10014	6.00–8.00	Soil	2755	2755	2755
0218-96-0518	18-10014	30.00–30.50	QBT2	—	—	2755

Note: Numbers in the analyte columns are analytical request numbers.
*— = Analyses not requested.

Table 4.8-2
Inorganic Chemicals above BVs at SWMU 18-003(d)

Sample ID	Location ID	Depth (ft)	Media	Antimony	Cadmium	Manganese	Mercury	Silver	Thallium	Zinc
Soil BV[a]				**0.83**	**0.4**	**671**	**0.1**	**1**	**0.73**	**48.8**
Construction Worker SSL[b]				**124**	**309**	**463**	**92.9[c]**	**1550**	**20.4**	**92900**
Industrial SSL[b]				**454**	**1120**	**145000**	**310[c]**	**5680**	**74.9**	**341000**
Recreational SSL[d]				**317**	**784**	**110000**	**238**	**3960**	**52.3**	**238000**
Residential SSL[b]				**31.3**	**77.9**	**10700**	**23[c]**	**391**	**5.16**	**23500**
0218-96-0500	18-10010	2.00–4.00	Soil	11 (U)	0.57 (U)	—[e]	0.11 (U)	2.3 (U)	—	—
0218-96-0501	18-10010	6.00–8.00	Soil	11 (U)	0.56 (U)	—	0.11 (U)	2.2 (U)	—	—
0218-96-0504	18-10011	2.00–4.00	Soil	1 (UJ)	—	—	—	—	0.77 (U)	—
0218-96-0505	18-10011	8.00–9.80	Soil	0.94 (UJ)	—	788 (J-)	—	—	3	—
0218-96-0508	18-10012	2.00–4.00	Soil	11 (U)	0.53 (U)	—	0.11 (U)	2.1 (U)	—	—
0218-96-0509	18-10012	6.00–8.00	Soil	11 (U)	0.53 (U)	—	0.11 (U)	2.1 (U)	—	—
0218-96-0512	18-10013	2.00–4.00	Soil	11 (UJ)	0.57 (U)	—	0.11 (U)	2.3 (U)	—	54
0218-96-0513	18-10013	8.00–9.00	Soil	11 (UJ)	0.56 (U)	—	0.11 (U)	2.2 (U)	—	—
0218-96-0516	18-10014	2.00–4.00	Soil	0.96 (U)	—	—	—	—	—	—
0218-96-0517	18-10014	6.00–8.00	Soil	0.94 (U)	—	—	—	—	0.84 (J)	—

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] BVs are from LANL 1998, 059730.

[b] SSLs from NMED 2009, 108070, unless otherwise noted.

[c] EPA regional screening level (http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm).

[d] SSLs from LANL 2010, 108613.

[e] — = Not detected or not above BV.

Table 4.8-3
Organic Chemicals Detected at SWMU 18-003(d)

Sample ID	Location ID	Depth (ft)	Media	Methylene Chloride
Construction Worker SSL[a]				**10600**
Industrial SSL[a]				**1090**
Recreational SSL[b]				**4520**
Residential SSL[a]				**199**
0218-96-0516	18-10014	2.00–4.00	Soil	0.0023 (J)

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] SSLs from NMED 2009, 108070.

[b] SSLs from LANL 2010, 108613.

