Los Alamos

NATIONAL LABORATORY
Environmental Restoration Project
EM/ER, MS M992
Los Alamos, New Mexico 87545
(505) 667-0819, FAX 665-4747

LANL HSWA FU 2 XVII

Date: May 8, 1995
Refer to: EM/ER:95-216

Ron K & What is this sampling for? NFA-EC-VCA?

MAY 18 1995

Teri
Susan
Please check out & let Benito & RAK know

Barbara
File

Mr. Ted Taylor, Program Manager
U.S. Department of Energy
Los Alamos Area Office, MS A316
Los Alamos, NM 87544

SUBJECT: FIELD UNIT 2 SAMPLING AT FORMER OPERABLE UNIT (OU) 1100

Dear Mr. Taylor:

Field Unit 2 is planning to start sampling at OU 1100 on or about May 8, 1995 and end on or about June 10, 1995. Sampling will be performed at Technical Areas 20, 53, and 72. A detailed listing of the PRS number, sample type, collection technique, contaminants of concern, and location is included in the attached tables.

The readiness review for this sampling activity was conducted on April 24, 1995. If you have any questions or concerns, please feel free to give me a call.

Sincerely,

David McInroy
Compliance Manager
Environmental Restoration Project

DM:bm

Attachments (6): As stated.

Cy: R. Bohn, EM/ER, MS M992
B. Driscoll, EPA
B. Garcia, NMED
G. Gould, ESA-4, MS G787
J. Jansen, EM/ER, MS M992
B. Swanton, NMED
E. Trollinger, LAAO, MS A316
S. Yanicak, AIP, NMED MS J993
EM/ER File, MS M992
RPF, MS M707

1627

TV

Sample No.	PRS #	PRS Type	Sample Location	SAMPLE & ANALYSIS PLAN, OU1100					Moti Chem Lab			Field Screen	Field Screen	Laboratory Analysis											Location
				QA/QC Type	Related Sample	Matrix Type / Depth	Technique	Location ID	Metals	HE	SVOC	Rad	HE	HE	Metals	PCB	TPH	Cyanide	Sr-90	U iso	U tot	SVOC	γ	VOCs	
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		110N; 150E (Trench 1)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(a)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		160N;150-300E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill		Duyplicate		Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill		Perf Eval.		Soil	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill		Rinsate		DI Water	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		55-105N;90-115E (Trench 1)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-70N;100-120E (Trench 2)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(b)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-15N;45-65E (Trench 3)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill		Duplicate		Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill		Perf. Eval		Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill		Rinsate		Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		50N;120-150E (Trench 1)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		140-150N;0-40E (Trench 2)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		140-150N;0-40E (Trench 2)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		140-150N;0-40E (Trench 2)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		140-150N;0-40E (Trench 2)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		140-150N;0-40E (Trench 2)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		140-150N;0-40E (Trench 2)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-150N;140-250E (Trench3)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-150N;140-250E (Trench3)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-150N;140-250E (Trench3)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-150N;140-250E (Trench3)
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-150N;140-250E (Trench3)

Sample No.	PRS #	PRS Type	Sample Location	SAMPLE & ANALYSIS PLAN, OU1100 QA/QC Type	Related Sample	Matrix Type / Depth	Technique	Location ID	Mobil Chem Lab Metals	Mobil Chem Lab HE	Mobil Chem Lab SVOC	Field Screen Rad	Field Screen HE	Laboratory Analysis HE	Metals	PCB	TPH	Cyanide	Sr-90	U iso	U tot	SVOC	γ	VOCs	Location
	20-001(c)	Landfill				Trench Depth or 10ft	Spade and Scoop					X	X	X	X				X	X	X		X		0-150N;140-250E (Trench3)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site		Duplicate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site		Perf. Eval		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site		Rinsate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;40'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;40'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		40'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'N;20'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		80'N;20'W (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		80'N;20'W (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		80'N;80'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		80'N;80'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		60'N;80'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		60'N;80'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		40'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'W of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'E of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'E of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'S of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'S of ctr (Recovery Pit)
	20-002(a)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'S;20'E of ctr (Recovery Pit)
	20-002(a)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'S;20'E of ctr (Recovery Pit)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		70'N;70'W of ctr (Dumbo)
	20-002(b)	Firing Site		Duplicate		surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		70'N;70'W of ctr (Dumbo)
	20-002(b)	Firing Site		Perf. Eval		surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		70'N;70'W of ctr (Dumbo)
	20-002(b)	Firing Site		Rinsate		surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		70'N;70'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		70'N;70'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		40'N;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'N;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		30'N;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		30'N;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10'S;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10'S;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10'S;80'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10'S;80'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'S;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'S;90'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		40'S;80'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'S;80'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		40'S;40'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'S;40'W of ctr (Dumbo)
	20-002(b)	Firing Site		Duplicate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'S;40'W of ctr (Dumbo)
	20-002(b)	Firing Site		Perf. Eval		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'S;40'W of ctr (Dumbo)
	20-002(b)	Firing Site		Rinsate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'S;40'W of ctr (Dumbo)
	20-002(b)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		60'S;80'W of ctr (Dumbo)
	20-002(b)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		60'S;80'W of ctr (Dumbo)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		40'W;10'N of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		40'W;10'N of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		40'W;10'N of ctr (Firing Site)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'W of ctr (Firing Site)

