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JUN 23 1994

William Honker, Chief
RCRA Permits Branch
Hazardous Waste Management Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Mr. Honker:

Enclosed are two copies of the Quarterly Technical Report for January-March 1994 for the Environmental Restoration (ER) Program at the Los Alamos National Laboratory.

If you have questions, please ask your staff to call me at (505) 665-7203.

Sincerely,

Theodore J. Taylor
Program Manager
Environmental Restoration Program

Enclosure

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LA-UR-94-1944

Los Alamos National Laboratory

Environmental Restoration

A Department of Energy environmental cleanup program

QUARTERLY TECHNICAL REPORT

JANUARY–MARCH 1994

June 22, 1994

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LIST OF ACRONYMS AND ABBREVIATIONS

ADS	Activity data sheet
AOC	Area of concern
CST	Chemical Science and Technology (Division)
CST-9	Environmental Chemistry Group
DOE	US Department of Energy
ENG	Facilities Engineering (Division)
ESH	Environment, Safety, and Health (Division)
EPA	US Environmental Protection Agency
ER	Environmental restoration
FIMAD	Facility for Information Management, Analysis, and Display
FY	Fiscal year
GPR	Ground-penetrating radar
HSWA	Hazardous and Solid Waste Amendments
ICPES	Inductively coupled plasma emission spectrometry
JCI	Johnson Controls World Services Inc.
LANL	Los Alamos National Laboratory
LOD	Limit of detection
MDA	Material disposal area
NMED	New Mexico Environment Department
NPDES	National pollutant discharge elimination system
OU	Operable unit
PCB	Polychlorinated biphenyl
ppb	parts per billion
ppm	parts per million
PRS	Potential release site
RCRA	Resource Conservation and Recovery Act
RFI	RCRA facility investigation
SAL	Screening action level
SOP	Standard operating procedure
SVOC	Semivolatile organic compound
SWMU	Solid waste management unit
TA	Technical area
TPH	Total petroleum hydrocarbons
UST	Underground storage tank
VOC	Volatile organic compound

QUARTERLY TECHNICAL REPORT
JANUARY–MARCH 1994
LOS ALAMOS NATIONAL LABORATORY
ENVIRONMENTAL RESTORATION PROGRAM

ALBUQUERQUE OPERATIONS OFFICE

CONTRACTOR: University of California

PROGRAM MANAGER (acting): David McInroy

NUMBER OF POTENTIAL RELEASE SITES (sampling sites): Approximately 1,700, of which approximately 1,100 are solid waste management units

SUSPECT WASTE: Radionuclides, High Explosives, Metals, Solvents, Organics

1.0 INTRODUCTION

This quarterly report describes the technical status of activities in the Los Alamos National Laboratory (the Laboratory) Environmental Restoration (ER) Program. Each activity is identified by an activity data sheet (ADS) number, a brief title describing the activity or the technical area (TA) where the activity is located, and the name of the project leader. The Hazardous and Solid Waste Amendments (HSWA) portion of the facility operating permit (Section P, Task III, c) requires the submission of a technical progress report on a quarterly basis. This report, submitted to fulfill the permit's requirement, summarizes the work performed and the results of sampling and analysis in the ER Program.

The data provided in this report have not been validated. These data are considered "reviewed data."

In the summary tables of this report, each individual measurement was classified as being either above or below the limit of detection (LOD) for that analyte. The LOD varies for analytes and for individual measurements. For analytes with measured values above the LOD, the range of concentration is given. For analytes for which no values above the LOD were observed, the LOD range is given. Screening action levels (SALs) have been developed for many, but not all, analytes. The SALs are explained in the Installation Work Plan for Environmental Restoration, Revision 3 (LANL 1993, 1017). Some of the data tables in this report provide comparisons of the analytical data with the SALs. The comparison process placed each value in one of four categories: (1) values equal to or above SAL, (2) values below SAL, (3) values where the SAL and the measured value are below the LOD, and (4) values below the LOD, with the LOD above SAL.

2.0 ACTIVITY DATA SHEETS

2.1 ADS 1049—Canyons (Project Leader: Everett Springer)

Data archival activities continued at Operable Unit (OU) 1049. The first set of data was transferred to the Facility for Information Management, Analysis, and Display (FIMAD). Other activities included the completion of the FY94 Baseline and participation in the quarterly ER public meetings held March 15, 16, and 17.

2.2 ADS 1071—TAs-0, -19, -26, -73, -74 (Project Leader: Jim Aldrich)

The primary focus for OU 1071 during this past quarter has been to prepare for and to initiate fieldwork at several solid waste management units (SWMUs).

SWMU Group 0-3: A readiness review was held in January for fieldwork at Septic Tanks 0-030(c), (e), (f), and (q). Fieldwork was initiated at Septic Tanks 0-030(c), (f), and (q) in February and included

geophysical and geodetic surveying. Fieldwork continued in March and included pre-characterization sampling at locations (c), (f), and (q). Analytical results from pre-characterization samples have not yet been received. Preparation of the section materials continued for the phase report for Septic Tank 0-030(g).

Bandelier National Monument: A readiness review was held in March for fieldwork at four former borrow pits, a surface disposal, and a former landfill site. A removal plan for Borrow Pit No. 2 and sampling and analysis plans for Borrow Pits Nos. 1, 3, and 4, the surface disposal, and the landfill site were initiated.

SWMU Group 0-4: A readiness review was held in January for fieldwork at the former motorpool. Field activities, which began in February, have included the removal of three underground storage tanks (USTs) and two concrete junction boxes that were previously thought to be waste pits. Two of the USTs that were removed were 10,000-gallon tanks that most recently contained gasoline. The third UST was a 1,500-gallon tank used for storage of used motor oil. Results received to date for chemical analyses on samples taken from UST excavation soils are presented in Table 2-1, which is based on the FIMAD database as of March 24, 1994 (see Section 1.0 for an explanation of the summary table). Coring has been started at grease pits and waste pits in Building 1.

SWMU 0-016: After a winter hiatus, field activities resumed in March to prepare for soil-washing at the inactive firing range. Public tours of the site were conducted in mid-March. Additional portions of the soil-washing equipment were moved to the site in late March.

SWMU Group 73-1: A readiness review was conducted in January for fieldwork at the airport landfill. Preparations were made for fieldwork scheduled to begin in the next quarter, including geodetic, geophysical, and soil gas surveys; borehole drilling and sampling; and well completion for lysimeter, soil gas monitoring, and soil vapor monitoring.

SWMU Aggregate 0-D: Analyses for high explosives and target analyte list metals for areas 0-011 (a) and (e) were received and are presented in Table 2-1. The phase report for the ordnance impact areas was completed and submitted to the US Department of Energy (DOE).

TABLE 2-1

SUMMARY OF OU 1071 SOIL SAMPLES

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
00-031(b) UST-1												
Benzene	2				0.67	mg/kg	2	0.005	0.005		2	
Ethylbenzene	2				3,100	mg/kg	2	0.005	0.005		2	
Toluene	2				890	mg/kg	2	0.005	0.005		2	
TPH	2					mg/kg	2	1	1			
Xylenes (o + m + p) (Mixed-)	2				160,000	mg/kg	2	0.005	0.005		2	
00-031(b) UST-2												
Benzene	2				0.67	mg/kg	2	0.005	0.005		2	
Ethylbenzene	2				3,100	mg/kg	2	0.005	0.005		2	
Toluene	2				890	mg/kg	2	0.005	0.005		2	
TPH	2	2	3	5		mg/kg						
Xylenes (o + m + p) (Mixed-)	2				160,000	mg/kg	2	0.005	0.005		2	
00-011(a)												
Aluminum	20	20	5,100	17,000		mg/kg						
Antimony	20				32	mg/kg	20	0.1	0.1		20	
Arsenic	20	20	1.7	3.9	0.4	mg/kg				20		
Barium	20	20	44	180	5,600	mg/kg					20	
Beryllium	20	20	0.41	1.2	0.16	mg/kg				20		
Cadmium	20				80	mg/kg	20	0.4	0.4		20	
Calcium	20	20	750	2,200		mg/kg						
Chromium	20	20	5	12	400	mg/kg					20	
Cobalt	20	20	3	8.8		mg/kg						
Copper	20	20	2.4	8.2	3,000	mg/kg					20	
Dinitrobenzene [1,3-]	19				8	mg/kg	19	0.0003	0.0003		19	
Dinitrotoluene [2,4-]	19				1	mg/kg	19	0.0003	0.0003		19	
Dinitrotoluene [2,6-]	19				1	mg/kg	19	0.0003	0.0003		19	
HMX	19				4,000	mg/kg	19	0.002	0.003		19	
Iron	20	20	5,800	14,000		mg/kg						
Lead	20	20	7	29	500	mg/kg					20	

TABLE 2-1

SUMMARY OF OU 1071 SOIL SAMPLES

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Magnesium	20	20	840	2,600		mg/kg						
Manganese	20	20	200	640	8,000	mg/kg					20	
Mercury	57				24	mg/kg	57	0.1	0.1		57	
Nickel	20	20	3.5	10	1,600	mg/kg					20	
Nitrobenzene	19				5.3	mg/kg	19	0.0003	0.0003		19	
Nitrotoluene [m-]	19					mg/kg	19	0.0003	0.0003			
Nitrotoluene [o-]	19					mg/kg	19	0.0003	0.0003			
Nitrotoluene [p-]	19					mg/kg	19	0.0003	0.0003			
Potassium	20	20	620	2,500		mg/kg						
RDX	19				64	mg/kg	19	0.001	0.0012		19	
Selenium	20	19	0.3	0.8	400	mg/kg	1	0.2	0.2			
Silver	20				400	mg/kg	20	1	1		20	
Sodium	20	20	70	100		mg/kg						
Tetryl(methyl-2,4,6-trinitrophenylnitramine)	19				800	mg/kg	19	0.0007	0.0008		19	
Thallium	20	18	0.1	0.3	6.4	mg/kg	2	0.1	0.1		20	
Trinitrobenzene [1,3,5-]	19				4	mg/kg	19	0.0003	0.0003		19	
Trinitrotoluene [2,4,6-]	19				40	mg/kg	19	0.0003	0.0003		19	
Vanadium	20	20	10	24	560	mg/kg					20	
Zinc	20	20	17	41	24,000	mg/kg					20	
00-011(e)												
Aluminum	9	9	610	3,100		mg/kg						
Antimony	10				32	mg/kg	10	0.2	0.2		10	
Arsenic	10	7	0.4	1.1	0.4	mg/kg	3	0.2	0.2	7	3	
Barium	9	9	7.3	24	5,600	mg/kg					9	
Beryllium	9	9	0.09	0.45	0.16	mg/kg				7	2	
Cadmium	9				80	mg/kg	9	0.4	0.4		9	
Calcium	9	9	290	2,200		mg/kg						
Chromium	9	8	0.7	2.5	400	mg/kg	1	0.5	0.5		9	
Cobalt	9	1	0.7	0.7		mg/kg	8	0.5	0.5			
Copper	9	7	0.5	4.6	3,000	mg/kg	2	0.5	0.5		9	
Dinitrobenzene [1,3-]	9				8	mg/kg	9	0.0003	0.0003		9	
Dinitrotoluene [2,4-]	9				1	mg/kg	9	0.0003	0.0003		9	

TABLE 2-1

SUMMARY OF OU 1071 SOIL SAMPLES

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dinitrotoluene [2,6-]	9				1	mg/kg	9	0.0003	0.0003		9	
HMX	9				4,000	mg/kg	9	0.002	0.003		9	
Iron	9	9	2,200	4,200		mg/kg						
Lead	10	10	1.2	8	500	mg/kg					10	
Magnesium	9	9	160	1,000		mg/kg						
Manganese	9	9	67	200	8,000	mg/kg					9	
Mercury	27				24	mg/kg	27	0.1	0.1		27	
Nickel	9				1,600	mg/kg	9	2	2		9	
Nitrobenzene	9				5.3	mg/kg	9	0.0003	0.0003		9	
Nitrotoluene [m-]	9					mg/kg	9	0.0003	0.0003			
Nitrotoluene [o-]	9					mg/kg	9	0.0003	0.0003			
Nitrotoluene [p-]	9					mg/kg	9	0.0003	0.0003			
Potassium	9	7	320	610		mg/kg	2	70	70			
RDX	9				64	mg/kg	9	0.001	0.001		9	
Selenium	10		0.2	0.2	400	mg/kg	10				10	
Silver	9				400	mg/kg	9	1	1		9	
Sodium	9	9	58	430		mg/kg						
Tetryl(methyl-2,4,6-trinitrophenylnitramine)	9				800	mg/kg	9	0.0007	0.0008		9	
Thallium	10				6.4	mg/kg	10	0.2	0.2		10	
Trinitrobenzene [1,3,5-]	9				4	mg/kg	9	0.0003	0.0003		9	
Trinitrotoluene [2,4,6-]	9				40	mg/kg	9	0.0003	0.0003		9	
Vanadium	9	8	2.3	4.5	560	mg/kg	1	0.5	0.5		9	
Zinc	9	9	18	80	24,000	mg/kg					9	
Total Number of Values	1,083	508					575			54	718	0

2.3 ADS 1078—TA-1 (Project Leader: Carl Newton)

The Western Sanitary Waste Line, Potential Release Sites (PRSs) 1-001 (s and u), was investigated during February and March 1994. The primary objective of the investigation was to locate the waste line and/or the surrounding trench and to characterize trench-fill soils to address waste management and waste minimization issues should large-scale excavations along the waste line be necessary at a future date.

Field activities began on February 2, 1994, with geophysical surveys conducted at locations shown on Figures 2-1 and 2-2. Surveys were conducted with geophysical instruments to determine the position and depth of the waste line, manholes, and trench boundaries where the line was installed. These locations were surveyed with an electromagnetic induction instrument and a ground-penetrating radar unit. In areas where the waste line is believed to be constructed of cast iron, a magnetometer was also used. Each site was first scanned with a radiodetection unit to locate active power and communication lines, which could give anomalous geophysical signals.

Upon completion of the geophysical surveys, drilling and trenching operations were conducted at Western Sanitary Waste Line Locations 13, 8, 2, and 1A (see Figures 2-1 and 2-2). The objective of these operations was to physically locate the trench and to obtain samples of trench-fill material from locations adjacent to and immediately beneath the waste line. All borehole and trench materials were screened for radioactivity and organic compounds. The majority of radiation field-screening results indicated gross alpha, -beta, and -gamma levels at background values. No volatile organic compounds (VOCs) were detected with field instruments. Results of X-ray fluorescence (XRF) analysis of investigation-derived materials indicate no elevated levels of inorganic constituents.

At Location 13, directly west of the Los Alamos Inn, trench-fill materials were field-screened and sampled; no elevated levels of radioactivity were present. At Location 8, drilling refusal was encountered in a number of boreholes, and samples were collected from trench-fill materials immediately adjacent to the presumed location of a manhole in the waste line. At Location 2, 15 boreholes were drilled in transects oriented perpendicular to the presumed location of the cast-iron section of the waste line. No indication of the waste line or trench-fill material was encountered, leading to the conclusion that this section of the line may have been removed during the construction of the Timber Ridge Condominiums. Drilling and trenching activities conducted at Location 1A resulted in the discovery of the waste line and a manhole (Manhole No. 52). At Location 1A, approximately 12 feet of the waste line was exposed and was found to be intact. Manhole No. 52 is constructed of brick and concrete and is intact except for the upper rim, which was broken off; the inlet and outlet were found to be plugged with concrete. A section of the waste line, adjacent to the manhole, was excavated and intentionally broken for the purpose of installing an assembly for drawing air samples through a surface port connected to the waste line. The intent of this sampling approach was to collect air samples from both the inside of the line and potentially from soil pore gas obtained through any incompetent connections or cracks that may exist in the line. Air samples collected from the port were submitted for VOC analysis. Field screening conducted during a one-hour air-extraction phase showed no indication of the presence of VOCs. A glass-fiber filter was used to collect particulates drawn through a vacuum apparatus. Field screening conducted on the glass-fiber filter initially showed readings of alpha activity up to 13,000 counts per minute (cpm) and beta/gamma activity up to 9,600 cpm. A time-series of readings was conducted on the filter with alpha and beta/gamma field instruments. Immediate degeneration in activity was observed, and after 48 hours, the readings on the filter were at background values. Thus, the initially elevated levels of radioactivity have been attributed to the accumulation of short-lived radon daughters (e.g., polonium-214, bismuth-214, and lead-214) onto the filter.

OU 1078 radiological-screening data for 1993 are provided in Table 2-2. Biased sampling done on the hillsides provided soil sample results for Hillside 138 that exceeded gross activity data from previous sampling events. For Hillside 140, the results indicated no new maxima for gross activities when compared with 1992 results.

A summary of inorganic data for TA-1 is provided in Table 2-3 (see Section 1.0 for an explanation of this summary table). Hillsides 138 and 140 inorganics results from the 1993 biased soil sampling support the reanalysis data for the 1992 antimony samples and therefore call into question the 1992 results, which

had some samples exceeding SALs. All antimony results from 1993 sampling are consistent with reanalysis results of the 1992 samples that initially exceeded SALs, but did not upon reanalysis. Reanalysis of the 1992 data for thallium is pending. Mercury, lead, and chromium results from the 1993 sampling are consistent with the 1992 results. The only inorganic results from D-Building that exceed SALs are all within the Laboratory's site-wide background values.