Table 4.8-4
Proposed Sampling at SWMU 18-003(d)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3d-26, 3d-28, 3d-31	Drain field	Immediately below the drain field	X[a]	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3d-32	Drainline exit from building 18-116	Immediately below the drainline	X	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the drainline	X	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3d-2, 3d-4, 3d-6, 3d-8, 3d-10, 3d-12, 3d-33, 3d-34 3d-14, 3d-16, 3d-15, 3d-17, 3d-21 through 3d-25, 3d-29, 3d-30	Inlet line, septic tank, tank outlet, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3d-1, 3d-13, 3d-20	Inlet line, tank inlet, drain field	Immediately below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 4.8-4 (continued)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium-~~Hydride~~	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3d-3, 3d-5, 3d-7, 3d-9, 3d-11, 3d-18, 3d-19, 3d-27	Inlet line, outlet line, drain field	Immediately below the line or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X
			10 ft below the line or drain field	X	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.9-1
Proposed Sampling at SWMU 18-003(e)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3e-7, 3e-20, 3e-24	Drain field, former outfall	Immediately below the drain field or outfall	X[a]	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the drain field or outfall	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination. Sample intervals may be added to ensure a sample is collected from every geologic unit encountered. See section 4.9.3	3e-23	Drain field	Immediately below the line, tank, or drain field	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
			25 to 26 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
			25-~~-~~ft intervals thereafter to a depth of 1~~5~~80 ft bgs or contact between ~~base of~~ the Cerro Toledo Interval and Otowi Member	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3e-2, 3e-5, 3e-9, 3e-11 through 3e-16, 3e-18, 3e-21,	Septic tank, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X

Table 4.9-1 (continued)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3e-1, 3e-17	Septic tank, drain field	Immediately below the tank or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the tank or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the tank or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3e-3, 3e-4, 3e-6, 3e-8, 3e-10, 3e-19, 3e-22	Septic tank, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
			10 ft below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3e-27 3e-35 3e-38	Drainline exit from buildings: 18-190 18-37 18-189	Immediately below the line	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3e-26, 3e-28 through 3e-33, 3e-37, 3e-39, 3e-41, 3e-42, 3e-43	Inlet lines	Immediately below the line	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	—	X	X	X	X	X	X	X	X

Table 4.9-1 (continued)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3e-25 3e-40 3e-34 and 3e-36	Drainline exit from buildings: 18-129 18-31 Inlet lines	Immediately below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

~~**Table 4.9-1 (continued)**~~

~~Objective Addressed~~	~~Location Number~~	~~Location~~	~~Beginning Depth of Sample Interval~~	~~TAL Metals~~	~~Nitrate~~	~~Perchlorate~~	~~Total Cyanide~~	~~PCBs~~	~~SVOCs~~	~~VOCs~~	~~Americium-241~~	~~Gamma Spectroscopy~~	~~Isotopic Plutonium~~	~~Isotopic Thorium~~	~~Isotopic Uranium~~	~~pH~~

~~[a] X = Analysis will be performed.~~

~~[b] — = Analysis will not be performed.~~

Table 4.10-1
Proposed Sampling at SWMU 18-003(f)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3f-6, 3f-8, 3f-30	Septic tank, outlet line, drainage below outfall	Immediately below the line, tank, or drain field	X[a]	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drainage	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3f-2, 3f-4, 3f-10, 3f-12, 3f-14, 3f-16, 3f-17, 3f-21, 3f-23, 3f-24 3f-25 through 3f-29	Inlet line, septic tank, drain field Former outfall Drainage below outfall	Immediately below the line, tank, drain field, outfall, or drainage	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the line, tank, drain field, outfall, or drainage	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3f-1, 3f-9, 3f-18	Inlet line, drain field	Immediately below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the line or drain field	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3f-3, 3f-5, 3f-7, 3f-11, 3f-13, 3f-15, 3f-19, 3f-20, 3f-22	Tank inlet, tank outlet, outlet line, drain field	Immediately below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X
			10 ft below the line, tank, or drain field	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.11-1
Proposed Sampling at SWMU 18-003(g)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3g-3, 3g-16	Septic tank, outlet line	Immediately below the line or tank	X[a]	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or tank	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3g-2, 3g-6 through 3g-8, 3g-10, 3g-12, 3g-14, 3g-16, 3g-17	Tank inlet, outlet line	Immediately below the line or tank	X	X	X	X	—[b]	X	X	X	X	X	X	X	X
			5 ft below the line or tank	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3g-1, 3g-9	Inlet line, outlet line	Immediately below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3g-4, 3g-5, 3g-11, 3g-13, 3g-15	Tank outlet septic tank, outlet line	Immediately below the line or tank	X	X	X	X	—	X	X	X	X	X	X	X	X
			5 ft below the line or tank	X	X	X	X	—	X	X	X	X	X	X	X	X
			10 ft below the line or tank	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.12-1
Proposed Sampling at SWMU 18-003(h)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	3h-5	Tank outlet	Immediately below the tank	X*	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the tank	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3h-2, 3h-4, 3h-6	Inlet line, septic tank	Immediately below the line or tank	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line or tank	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3h-1	Inlet line	Immediately below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	3h-3	Tank inlet	Immediately below the tank	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the tank	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below the tank	X	X	X	X	X	X	X	X	X	X	X	X	X

*X = Analysis will be performed.