Sample No.	PRS #	PRS Type	Sample Location	QA/QC Type	Related Sample	Matrix Type / Depth	Technique	Location ID	Moll. Chem. Lab Metals	HE	SVOC	Field Screen Ref	Field Screen HE	Laboratory Analysis HE	Metals	PCB	TPH	Cyanide	Sr-90	U iso	U tot	SVOC	Y	VOCs	Location
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N of ctr (Firing Site)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;10'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;10'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N;10'E of ctr (Firing Site)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;20'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N;20'E of ctr (Firing Site)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Firing Site)
	20-002(c)	Firing Site		Duplicate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Firing Site)
	20-002(c)	Firing Site		Perf. Eval		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Firing Site)
	20-002(c)	Firing Site		Rinsate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N;30'E of ctr (Firing Site)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;40'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;40'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N;40'E of ctr (Firing Site)
	20-002(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10'S;10'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10'S;10'E of ctr (Firing Site)
	20-002(c)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		10'S;10'E of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'N;40'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'N;40'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'N;40'W of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'S;40'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'S;40'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'S;40'W of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		20'S;30'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		20'S;30'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		20'S;30'W of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10'S;20'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10'S;20'W of ctr (Firing Site)
	20-002(d)	Firing Site		Duplicate		subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		10'S;20'W of ctr (Firing Site)
	20-002(d)	Firing Site		Perf. Eval		surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10'S;10'W of ctr (Firing Site)
	20-002(d)	Firing Site		Rinsate		subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10'S;10'W of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		10'S;10'W of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10'N;20'E of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10'N;20'E of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		10'N;20'E of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		10N';30'E of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		10N';30'E of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		10N';30'E of ctr (Firing Site)
	20-002(d)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X	X	X				X	X	X		X		30'E of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (2.5-3')	Hand Auger					X	X	X	X				X	X	X		X		30'E of ctr (Firing Site)
	20-002(d)	Firing Site				subsurface soil (4.5-5')	Hand Auger					X	X	X	X				X	X	X		X		30'E of ctr (Firing Site)
	20-003(b)	Firing Site				surface soil (0-12")	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				12in at Bedrock or 5ft	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				Mid-depth or 2-3ft (adjacent hole)	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				surface soil (0-12")	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				12in at Bedrock or 5ft	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				Mid-depth or 2-3ft (adjacent hole)	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				surface soil (0-12")	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site		Duplicate		surface soil (0-12")	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site		Perf. Eval		surface soil (0-12")	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site		Rinsate		surface soil (0-12")	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				12in at Bedrock or 5ft	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(b)	Firing Site				Mid-depth or 2-3ft (adjacent hole)	Hand Auger					X	X		X				X				X		20mm Gun Site
	20-003(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				subsurface soil (2.5-3')	hollow-stem auger					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X		X				X				X		Navy Gun Site