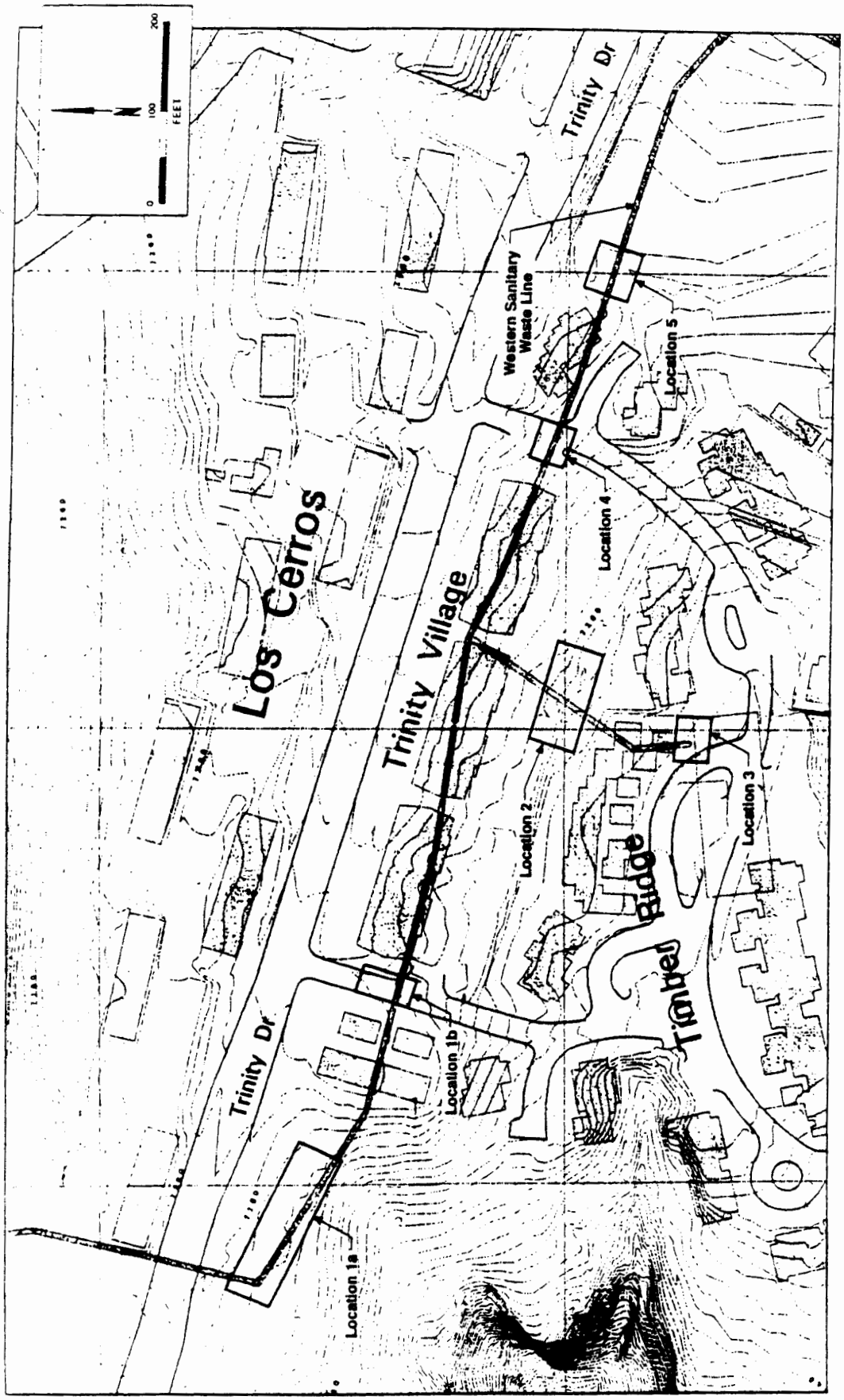

Figure 2-1. Western Sanitary Waste Line, western portion.

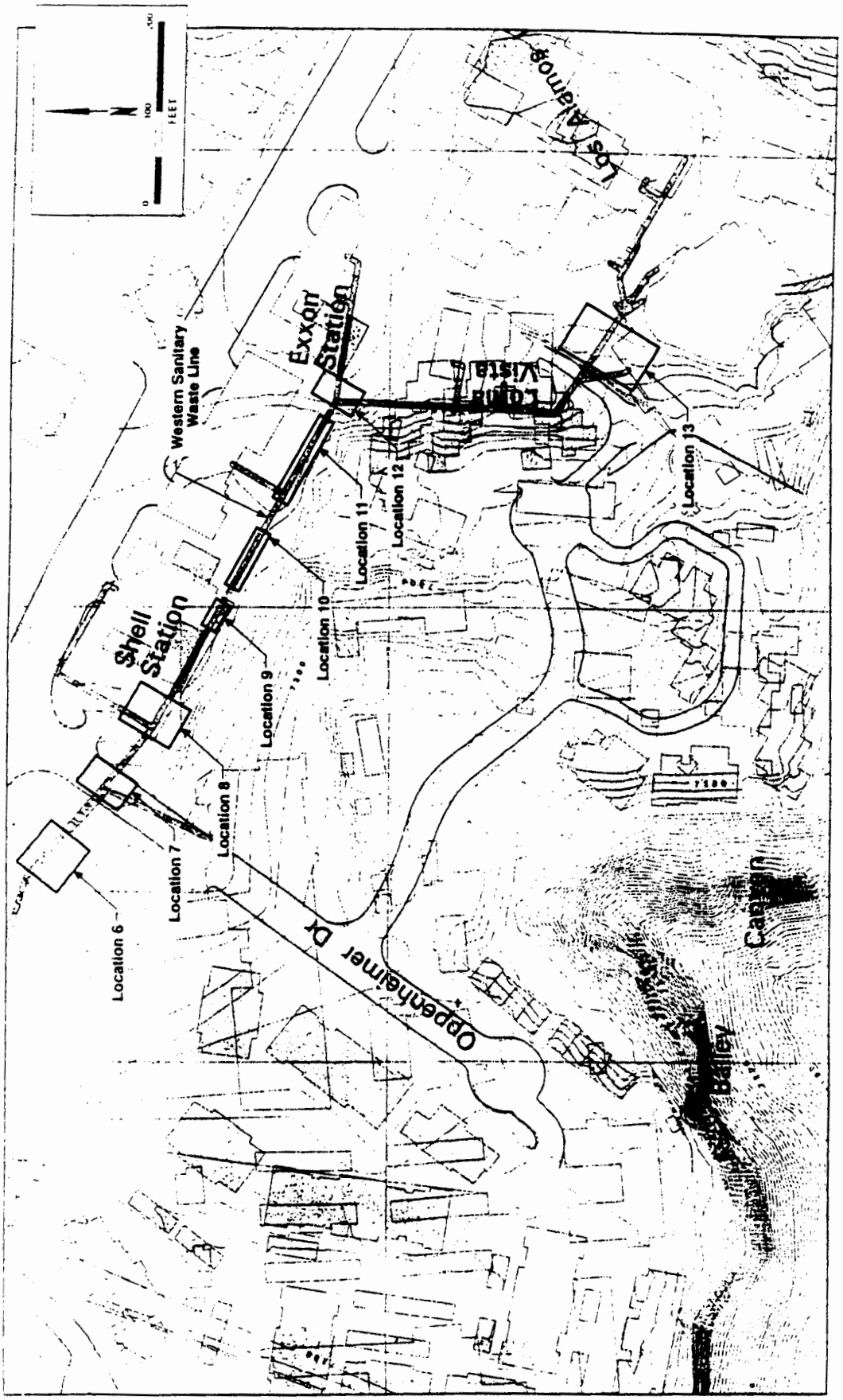

Figure 2-2. Western Sanitary Waste Line, eastern portion.

TABLE 2-2

1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
HILLSIDE 138						
AAA3733	01-5218; 0'-0.5'	Hillside 138	8/16/93	39.2	26.7	1.1
AAA3734	01-5219; 0'-0.5'	Hillside 138	8/16/93	1247.0	77.6	46.4
AAA3735	01-5223; 0'-0.5'	Hillside 138	8/16/93	24.5	15.5	1.2
AAA3736	01-5224; 0'-0.5'	Hillside 138	8/16/93	2887.0	36.1	0.7
AAA3737	01-5225; 0'-0.5'	Hillside 138	8/16/93	316.9	39.9	4.5
AAA3738	01-5229; 0'-0.5'	Hillside 138	8/16/93	249.1	34.9	7.8
AAA3739	01-5230; 0'-0.5'	Hillside 138	8/16/93	1746.0	68.2	11.6
AAA3740	01-5231; 0'-0.5'	Hillside 138	8/16/93	487.4	65.1	21.2
AAA3741	01-5232; 0'-0.5'	Hillside 138	8/16/93	185.6	41.3	11.1
AAA3742	01-5233; 0'-0.5'	Hillside 138	8/16/93	14.2	19.0	1.3
AAA3743	01-5234; 0'-0.5'	Hillside 138	8/16/93	29.5	57.2	0.9
AAA3744	01-5229R; 0'-0.5'	Hillside 138	8/16/93	303.8	38.1	7.5
AAA4773	01-5057; 1'	Hillside 138 Hand Auger	8/18/93	7.5	24.2	1.2
AAA4774	01-5048; 1'	Hillside 138 Hand Auger	8/18/93	103.1	45.5	7.7
AAA4775	01-5049; 1'	Hillside 138 Hand Auger	8/18/93	74.5	40.6	4.3
AAA4776	01-5057R; 1'	Hillside 138 Hand Auger	8/18/93	61.8	31.5	10.1
AAA4777	01-5058; 1'	Hillside 138 Hand Auger	8/18/93	35.5	38.3	2.4
AAA4778	01-5080; 1'	Hillside 138 Hand Auger	8/18/93	476.3	55.7	29.0
AAA4779	01-5086; 1'	Hillside 138 Hand Auger	8/18/93	120.0	46.8	8.8
AAA4780	01-5087; 1'	Hillside 138 Hand Auger	8/18/93	101.1	37.9	9.5
AAA4781	01-5225; 1'	Hillside 138 Hand Auger	8/18/93	35.6	24.4	1.3
AAA4782	01-5230; 1'	Hillside 138 Hand Auger	8/18/93	91.3	38.5	1.3
AAA4783	01-5231; 1'	Hillside 138 Hand Auger	8/18/93	36.6	36.6	3.5
AAA4784	01-5232; 1'	Hillside 138 Hand Auger	8/18/93	19.6	22.8	1.0
AAA4785	01-5233; 1'	Hillside 138 Hand Auger	8/18/93	33.9	20.7	1.9

TABLE 2-2

1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA4786	01-5086R; 1'	Hillside 138 Hand Auger	8/18/93	104.1	35.3	8.0
AAA4787	01-5086; 2'	Hillside 138 Hand Auger	8/18/93	139.5	45.0	6.8
AAA4788	01-5058; 2.5'	Hillside 138 Hand Auger	8/18/93	22.7	28.2	1.6
AAA4789	01-5057; 2.75'	Hillside 138 Hand Auger	8/18/93	86.5	43.4	4.6
AAA3745	01-5201; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	9.6	29.2	1.1
AAA3746	01-5202; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	21.5	28.2	1.5
AAA3747	01-5207; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	114.1	24.4	4.2
AAA3748	01-5208; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	437.5	47.9	10.1
AAA4769	01-5210; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	126.2	44.7	5.3
AAA4770	01-5211; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	20.2	37.3	2.2
AAA4771	01-5212; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	29.6	21.0	2.1
AAA4772	01-5210R; 0'-0.5'	Hillside 138 Cliff Top	8/19/93	291.3	64.0	1.7
HILLSIDE 140						
AAA4801	01-1401; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	13.6	32.8	0.6
AAA4802	01-1402; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	1.1	19.6	0.6
AAA4803	01-1403; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	1.6	32.4	1.1
AAA4804	01-1406; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	26.6	59.8	0.8
AAA4805	01-1408; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	48.6	93.5	1.3
AAA4806	01-1410; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	16.0	47.0	1.5
AAA4807	01-1413; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	30.6	96.5	1.7
AAA4808	01-1414; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	8.5	29.2	1.4
AAA4809	01-1416; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	9.9	23.2	1.0
AAA4810	01-1410R; 0'-0.5'	Hillside 140 Upper 20 ft	8/19/93	14.2	48.1	1.4
AAA4790	01-1098; 1'	Hillside 140 Hand Auger	8/23/93	8.9	40.8	1.2
AAA4791	01-1308; 1'	Hillside 140 Hand Auger	8/23/93	27.3	55.8	0.5
AAA4792	01-1306; 1'	Hillside 140 Hand Auger	8/23/93	34.0	61.4	0.5

TABLE 2-2

1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA4793	01-1301; 1'	Hillside 140 Hand Auger	8/23/93	16.6	44.3	1.0
AAA4794	01-1311; 1'	Hillside 140 Hand Auger	8/23/93	13.5	37.5	0.7
AAA4795	01-1313; 1'	Hillside 140 Hand Auger	8/23/93	34.6	96.2	1.2
AAA4798	01-1304; 1'	Hillside 140 Hand Auger	8/23/93	48.6	105.3	1.2
AAA4799	01-1112; 1'	Hillside 140 Hand Auger	8/23/93	34.8	57.8	0.9
AAA4800	01-1111; 1'	Hillside 140 Hand Auger	8/23/93	34.0	61.7	1.2
D - BUILDING						
AAA1687	01-4005; 24.5'-26.5	LA Inn Geotech Boreholes	1/20/93	1.3	8.7	1.0
AAA1807	01-4005; 74.5'-76.5	LA Inn Geotech Boreholes	1/20/93	6.1	9.7	1.3
AAA1688	01-4060; 0'-2', 4'-6'	LA Inn Parking Lot	3/08/93	2.5	28.3	0.8
AAA1689	01-4061; 8'-12'	LA Inn Parking Lot	3/10/93	15.3	28.8	0.8
AAA1690	01-4062; 6'-10'	LA Inn Parking Lot	3/08/93	5.7	25.4	0.7
AAA1827	01-4063; 4'-8'	LA Inn Parking Lot	3/10/93	3.7	27.8	0.8
AAA1828	01-4064; 2'-4', 10'-12'	LA Inn Parking Lot	3/08/93	4.9	21.6	0.7
AAA1829	01-4064R; 2'-4', 10'-12'	LA Inn Parking Lot	3/08/93	13.5	18.5	0.7
AAA1830	01-4065; 3'-5', 8'-10'	LA Inn Parking Lot	3/08/93	7.6	22.3	0.6
AAA1831	01-4061,62,63,64; 0'-2	LA Inn Parking Lot	3/10/93	6.3	30.5	0.7
AAA1832	01-4061,62,65; 12'-13'	LA Inn Parking Lot	3/10/93	1.6	21.5	0.9
AAA1833	01-4060,63,64; 12'-13'	LA Inn Parking Lot	3/10/93	12.8	18.5	0.8
AAA1834	01-4020; 1'-5'	LA Inn Parking Lot	3/10/93	2.6	21.1	0.6
AAA1835	01-4023; 3'-5', 8'-10'	LA Inn Parking Lot	3/10/93	9.1	19.4	0.5
AAA1836	01-4021; 2'-4', 6'-8'	LA Inn Parking Lot	3/16/93	8.2	14.6	0.7
AAA1837	01-4022; 3'-5', 10'-12'	LA Inn Parking Lot	3/16/93	7.0	11.9	0.6
AAA1838	01-4024; 8'-12'	LA Inn Parking Lot	3/16/93	4.9	16.2	0.8
AAA1839	01-4025; 4'-8'	LA Inn Parking Lot	3/16/93	5.3	12.9	0.5
AAA1840	01-4025R; 4'-8'	LA Inn Parking Lot	3/16/93	0.9	12.6	0.7
AAA1841	01-4026; 4'-8'	LA Inn Parking Lot	3/18/93	9.6	28.7	0.8

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1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA1842	01-4027; 2'-4', 10'-12'	LA Inn Parking Lot	3/18/93	3.7	27.8	0.8
AAA1843	01-4029; 2'-6'	LA Inn Parking Lot	3/18/93	BDL	18.2	0.6
AAA1844	01-4030; 8'-12'	LA Inn Parking Lot	3/18/93	2.2	18.1	0.8
AAA1845	01-4035; 8'-12'	LA Inn Parking Lot	3/16/93	5.8	15.4	0.7
AAA4818	01-4026; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	7.5	18.8	0.8
AAA4819	01-4027; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	3.1	17.1	0.7
AAA4820	01-4028; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	4.1	20.2	0.6
AAA4821	01-4029; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	2.2	19.7	0.8
AAA4822	01-4030; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	1.6	4.7	0.8
AAA4823	01-4032; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	1.0	11.5	0.6
AAA4824	01-4033; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	8.5	10.0	0.6
AAA4825	01-4036; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	9.2	14.4	0.8
AAA4826	01-4037; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	3.1	9.2	0.5
AAA4827	01-4038; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	7.7	15.1	0.7
AAA4828	01-4039; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	1.1	17.7	0.5
AAA4829	01-4040; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	6.0	25.7	0.8
AAA4830	01-4041; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	1.6	18.9	0.6
AAA4831	01-4043; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	6.9	24.5	0.6
AAA4832	01-4044; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	7.9	12.7	0.5
AAA4833	01-4047; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	10.0	12.2	0.8
AAA4834	01-4048; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	8.2	12.9	0.8
AAA4835	01-4049; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	3.1	13.9	0.7
AAA4836	01-4050; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	8.5	22.8	0.6
AAA4837	01-4051; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	3.6	14.0	0.6
AAA4838	01-4052; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	0.2	12.6	0.5
AAA4839	01-4053; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	13.5	20.8	0.5
AAA4840	01-4054; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	5.9	23.0	0.4
AAA4841	01-4055; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	5.2	23.9	0.6
AAA4842	01-4028R; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	7.8	16.3	0.6