Table 4.13-1
Proposed Sampling at SWMU 18-004(a)

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	4a-1, 4a-2	Below waste line	Immediately below the line	X*	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X

*X = Analysis will be performed.

Table 4.13-2
Proposed Sampling at SWMU 18-004(b)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	4b-1 through 4b-3	Below former pit and tanks	8 to 9 ft bgs	X*	X	X	X	X	X	X	X	X	X	X	X	X
			13 to 14 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X

*X = Analysis will be performed.

Table 4.14-1
Proposed Sampling at SWMU 18-005(a)

Objective Addressed	Location Number	Location	Sample Interval[a]	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Explosive Compounds	SVOCs	VOCs	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	5a-1, 5a-2	Beneath former structure 18-15	0 to 1 ft ~~bgs~~	~~X~~[a] X[b]	X	X	X	X	X	—[b]	X	X	X	X
			4 to 5 ft ~~bgs~~	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	5a-3 through 5a-6	Perimeter of former structure 18-15	0 to 1 ft ~~bgs~~	X	X	X	X	X	X	—	X	X	X	X
			4 to 5 ft ~~bgs~~	X	X	X	X	X	X	X	X	X	X	X

[a] Samples will be collected from native soil and tuff from 0−1 ft and 4−5 ft as determined in the field.

[a]~~b~~ X = Analysis will be performed.

[b]~~c~~ — = Analysis will not be performed.

Table 4.15-1
Samples Collected and Analyses Requested at AOC 18-006

Sample ID	Location ID	Depth (ft)	Media	H3	Isotopic Uranium	TAL Metals	SVOCs	VOCs
0218-97-0090	18-10036	5.83–6.33	Soil	3573R	3573R	3572R	3571R	3571R
0218-97-0091	18-10037	3.17–3.67	Soil	3573R	3573R	3572R	3571R	3571R
0218-97-0092	18-10038	4.00–4.50	Soil	3573R	3573R	3572R	3571R	3571R

Note: Numbers in the analyte columns are analytical request numbers.

Table 4.15-2
Inorganic Chemicals above BVs at AOC 18-006

Sample ID	Location ID	Depth (ft)	Media	Thallium	Zinc
Soil BV[a]				**0.73**	**48.8**
Construction Worker SSL[b]				**20.4**	**92900**
Industrial SSL[b]				**74.9**	**341000**
Recreational SSL[c]				**52.3**	**238000**
Residential SSL[b]				**5.16**	**23500**
0218-97-0090	18-10036	5.83–6.33	Soil	1.8 (U)	—[d]
0218-97-0091	18-10037	3.17–3.67	Soil	—	51.4
0218-97-0092	18-10038	4.00–4.50	Soil	0.85 (U)	—

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] BVs are from LANL 1998, 059730.

[b] SSLs from NMED 2009, 108070.

[c] SSLs from LANL 2010, 108613.

[d] — = Not detected or not above BV.

Table 4.15-3
Organic Chemicals Detected at AOC 18-006

Sample ID	Location ID	Depth (ft)	Media	Acetone	Methylene Chloride	Toluene	Trichlorofluoromethane
Construction Worker SSL[a]				**263000**	**10600**	**21100**	**5820**
Industrial SSL[a]				**851000**	**1090**	**57900**	**6760**
Recreational SSL[b]				**702000**	**4520**	**60800**	**49800**
Residential SSL[a]				**67500**	**199**	**5570**	**2010**
0218-97-0090	18-10036	5.83–6.33	Soil	0.011 (J)	0.0057	0.0065	—[c]
0218-97-0091	18-10037	3.17–3.67	Soil	0.0093 (J)	0.0058	0.024	0.0057
0218-97-0092	18-10038	4.00–4.50	Soil	0.018 (J)	0.0047 (J)	0.012	—

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] SSLs from NMED 2009, 108070.