Sample No.	PRS #	PRS Type	Sample Location	SAMPLE & ANALYSIS PLAN, OU1100 QA/QC Type	Related Sample	Matrix Type / Depth	Technique	Location ID	Mobil Chem Lab Metals	Mobil Chem Lab HE	Mobil Chem Lab SVOC	Field Screen Rad	Field Screen HE	Laboratory Analysis HE	Metals	PCB	TPH	Cyanide	Sr-90	U tot	U iso	SVOC	γ	VOCs	Location
	20-003(c)	Firing Site				subsurface soil (2.5-3')	hollow-stem auger					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				subsurface soil (2.5-3')	hollow-stem auger					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				subsurface soil (2.5-3')	hollow-stem auger					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				subsurface soil (2.5-3')	hollow-stem auger					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				surface soil (0-6")	Spade and Scoop					X	X		X				X				X		Navy Gun Site
	20-003(c)	Firing Site				subsurface soil (2.5-3')	hollow-stem auger					X	X		X				X				X		Navy Gun Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site		Duplicate		subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site		Perf. Eval		subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site		Rinsate		subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	72-001	Firing Site				subsurface soil (0-12")	Spade and Scoop					X	X		X										Firing Site
	53-001(a)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X	X	X							X	Storage Area
	53-001(a)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X	X	X							X	Storage Area
	53-001(a)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X	X	X							X	Storage Area
	53-001(a)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X	X	X							X	Storage Area
	53-001(b)	Storage Area				surface sediment (0-12")	Hand Auger					X			X	X	X							X	Storm Water Basin
	53-001(b)	Storage Area				12" mid-depth (if possible)	Hand Auger					X			X	X	X							X	Storm Water Basin
	53-001(b)	Storage Area				12" above bedrock	Hand Auger					X			X	X	X							X	Storm Water Basin
	53-001(b)	Storage Area				surface sediment (0-12")	Hand Auger					X			X	X	X							X	Storm Water Basin
	53-001(b)	Storage Area				12" mid-depth (if possible)	Hand Auger					X			X	X	X							X	Storm Water Basin
	53-001(b)	Storage Area				12" above bedrock	Hand Auger					X			X	X	X							X	Storm Water Basin
	53-001(e)	Storage Area				surface soil (0-6")	Spade and Scoop					X					X							X	Below Gravel
	53-001(e)	Storage Area				surface soil (0-6")	Spade and Scoop					X					X							X	Below Gravel
	53-001(e)	Storage Area				surface soil (0-6")	Spade and Scoop					X					X							X	Below Gravel
	53-001(e)	Storage Area				surface soil (0-6")	Spade and Scoop					X					X							X	Below Gravel
	53-001(e)	Storage Area				surface soil (0-6")	Spade and Scoop					X					X							X	Below Gravel
	53-001(g)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-001(g)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-001(g)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-001(g)	Storage Area		Duplicate		surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-001(g)	Storage Area		Perf. Eval		surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-001(g)	Storage Area		Rinsate		surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-001(g)	Storage Area				surface soil (0-6")	Spade and Scoop					X			X		X							X	Shed Perimeter
	53-005	Disposal Pit				Backfill soil/Tuff interface	Spade and Scoop					X			X	X	X					X		X	Backfill Sample
	53-005	Disposal Pit				Backfill soil/Tuff interface	Spade and Scoop					X			X	X	X					X		X	Backfill Sample
	53-005	Disposal Pit				5' Below Pit Bottom	Hollow-Stem Auger					X			X	X	X					X		X	Trench
	53-005	Disposal Pit				10' Below Pit Bottom	Hollow-Stem Auger					X			X	X	X					X		X	Trench
	53-005	Disposal Pit				5' Below Pit Bottom	Hollow-Stem Auger					X			X	X	X					X		X	Trench
	53-005	Disposal Pit				10' Below Pit Bottom	Hollow-Stem Auger					X			X	X	X					X		X	Trench
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-008	Storage Area				surface soil (0-6")	Spade and Scoop					X			X								X		
	53-010	Storage Area				surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area		Duplicate		surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard