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1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA4843	01-4037R; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	BDL	12.6	0.5
AAA4844	01-4040R; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	8.3	18.1	0.8
AAA4845	01-4047R; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	5.2	19.2	0.8
AAA4846	01-4049R; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	1.9	17.7	0.7
AAA4847	01-4054R; 0'-0.5'	D-Bld Stratum I Surface	9/07/93	7.8	26.9	0.4
AAA4848	01-4043,50,51,52,53,54A	D-Bld Surface Composites	9/07/93	0.3	18.0	0.5
AAA4849	01-4043,50,51,52,53,54B	D-Bld Surface Composites	9/07/93	3.7	21.0	0.3
AAA4850	01-4043,50,51,52,53,54C	D-Bld Surface Composites	9/07/93	4.9	17.3	0.5
AAA4851	01-4026,30,33,36,40,48A	D-Bld Surface Composites	9/07/93	4.7	16.5	0.6
AAA4852	01-4026,30,33,36,40,48B	D-Bld Surface Composites	9/07/93	2.9	11.2	0.6
AAA4853	01-4026,30,33,36,40,48C	D-Bld Surface Composites	9/07/93	BDL	21.2	0.7
AAA4854	01-4027,28,29,44,47,49A	D-Bld Surface Composites	9/07/93	1.6	12.8	0.8
AAA4855	01-4027,28,29,44,47,49B	D-Bld Surface Composites	9/07/93	2.6	14.4	0.7
AAA4856	01-4027,28,29,44,47,49C	D-Bld Surface Composites	9/07/93	4.1	10.0	0.8
AAA4857	01-4032,37,38,39,41,55A	D-Bld Surface Composites	9/07/93	0.3	14.9	0.5
AAA4858	01-4032,37,38,39,41,55B	D-Bld Surface Composites	9/07/93	6.7	10.6	0.6
AAA4859	01-4032,37,38,39,41,55C	D-Bld Surface Composites	9/07/93	3.7	21.7	0.6
AAA4860	01-4033 I; 9	D-Bld Stratum I Boreholes	9/09/93	2.5	24.5	0.7
AAA4861	01-4037 I; 7'-9'	D-Bld Stratum I Boreholes	9/09/93	9.7	28.6	0.5
AAA4862	01-4047 I; 1.5'-4.5'	D-Bld Stratum I Boreholes	9/09/93	6.4	30.8	0.8
AAA5276	01-4037R I; 7'-9	D-Bld Stratum I Boreholes	9/09/93	5.8	23.4	0.5
AAA5277	01-4047R I; 1.5'-4.5'	D-Bld Stratum I Boreholes	9/09/93	12.4	23.8	0.8
AAA5278	01-4047 F; 0.75'-2.5'	D-Bld Stratum I Boreholes	9/09/93	9.7	20.3	0.6
AAA5279	01-4047R F; 0.75'-2.5'	D-Bld Stratum I Boreholes	9/09/93	11.7	23.3	0.6
AAA5281	01-4037 T; 13.5'-15'	D-Bld Stratum I Boreholes	9/09/93	2.3	28.0	0.8
AAA5285	01-4036 I; 8.5'-10'	D-Bld Stratum I Boreholes	9/09/93	8.3	30.8	0.8
AAA5288	01-4040 I; 3'-5', 6.5'-7.5'	D-Bld Stratum I Boreholes	9/09/93	3.0	27.8	1.0
AAA5289	01-4041 I; 7.25'-8.75'	D-Bld Stratum I Boreholes	9/09/93	9.6	23.7	0.5

TABLE 2-2

1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA5298	01-4040R I; 3'-5', 6.5'-7.5	D-Bld Stratum I Boreholes	9/09/93	14.3	24.5	1.0
AAA5299	01-4040 F; 1.75'-3'	D-Bld Stratum I Boreholes	9/09/93	10.7	27.2	0.5
AAA5300	01-4036 T; 10.75'-13.25'	D-Bld Stratum I Boreholes	9/09/93	12.4	36.6	0.9
AAA5301	01-4036R T; 10.75'-13.25'	D-Bld Stratum I Boreholes	9/09/93	17.9	34.7	0.9
AAA4863	01-4052 I; 13'-13.75'	D-Bld Stratum I Boreholes	9/13/93	8.3	28.7	0.7
AAA4864	01-4053 I; 2.5'-4'	D-Bld Stratum I Boreholes	9/13/93	3.9	25.4	0.7
AAA4865	01-4026 I; 4.5'-5', 6.25'-7.25'	D-Bld Stratum I Boreholes	9/13/93	5.3	34.0	0.8
AAA4866	01-4027 I; 8.5'-10'	D-Bld Stratum I Boreholes	9/13/93	11.0	31.2	1.1
AAA5274	01-4032 I; 4.5'-5'	D-Bld Stratum I Boreholes	9/13/93	1.1	33.2	0.8
AAA5280	01-4052 F; 3.5'-5'	D-Bld Stratum I Boreholes	9/13/93	1.6	23.5	0.6
AAA5282	01-4052 T; 13.75'-15'	D-Bld Stratum I Boreholes	9/13/93	6.3	27.0	0.8
AAA5283	01-4053 T; 8'-10'	D-Bld Stratum I Boreholes	9/13/93	4.9	26.7	0.9
AAA5284	01-4053R T; 8'-10	D-Bld Stratum I Boreholes	9/13/93	5.2	27.2	0.9
AAA5295	01-4051 I; 8.5'-10'	D-Bld Stratum I Boreholes	9/13/93	9.1	22.5	0.7
AAA5286	01-4038 I; 7.25'-8.75'	D-Bld Stratum I Boreholes	9/15/93	7.5	28.7	0.9
AAA5287	01-4039 I; 3.75'-5'	D-Bld Stratum I Boreholes	9/15/93	4.9	38.2	0.8
AAA5290	01-4043 I; 3.75'-5.25'	D-Bld Stratum I Boreholes	9/15/93	11.0	30.6	0.6
AAA5292	01-4048 I; 6.5'-8'	D-Bld Stratum I Boreholes	9/15/93	12.5	26.7	0.8
AAA5294	01-4050 I; 6.75'-8.25'	D-Bld Stratum I Boreholes	9/15/93	18.0	24.2	1.0
AAA5296	01-4054 I; 9.25'-10.75'	D-Bld Stratum I Boreholes	9/15/93	5.3	28.6	0.8
AAA5304	01-4043 F; 1.5'-3'	D-Bld Stratum I Boreholes	9/15/93	6.5	19.0	0.8
AAA5305	01-4050 F; 1'-2.5'	D-Bld Stratum I Boreholes	9/15/93	8.6	22.8	0.7
AAA5306	01-4038 F; 2.5'-4'	D-Bld Stratum I Boreholes	9/15/93	12.3	25.8	0.8
AAA5307	01-4039 T; 8.5'-10'	D-Bld Stratum I Boreholes	9/15/93	18.5	35.7	0.8
AAA5308	01-4043 T; 8.5'-10'	D-Bld Stratum I Boreholes	9/15/93	4.9	34.2	0.9
AAA5309	01-4043,50,51,52,53,54AI	D-Bld Stratum I Boreholes	9/15/93	5.3	25.9	1.0
AAA5310	01-4043,50,51,52,53,54BI	D-Bld Stratum I Boreholes	9/15/93	7.7	20.1	NC
AAA5311	01-4043,50,51,52,53,54CI	D-Bld Stratum I Boreholes	9/15/93	4.1	36.3	NC

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1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA4867	01-4028 I; 9'-10', 12'-15'	D-Bld Stratum I Boreholes	9/20/93	8.9	34.6	0.9
AAA4868	01-4029 I; 16.5'-17.25'	D-Bld Stratum I Boreholes	9/20/93	7.9	30.3	1.0
AAA5273	01-4030 I; 11.75'-13.75'	D-Bld Stratum I Boreholes	9/20/93	8.5	24.2	0.8
AAA5275	01-4028R I; 9'-10', 12' - 15'	D-Bld Stratum I Boreholes	9/20/93	9.0	25.4	0.9
AAA5291	01-4044 I; 1'-2.5'	D-Bld Stratum I Boreholes	9/20/93	7.1	27.5	1.0
AAA5293	01-4049 I; 3.75'-5', , 8'-9'	D-Bld Stratum I Boreholes	9/20/93	10.8	23.6	0.8
AAA5297	01-4055 I; 7.25'-8.75'	D-Bld Stratum I Boreholes	9/20/93	5.6	30.4	0.6
AAA5302	01-4049R I; 3.75'-5', 8'-9.25'	D-Bld Stratum I Boreholes	9/20/93	16.4	31.6	0.8
AAA5303	01-4030R I; 11.75'-13.75'	D-Bld Stratum I Boreholes	9/20/93	1.6	34.6	0.8
AAA5312	01-4043,50,51,52,53,54AI	D-Bld Stratum I Boreholes	9/21/93	8.9	22.1	0.6
AAA5313	01-4043,50,51,52,53,54BI	D-Bld Stratum I Boreholes	9/21/93	7.7	22.0	0.6
AAA5314	01-4043,50,51,52,53,54CI	D-Bld Stratum I Boreholes	9/21/93	6.4	29.6	0.6
AAA5315	01-4026,30,33,36,40,48AI	D-Bld Stratum I Boreholes	9/21/93	8.5	34.2	0.8
AAA5316	01-4026,30,33,36,40,48BI	D-Bld Stratum I Boreholes	9/21/93	13.0	29.5	0.8
AAA5317	01-4026,30,33,36,40,48CI	D-Bld Stratum I Boreholes	9/21/93	9.9	22.1	0.8
AAA5318	01-4032,37,38,39,41,55AI	D-Bld Stratum I Boreholes	9/21/93	10.2	20.3	0.8
AAA5319	01-4032,37,38,39,41,55BI	D-Bld Stratum I Boreholes	9/21/93	6.6	19.5	0.8
AAA5320	01-4032,37,38,39,41,55CI	D-Bld Stratum I Boreholes	9/21/93	1.9	25.0	0.8
AAA5321	01-4038,40,43,47,50,52AF	D-Bld Stratum I Boreholes	9/21/93	6.6	20.3	0.8
AAA5322	01-4038,40,43,47,50,52BF	D-Bld Stratum I Boreholes	9/21/93	9.6	17.1	0.8
AAA5323	01-4038,40,43,47,50,52CF	D-Bld Stratum I Boreholes	9/21/93	5.7	26.7	0.8
AAA5324	01-4036,37,39,43,52,53AT	D-Bld Stratum I Boreholes	9/21/93	17.6	30.5	0.7
AAA5325	01-4036,37,39,43,52,53BT	D-Bld Stratum I Boreholes	9/21/93	9.1	37.4	0.7
AAA5326	01-4036,37,39,43,52,53CT	D-Bld Stratum I Boreholes	9/21/93	9.7	28.2	0.7
AAA5328	01-4036 I; 12.75'-13.25'	D-Bld Stratum I Boreholes	9/21/93	8.3	30.8	0.8
AAA5329	01-4036 T; 13.75 '-14.25	D-Bld Stratum I Boreholes	9/21/93	12.4	36.6	0.9
AAA5330	01-4039 I; 4.5'-5'	D-Bld Stratum I Boreholes	9/21/93	4.9	38.2	0.8

TABLE 2-2

1993 RADIOLOGICAL SCREENING DATA FOR OU 1078

ER Sample Number	Sample Location and Depth	Aggregate/Area	Sample Date	Alpha pCi/g	Beta pCi/g	Gamma pCi/g
AAA5331	01-4039 T; 8'-8.5'	D-Bld Stratum I Boreholes	9/21/93	18.5	35.7	0.8
AAA5332	01-4050 I; 8.5'-9'	D-Bld Stratum I Boreholes	9/21/93	18.0	24.2	1.0

Notes:

BDL = below detection limit.
F = sample collected from fill only.
I = sample collected from the tuff-fill interface.
NC = not counted.
R = field replicate.
T = sample collected from tuff only.

TABLE 2-3

1993 SUMMARY OF INORGANIC DATA FOR TA-1, OU 1078

Analyte	Number of Values per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD
HILLSIDE 138											
Antimony	37	0			32	mg/kg	37	0.3	3	0	37
Chromium	37	37	3	410	80,000	mg/kg	0			0	37
Lead	37	37	6	310	500	mg/kg	0			0	37
Mercury	37	37	0.4	170	24	mg/kg	0			15	22
HILLSIDE 140											
Antimony	19	0			32	mg/kg	19	0.1	0.3	0	19
Chromium	19	19	1	8	80,000	mg/kg	0			0	19
Lead	19	19	4	40	500	mg/kg	0			0	19
Mercury	19	0			24	mg/kg	19	0.1	0.1	0	19
Thallium	19	1	0.1	0.1	6.4	mg/kg	18	0.1	0.3	0	19
D - BUILDING											
Antimony	127	0			32	mg/kg	127	0.03	1.8	0	127
Arsenic	127	125	0.35	3.3	0.4	mg/kg	2	0.2	0.2	124*	3
Barium	127	116	6.8	130	5,600	mg/kg	11	3	13	0	127
Beryllium	127	53**	0.09	1.2	0.16	mg/kg	74	1.2	3	52*	75
Cadmium	127	1	0.1	0.1	80	mg/kg	126	0.1	1.3	0	127
Chromium	127	118	0.87	17	80,000	mg/kg	9	1.2	3.9	0	127
Lead	127	126	1.4	104	500	mg/kg	1	3	3	0	127
Mercury	127	22	0.02	0.79	24	mg/kg	105	0.02	0.5	0	127
Nickel	127	94	1.2	19	1,600	mg/kg	33	1	1.9	0	127
Selenium	127	51	0.3	1	400	mg/kg	76	0.2	0.25	0	127
Silver	127	10	1.2	23	400	mg/kg	117	1	1.25	0	127
Thallium	127	23	0.093	0.78	6.4	mg/kg	104	0.3	1.3	0	127
Total Number of Values	**1,767**	**889**					**878**			**191**	**1,576**

Notes:

* Values > SAL, but within background range.

** Remaining values < LOD, with LOD > SAL.

2.4 ADS 1079—TAs-10, -31, -32, -45 (Project Leader: Garry Allen)

The primary focus for ADS 1079 has been to prepare for fieldwork scheduled to take place at TA-10 (Bayo Canyon) this summer and to write a phase report for the surface sampling done at TA-45 (Acid Canyon). Plans have been made to locate and remove shrapnel remaining in Bayo Canyon from former firing site activities. These plans have been submitted to the DOE for review and approval.

OU 1079 personnel have completed the first draft of the TA-45 Surface Sampling Phase Report. It is one of the first phase reports to deal with risk assessment issues and is undergoing significant internal review and comment.

Some of the sample analyses have been received from the sampling performed at TA-31 and TA-32 this past summer. All indications so far suggest that TA-31 should be a candidate for no further action. However, TA-32 has numerous samples showing heavy metals above SALs. No results have been received for semivolatile organic compounds (SVOCs) or radiological samples, but the values for mercury and lead that have already been received clearly indicate that TA-32 is a candidate for phase II investigations.

2.5 ADS 1082—TAs-11, -13, -16, -24, -25, -28, -37 (Project Leader: Brad Martin)

Draft Volume II of the Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) work plan for OU 1082 was delivered on schedule in February for informal DOE review. Work continued on draft Volume III of the work plan, which is scheduled for delivery to the US Environmental Protection Agency (EPA) in July 1995. Preparations began for fieldwork at Material Disposal Area (MDA) P.

2.6 ADS 1085—TAs-12, -14, -67 (Project Leader: Scott Kinkead)

Comments have been received from the informal DOE review of the RFI work plan for OU 1085; the comments are being incorporated for the formal DOE review.

2.7 ADS 1086—TA-15 (Project Leader: Scott Kinkead)

Comments have not been received from the EPA on the RFI work plan for OU 1086, which was submitted July 1, 1993. The sample analysis plan and the health and safety plan have been prepared and are being reviewed; the waste management plan is in the final stages of preparation. The results of the long-range alpha detector studies at TA-15 (firing sites E-F, R44, and Ector) were presented in a poster session at the Tucson Waste Management '94 Conference.

2.8 ADS 1093—TA-18 (Project Leader: Gene Gould)

A notice of deficiency on the RFI work plan for OU 1093 was received from the EPA on March 9. A response to the notice was completed within 30 days.

A report presenting the results of a hydrogeologic investigation at the former location of UST TA-18-PL30 was submitted to the New Mexico Environment Department (NMED). A summary of the results is given in Tables 2-4, 2-5, and 2-6. When the tank was removed, soil nearby was analyzed and found to contain total petroleum hydrocarbon (TPH) concentrations above 100 ppm. After subsequent removal of soil and backfill at the excavation, analytical results indicated that some soil still remained above 100 ppm at the bottom of the original excavation.