[b] SSLs from LANL 2010, 108613.

[c] — = Not detected.

Table 4.15-4
Proposed Sampling at AOC 18-006

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	SVOCs	VOCs	Isotopic Uranium	pH
Determine nature and extent of potential contamination	6-1	West end of former storage pipe	3 to 4 ft bgs	X*	X	X	X	X
			5 to 6 ft bgs	X	X	X	X	X
			7 to 8 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	6-2, 6-3	West end of former storage pipe	3 to 4 ft bgs	X	X	X	X	X
			5 to 6 ft bgs	X	X	X	X	X
			7 to 8 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	6-4	Center of former storage pipe	4 to 5 ft bgs	X	X	X	X	X
			6 to 7 ft bgs	X	X	X	X	X
			8 to 9 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	6-6	East end of former storage pipe	5 to 6 ft bgs	X	X	X	X	X
			7 to 8 ft bgs	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	6-5	East end of former storage pipe	5 to 6 ft bgs	X	X	X	X	X
			7 to 8 ft bgs	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X

*X = Analysis will be performed.

Table 4.16-1
Samples Collected and Analyses Requested at AOC 18-008

Sample ID	Location ID	Depth (ft)	Media	SVOCs	TPH-DRO	VOCs
0218-96-0207	18-10002	6.00–7.00	Soil	—*	2388	—
0218-96-0208	18-10003	6.00–7.00	Soil	—	2388	—
0218-96-0232	18-10008	6.00–7.00	Fill	2587	2587	2587
0218-96-0233	18-10008	7.00–8.00	Fill	2587	2587	2587
0218-96-0234	18-10009	6.00–7.00	Fill	2587	2587	2587
0218-96-0235	18-10009	7.00–8.00	Fill	2587	2587	2587
0218-96-0037	18-10015	6.00–8.00	Soil	—	2781	—
0218-96-0038	18-10015	11.00–13.00	QBT2	—	2781	—
0218-96-0039	18-10015	16.00–18.00	QBT2	—	2781	—
0218-96-0040	18-10015	21.00–23.00	QBT2	—	2781	—
0218-96-0053	18-10015	26.00–28.00	QBT2	—	2781	—
0218-96-0042	18-10016	13.00–15.00	QBT2	—	2782	—
0218-96-0043	18-10016	18.00–20.00	QBT2	—	2782	—
0218-96-0044	18-10016	23.00–25.00	QBT2	—	2782	—
0218-96-0055	18-10016	26.00–28.00	QBT2	—	2782	—
0218-96-0045	18-10017	8.00–10.00	Soil	—	2781	—
0218-96-0046	18-10017	13.00–15.00	QBT2	—	2781	—
0218-96-0047	18-10017	18.00–20.00	QBT2	—	2781	—
0218-96-0048	18-10017	23.00–25.00	QBT2	—	2781	—
0218-96-0054	18-10017	26.00–28.00	QBT2	—	2781	—
0218-96-0049	18-10018	8.00–10.00	Soil	—	2782	—
0218-96-0050	18-10018	13.00–15.00	QBT2	—	2782	—
0218-96-0051	18-10018	18.00–20.00	QBT2	—	2782	—
0218-96-0052	18-10018	23.00–25.00	QBT2	—	2782	—
0218-96-0056	18-10018	26.00–28.00	QBT2	—	2782	—

Note: Numbers in the analyte columns are analytical request numbers.
*— = Analyses not requested.