Sample No.	PRS #	PRS Type	Sample Location	SAMPLE & ANALYSIS PLAN OU1100 QA/QC Type	Related Sample	Matrix Type / Depth	Technique	Location ID	Mobil Chem Lab Metals	HE	SVOC	Field Screen Rad	Field Screen HE	Laboratory Analysis HE	Metals	PCB	TPH	Cyanide	Sr-90	U isot	U tot	SVOC	γ	VOCs	Location
	53-010	Storage Area		Perf. Eval.		surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area		Rinsate		surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area				surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area				surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area				surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area				surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	53-010	Storage Area				surface soil (0-6")	Spade and Scoop					X					X					X			Boneyard
	20-004	Septic System				surface soil (0-6")	Spade and Scoop					X	X		X							X		X	Trench 1
	20-004	Septic System				subsurface soil (0-??")	Spade and Scoop					X	X		X							X		X	Trench 1
	20-004	Septic System				subsurface soil (??-??)	Spade and Scoop					X	X		X							X		X	Trench 1
	20-004	Septic System				surface soil (0-6")	Spade and Scoop					X	X		X							X		X	Trench 2
	20-004	Septic System				subsurface soil (0-??")	Spade and Scoop					X	X		X							X		X	Trench 2
	20-004	Septic System				subsurface soil (??-??)	Spade and Scoop					X	X		X							X		X	Trench 2
	20-004	Septic System				subsurface soil 1ft below discharge pipe	Spade and Scoop					X	X		X							X		X	Discharge Pipe
	20-004	Septic System				subsurface soil 1ft below discharge pipe	Spade and Scoop					X	X		X							X		X	Discharge Pipe
	20-004	Septic System				subsurface soil 1ft below discharge pipe	Spade and Scoop					X	X		X							X		X	Discharge Pipe
	20-004	Septic System				Sludge	Collwasa					X	X		X							X		X	Septic Tank (if present)
	20-004	Septic System				Water	Collwasa					X	X		X							X		X	Septic Tank (if present)
	20-005	Septic System				surface soil (0-6")	Spade and Scoop					X	X		X			X							Trench 1
	20-005	Septic System				subsurface soil (0-??")	Spade and Scoop					X	X		X			X							Trench 1
	20-005	Septic System				subsurface soil (??-??)	Spade and Scoop					X	X		X			X							Trench 1
	20-005	Septic System		Duplicate		subsurface soil (??-??)	Spade and Scoop					X	X		X			X							Trench 1
	20-005	Septic System		Perf. Eval.		subsurface soil (??-??)	Spade and Scoop					X	X		X			X							Trench 1
	20-005	Septic System		Rinsate		subsurface soil (??-??)	Spade and Scoop					X	X		X			X							Trench 1
	20-005	Septic System				surface soil (0-6")	Spade and Scoop					X	X		X			X							Trench 2
	20-005	Septic System				subsurface soil (0-??")	Spade and Scoop					X	X		X			X							Trench 2
	20-005	Septic System				subsurface soil (??-??)	Spade and Scoop					X	X		X			X							Trench 2
	20-005	Septic System				subsurface soil 1ft below discharge pipe	Spade and Scoop					X	X		X			X							Discharge Pipe (if present)
	20-005	Septic System				subsurface soil 1ft below discharge pipe	Spade and Scoop					X	X		X			X							Discharge Pipe (if present)
	20-005	Septic System				subsurface soil 1ft below discharge pipe	Spade and Scoop					X	X		X			X							Discharge Pipe (if present)
	20-005	Septic System				Sludge	Collwasa					X	X		X			X							Septic Tank (if present)
	20-005	Septic System				Water	Collwasa					X	X		X			X							Septic Tank (if present)
	20-005	Septic System				surface soil (0-12")	Spade and Scoop					X	X		X			X							Trench 1/Leach Field (if present)
	20-005	Septic System				subsurface soil (?-?)	Spade and Scoop					X	X		X			X							Trench 1/Leach Field (if present)
	20-005	Septic System				subsurface soil (?-?)	Spade and Scoop					X	X		X			X							Trench 1/Leach Field (if present)
	20-005	Septic System				surface soil (0-12")	Spade and Scoop					X	X		X			X							Trench 2/Leach Field (if present)
	20-005	Septic System				subsurface soil (?-?)	Spade and Scoop					X	X		X			X							Trench 2/Leach Field (if present)
	20-005	Septic System				subsurface soil (?-?)	Spade and Scoop					X	X		X			X							Trench 2/Leach Field (if present)
	20-005	Septic System				surface soil (0-12")	Spade and Scoop					X	X		X			X							Trench 3/Leach Field (if present)
	20-005	Septic System				subsurface soil (?-?)	Spade and Scoop					X	X		X			X							Trench 3/Leach Field (if present)
	20-005	Septic System				subsurface soil (?-?)	Spade and Scoop					X	X		X			X							Trench 3/Leach Field (if present)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System		Duplicate		subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System		Perf. Eval.		subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System		Rinsate		subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	20-005	Septic System				subsurface soil (4.5'-5.0')	Hand or Hollow-Stem Auger					X	X		X			X							Random (no Leach Field or Discharge Pipe)
	53-012(e)	Outfall				surface sediment (0-12")	Hand Auger					X			X	X	X							X	Sediment Catchment 1
	53-012(e)	Outfall				12" mid-depth (if possible)	Hand Auger					X			X	X	X							X	Sediment Catchment 1
	53-012(e)	Outfall				12" above bedrock	Hand Auger					X			X	X	X							X	Sediment Catchment 1
	53-012(e)	Outfall				surface sediment (0-12")	Hand Auger					X			X	X	X							X	Sediment Catchment 2
	53-012(e)	Outfall				12" mid-depth (if possible)	Hand Auger					X			X	X	X							X	Sediment Catchment 2
	53-012(e)	Outfall				12" above bedrock	Hand Auger					X			X	X	X							X	Sediment Catchment 2
	53-012(e)	Outfall				surface sediment (0-12")	Hand Auger					X			X	X	X							X	Sediment Catchment 3

Sample No.	PRS #	PRS Type	Sample Location	SAMPLE & ANALYSIS PLAN, OU1100					Moth Chem Lab			Field Screen	Field Screen	Laboratory Analysis											Location
				QA/QC Type	Related Sample	Matrix Type / Depth	Technique	Location ID	Metals	HE	SVOC	Rad	HE	HE	Metals	PCB	TPH	Cyanide	Sr-90	U iso	U tot	SVOC	γ	VOCs	
	63-012(e)	Outfall				12" mid-depth (if possible)	Hand Auger					X			X	X	X							X	Sediment Catchment 3
	63-012(e)	Outfall				12" above bedrock	Hand Auger					X			X	X	X							X	Sediment Catchment 3