Two monitoring wells were drilled near the site of the former UST. Soil samples were collected from the boreholes, and water samples were collected from the completed wells. The soil and water samples were analyzed for TPH, benzo-a-pyrene, and naphthalenes. Data from this investigation and additional data from nearby wells were used to prepare the report. From this investigation, the following determinations have been made:

- No measurable concentrations of petroleum-derived contaminants were present in the groundwater beneath or downgradient from the site. However, detection limits for benzo-a-pyrene were higher than the New Mexico water quality standard of 0.7 ppb. The wells will be resampled and the samples analyzed with a method capable of detecting benzo-a-pyrene below 0.7 ppb.

- TPH contamination (i.e., zone of highest contamination) in the subsurface soils appears to be limited to the vicinity immediately beneath and adjacent to the former UST location. Residual concentrations in the bottom of the excavation were previously measured at 200 ppm, but TPH concentrations in soil adjacent to the former excavation, as measured in this investigation, were less than 46 ppm.

- Shallow groundwater occurs in the alluvium at a depth approximately 10 to 20 ft beneath the former UST location and generally flows toward the southeast at a rate of 350 to 1,000 ft/year. Hydraulic conductivity of the aquifer is estimated at 5 ft/day, and flow gradients are approximately 0.04 ft/ft. No perched water is known to exist below the alluvium. The depth of the main aquifer is approximately 800 ft.

- Transmissivity of the shallow aquifer was estimated as 65 ft^2/day, with a storativity of 0.10.

- Examination of the UST after excavation revealed that it was intact and had no visible holes or signs of leakage, suggesting that soil contamination may be more attributable to suspected tank overfill events than to sustained UST leakage.

The field team started preparations for the 1994 field season, which included completion of the waste management plan and the site-specific health and safety plan. Software was obtained for implementing a database for printing field forms and for transferring information to and from FIMAD.

TABLE 2-4

ANALYTICAL RESULTS FOR SOIL SAMPLES AT OU 1093

Boring Number	Sample Number	Depth Interval (ft)	TPH (ppm)	Benzo-a-pyrene (ppb)	Naphthalenes (ppb)
MW-5	AAA-9551	15 to 17	<45.7	<160	<82
	AAA-9552	20 to 22	<34.0	<170	<84
	AAA-9553	25 to 26.5	<33.4	<170	<83
MW-6	AAA-9548	10 to 12	83.1	<170	<86
	AAA-9549	15 to 17	<33.1	<160	<86
	AAA-9550	20 to 22	<35.8	<170	<86

TABLE 2-5

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES AT OU 1093

Well Number	Sample Number	TPH (ppm)	Benzo-a-pyrene (ppb)	Naphthalenes (ppb)
MW-5	AAA-9554	<1	<10	<10
MW-6	AAA-9555	<1	<10	<10
PCO-1	AAA-5984	Data currently unavailable	<2	<2

TABLE 2-6

WATER LEVEL DATA FOR WELLS WITHIN AND NEAR TA-18*

	MW-3		MW-5		MW-6		PCO-1	
Date	Depth to Water	Water Level Elevation	Depth to Water	Water Level Elevation	Depth to Water	Water Level Elevation	Depth to Water	Water Level Elevation
2/22/94							1.1	6,684.3
2/24/94	17.4	6,740.9						
3/27/94			16.5	6,718.7	11.5	6,718.6		

* Measurements are in feet.

2.9 ADS 1098—TAs-2, -41 (Project Leader: Patrick Longmire)

The technical team for OU 1098 prepared for a readiness review for drilling six alluvial characterization boreholes for baseline Phase 1 activities. OU 1098 personnel continue to address the problem of alluvial groundwater contaminated by strontium-90 and cesium-137 within Laboratory boundaries. The groundwater, in some cases, exceeds Laboratory drinking water standards of 8.9 pCi/l for strontium-90 and 120 pCi/l for cesium-137. The sources of contamination are inactive leach fields. There are no new results of groundwater chemistry for this quarter.

2.10 ADS 1100—TA-53 (Project Leader: Gene Gould)

The draft RFI work plan for OU 1100 was submitted for informal DOE review on January 3. Comments were reviewed and incorporated into the work plan, and the revised plan was submitted for formal DOE review on March 21. A formal response was submitted in January to NMED's notice of deficiency for the TA-53 surface impoundments closure plan.

2.11 ADS 1106—TA-21 (Project Leader: Caroline Mason)

The primary focus for ADS 1106 during this past quarter has been to continue data evaluation, to submit two phase reports to the EPA, and to prepare for fieldwork scheduled for next calendar year. Brief summaries of these activities follow:

- Phase Report 1B was submitted to the EPA on January 28, 1994. This report addressed characterization results for 18 PRSs, 16 of which were associated with suspected airborne releases. The remaining two PRSs were associated with the locations of the former filter buildings. All inorganic, organic, and radiological constituent levels at the 18 PRSs were below levels of concern; therefore, the PRSs were recommended for no further action.

- Phase Report 1C was submitted to the EPA on February 28, 1994. This report addressed characterization results for 25 outfalls and septic system PRSs. Based on the RFI data, the recommendation was made for no further action for eight PRSs and further action for three PRSs. For 14 PRSs that represent no immediate threat to human health or the environment, deferral of further action or no further action was recommended until outstanding data are received and/or sampling of adjacent PRSs is completed.

- As a follow-on to FY92 investigations, Outfalls 21-011(k), 21-023(c), and 21-027(a), which were identified as having elevated radionuclide levels, were subjected to more detailed survey and sampling. Surface and near-surface soil samples were collected at each outfall. Shallow boreholes were placed at septic tank locations associated with the outfalls. Radiological survey results for outfalls 21-011(k) and 21-024(i) indicated the need to restrict access in and around contaminated areas. A fence was erected around 21-011(k) contaminated areas in March 1994.

- Analytical results from the soil samples taken during the sampling activities at TA-21 have undergone preliminary data analysis and are presented here in summary form. Included are summaries for the grid extension, MDA T, hot outfalls, NPDES outfalls, and two deep boreholes—LADP-3 and LADP-4.

- Summary statistics are provided in Tables 2-7 through 2-12 (see Section 1.0 for an explanation of these summary tables).

TABLE 2-7

SUMMARY OF SOIL SAMPLES FOR GRID EXTENSION, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	9				4,800	mg/kg	9	0.38	0.7		9	
Acenaphthylene	9					mg/kg	9	0.38	0.7			
Aluminum	22	22	3,290	11,500		mg/kg						
Anthracene	9				24,000	mg/kg	9	0.38	0.7		9	
Antimony	22	8	0.27	0.65	32	mg/kg	14	0.23	0.3		22	
Arsenic	22	18	1	3.2	0.4	mg/kg	4	0.97	1.2	18		4
Barium	22	22	42	207	5,600	mg/kg					22	
Benzo[a]anthracene	9	1	0.82	0.82	0.64	mg/kg	8	0.38	0.45	1	8	
Benzo[a]pyrene	9	1	0.85	0.85	0.1	mg/kg	8	0.38	0.45	1		8
Benzo[b]fluoranthene	9	1	1.4	1.4	0.7	mg/kg	8	0.38	0.45	1	8	
Benzo[g,h,i]perylene	9				44	mg/kg	9	0.38	0.7		9	
Benzo[k]fluoranthene	9	1	1.1	1.1	1.5	mg/kg	8	0.38	0.45		9	
Benzoic acid	9				320,000	mg/kg	9	1.9	3.5		9	
Benzyl alcohol	9					mg/kg	9	0.38	0.7			
Beryllium	22	22	0.34	0.81	0.16	mg/kg				22		
Bis(2-chloroethoxy)methane	9					mg/kg	9	0.38	0.7			
Bis(2-chloroethyl)ether	9				0.12	mg/kg	9	0.38	0.7			9
Bis(2-chloroisopropyl)ether	9				100	mg/kg	9	0.38	0.7		9	
Bis(2-ethylhexyl)phthalate	9				50	mg/kg	9	0.38	0.7		9	
Bromophenylphenyl ether [4-]	9					mg/kg	9	0.38	0.7			
Butyl benzyl phthalate	9				16,000	mg/kg	9	0.38	0.7		9	
Cadmium	22	8	0.72	1.3	80	mg/kg	14	0.7	0.88		22	
Calcium	22	22	1,160	6,870		mg/kg						
Chloro-3-methylphenol [4-]	9				16,000	mg/kg	9	0.38	0.7		9	
Chloroaniline [4-]	9				320	mg/kg	9	0.38	0.7		9	
Chloronaphthalene [2-]	9				6,400	mg/kg	9	0.38	0.7		9	
Chlorophenol [o-]	9				400	mg/kg	9	0.38	0.7		9	
Chlorophenylphenyl ether [4-]	9					mg/kg	9	0.38	0.7			
Chromium	22	22	2.3	9.7	400	mg/kg					22	
Chrysene	9	2	0.41	1	22	mg/kg	7	0.38	0.45		9	
Cobalt	22	14	2.4	7.7		mg/kg	8	2.1	2.6			
Copper	22	22	1.8	26.3	3,000	mg/kg					22	
Di-n-butyl phthalate	9				8,000	mg/kg	9	0.38	0.7		9	
Di-n-octyl phthalate	9				1,600	mg/kg	9	0.38	0.7		9	
Dibenzo[a,h]anthracene	9				0.086	mg/kg	9	0.38	0.7			9

TABLE 2-7

SUMMARY OF SOIL SAMPLES FOR GRID EXTENSION, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dibenzofuran	9					mg/kg	9	0.38	0.7			
Dichlorobenzene (1,2) [o-]	9				1,600	mg/kg	9	0.38	0.7		9	
Dichlorobenzene (1,3) [m-]	9				7,200	mg/kg	9	0.38	0.7		9	
Dichlorobenzene (1,4) [p-]	9				290	mg/kg	9	0.38	0.7		9	
Dichlorobenzidine [3,3'-]	9				1.6	mg/kg	9	0.76	1.4		9	
Dichlorophenol [2,4-]	9				240	mg/kg	9	0.38	0.7		9	
Diethyl phthalate	9				64,000	mg/kg	9	0.38	0.7		9	
Dimethyl phthalate	9				800,000	mg/kg	9	0.38	0.7		9	
Dimethylphenol [2,4-]	9				1,600	mg/kg	9	0.38	0.7		9	
Dinitrophenol [2,4-]	9				160	mg/kg	9	1.9	3.5		9	
Dinitrotoluene [2,4-]	9				1	mg/kg	9	0.38	0.7		9	
Dinitrotoluene [2,6-]	9				1	mg/kg	9	0.38	0.7		9	
Fluoranthene	9	2	1.1	2.1	3,200	mg/kg	7	0.38	0.45		9	
Fluorene	9				3,200	mg/kg	9	0.38	0.7		9	
Hexachlorobenzene	9				0.44	mg/kg	9	0.38	0.7		7	2
Hexachlorobutadiene	9				90	mg/kg	9	0.38	0.7		9	
Hexachlorocyclopentadiene	9				560	mg/kg	9	0.38	0.7		9	
Hexachloroethane	9				80	mg/kg	9	0.38	0.7		9	
Indeno[1,2,3-cd]pyrene	9				0.41	mg/kg	9	0.38	0.7		6	3
Iron	22	22	4,500	12,100		mg/kg						
Isophorone	9				7,400	mg/kg	9	0.38	0.7		9	
Lead	22	22	9.9	47	500	mg/kg					22	
Lithium	22	22	2.3	8.8		mg/kg						
Magnesium	22	22	602	2,470		mg/kg						
Manganese	22	22	205	652	8,000	mg/kg					22	
Methyl-4,6-dinitrophenol [2-]	9					mg/kg	9	1.9	3.5			
Methylnaphthalene [2-]	9					mg/kg	9	0.38	0.7			
Methylphenol [2-]	9				4,000	mg/kg	9	0.38	0.7			
Methylphenol [4-]	9				400	mg/kg	9	0.38	0.7		9	
Molybdenum	22				400	mg/kg	22	6.8	8.6		22	
Naphthalene	9				3,200	mg/kg	9	0.38	0.7		9	
Nickel	22	11	3.4	6.8	1,600	mg/kg	11	2.6	3.3		22	
Nitroaniline [2-]	9					mg/kg	9	1.9	3.5			
Nitroaniline [3-]	9					mg/kg	9	1.9	3.5			
Nitroaniline [4-]	9					mg/kg	9	1.9	3.5			

TABLE 2-7

SUMMARY OF SOIL SAMPLES FOR GRID EXTENSION, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Nitrobenzene	9				5.3	mg/kg	9	0.38	0.7		9	
Nitrophenol [2-]	9					mg/kg	9	0.38	0.7			
Nitrophenol [4-]	9					mg/kg	9	1.9	3.5			
Nitrosodi-n-propylamine [N-]	9				0.1	mg/kg	9	0.38	0.7			9
Nitrosodiphenylamine [N-]	9				140	mg/kg	9	0.38	0.7		9	
Pentachlorophenol	9				5.8	mg/kg	9	1.9	3.5		9	
Phenanthrene	9	2	1	1.2		mg/kg	7	0.38	0.45			
Phenol	9				48,000	mg/kg	9	0.38	0.7		9	
Potassium	22	22	419	2,430		mg/kg						
Pyrene	9	2	0.94	1.3	2,400	mg/kg	7	0.38	0.45		9	
Selenium	22	2	0.53	0.64	400	mg/kg	20	0.47	0.6		22	
Silver	22	2	2	2.1	400	mg/kg	20	1.2	1.5		22	
Strontium	22	22	8.7	39.8		mg/kg						
Thallium	22				6.4	mg/kg	22	0.23	0.3		22	
Trichlorobenzene [1,2,4-]	9				160	mg/kg	9	0.38	0.7		9	
Trichlorophenol [2,4,5-]	9				8,000	mg/kg	9	1.9	3.5		9	
Trichlorophenol [2,4,6-]	9				64	mg/kg	9	0.38	0.7		9	
Vanadium	22	22	5.2	22.5	560	mg/kg					22	
Zinc	22	22	21.5	78.9	24,000	mg/kg					22	
Total Number of Values	**1,113**	**405**					**708**			**43**	**715**	**44**

TABLE 2-8

SUMMARY OF SOIL SAMPLES FOR MDA T, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	53				4,800	mg/kg	53	0.34	0.72		53	
Acenaphthylene	53					mg/kg	53	0.34	0.72			
Aluminum	43	43	1,350	18,700		mg/kg						
Anthracene	53				24,000	mg/kg	53	0.34	0.72		53	
Antimony	43	3	0.25	0.27	32	mg/kg	40	0.21	0.25		43	
Arsenic	43	42	1	4.5	0.4	mg/kg	1	0.93	0.93	42		1
Barium	43	43	0.9	261	5,600	mg/kg					43	
Benzo[a]anthracene	53				0.64	mg/kg	53	0.34	0.72		51	2
Benzo[a]pyrene	53				0.1	mg/kg	53	0.34	0.72			53
Benzo[b]fluoranthene	53				0.7	mg/kg	53	0.34	0.72		51	2
Benzo[g,h,i]perylene	53				44	mg/kg	53	0.34	0.72		53	
Benzo[k]fluoranthene	53				1.5	mg/kg	53	0.34	0.72		53	
Benzoic acid	53				320,000	mg/kg	53	1.7	3.6		53	
Benzyl alcohol	53					mg/kg	53	0.34	0.72			
Beryllium	43	41	0.25	124	0.16	mg/kg	2	0.21	0.21	41		2
Bis(2-chloroethoxy)methane	53					mg/kg	53	0.34	0.72			
Bis(2-chloroethyl)ether	53				0.12	mg/kg	53	0.34	0.72			53
Bis(2-chloroisopropyl)ether	53				100	mg/kg	53	0.34	0.72		53	
Bis(2-ethylhexyl)phthalate	53	1	0.44	0.44	50	mg/kg	52	0.34	0.72		53	
Bromophenylphenyl ether [4-]	53					mg/kg	53	0.34	0.72			
Butyl benzyl phthalate	53				16,000	mg/kg	53	0.34	0.72		53	
Cadmium	43	35	0.69	2.2	80	mg/kg	8	0.62	0.72		35	
Calcium	43	43	1,320	7,900		mg/kg						
Chloro-3-methylphenol [4-]	53				16,000	mg/kg	53	0.34	0.72		53	
Chloroaniline [4-]	53				320	mg/kg	53	0.34	0.72		53	
Chloronaphthalene [2-]	53				6,400	mg/kg	53	0.34	0.72		53	
Chlorophenol [o-]	53				400	mg/kg	53	0.34	0.72		53	
Chlorophenylphenyl ether [4-]	53					mg/kg	53	0.34	0.72			
Chromium	43	43	1.8	11.6	400	mg/kg					43	
Chrysene	53				22	mg/kg	53	0.34	0.72		53	
Cobalt	43	38	2.1	8		mg/kg	5	1.9	2.1			
Copper	43	43	2.6	21.8	3,000	mg/kg					43	
Di-n-butyl phthalate	53				8,000	mg/kg	53	0.34	0.72		53	
Di-n-octyl phthalate	53				1,600	mg/kg	53	0.34	0.72		53	
Dibenzo[a,h]anthracene	53				0.086	mg/kg	53	0.34	0.72			53
Dibenzofuran	53					mg/kg	53	0.34	0.72			
Dichlorobenzene (1,2) [o-]	53				1,600	mg/kg	53	0.34	0.72		53	
Dichlorobenzene (1,3) [m-]	53				7,200	mg/kg	53	0.34	0.72		53	
Dichlorobenzene (1,4) [p-]	53				290	mg/kg	53	0.34	0.72		53	