Table 4.16-2
Organic Chemicals Detected at AOC 18-008

Sample ID	Location ID	Depth (ft)	Media	Acetone	Methylene Chloride	TPH-DRO
Construction Worker SSL[a]				**263000**	**10600**	**na[b]**
Industrial SSL[a]				**851000**	**1090**	**na**
Recreational SSL[c]				**702000**	**4520**	**na**
Residential SSL[a]				**67500**	**199**	**na**
0218-96-0207	18-10002	6.00–7.00	Soil	NA[d]	NA	1100
0218-96-0208	18-10003	6.00–7.00	Soil	NA	NA	310
0218-96-0232	18-10008	6.00–7.00	Fill	0.01 (J)	—[e]	400
0218-96-0233	18-10008	7.00–8.00	Fill	—	—	240
0218-96-0234	18-10009	6.00–7.00	Fill	—	0.046	270
0218-96-0235	18-10009	7.00–8.00	Fill	—	—	340
0218-96-0037	18-10015	6.00–8.00	Soil	NA	NA	360
0218-96-0038	18-10015	11.00–13.00	QBT2	NA	NA	16
0218-96-0039	18-10015	16.00–18.00	QBT2	NA	NA	29
0218-96-0040	18-10015	21.00–23.00	QBT2	NA	NA	31

Notes: Results are in mg/kg. Data qualifiers are defined in Appendix A.

[a] SSLs from NMED 2009, 108070.

[b] na = Not available.

[c] SSLs from LANL 2010, 108613.

[d] NA = Not analyzed.

[e] — = Not detected.

Table 4.16-3
Proposed Sampling at AOC 18-008

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	SVOCs	TPH-DROs	VOCs	pH
Determine nature and extent of potential contamination	8-2	Beneath former UST	10 to 11 ft bgs	X*	X	X	X	X
			15 to 16 ft bgs	X	X	X	X	X
			20 to 21 ft bgs	X	X	X	X	X
			30 to 31 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	8-1	Beneath former UST	10 to 11 ft bgs	X	X	X	X	X
			15 to 16 ft bgs	X	X	X	X	X
			20 to 21 ft bgs	X	X	X	X	X
			30 to 31 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	8-5	Perimeter of former UST	6 to 7 ft bgs	X	X	X	X	X
			10 to 11 ft bgs	X	X	X	X	X
			15 to 16 ft bgs	X	X	X	X	X
			20 to 21 ft bgs	X	X	X	X	X
			30 to 31 ft bgs	X	X	X	X	X
Determine nature and extent of potential contamination	8-3, 8-4, 8-6	Perimeter of former UST	6 to 7 ft bgs	X	X	X	X	X
			10 to 11 ft bgs	X	X	X	X	X
			15 to 16 ft bgs	X	X	X	X	X
			20 to 21 ft bgs	X	X	X	X	X
			30 to 31 ft bgs	X	X	X	X	X

*X = Analysis will be performed.

Table 4.17-1
Proposed Sampling at AOC 18-010(b)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	TPH-DRO	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	10b-1	Outfall	0 to 1 ft bgs	X[a]	X	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10b-5	Pajarito Canyon drainage channel	0 to 1 ft bgs	X	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10b-2, 10b-3, 10b-4, 10b-6	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	X	X	X	—	X	X	X	X	X	X
		Pajarito Canyon drainage channel	2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.18-1
Proposed Sampling at AOC 18-010(c)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	10c-1	Outfall	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10c-10	Pajarito Canyon drainage channel	0 to 1 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10c-2 through 10c-8, 10c-9	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
		Pajarito Canyon drainage channel	2 to 3 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.19-1
Proposed Sampling at AOC 18-010(d)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	10d-1	Outfall	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10d-10	Pajarito Canyon drainage channel	0 to 1 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10d-2 through 10d-9	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.20-1
Proposed Sampling at AOC 18-010(e)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	10e-1	Outfall	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10e-10	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10e-2 through 10e-9	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.21-1
Proposed Sampling at AOC 18-010(f)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	10f-1	Outfall	0 to 1 ft bgs	X[a]	X	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	10f-2, 10f-3	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.22-1
Proposed Sampling at AOC 18-011

Objective Addressed	Location Number	Location	Sample Interval	Mercury
Determine nature and extent of potential contamination	11-1	Below former building 18-22	0 to 1 ft bgs	X*
			2 to 3 ft bgs	X
Determine nature and extent of potential contamination	11-2 through 11-5	Perimeter of former building 18-22	0 to 1 ft bgs	X
			2 to 3 ft bgs	X

*X = Analysis will be performed.