TABLE 2-8

SUMMARY OF SOIL SAMPLES FOR MDA T, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichlorobenzidine [3,3'-]	53				1.6	mg/kg	53	0.44	1.4		53	
Dichlorophenol [2,4-]	53				240	mg/kg	53	0.34	0.72		53	
Diethyl phthalate	53				64,000	mg/kg	53	0.34	0.72		53	
Dimethyl phthalate	53				800,000	mg/kg	53	0.34	0.72		53	
Dimethylphenol [2,4-]	53				1,600	mg/kg	53	0.34	0.72		53	
Dinitrophenol [2,4-]	53				160	mg/kg	53	1.7	3.6		53	
Dinitrotoluene [2,4-]	53				1	mg/kg	53	0.34	0.72		53	
Dinitrotoluene [2,6-]	53				1	mg/kg	53	0.34	0.72		53	
Fluoranthene	53				3,200	mg/kg	53	0.34	0.72		53	
Fluorene	53				3,200	mg/kg	53	0.34	0.72		53	
Hexachlorobenzene	53				0.44	mg/kg	53	0.34	0.72		51	2
Hexachlorobutadiene	53				90	mg/kg	53	0.34	0.72		53	
Hexachlorocyclopentadiene	53				560	mg/kg	53	0.34	0.72		53	
Hexachloroethane	53				80	mg/kg	53	0.34	0.72		53	
Indeno[1,2,3-cd]pyrene	53				0.41	mg/kg	53	0.34	0.72		51	2
Iron	43	43	4,010	15,700		mg/kg						
Isophorone	53				7,400	mg/kg	53	0.34	0.72		53	
Lead	43	43	6.1	22.1	500	mg/kg					43	
Lithium	43	43	2	14.8		mg/kg						
Magnesium	43	43	665	2,690		mg/kg						
Manganese	43	43	118	479	8,000	mg/kg					43	
Methyl-4,6-dinitrophenol [2-]	53					mg/kg	53	1.7	3.6			
Methylnaphthalene [2-]	53					mg/kg	53	0.34	0.72			
Methylphenol [2-]	53				4,000	mg/kg	53	0.34	0.72		53	
Methylphenol [4-]	53				400	mg/kg	53	0.34	0.72		53	
Molybdenum	43				400	mg/kg	43	6	7.4		43	
Naphthalene	53				3,200	mg/kg	53	0.34	0.72		53	
Nickel	43	40	3.1	10.8	1,600	mg/kg	3	2.4	2.6		43	
Nitroaniline [2-]	53					mg/kg	53	1.7	3.6		53	
Nitroaniline [3-]	53					mg/kg	53	1.7	3.6			
Nitroaniline [4-]	53					mg/kg	53	1.7	3.6			
Nitrobenzene	53				5.3	mg/kg	53	0.34	0.72		53	
Nitrophenol [2-]	53					mg/kg	53	0.34	0.72			
Nitrophenol [4-]	53					mg/kg	53	1.7	3.6			
Nitrosodi-n-propylamine [N-]	53				0.1	mg/kg	53	0.34	0.72			53
Nitrosodiphenylamine [N-]	53				140	mg/kg	53	0.34	0.72		53	
Pentachlorophenol	53				5.8	mg/kg	53	1.7	3.6		53	
Phenanthrene	53					mg/kg	53	0.34	0.72			
Phenol	53				48,000	mg/kg	53	0.34	0.72		53	
Potassium	43	43	589	2,350		mg/kg						
Pyrene	53				2,400	mg/kg	53	0.34	0.72		53	

TABLE 2-8

SUMMARY OF SOIL SAMPLES FOR MDA T, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Selenium	43	1	0.7	0.7	400	mg/kg	42	0.41	0.51		43	
Silver	43	2	1.3	1.3	400	mg/kg	41	1	1.3		43	
Strontium	43	43	5.3	32.6		mg/kg						
Thallium	43	1	0.24	0.24	6.4	mg/kg	42	0.21	0.25		43	
Trichlorobenzene [1,2,4-]	53				160	mg/kg	53	0.34	0.72		53	
Trichlorophenol [2,4,5-]	53				8,000	mg/kg	53	1.7	3.6		53	
Trichlorophenol [2,4,6-]	53				64	mg/kg	53	0.34	0.72		53	
Vanadium	43	43	5.6	26	560	mg/kg					43	
Zinc	43	43	17.9	132	24,000	mg/kg					43	
Total Number of Values	**4,477**	**806**								**83**	**3,024**	**223**

TABLE 2-9

SUMMARY OF SOIL SAMPLES FOR HOT OUTFALLS, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Unit	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	15				4,800	mg/kg	15	0.66	0.66		15	
Acenaphthylene	15					mg/kg	15	0.66	0.66			
Anthracene	15				24,000	mg/kg	15	0.66	0.66		15	
Benzo[a]anthracene	15				0.64	mg/kg	15	0.66	0.66			15
Benzo[a]pyrene	15				0.1	mg/kg	15	0.66	0.66			15
Benzo[b]fluoranthene	15				0.7	mg/kg	15	0.66	0.66		15	
Benzo[g,h,i]perylene	15				44	mg/kg	15	0.66	0.66		15	
Benzo[k]fluoranthene	15				1.5	mg/kg	15	0.66	0.66		15	
Benzoic acid	15				320,000	mg/kg	15	3.3	3.3		15	
Benzyl alcohol	15					mg/kg	15	0.66	0.66			
Bis(2-chloroethoxy)methane	15					mg/kg	15	0.66	0.66			
Bis(2-chloroethyl)ether	15				0.12	mg/kg	15	0.66	0.66			15
Bis(2-chloroisopropyl)ether	15				100	mg/kg	15	0.66	0.66		15	
Bis(2-ethylhexyl)phthalate	15	2	1.9	9.2	50	mg/kg	13	0.66	0.66		15	
Bromophenylphenyl ether [4-]	15					mg/kg	15	0.66	0.66			
Butyl benzyl phthalate	15				16,000	mg/kg	15	0.66	0.66		15	
Chloro-3-methylphenol [4-]	15				16,000	mg/kg	15	0.66	0.66		15	
Chloroaniline [4-]	15				320	mg/kg	15	0.66	0.66		15	
Chloronaphthalene [2-]	15				6,400	mg/kg	15	0.66	0.66		15	
Chlorophenol [o-]	15				400	mg/kg	15	0.66	0.66		15	
Chlorophenylphenyl ether [4-]	15					mg/kg	15	0.66	0.66			
Chrysene	15				22	mg/kg	15	0.66	0.66		15	
Di-n-butyl phthalate	15				8,000	mg/kg	15	0.66	0.66		15	
Di-n-octyl phthalate	15				1,600	mg/kg	15	0.66	0.66		15	
Dibenzo[a,h]anthracene	15				0.086	mg/kg	15	0.66	0.66			15
Dibenzofuran	15					mg/kg	15	0.66	0.66			
Dichlorobenzene (1,2) [o-]	15				1,600	mg/kg	15	0.66	0.66		15	
Dichlorobenzene (1,3) [m-]	15				7,200	mg/kg	15	0.66	0.66		15	
Dichlorobenzene (1,4) [p-]	15				290	mg/kg	15	0.66	0.66		15	
Dichlorobenzidine [3,3'-]	15				1.6	mg/kg	15	0.66	0.66		15	
Dichlorophenol [2,4-]	15				240	mg/kg	15	0.66	0.66		15	
Diethyl phthalate	15				64,000	mg/kg	15	0.66	0.66		15	
Dimethyl phthalate	15				800,000	mg/kg	15	0.66	0.66		15	
Dimethylphenol [2,4-]	15				1,600	mg/kg	15	0.66	0.66		15	

TABLE 2-9

SUMMARY OF SOIL SAMPLES FOR HOT OUTFALLS, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Unit	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dinitrophenol [2,4-]	15				160	mg/kg	15	3.3	3.3		15	
Dinitrotoluene [2,4-]	15				1	mg/kg	15	0.66	0.66		15	
Dinitrotoluene [2,6-]	15				1	mg/kg	15	0.66	0.66		15	
Fluoranthene	15				3,200	mg/kg	15	0.66	0.66		15	
Fluorene	15				3,200	mg/kg	15	0.66	0.66		15	
Hexachlorobenzene	15				0.44	mg/kg	15	0.66	0.66			15
Hexachlorobutadiene	15				90	mg/kg	15	0.66	0.66		15	
Hexachlorocyclopentadiene	15				560	mg/kg	15	0.66	0.66		15	
Hexachloroethane	15				80	mg/kg	15	0.66	0.66		15	
Indeno[1,2,3-cd]pyrene	15				0.41	mg/kg	15	0.66	0.66			15
Isophorone	15				7,400	mg/kg	15	0.66	0.66		15	
Methyl-4,6-dinitrophenol [2-]	15					mg/kg	15	3.3	3.3			
Methylnaphthalene [2-]	15					mg/kg	15	0.66	0.66			
Methylphenol [2-]	15				4,000	mg/kg	15	0.66	0.66		15	
Methylphenol [4-]	15				400	mg/kg	15	0.66	0.66		15	
Naphthalene	15				3,200	mg/kg	15	0.66	0.66		15	
Nitroaniline [2-]	15					mg/kg	15	3.3	3.3			
Nitroaniline [3-]	15					mg/kg	15	3.3	3.3			
Nitroaniline [4-]	15					mg/kg	15	3.3	3.3			
Nitrobenzene	15				5.3	mg/kg	15	0.66	0.66		15	
Nitrophenol [2-]	15					mg/kg	15	0.66	0.66			
Nitrophenol [4-]	15					mg/kg	15	3.3	3.3			
Nitrosodi-n-propylamine [N-]	15				0.1	mg/kg	15	0.66	0.66			15
Nitrosodiphenylamine [N-]	15				140	mg/kg	15	0.66	0.66		15	
Pentachlorophenol	15				5.8	mg/kg	15	3.3	3.3		15	
Phenanthrene	15					mg/kg	15	0.66	0.66			
Phenol	15				48,000	mg/kg	15	0.66	0.66		15	
Pyrene	15				2,400	mg/kg	15	0.66	0.66		15	
Trichlorobenzene [1,2,4-]	15				160	mg/kg	15	0.66	0.66		15	
Trichlorophenol [2,4,5-]	15				8,000	mg/kg	15	3.3	3.3		15	
Trichlorophenol [2,4,6-]	15				64	mg/kg	15	0.66	0.66		15	
Total Number of Values	**960**	**2**					**973**			**0**	**660**	**105**

TABLE 2-10

SUMMARY OF SOIL SAMPLES FOR NPDES OUTFALLS, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	27	1	11	11	4,800	mg/kg	26	0.33	1.8		27	
Acenaphthylene	27					mg/kg	27	0.33	4.7			
Acetone	27	6	0.021	0.089	8,000	mg/kg	21	0.02	0.02		27	
Aluminum	27	27	346	21,300		mg/kg						
Anthracene	27	2	0.46	21	24,000	mg/kg	25	0.33	1.8		27	
Antimony	26	1	0.39	0.39	32	mg/kg	25	0.2	0.63		26	
Arsenic	27	15	1.1	13	0.4	mg/kg	12	0.93	2.1	15		12
Barium	27	19	2.5	242	5,600	mg/kg	8	2.1	47.1		27	
Benzene	27				0.67	mg/kg	27	0.005	0.005		27	
Benzo[a]anthracene	27	7	0.42	98	0.64	mg/kg	20	0.33	1.8	3	22	2
Benzo[a]pyrene	27	5	0.44	74	0.1	mg/kg	22	0.33	1.8	5		22
Benzo[b]fluoranthene	27	6	0.37	76	0.7	mg/kg	21	0.33	1.8	3	22	2
Benzo[g,h,i]perylene	27	3	1.3	37	44	mg/kg	24	0.33	1.8		27	
Benzo[k]fluoranthene	27	4	0.55	66	1.5	mg/kg	23	0.33	1.8	3	23	1
Benzoic acid	27				320,000	mg/kg	27	1.6	24		27	
Benzyl alcohol	27					mg/kg	27	0.33	4.7			
Beryllium	27	10	0.23	1.7	0.16	mg/kg	17	0.22	0.41	10		17
Bis(2-chloroethoxy)methane	27					mg/kg	27	0.33	4.7			
Bis(2-chloroethyl)ether	27				0.12	mg/kg	27	0.33	4.7			27
Bis(2-chloroisopropyl)ether	27				100	mg/kg	27	0.33	4.7		27	
Bis(2-ethylhexyl)phthalate	27	6	0.53	10	50	mg/kg	21	0.33	1.8		27	
Bromobenzene	27					mg/kg	27	0.005	0.005			
Bromochloromethane	27					mg/kg	27	0.005	0.005			
Bromodichloromethane	27				11	mg/kg	27	0.005	0.005		27	
Bromoform	27				89	mg/kg	27	0.005	0.005		27	
Bromomethane	27				0.43	mg/kg	27	0.01	0.01		27	
Bromophenylphenyl ether [4-]	27					mg/kg	27	0.33	4.7			
Butanone [2-]	27				4,000	mg/kg	27	0.02	0.02		27	
Butyl benzyl phthalate	27				16,000	mg/kg	27	0.33	4.7		27	
Butylbenzene [n-]	27					mg/kg	27	0.005	0.005			
Butylbenzene [sec-]	27					mg/kg	27	0.005	0.005			
Butylbenzene [tert-]	27					mg/kg	27	0.005	0.005			
Cadmium	27	12	0.73	12.4	80	mg/kg	15	0.6	0.86		27	
Calcium	27	22	207	15,000		mg/kg	5	180	1,240			
Carbon disulfide	27	4	0.009	0.035	7.4	mg/kg	23	0.005	0.005		27	
Carbon tetrachloride	27				0.21	mg/kg	27	0.005	0.005		27	
Chloro-3-methylphenol [4-]	27				16,000	mg/kg	27	0.33	4.7		27	

TABLE 2-10

SUMMARY OF SOIL SAMPLES FOR NPDES OUTFALLS, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Chloroaniline [4-]	27				320	mg/kg	27	0.33	4.7		27	
Chlorobenzene	27				67	mg/kg	27	0.005	0.005		27	
Chlorodibromomethane	27				83	mg/kg	27	0.005	0.005		27	
Chloroethane	27				3,300	mg/kg	27	0.01	0.01		27	
Chloroform	27				0.21	mg/kg	27	0.005	0.005		27	
Chloromethane	27				6.4	mg/kg	27	0.01	0.01		27	
Chloronaphthalene [2-]	27				6,400	mg/kg	27	0.33	4.7		27	
Chlorophenol [o-]	27				400	mg/kg	27	0.33	4.7		27	
Chlorophenylphenyl ether [4-]	27					mg/kg	27	0.33	4.7			
Chlorotoluene [o-]	27					mg/kg	27	0.005	0.005			
Chlorotoluene [p-]	27					mg/kg	27	0.005	0.005			
Chromium	27	24	1.1	184	400	mg/kg	3	0.98	0.98		27	
Chrysene	27	7	0.49	110	22	mg/kg	20	0.33	1.8	1	26	
Cobalt	27	8	2.3	4.3		mg/kg	19	1.8	4.6			
Copper	27	23	0.81	1,900	3,000	mg/kg	4	0.74	2.8		27	
Di-n-butyl phthalate	27	1	0.77	0.77	8,000	mg/kg	26	0.33	4.7		27	
Di-n-octyl phthalate	27				1,600	mg/kg	27	0.33	4.7		27	
Dibenzo[a,h]anthracene	27	3	0.65	16	0.086	mg/kg	24	0.33	1.8	3		24
Dibenzofuran	27	1	5.8	5.8		mg/kg	26	0.33	1.8			
Dibromo-3-chloropropane [1,2-]	27					mg/kg	27	0.01	0.01			
Dibromoethane [1,2-]	27					mg/kg	27	0.005	0.005			
Dibromomethane	27					mg/kg	27	0.005	0.005			
Dichlorobenzene (1,2) [o-]	54	1	0.15	0.15	1,600	mg/kg	53	0.005	4.7		54	
Dichlorobenzene (1,3) [m-]	54				7,200	mg/kg	54	0.005	4.7		54	
Dichlorobenzene (1,4) [p-]	54				290	mg/kg	54	0.005	4.7		54	
Dichlorobenzidine [3,3'-]	27				1.6	mg/kg	27	0.66	9.4		25	2
Dichlorodifluoromethane	27					mg/kg	27	0.01	0.01			
Dichloroethane [1,1-]	27				410	mg/kg	27	0.005	0.005		27	
Dichloroethane [1,2-]	27				0.2	mg/kg	27	0.005	0.005		27	
Dichloroethene [1,1-]	27				0.4	mg/kg	27	0.005	0.005		27	
Dichloroethene [trans-1,2-]	27				1,600	mg/kg	27	0.005	0.005		27	
Dichloroethylene [cis-1,2-]	27				800	mg/kg	27	0.005	0.005		27	
Dichlorophenol [2,4-]	27				240	mg/kg	27	0.33	4.7		27	
Dichloropropane [1,2-]	27				6.5	mg/kg	27	0.005	0.005		27	
Dichloropropane [1,3-]	27	1	0.18	0.18		mg/kg	26	0.005	0.005			
Dichloropropane [2,2-]	27					mg/kg	27	0.005	0.005			

TABLE 2-10

SUMMARY OF SOIL SAMPLES FOR NPDES OUTFALLS, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [1,1-]	27					mg/kg	27	0.005	0.005			
Dichloropropene [cis-1,3-]	27				0.17	mg/kg	27	0.005	0.005		27	
Dichloropropene [trans-1,3-]	27				0.17	mg/kg	27	0.005	0.005		27	
Diethyl phthalate	27				64,000	mg/kg	27	0.33	4.7		27	
Dimethyl phthalate	27				800,000	mg/kg	27	0.33	4.7		27	
Dimethylphenol [2,4-]	27				1,600	mg/kg	27	0.33	4.7		27	
Dinitrophenol [2,4-]	27				160	mg/kg	27	1.6	24		27	
Dinitrotoluene [2,4-]	27				1	mg/kg	27	0.33	4.7		25	2
Dinitrotoluene [2,6-]	27				1	mg/kg	27	0.33	4.7		25	2
Ethylbenzene	27				3,100	mg/kg	27	0.005	0.005		27	
Ethylene dibromide	27					mg/kg	27	0.005	0.005			
Fluoranthene	27	10	0.43	320	3,200	mg/kg	17	0.33	1.8		27	
Fluorene	27	1	11	11	3,200	mg/kg	26	0.33	1.8		27	
Hexachlorobenzene	27				0.44	mg/kg	27	0.33	4.7		21	6
Hexachlorobutadiene	27				90	mg/kg	27	0.33	4.7		27	
Hexachlorocyclopentadiene	27				560	mg/kg	27	0.33	4.7		27	
Hexachloroethane	27				80	mg/kg	27	0.33	4.7		27	
Hexanone [2-]	27					mg/kg	27	0.02	0.02			
Indeno[1,2,3-cd]pyrene	27	3	1.3	38	0.41	mg/kg	24	0.33	1.8	3	15	9
Iron	27	27	580	20,800		mg/kg						
Isophorone	27				7,400	mg/kg	27	0.33	4.7		27	
Isopropylbenzene	27					mg/kg	27	0.005	0.005			
Isopropyltoluene [4-]	27					mg/kg	27	0.005	0.005			
Lead	27	27	1.9	392	500	mg/kg					27	
Lithium	27	17	1.7	18.3		mg/kg	10	2.8	7.4			
Magnesium	27	18	54.6	3,010		mg/kg	9	117	941			
Manganese	27	27	55.2	186	8,000	mg/kg					27	
Methyl iodide	27					mg/kg	27	0.005	0.005			
Methyl-2-pentanone [4-]	27				510	mg/kg	27	0.02	0.02		27	
Methyl-4,6-dinitrophenol [2-]	27					mg/kg	27	1.6	24			
Methylene chloride	27				5.6	mg/kg	27	0.005	0.005		27	
Methylnaphthalene [2-]	27					mg/kg	27	0.33	4.7			
Methylphenol [2-]	27				4,000	mg/kg	27	0.33	4.7		27	
Methylphenol [4-]	27				400	mg/kg	27	0.33	4.7		27	
Molybdenum	27	3	7.2	15.7	400	mg/kg	24	5.8	8.5		27	
Naphthalene	27				3,200	mg/kg	27	0.33	4.7		27	
Nickel	27	17	2.8	21.1	1600	mg/kg	10	2.2	4.2		27	

TABLE 2-10

SUMMARY OF SOIL SAMPLES FOR NPDES OUTFALLS, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Nitroaniline [2-]	27					mg/kg	27	1.6	24			
Nitroaniline [3-]	27					mg/kg	27	1.6	24			
Nitroaniline [4-]	27					mg/kg	27	1.6	24			
Nitrobenzene	27				5.3	mg/kg	27	0.33	4.7		27	
Nitrophenol [2-]	27					mg/kg	27	0.33	4.7			
Nitrophenol [4-]	27					mg/kg	27	1.6	24			
Nitrosodi-n-propylamine [N-]	27				0.1	mg/kg	27	0.33	4.7			27
Nitrosodiphenylamine [N-]	27				140	mg/kg	27	0.33	4.7		27	
Pentachlorophenol	27				5.8	mg/kg	27	1.6	24		25	2
Phenanthrene	27	6	0.42	160		mg/kg	21	0.33	1.8			
Phenol	27				48,000	mg/kg	27	0.33	4.7		27	
Potassium	27	13	286	2,070		mg/kg	14	225	718			
Propylbenzene	27					mg/kg	27	0.005	0.005			
Pyrene	27	9	0.47	230	2,400	mg/kg	18	0.33	1.8		27	
Selenium	27	3	0.53	0.6	400	mg/kg	24	0.4	0.58		27	
Silver	27				400	mg/kg	27	1	1.5		27	
Strontium	27	18	0.97	68.2		mg/kg	9	1.6	18.5			
Styrene	27				16,000	mg/kg	27	0.005	0.005		27	
Tetrachloroethane [1,1,1,2-]	27					mg/kg	27	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	27				3.9	mg/kg	27	0.005	0.005		27	
Tetrachloroethylene	27				5.9	mg/kg	27	0.005	0.005		27	
Thallium	27	2	0.33	0.38	6.4	mg/kg	25	0.2	0.28		27	
Toluene	27				890	mg/kg	27	0.005	0.005		27	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	27					mg/kg	27	0.005	0.005			
Trichlorobenzene [1,2,4-]	27				160	mg/kg	27	0.33	4.7		27	
Trichloroethane [1,1,1-]	27				1,000	mg/kg	27	0.005	0.005		27	
Trichloroethane [1,1,2-]	27				6.3	mg/kg	27	0.005	0.005		27	
Trichloroethene	27				3.2	mg/kg	27	0.005	0.005		27	
Trichlorofluoromethane	27					mg/kg	27	0.005	0.005			
Trichlorophenol [2,4,5-]	27				8,000	mg/kg	27	1.6	24		27	
Trichlorophenol [2,4,6-]	27				64	mg/kg	27	0.33	4.7		27	
Trichloropropane [1,2,3-]	27					mg/kg	27	0.005	0.005			
Trimethylbenzene [1,2,4-]	27					mg/kg	27	0.005	0.005			
Trimethylbenzene [1,3,5-]	27					mg/kg	27	0.005	0.005			
Vanadium	27	18	3.1	27	560	mg/kg	9	1.2	9.9		27	
Vinyl chloride	27				0.012	mg/kg	27	0.01	0.01		27	
Xylenes (o + m + p) [Mixed-]	27				160,000	mg/kg	27	0.005	0.005		27	
Zinc	27	27	16.2	3020	24,000	mg/kg					27	
Total Number of Values	4,076	465					3,611			46	2,394	157

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	Soil	4				4,800	mg/kg	4	0.36	0.4		4	
Acenaphthene	Water	2				2,100	µg/l	2	10	10		2	
Acenaphthylene	Soil	4					mg/kg	4	0.36	0.4			
Acenaphthylene	Water	2					µg/l	2	10	10			
Acetone	Soil	5	1	0.026	0.026	8,000	mg/kg	4	0.02	0.024		5	
Acetone	Water	1				3,500	µg/l	1	20	20		1	
Aluminum	Soil	1	1	3,330	3,330		mg/kg						
Aniline	Soil	3					mg/kg	3	0.36	0.4			
Aniline	Water	2					µg/l	2	10	10			
Anthracene	Soil	4				24,000	mg/kg	4	0.36	0.4		4	
Anthracene	Water	2				10,000	µg/l	2	10	10		2	
Antimony	Soil	1				32	mg/kg	1	0.24	0.24		1	
Arsenic	Soil	1				0.4	mg/kg	1	0.95	0.95			1
Azobenzene	Soil	4					mg/kg	4	0.36	0.4			
Azobenzene	Water	2					µg/l	2	10	10			
Barium	Soil	1				5,600	mg/kg	1	28.4	28.4		1	
Benzene	Soil	5				0.67	mg/kg	5	0.005	0.006		5	
Benzene	Water	1				5	µg/l	1	5	5			1
Benzidine [m-]	Water	2					µg/l	2	10	10			
Benzoic acid	Soil	4				320,000	mg/kg	4	1.7	1.9		4	
Benzoic acid	Water	2				140,000	µg/l	2	10	10		2	
Benzo[a]anthracene	Soil	4				0.64	mg/kg	4	0.36	0.4		4	
Benzo[a]anthracene	Water	2				0.1	µg/l	2	10	10			2
Benzo[a]pyrene	Soil	4				0.1	mg/kg	4	0.36	0.4			4
Benzo[a]pyrene	Water	2				0.2	µg/l	2	10	10			2
Benzo[b]fluoranthene	Soil	4				0.7	mg/kg	4	0.36	0.4		4	
Benzo[b]fluoranthene	Water	2				0.2	µg/l	2	10	10			2
Benzo[g,h,i]perylene	Soil	4				44	mg/kg	4	0.36	0.4		4	
Benzo[g,h,i]perylene	Water	2					µg/l	2	10	10			
Benzo[k]fluoranthene	Soil	4				1.5	mg/kg	4	0.36	0.4		4	
Benzo[k]fluoranthene	Water	2				0.2	µg/l	2	10	10			2
Benzyl alcohol	Soil	4					mg/kg	4	0.36	0.4			
Benzyl alcohol	Water	2					µg/l	2	10	10			
Beryllium	Soil	1				0.16	mg/kg	1	0.24	0.24			1
Bis(2-chloroethoxy)methane	Soil	4					mg/kg	4	0.36	0.4			
Bis(2-chloroethoxy)methane	Water	2					µg/l	2	10	10			
Bis(2-chloroethyl)ether	Soil	4				0.12	mg/kg	4	0.71	0.79			4
Bis(2-chloroethyl)ether	Water	2				0.032	µg/l	2	10	10			2
Bis(2-chloroisopropyl)ether	Soil	4				100	mg/kg	4	0.36	0.4		4	

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Bis(2-chloroisopropyl)ether	Water	2				0.5	µg/l	2	10	10			2
Bis(2-ethylhexyl)phthalate	Soil	4				50	mg/kg	4	0.36	0.4		4	
Bis(2-ethylhexyl)phthalate	Water	2				4	µg/l	2	10	10			2
Bromobenzene	Soil	5					mg/kg	5	0.005	0.006			
Bromobenzene	Water	1					µg/l	1	5	5			
Bromochloromethane	Soil	5					mg/kg	5	0.005	0.006			
Bromochloromethane	Water	1					µg/l	1	5	5			
Bromodichloromethane	Soil	5				11	mg/kg	5	0.005	0.006		5	
Bromodichloromethane	Water	1				0.56	µg/l	1	5	5			1
Bromoform	Soil	5				89	mg/kg	5	0.005	0.006		5	
Bromoform	Water	1				4.4	µg/l	1	5	5			1
Bromomethane	Soil	5				0.43	mg/kg	5	0.01	0.012		5	
Bromomethane	Water	1				49	µg/l	1	10	10		1	
Bromophenylphenyl ether [4-]	Soil	4					mg/kg	4	0.36	0.4			
Bromophenylphenyl ether [4-]	Water	2					µg/l	2	10	10			
Butanone [2-]	Soil	5	1	0.11	0.11	4,000	mg/kg	4	0.022	0.024		5	
Butanone [2-]	Water	1				1,700	µg/l	1	20	20		1	
Butyl benzyl phthalate	Soil	4				16,000	mg/kg	4	0.36	0.4		4	
Butyl benzyl phthalate	Water	2				100	µg/l	2	10	10		2	
Butylbenzene [n-]	Soil	5					mg/kg	5	0.005	0.006			
Butylbenzene [n-]	Water	1					µg/l	1	5	5			
Butylbenzene [sec-]	Soil	5					mg/kg	5	0.005	0.006			
Butylbenzene [sec-]	Water	1					µg/l	1	5	5			
Butylbenzene [tert-]	Soil	5					mg/kg	5	0.005	0.006			
Butylbenzene [tert-]	Water	1					µg/l	1	5	5			
Cadmium	Soil	1				80	mg/kg	1	0.72	0.72		1	
Calcium	Soil	1	1	1,370	1,370		mg/kg						
Carbon disulfide	Soil	5				7.4	mg/kg	5	0.005	0.006		5	
Carbon disulfide	Water	1				3,500	µg/l	1	5	5		1	
Carbon tetrachloride	Soil	5				0.21	mg/kg	5	0.005	0.006		5	
Carbon tetrachloride	Water	1				5	µg/l	1	5	5			1
Chloro-3-methylphenol [4-]	Soil	4				16,000	mg/kg	4	0.36	0.4		4	
Chloro-3-methylphenol [4-]	Water	2				7,000	µg/l	2	10	10		2	
Chloroaniline [4-]	Soil	4				320	mg/kg	4	0.36	0.4		4	
Chloroaniline [4-]	Water	2				140	µg/l	2	10	10		2	
Chlorobenzene	Soil	5				67	mg/kg	5	0.005	0.006		5	
Chlorobenzene	Water	1				100	µg/l	1	5	5		1	
Chlorodibromomethane	Soil	5				83	mg/kg	5	0.005	0.006		5	
Chlorodibromomethane	Water	1				4.2	µg/l	1	5	5			1

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Chloroethane	Soil	5				3,300	mg/kg	5	0.01	0.012		5	
Chloroethane	Water	1					µg/l	1	10	10			
Chloroform	Soil	5				0.21	mg/kg	5	0.005	0.006		5	
Chloroform	Water	1				100	µg/l	1	5	5		1	
Chloromethane	Soil	5				6.4	mg/kg	5	0.01	0.012		5	
Chloromethane	Water	1				27	µg/l	1	10	10		1	
Chloronaphthalene [2-]	Soil	4				6,400	mg/kg	4	0.36	0.4		4	
Chloronaphthalene [2-]	Water	2				2,800	µg/l	2	10	10		2	
Chlorophenol [o-]	Soil	4				400	mg/kg	4	0.36	0.4		4	
Chlorophenol [o-]	Water	2				170	µg/l	2	10	10		2	
Chlorophenylphenyl ether [4-]	Soil	4					mg/kg	4	0.36	0.4			
Chlorophenylphenyl ether [4-]	Water	2					µg/l	2	10	10			
Chlorotoluene [o-]	Soil	5					mg/kg	5	0.005	0.006			
Chlorotoluene [o-]	Water	1					µg/l	1	5	5			
Chlorotoluene [p-]	Soil	5					mg/kg	5	0.005	0.006			
Chlorotoluene [p-]	Water	1					µg/l	1	5	5			
Chromium	Soil	1	1	4.2	4.2	400	mg/kg					1	
Chrysene	Soil	4				22	mg/kg	4	0.36	0.4		4	
Chrysene	Water	2				0.2	µg/l	2	10	10			2
Cobalt	Soil	1					mg/kg	1	2.1	2.1			
Copper	Soil	1				3,000	mg/kg	1	3.1	3.1		1	
Di-n-butyl phthalate	Soil	4				8,000	mg/kg	4	0.36	0.4		4	
Di-n-butyl phthalate	Water	2				3,500	µg/l	2	10	10		2	
Di-n-octyl phthalate	Soil	4				1,600	mg/kg	4	0.36	0.4		4	
Di-n-octyl phthalate	Water	2				700	µg/l	2	10	10		2	
Dibenzofuran	Soil	4					mg/kg	4	0.36	0.4			
Dibenzofuran	Water	2					µg/l	2	10	10			
Dibenzo[a,h]anthracene	Soil	4				0.086	mg/kg	4	0.36	0.4			4
Dibenzo[a,h]anthracene	Water	2				0.3	µg/l	2	10	10			2
Dibromo-3-chloropropane [1,2-]	Soil	5					mg/kg	5	0.01	0.012			
Dibromo-3-chloropropane [1,2-]	Water	1					µg/l	1	10	10			
Dibromoethane [1,2-]	Soil	5					mg/kg	5	0.005	0.006			
Dibromoethane [1,2-]	Water	1					µg/l	1	5	5			
Dibromomethane	Soil	5					mg/kg	5	0.005	0.006			
Dibromomethane	Water	1					µg/l	1	5	5			
Dichlorobenzene (1,2) [o-]	Soil	9				1,600	mg/kg	9	0.005	0.4		9	
Dichlorobenzene (1,2) [o-]	Water	3				600	µg/l	3	5	10		3	
Dichlorobenzene (1,3) [m-]	Soil	9				7,200	mg/kg	9	0.005	0.4		9	
Dichlorobenzene (1,3) [m-]	Water	3				600	µg/l	3	5	10		3	