Table 4.23-1
Proposed Sampling at SWMU 18-012(a)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	12a-1, 12a-2	Drainline from ~~building~~ building 18-116	Immediately below the line	X[a]	X	X	X	X	X	X	—[b]	X	X	X	X	X	X
			5 ft below the line	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12a-3	Outfall	0 to 1 ft bgs	X	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12a-11	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	X	X	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12a-4 through 12a-10	Drainage below outfall	0 to 1 ft bgs	X	X	X	X	X	—	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.24-1
Proposed Sampling at AOC 18-012(c)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	12c-9	Former drainage ditch	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12c-4 12c-5 through 12c-8	Outfall Former drainage ditch	0 to 1 ft bgs	X	X	X	X	—	X	—	X	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	—	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12c-2	Downgradient of dry well sump	Base of Sump	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below base	X	X	X	X	X	X	X	X	X	X	X	X	X
			10 ft below base	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	12c-1, 12c-3	Drainlines exit from building 18-141	Immediately below the line~~0 to 1 ft bgs~~	X	X	X	X	—	X	—	X	X	X	X	X	X
			5 ft below the line~~2 to 3 ft bgs~~	X	X	X	X	—	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 4.25-1
Proposed Sampling at AOC 18-013

Objective Addressed	Location Number	Location	Beginning Depth of Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Zirconium	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Thorium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	13-1, 13-4	Below the pit and tank Perimeter of pit and tank	Immediately below level of pit and tank	X*	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below level of line or tank	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	13-2, 13-3	Perimeter of pit and tank	Immediately below level of pit and tank	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			5 ft below level of line or tank	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*X = Analysis will be performed.

Table 5.1-1
Proposed Sampling at SWMU 27-002

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Dioxins/furans	Explosive Compounds	PCBs	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	2-1 through 2-4	50 ft radius from center of Firing Pit 1	0 to 1 ft bgs	X[a]	X	X	X	X	X	—[b]	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-5 through 2-8	100 ft radius from center of Firing Pit 1	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-9	200 ft radius from center of Firing Pit 1	0 to 1 ft bgs	X	X	X	X	X	X	X	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-10 through 2-12	200 ft radius from center of Firing Pit 1	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-13 through 2-16	50 ft radius from midway between Firing Pits 2 and 3	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-17 through 2-20	100 ft radius from midway between Firing Pits 2 and 3	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-21 through 2-24	200 ft radius from midway between Firing Pits 2 and 3	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-25 through 2-28	50 ft radius from midway between Firing Pits 4 and 5	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-29 through 2-32	100 ft radius from midway between Firing Pits 4 and 5	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X

Table 5.1-1 (continued)

Objective Addressed	Location Number	Location	Sample Interval	TAL Metals	Nitrate	Perchlorate	Total Cyanide	Dioxins/furans	Explosive Compounds	PCBs	SVOCs	VOCs	~~Americium~~Americium-241	Gamma Spectroscopy	Isotopic Plutonium	Isotopic Uranium	pH
Determine nature and extent of potential contamination	2-34	200--ft radius from midway between Firing Pits 4 and 5	0 to 1 ft bgs	X	X	X	X	X	X	X	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-33, 2-35, 2-36	200--ft radius from midway between Firing Pits 4 and 5	0 to 1 ft bgs	X	X	X	X	X	X	—	X	—	X	X	X	X	X
			2 to 3 ft bgs	X	X	X	X	X	X	—	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-37	Center of Firing Pit 1	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-38	Center of Firing Pit 2	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-39	Center of Firing Pit 3	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-40	Center of Firing Pit 4	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Determine nature and extent of potential contamination	2-41	Center of Firing Pit 5	4 to 5 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X
			9 to 10 ft bgs	X	X	X	X	X	X	X	X	X	X	X	X	X	X

[a] X = Analysis will be performed.