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichlorobenzene (1,4) [p-]	Soil	9				290	mg/kg	9	0.005	0.4		9	
Dichlorobenzene (1,4) [p-]	Water	3				75	µg/l	3	5	10		3	
Dichlorobenzidine [3,3'-]	Soil	4				1.6	mg/kg	4	0.36	0.79		4	
Dichlorobenzidine [3,3'-]	Water	2				0.078	µg/l	2	10	10			2
Dichlorodifluoromethane	Soil	5					mg/kg	5	0.01	0.012			
Dichlorodifluoromethane	Water	1					µg/l	1	10	10			
Dichloroethane [1,1-]	Soil	5				410	mg/kg	5	0.005	0.006		5	
Dichloroethane [1,1-]	Water	1				3,500	µg/l	1	5	5			1
Dichloroethane [1,2-]	Soil	5				0.2	mg/kg	5	0.005	0.006		5	
Dichloroethane [1,2-]	Water	1				5	µg/l	1	5	5		1	
Dichloroethene [1,1-]	Soil	5				0.4	mg/kg	5	0.005	0.006		5	
Dichloroethene [1,1-]	Water	1				7	µg/l	1	5	5		1	
Dichloroethene [trans-1,2-]	Soil	5				1,600	mg/kg	5	0.005	0.006		5	
Dichloroethene [trans-1,2-]	Water	1				100	µg/l	1	5	5		1	
Dichloroethylene [cis-1,2-]	Soil	5				800	mg/kg	5	0.005	0.006		5	
Dichloroethylene [cis-1,2-]	Water	1				70	µg/l	1	5	5		1	
Dichlorophenol [2,4-]	Soil	4				240	mg/kg	4	0.36	0.4		4	
Dichlorophenol [2,4-]	Water	2				100	µg/l	2	10	10		2	
Dichloropropane [1,2-]	Soil	5				6.5	mg/kg	5	0.005	0.006		5	
Dichloropropane [1,2-]	Water	1				5	µg/l	1	5	5			1
Dichloropropane [1,3-]	Soil	5					mg/kg	5	0.005	0.006			
Dichloropropane [1,3-]	Water	1					µg/l	1	5	5			
Dichloropropane [2,2-]	Soil	5					mg/kg	5	0.005	0.006			
Dichloropropane [2,2-]	Water	1					µg/l	1	5	5			
Dichloropropene [1,1-]	Soil	5					mg/kg	5	0.005	0.006			
Dichloropropene [1,1-]	Water	1					µg/l	1	5	5			
Dichloropropene [cis-1,3-]	Soil	5				0.17	mg/kg	5	0.005	0.006		5	
Dichloropropene [cis-1,3-]	Water	1				0.19	µg/l	1	5	5			1
Dichloropropene [trans-1,3-]	Soil	5				0.17	mg/kg	5	0.005	0.006		5	
Dichloropropene [trans-1,3-]	Water	1				0.19	µg/l	1	5	5			1
Diethyl phthalate	Soil	4				64,000	mg/kg	4	0.36	0.4		4	
Diethyl phthalate	Water	2				5,000	µg/l	2	10	10		2	
Dimethyl phthalate	Soil	4				800,000	mg/kg	4	0.36	0.4		4	
Dimethyl phthalate	Water	2				350,000	µg/l	2	10	10		2	
Dimethylphenol [2,4-]	Soil	4				1,600	mg/kg	4	0.36	0.4		4	
Dimethylphenol [2,4-]	Water	2				700	µg/l	2	10	10		2	
Dinitrophenol [2,4-]	Soil	4				160	mg/kg	4	0.86	0.96		4	
Dinitrophenol [2,4-]	Water	2				70	µg/l	2	10	10		2	
Dinitrotoluene [2,4-]	Soil	4				1	mg/kg	4	0.36	0.4		4	

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dinitrotoluene [2,4-]	Water	2				0.05	µg/l	2	10	10			2
Dinitrotoluene [2,6-]	Soil	4				1	mg/kg	4	0.36	0.4		4	
Dinitrotoluene [2,6-]	Water	2				0.05	µg/l	2	10	10			2
Ethylbenzene	Soil	5				3,100	mg/kg	5	0.005	0.006		5	
Ethylbenzene	Water	1				700	µg/l	1	5	5		1	
Ethylene dibromide	Soil	5					mg/kg	5	0.005	0.006			
Ethylene dibromide	Water	1					µg/l	1	5	5			
Fluoranthene	Soil	4				3,200	mg/kg	4	0.36	0.4		4	
Fluoranthene	Water	2				1,400	µg/l	2	10	10		2	
Fluorene	Soil	4				3,200	mg/kg	4	0.36	0.4		4	
Fluorene	Water	2				1,400	µg/l	2	10	10		2	
Hexachlorobenzene	Soil	4				0.44	mg/kg	4	0.36	0.4		4	
Hexachlorobenzene	Water	2				1	µg/l	2	10	10			2
Hexachlorobutadiene	Soil	4				90	mg/kg	4	0.36	0.4		4	
Hexachlorobutadiene	Water	2				4.5	µg/l	2	10	10			2
Hexachlorocyclopentadiene	Soil	4				560	mg/kg	4	0.36	0.4		4	
Hexachlorocyclopentadiene	Water	2				50	µg/l	2	10	10		2	
Hexachloroethane	Soil	4				80	mg/kg	4	0.36	0.4		4	
Hexachloroethane	Water	2				25	µg/l	2	10	10		2	
Hexanone [2-]	Soil	5					mg/kg	5	0.02	0.024			
Hexanone [2-]	Water	1					µg/l	1	20	20			
Indeno[1,2,3-cd]pyrene	Soil	4				0.41	mg/kg	4	0.36	0.4		4	
Indeno[1,2,3-cd]pyrene	Water	2				0.4	µg/l	2	10	10			2
Iron	Soil	1	1	3,200	3,200		mg/kg						
Isophorone	Soil	4				7,400	mg/kg	4	0.36	0.4		4	
Isophorone	Water	2				370	µg/l	2	10	10		2	
Isopropylbenzene	Soil	5					mg/kg	5	0.005	0.006			
Isopropylbenzene	Water	1					µg/l	1	5	5			
Isopropyltoluene [4-]	Soil	5					mg/kg	5	0.005	0.006			
Isopropyltoluene [4-]	Water	1					µg/l	1	5	5			
Lead	Soil	1	1	5.7	5.7	500	mg/kg					1	
Lithium	Soil	1	1	14.7	14.7		mg/kg						
Magnesium	Soil	1	1	1,230	1,230		mg/kg						
Manganese	Soil	1	1	140	140	8,000	mg/kg					1	
Methyl iodide	Soil	5					mg/kg	5	0.005	0.006			
Methyl iodide	Water	1					µg/l	1	5	5			
Methyl-2-pentanone [4-]	Soil	5				510	mg/kg	5	0.02	0.024		5	
Methyl-2-pentanone [4-]	Water	1				1,700	µg/l	1	20	20		1	
Methyl-4,6-dinitrophenol [2-]	Soil	4					mg/kg	4	0.86	0.96			

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Methyl-4,6-dinitrophenol [2-]	Water	2					µg/l	2	10	10			
Methylene chloride	Soil	5	1	0.008	0.008	5.6	mg/kg	4	0.005	0.014		5	
Methylene chloride	Water	1				5	µg/l	1	5	5			1
Methylnaphthalene [2-]	Soil	4					mg/kg	4	0.36	0.4			
Methylnaphthalene [2-]	Water	2					µg/l	2	10	10			
Methylphenol [2-]	Soil	4				4,000	mg/kg	4	0.36	0.4		4	
Methylphenol [2-]	Water	2				1,700	µg/l	2	10	10		2	
Methylphenol [4-]	Soil	4				400	mg/kg	4	0.36	0.4		4	
Methylphenol [4-]	Water	2				175	µg/l	2	10	10		2	
Molybdenum	Soil	1				400	mg/kg	1	6.9	6.9		1	
Naphthalene	Soil	4				3,200	mg/kg	4	0.36	0.4		4	
Naphthalene	Water	2				1,400	µg/l	2	10	10		2	
Nickel	Soil	1				1,600	mg/kg	1	2.6	2.6		1	
Nitroaniline [2-]	Soil	4					mg/kg	4	0.86	0.96			
Nitroaniline [2-]	Water	2					µg/l	2	10	10			
Nitroaniline [3-]	Soil	4					mg/kg	4	0.86	0.96			
Nitroaniline [3-]	Water	2					µg/l	2	10	10			
Nitroaniline [4-]	Soil	4					mg/kg	4	0.77	0.96			
Nitroaniline [4-]	Water	2					µg/l	2	10	10			
Nitrobenzene	Soil	4				5.3	mg/kg	4	0.36	0.4		4	
Nitrobenzene	Water	2				18	µg/l	2	10	10		2	
Nitrophenol [2-]	Soil	4					mg/kg	4	0.36	0.4			
Nitrophenol [2-]	Water	2					µg/l	2	10	10			
Nitrophenol [4-]	Soil	4					mg/kg	4	0.86	0.96			
Nitrophenol [4-]	Water	2					µg/l	2	10	10			
Nitrosodi-n-propylamine [N-]	Soil	4				0.1	mg/kg	4	0.36	0.4			4
Nitrosodi-n-propylamine [N-]	Water	2				0.005	µg/l	2	10	10			2
Nitrosodimethylamine [N-]	Soil	4					mg/kg	4	0.36	0.4			
Nitrosodimethylamine [N-]	Water	2					µg/l	2	10	10			
Nitrosodiphenylamine [N-]	Soil	4				140	mg/kg	4	0.36	0.4		4	
Nitrosodiphenylamine [N-]	Water	2	1	120	120	7.1	µg/l	1	10	10	1		1
Pentachlorophenol	Soil	4				5.8	mg/kg	4	0.86	0.96			
Pentachlorophenol	Water	2				1	µg/l	2	10	10			2
Phenanthrene	Soil	4					mg/kg	4	0.36	0.4			
Phenanthrene	Water	2					µg/l	2	10	10			
Phenol	Soil	4				48,000	mg/kg	4	0.36	0.4		4	
Phenol	Water	2				21,000	µg/l	2	10	10		2	
Plutonium-238	Water	1				15	pCi/l	1	0.04	0.04		1	
Plutonium-239	Water	1	1	0.034	0.034	15	pCi/l					1	
Potassium	Soil	1					mg/kg	1	792	792			

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Propylbenzene	Soil	5					mg/kg	5	0.005	0.006			
Propylbenzene	Water	1					µg/l	1	5	5			
Pyrene	Soil	4				2,400	mg/kg	4	0.36	0.4		4	
Pyrene	Water	2				1,000	µg/l	2	10	10		2	
Selenium	Soil	1				400	mg/kg	1	0.48	0.48		1	
Silver	Soil	1				400	mg/kg	1	1.2	1.2		1	
Sodium	Soil	1					mg/kg	1	266	266			
Strontium	Soil	1					mg/kg	1	16.2	16.2			
Strontium-90	Water	2	2	0.3	0.6	8	pCi/l					2	
Styrene	Soil	5				16,000	mg/kg	5	0.005	0.006		5	
Styrene	Water	1				100	µg/l	1	5	5		1	
Tetrachloroethane [1,1,1,2-]	Soil	5					mg/kg	5	0.005	0.006			
Tetrachloroethane [1,1,1,2-]	Water	1					µg/l	1	5	5			
Tetrachloroethane [1,1,2,2-]	Soil	5				3.9	mg/kg	5	0.005	0.006		5	
Tetrachloroethane [1,1,2,2-]	Water	1				1.8	µg/l	1	5	5			1
Tetrachloroethylene	Soil	5				5.9	mg/kg	5	0.005	0.006		5	
Tetrachloroethylene	Water	1				5	µg/l	1	5	5			
Thallium	Soil	1				6.4	mg/kg	1	0.24	0.24		1	
Toluene	Soil	5				890	mg/kg	5	0.005	0.006		5	
Toluene	Water	1				1,000	µg/l	1	5	5		1	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	Soil	5					mg/kg	5	0.005	0.006			
Trichloro-1,2,2-trifluoroethane [1,1,2-]	Water	1					µg/l	1	5	5			
Trichlorobenzene [1,2,4-]	Soil	4				160	mg/kg	4	0.36	0.4		4	
Trichlorobenzene [1,2,4-]	Water	2				70	µg/l	2	10	10		2	
Trichloroethane [1,1,1-]	Soil	5				1,000	mg/kg	5	0.005	0.006		5	
Trichloroethane [1,1,1-]	Water	1				200	µg/l	1	5	5		1	
Trichloroethane [1,1,2-]	Soil	5				6.3	mg/kg	5	0.005	0.006		5	
Trichloroethane [1,1,2-]	Water	1				5	µg/l	1	5	5			1
Trichloroethene	Soil	5				3.2	mg/kg	5	0.005	0.006		5	
Trichloroethene	Water	1				5	µg/l	1	5	5			1
Trichlorofluoromethane	Soil	5					mg/kg	5	0.005	0.012			
Trichlorofluoromethane	Water	1					µg/l	1	5	5			
Trichlorophenol [2,4,5-]	Soil	4				8,000	mg/kg	4	0.86	0.96		4	
Trichlorophenol [2,4,5-]	Water	2				3,500	µg/l	2	10	10		2	
Trichlorophenol [2,4,6-]	Soil	4				64	mg/kg	4	0.36	0.4		4	
Trichlorophenol [2,4,6-]	Water	2				3.2	µg/l	2	10	10			2
Trichloropropane [1,2,3-]	Soil	5					mg/kg	5	0.005	0.006			
Trichloropropane [1,2,3-]	Water	1					µg/l	1	5	5			
Trimethylbenzene [1,2,4-]	Soil	5					mg/kg	5	0.005	0.006			
Trimethylbenzene [1,2,4-]	Water	1					µg/l	1	5	5			
Trimethylbenzene [1,3,5-]	Soil	5					mg/kg	5	0.005	0.006			

TABLE 2-11

SUMMARY OF SOIL SAMPLES FOR LADP-3, OU 1106

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Trimethylbenzene [1,3,5-]	Water	1					µg/l	1	5	5			
Tritium	Water	1	1	5,500	5,500	20,000	pCi/l					1	
Uranium-234	Water	1	1	0.19	0.19	19	pCi/l					1	
Uranium-235	Water	1	1	0.007	0.007	21	pCi/l					1	
Uranium-238	Water	1	1	0.205	0.205	6.7	pCi/l					1	
Vanadium	Soil	1				560	mg/kg	1	3	3			
Vinyl chloride	Soil	5				0.012	mg/kg	5	0.01	0.012		2	3
Vinyl chloride	Water	1				2	µg/l	1	10	10			1
Xylenes (o + m + p) [Mixed-]	Soil	5				160,000	mg/kg	5	0.005	0.006		5	
Xylenes (o + m + p) [Mixed-]	Water	1				10,000	µg/l	1	5	5		1	
Zinc	Soil	1	1	18.7	18.7	24,000	mg/kg					1	
Total Number of Values		**814**	**20**					**794**			**1**	**464**	**72**

TABLE 2-12

SUMMARY OF SOIL SAMPLES FOR LADP-4, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	8				4,800	mg/kg	8	0.33	0.37		8	
Acenaphthylene	8					mg/kg	8	0.33	0.37			
Acetone	8	2	0.035	0.041	8,000	mg/kg	6	0.02	0.06		8	
Aluminum	7	7	628	14,000		mg/kg						
Aniline	7					mg/kg	7	0.33	0.37			
Anthracene	8				24,000	mg/kg	8	0.33	0.37		8	
Antimony	7				32	mg/kg	7	0.098	5		7	
Arsenic	7	2	1.1	2.1	0.4	mg/kg	5	0.29	0.86	2	1	4
Azobenzene	8					mg/kg	8	0.33	0.37			
Barium	7	1	120	120	5,600	mg/kg	6	10.5	29.7		7	
Benzene	8				0.67	mg/kg	8	0.005	0.006		8	
Benzidine [m-]	7					mg/kg	7	0.33	1.8			
Benzo[a]anthracene	8				0.64	mg/kg	8	0.33	0.37		8	
Benzo[a]pyrene	8				0.1	mg/kg	8	0.33	0.37			8
Benzo[b]fluoranthene	8				0.7	mg/kg	8	0.33	0.37		8	
Benzo[g,h,i]perylene	8				44	mg/kg	8	0.33	0.37		8	
Benzo[k]fluoranthene	8				1.5	mg/kg	8	0.33	0.37		8	
Benzoic acid	8				320,000	mg/kg	8	0.33	3.7		8	
Benzyl alcohol	8					mg/kg	8	0.33	1.4			
Beryllium	7	1	2.6	2.6	0.16	mg/kg	6	0.45	1.1	1		6
Bis(2-chloroethoxy)methane	8					mg/kg	8	0.33	0.37			
Bis(2-chloroethyl)ether	8				0.12	mg/kg	8	0.33	0.68			8
Bis(2-chloroisopropyl)ether	8				100	mg/kg	8	0.33	0.37		8	
Bis(2-ethylhexyl)phthalate	8				50	mg/kg	8	0.33	0.37		8	
Bromobenzene	8					mg/kg	8	0.005	0.006			
Bromochloromethane	8					mg/kg	8	0.005	0.006			
Bromodichloromethane	8				11	mg/kg	8	0.005	0.006		8	
Bromoform	8				89	mg/kg	8	0.005	0.006		8	
Bromomethane	8				0.43	mg/kg	8	0.01	0.011		8	
Bromophenylphenyl ether [4-]	8					mg/kg	8	0.33	0.37			
Butanone [2-]	8				4,000	mg/kg	8	0.02	0.022		8	
Butyl benzyl phthalate	8				16,000	mg/kg	8	0.33	0.37		8	
Butylbenzene [n-]	8					mg/kg	8	0.005	0.006			
Butylbenzene [sec-]	8					mg/kg	8	0.005	0.006			
Butylbenzene [tert-]	8					mg/kg	8	0.005	0.006			
Cadmium	7				80	mg/kg	7	0.4	0.82		7	
Calcium	7	2	330	2,550		mg/kg	5	201	571			
Carbon disulfide	8				7.4	mg/kg	8	0.005	0.006		8	
Carbon tetrachloride	8				0.21	mg/kg	8	0.005	0.006		8	
Cesium-137	2	1	0.024	0.024	4	pCi/g	1	0.2845	0.2845		2	
Chloro-3-methylphenol [4-]	8				16,000	mg/kg	8	0.33	0.73		8	
Chloroaniline [4-]	8				320	mg/kg	8	0.33	1.4		8	
Chlorobenzene	8				67	mg/kg	8	0.005	0.006		8	