[b] — = Analysis will not be performed.

Table 5.2-1
Samples Collected and Analyses Requested at SWMU 27-003

Sample ID	Location ID	Depth (ft)	Media	HE	TAL Metals
RC27-01-0001	27-10000	0.00–0.50	Fill	9418R	9419R
RC27-01-0002	27-10001	0.00–0.50	Fill	9418R	9419R
RC27-01-0003	27-10002	0.00–0.50	Fill	9418R	9419R
RC27-01-0004	27-10003	0.00–0.50	Fill	9418R	9419R
RC27-01-0005	27-10004	0.00–0.50	Fill	9418R	9419R
RC27-01-0006	27-10005	0.00–0.50	Fill	9418R	9419R

Note: Numbers in the analyte columns are analytical request numbers.

Table 5.2-2
Inorganic Chemicals above BVs at SWMU 27-003

Sample ID	Location ID	Depth (ft)	Media	Zinc
Soil BV[a]				**48.8**
Construction Worker SSL[b]				**92900**
Industrial SSL[b]				**341000**
Recreational SSL[c]				**238000**
Residential SSL[b]				**23500**
RC27-01-0001	27-10000	0.00–0.50	Fill	52.5
RC27-01-0002	27-10001	0.00–0.50	Fill	51.5
RC27-01-0004	27-10003	0.00–0.50	Fill	48.9

Note: Results are in mg/kg.

[a] BVs are from LANL 1998, 059730.

[b] SSLs from NMED 2009, 108070.

[c] SSLs from LANL 2010, 108613.

Table 7.0-1
Summary of Investigation Methods

Method	Summary
Spade and Scoop Collection of Soil Samples	This method is typically used to collect shallow (e.g., approximately 0–12 in.) soil or sediment samples. The “spade-and-scoop” method involves digging a hole to the desired depth, as prescribed in the sampling and analysis plan, and collecting a discrete grab sample. The sample is typically placed in a clean, stainless-steel bowl for transfer into various sample containers.
Hand-Auger Sampling	This method is typically used for sampling soil or sediment at depths of less than 10–15 ft but may in some cases be used for collecting samples of weathered or nonwelded tuff. The method involves hand-turning a stainless-steel bucket auger (typically 3–4-in. inner diameter), creating a vertical hole that can be advanced to the desired sample depth. When the desired depth is reached, the auger is decontaminated before advancing the hole through the sample depth. The sample material is transferred from the auger bucket to a stainless-steel sampling bowl before filling the various required sample containers.
Handling, Packaging, and Shipping of Samples	Field team members seal and label samples before packing and ensure that the sample containers and the containers used for transport are free of external contamination. Field team members package all samples so as to minimize the possibility of breakage during transportation. After all environmental samples are collected, packaged, and preserved; a field team member transports the samples to either the SMO or an SMO-approved radiation screening laboratory under chain of custody. The SMO arranges for shipping samples to analytical laboratories. The field team member must inform the SMO and/or the radiation screening laboratory coordinator when levels of radioactivity are in the action-level or limited-quantity ranges.
Sample Control and Field Documentation	The collection, screening, and transport of samples are documented on standard forms generated by the SMO. These include sample collection logs, chain-of-custody forms, and sample container labels. Collection logs are completed at the time of sample collection and are signed by the sampler and a reviewer who verifies the logs for completeness and accuracy. Corresponding labels are initialed and applied to each sample container, and custody seals are placed around container lids or openings. Chain-of-custody forms are completed and assigned to verify that the samples are not left unattended. Site attributes (e.g., former and proposed soil sampling locations, sediment sampling locations) are located by using a global positioning system. Horizontal locations will be measured to the nearest 0.5 ft. The survey results for this field event will be presented as part of the investigation report. Sample coordinates will be uploaded into the Environmental Restoration database.
Field Quality-Control Samples	Field quality-control samples are collected as directed in the Consent Order as follows. Field duplicate: At a frequency of 10%; collected at the same time as a regular sample and submitted for the same analyses. Equipment rinsate blank: At a frequency of 10%; collected by rinsing sampling equipment with deionized water, which is collected in a sample container and submitted for laboratory analysis. Trip blanks: Required for all field events that include the collection of samples for VOC analysis. Trip blanks are containers of certified clean sand that are opened and kept with the other sample containers during the sampling process.

Table 7.0-1 (continued)

Method	Summary
Field Decontamination of Drilling and Sampling Equipment	Dry decontamination is the preferred method to minimize generating liquid waste. Dry decontamination may include the use of a wire brush or other tool to remove soil or other material adhering to the sampling equipment, followed by use of a commercial cleaning agent (nonacid, waxless cleaners) and paper wipes. Dry decontamination may be followed by wet decontamination if necessary. Wet decontamination may include washing with a nonphosphate detergent and water, followed by a water rinse and a second rinse with deionized water. Alternatively, steam cleaning may be used.
Containers and Preservation of Samples	Specific requirements/processes for sample containers, preservation techniques, and holding times are based on EPA guidance for environmental sampling, preservation, and quality assurance. Specific requirements for each sample are printed on the sample collection logs provided by the sample management office (size and type of container [glass, amber glass, polyethylene, preservative, etc.]). All samples are preserved by placing in insulated containers with ice to maintain a temperature of 4˚C. Other requirements such as nitric acid or other preservatives may apply to different media or analytical requests.
Management, Characterization, and Storage of IDW	IDW is managed, characterized, and stored in accordance with an approved waste characterization strategy form that documents site history, field activities, and the characterization approach for each waste stream managed. Waste characterization shall be adequate to comply with on-site or off-site waste acceptance criteria. All stored IDW will be marked with appropriate signage and labels, as appropriate. Drummed IDW will be stored on pallets to prevent the containers from deterioration. Generators are required to reduce the volume of waste generated as much as technically and economically feasible. Means to store, control, and transport each potential waste type and classification shall be determined before field operations that generate waste begin. A waste storage area shall be established before generating waste. Waste storage areas located in controlled areas of the Laboratory shall be controlled as needed to prevent inadvertent addition or management of wastes by unauthorized personnel. Each container of waste generated shall be individually labeled as to waste classification, item identification number, and radioactivity (if applicable), immediately following containerization. All waste shall be segregated by classification and compatibility to prevent cross-contamination. See Appendix B for additional information.
Geodetic Surveys	This method describes the methodology for coordinating and evaluating geodetic surveys and establishing quality assurance (QA) and quality control (QC) for geodetic survey data. The procedure covers evaluating geodetic survey requirements, preparing to perform a geodetic survey, performing geodetic survey field activities, preparing geodetic survey data for QA review, performing QA review of geodetic survey data, and submitting geodetic survey data.
Hollow-Stem Auger Drilling Methods	In this method, hollow-stem augers (sections of seamless pipe with auger flights welded to the pipe) act as a screw conveyor to bring cuttings of sediment, soil, and/or rock to the surface. Auger sections are typically 5 ft in length and have outside diameters of 4.25 to 14 in. Drill rods, split-spoon core barrels, Shelby tubes, and other samplers can pass through the center of the hollow-stem auger sections for collection of discrete samples from desired depths. Hollow-stem augers are used as temporary casings when setting wells to prevent cave-ins of the borehole walls.

Table 7.8-1
Summary of Analytical Methods

Analyte	Analytical Method
TAL metals	SW-846:6010B; SW-846:6020
Total cyanide	SW-846:9012A
Mercury	SW-846:7471A
Nitrate	EPA:300.0
Perchlorate	SW-846:6850
Dioxins/furans	SW-846:8280A; SW-846:8290
Explosive compounds	SW-846:8321A_MOD
PCBs	SW-846:8082
SVOCs	SW-846:8270C
VOCs	SW-846:8260B
Americium-241	HASL-300:AM-241
Gamma-emitting radionuclides	EPA:901.1
Isotopic plutonium	HASL-300:ISOPU
Isotopic uranium	HASL-300:ISOU
Isotopic thorium	HASL-300:ISOTH
pH	SW-846:9045C