TABLE 2-12

SUMMARY OF SOIL SAMPLES FOR LADP-4, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Chlorodibromomethane	8				83	mg/kg	8	0.005	0.006		8	
Chloroethane	8				3,300	mg/kg	8	0.01	0.011		8	
Chloroform	8				0.21	mg/kg	8	0.005	0.006		8	
Chloromethane	8				6.4	mg/kg	8	0.01	0.011		8	
Chloronaphthalene [2-]	8				6,400	mg/kg	8	0.33	0.37		8	
Chlorophenol [o-]	8				400	mg/kg	8	0.33	0.37		8	
Chlorophenylphenyl ether [4-]	8					mg/kg	8	0.33	0.37			
Chlorotoluene [o-]	8					mg/kg	8	0.005	0.006			
Chlorotoluene [p-]	8					mg/kg	8	0.005	0.006			
Chromium	7	2	0.8	4	400	mg/kg	5	1	1.6		2	
Chrysene	8				22	mg/kg	8	0.33	0.37		8	
Cobalt	7					mg/kg	7	0.5	2.6			
Copper	7	1	3.7	3.7	3,000	mg/kg	6	0.69	5.2		7	
Di-n-butyl phthalate	8				8,000	mg/kg	8	0.33	0.37		8	
Di-n-octyl phthalate	8				1,600	mg/kg	8	0.33	0.37		8	
Dibenzo[a,h]anthracene	8				0.086	mg/kg	8	0.33	0.37			8
Dibenzofuran	8					mg/kg	8	0.33	0.37			
Dibromo-3-chloropropane [1,2-]	8					mg/kg	8	0.01	0.011			
Dibromoethane [1,2-]	8					mg/kg	8	0.005	0.006			
Dibromomethane	8					mg/kg	8	0.005	0.006			
Dichlorobenzene (1,2) [o-]	16				1,600	mg/kg	16	0.005	0.37		16	
Dichlorobenzene (1,3) [m-]	16				7,200	mg/kg	16	0.005	0.37		16	
Dichlorobenzene (1,4) [p-]	16				290	mg/kg	16	0.005	0.37		16	
Dichlorobenzidine [3,3'-]	8				1.6	mg/kg	8	0.33	0.73		8	
Dichlorodifluoromethane	8					mg/kg	8	0.01	0.011			
Dichloroethane [1,1-]	8				410	mg/kg	8	0.005	0.006		8	
Dichloroethane [1,2-]	8				0.2	mg/kg	8	0.005	0.006		8	
Dichloroethene [1,1-]	8				0.4	mg/kg	8	0.005	0.006		8	
Dichloroethene [trans-1,2-]	8				1,600	mg/kg	8	0.005	0.006		8	
Dichloroethylene [cis-1,2-]	8				800	mg/kg	8	0.005	0.006		8	
Dichlorophenol [2,4-]	8				240	mg/kg	8	0.33	0.37		8	
Dichloropropane [1,2-]	8				6.5	mg/kg	8	0.005	0.006		8	
Dichloropropane [1,3-]	8					mg/kg	8	0.005	0.006			
Dichloropropane [2,2-]	8					mg/kg	8	0.005	0.006			
Dichloropropene [1,1-]	8					mg/kg	8	0.005	0.006			
Dichloropropene [cis-1,3-]	8				0.17	mg/kg	8	0.005	0.006		8	
Dichloropropene [trans-1,3-]	8				[illegible]	mg/kg	8	0.005	0.006		8	
Diethyl phthalate	8				64,000	mg/kg	8	0.33	0.37		8	
Dimethyl phthalate	8				800,000	mg/kg	8	0.33	0.37		8	
Dimethylphenol [2,4-]	8				1,600	mg/kg	8	0.33	0.37		8	
Dinitrophenol [2,4-]	8				160	mg/kg	8	0.33	1.8		8	
Dinitrotoluene [2,4-]	8				1	mg/kg	8	0.33	0.37		8	
Dinitrotoluene [2,6-]	8				1	mg/kg	8	0.33	0.37		8	

TABLE 2-12

SUMMARY OF SOIL SAMPLES FOR LADP-4, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Ethylbenzene	8				3,100	mg/kg	8	0.005	0.006		8	
Ethylene dibromide	8					mg/kg	8	0.005	0.006			
Fluoranthene	8				3,200	mg/kg	8	0.33	0.37		8	
Fluorene	8				3,200	mg/kg	8	0.33	0.37		8	
Hexachlorobenzene	8				0.44	mg/kg	8	0.33	0.37		8	
Hexachlorobutadiene	8				90	mg/kg	8	0.33	0.37		8	
Hexachlorocyclopentadiene	8				560	mg/kg	8	0.33	0.37		8	
Hexachloroethane	8				80	mg/kg	8	0.33	0.37		8	
Hexanone [2-]	8					mg/kg	8	0.02	0.022			
Indeno[1,2,3-cd]pyrene	8				0.41	mg/kg	8	0.33	0.37		8	
Iron	7	7	1,890	5,290		mg/kg						
Isophorone	8				7,400	mg/kg	8	0.33	0.37		8	
Isopropylbenzene	8					mg/kg	8	0.005	0.006			
Isopropyltoluene [4-]	8					mg/kg	8	0.005	0.006			
Lead	7	7	1.5	16	500	mg/kg					7	
Lithium	7	2	13.5	23		mg/kg	5	1.1	8.5			
Magnesium	7	2	210	1,830		mg/kg	5	136	331			
Manganese	7	7	94.3	394	8,000	mg/kg					7	
Methyl iodide	8					mg/kg	8	0.005	0.006			
Methyl-2-pentanone [4-]	8				510	mg/kg	8	0.02	0.022		8	
Methyl-4,6-dinitrophenol [2-]	8					mg/kg	8	0.33	1.8			
Methylene chloride	8				5.6	mg/kg	8	0.005	0.006		8	
Methylnaphthalene [2-]	8					mg/kg	8	0.33	0.37			
Methylphenol [2-]	8				4,000	mg/kg	8	0.33	0.37		8	
Methylphenol [4-]	8				400	mg/kg	8	0.33	0.37		8	
Molybdenum	7	1	1	1	400	mg/kg	6	1	6.9		7	
Naphthalene	8				3,200	mg/kg	8	0.33	0.37		8	
Nickel	7				1,600	mg/kg	7	1.9	6.2		7	
Nitroaniline [2-]	8					mg/kg	8	0.33	1.8			
Nitroaniline [3-]	8					mg/kg	8	0.33	1.8			
Nitroaniline [4-]	8					mg/kg	8	0.33	0.83			
Nitrobenzene	8				5.3	mg/kg	8	0.33	0.37		8	
Nitrophenol [2-]	8					mg/kg	8	0.33	0.37			
Nitrophenol [4-]	8					mg/kg	8	0.33	1.8			
Nitrosodi-n-propylamine [N-]	8				0.1	mg/kg	8	0.33	0.37			8
Nitrosodimethylamine [N-]	8					mg/kg	8	0.33	0.37			
Nitrosodiphenylamine [N-]	8				140	mg/kg	8	0.33	0.37		8	
Pentachlorophenol	8				5.8	mg/kg	8	0.33	1.8		8	
Phenanthrene	8					mg/kg	8	0.33	0.37			
Phenol	8				48,000	mg/kg	8	0.33	0.37		8	
Plutonium-238	1	1	0	0	27	pCi/g					1	
Plutonium-239	1	1	0.01	0.01	24	pCi/g					1	
Potassium	7	1	430	430		mg/kg	6	283	673			

TABLE 2-12

SUMMARY OF SOIL SAMPLES FOR LADP-4, OU 1106

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Propylbenzene	8					mg/kg	8	0.005	0.006			
Pyrene	8				2,400	mg/kg	8	0.33	0.37		8	
Selenium	7	1	0.5	0.5	400	mg/kg	6	0.22	0.48		7	
Silver	7	1	1.1	1.1	400	mg/kg	6	0.63	0.91		7	
Strontium	7	1	5.9	5.9		mg/kg	6	1.3	17			
Strontium-90	1				8.9	pCi/g	1	3	3		1	
Styrene	8				16,000	mg/kg	8	0.005	0.006		8	
Tetrachloroethane [1,1,1,2-]	8					mg/kg	8	0.005	0.006			
Tetrachloroethane [1,1,2,2-]	8				3.9	mg/kg	8	0.005	0.006		8	
Tetrachloroethylene	8				5.9	mg/kg	8	0.005	0.006		8	
Thallium	7	1	2.1	2.1	6.4	mg/kg	6	0.21	0.24		7	
Thorium-228	1	1	2.42	2.42		mg/kg						
Thorium-230	1	1	2.97	2.97	10	pCi/g					1	
Thorium-232	1	1	2.25	2.25	0.88	pCi/g				1		
Toluene	8				890	mg/kg	8	0.005	0.006		8	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	8					mg/kg	8	0.005	0.006			
Trichlorobenzene [1,2,4-]	8				160	mg/kg	8	0.33	0.37		8	
Trichloroethane [1,1,1-]	8				1,000	mg/kg	8	0.005	0.006		8	
Trichloroethane [1,1,2-]	8				6.3	mg/kg	8	0.005	0.006		8	
Trichloroethene	8				3.2	mg/kg	8	0.005	0.006		8	
Trichlorofluoromethane	8					mg/kg	8	0.005	0.011			
Trichlorophenol [2,4,5-]	8				8,000	mg/kg	8	0.33	1.8		8	
Trichlorophenol [2,4,6-]	8				64	mg/kg	8	0.33	0.37		8	
Trichloropropane [1,2,3-]	8					mg/kg	8	0.005	0.006			
Trimethylbenzene [1,2,4-]	8					mg/kg	8	0.005	0.006			
Trimethylbenzene [1,3,5-]	8					mg/kg	8	0.005	0.006			
Tritium	2	1	13,200	13,200	15,000,000	pCi/g	1	500	500		2	
Uranium-234	1	1	3.45	3.45	86	pCi/g					1	
Uranium-235	1	1	0.14	0.14	18	pCi/g					1	
Uranium-238	1	1	3.66	3.66	59	pCi/g					1	
Vanadium	7	1	1.4	1.4	560	mg/kg	6	1.4	3.8		7	
Vinyl chloride	8				0.012	mg/kg	8	0.01	0.011		8	
Xylenes (o + m + p) [Mixed-]	8				160,000	mg/kg	8	0.005	0.006		8	
Zinc	7	7	9.6	41.5	24,000	mg/kg					7	
Total Number of Values	1,227	67					1,160			4	769	42

2.12 ADS 1111—TAs-6, -7, -22, -40, -58, -62 (Project Leader: Cheryl K. Rofer)

Aggregate 1, which includes MDA F and adjacent areas [PRSs 6-005 and 6-007(a-e)], has been cleared of brush, and the fences have been removed in preparation for a magnetometric survey to aid in locating disposal pits. The magnetometric survey is planned for late April 1994. Photographic enhancement of aerial photos continues. Several historical overhead aerial photos have been located. The capability has been acquired to transform oblique aerial photos into overhead aerial photos, allowing the use of several oblique aerial photos as well.

A readiness review was held with OU 1157 for surface soil sampling and boring at Aggregates 1 [MDA F and PRSs 6-005 and 6-007(a-e]; 2 [plating bath outflow, PRS 22-015(c)]; 3 (explosives settling basins); 5 (surface disposal sites); 6 (septic systems); 8 (decommissioned structure sites); and 9 (former container storage areas). Approximately 500–600 samples will be collected from May through July. The two operable units held readiness reviews together because the soil sampling crews overlap significantly; combining the readiness reviews resulted in a significant savings in personnel time.

Pilot studies on landfill covers continued. During the past winter, very little precipitation fell on the test area, resulting in few data about flow, although soil moisture measurements continue. Upgrading of the system continues. Personnel completed a report on the comparison of water balances in soil under a gravel mulch, which appears to have the potential to stabilize soil inexpensively, and in a comparable unmulched plot; the report is being reviewed.

Samples of altered and unaltered tuff from PRS 22-015(c), the plating bath outflow, are being examined for their mineralogical composition to help determine the nature and degree of contamination and possible remediation schemes. During this quarter, the unaltered tuff was examined to determine the background values and distributions of metals in the weathered tuff. The materials are being examined with the same procedures and techniques used for the tuff altered by the plating bath fluids. Iron-rich phases in the altered tuff are being examined in detail because they appear to be central in the accumulation and stability of RCRA-listed metals in the altered tuff.

2.13 ADS 1114—TAs-3, -30, -59, -60, -61, -64 (Project Leader: Garry Allen)

The primary focus for ADS 1114 for this past quarter has been the continued investigation of the remaining 186 PRSs for the preparation of Volume II of the RFI work plan for OU 1114. The final response to the EPA's notice of deficiency on Volume I of the RFI work plan was completed. Corrections and modifications were prepared for Chapters 2 through Appendix D; a new sampling plan for the industrial waste line and pumping station [PRSs 3-038(a,b)] was developed; and the supporting documentation was expanded for the deferred action proposal for the plating rinse tanks in the Sigma Building [PRSs 3-026(a) and 3-037].

The toxicity characteristics leaching procedure results obtained for the mercury spill at SM-30 [PRS 3-010(a)] indicate that the mercury and lead present in the soil do not leach; therefore, no mixed waste was found at this location. OU 1114 personnel developed a detailed in-house remediation plan that involves removing the contaminated soil in three distinct lifts, each focused on dealing optimally with the specific wastes present. The plan was put in motion and the required readiness review was completed in early March.

The FY94 Baseline for OU 1114 was completed.

2.14 ADS 1122—TAs-33, -70 (Project Leader: Roy Michelotti)

All data have been received for 21 PRSs that were sampled during the May–June 1993 sampling campaign. A five-person decision team completed in-depth data assessment for 11 PRSs. The team consisted of the operable unit project leader, a statistician, risk-assessment specialist, hydrologist, and analytical chemist; the field team leader for the campaign was the technical adviser. The team recommended no further action on the five PRSs at Area 6, an abandoned firing site, where no contamination was found above SALs. Four PRSs outside the security fence at Main Site showed no contamination above SALs. Of the two remaining PRSs, one has a sump contaminated with SVOCs and

may be recommended for cleanup or removal. The second has high SVOC surface contamination and therefore requires further assessment. A summary of all analyses from the 1993 campaign is shown in Table 2-13 (see Section 1.0 for an explanation of this summary table).

The contract field team (ICF-Kaiser) completed the field report "*Summary of 1993 Survey and Sampling Activities at TA-33 (Main Site and Area 6)*, available at the Environmental Restoration Program's Records Processing Facility. The field team also completed a quality assurance review of all field data for the 1993 season.

Radiation warning signs were placed around Sump 33-002(b) (Main Site) in accordance with guidance from the Environment, Safety, and Health (ESH) Division; the guidance was requested because preliminary sample data indicated high tritium readings in the sump. The team requested guidance on posting requirements for above background hot spots detected at South Site during the radiation survey. These hot spots have been cordoned off with warning tape until guidance is received.

Operable Unit 1122 was chosen to be the pilot site for public participation in land-use decisions.

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
(2,4-Dichlorophenoxy)propionic acid [2-]	Soil	42					mg/kg	42	0.12	3.43					Null Case
Acenaphthene	Water	5				2,100	µg/l	5	10	11		5			No Concern
Acenaphthene	Soil	217	10	0.47	12.9	4,800	mg/kg	207	0.33	9.8		217			No Concern
Acenaphthylene	Water	5					µg/l	5	10	11					Null Case
Acenaphthylene	Soil	217	1	0.49	0.49		mg/kg	216	0.33	9.8					Further Evaluation
Acetone	Soil	37	9	0.024	0.51	8,000	mg/kg	28	0.02	0.68		37			No Concern
Acetone	Water	5				3,500	µg/l	5	20	20		5			No Concern
Aldrin	Soil	33	2	0.029	0.042		mg/kg	31	0.001	0.026					Further Evaluation
Amino-4,6-dinitrotoluene [2-]	Water	2					µg/l	2	0.63	0.63					Null Case
Amino-4,6-dinitrotoluene [2-]	Soil	7					mg/kg	7	1.2	12					Null Case
Aniline	Water	2					µg/l	2	10	10					Null Case
Aniline	Soil	136	1	0.41	0.41		mg/kg	135	0.33	0.47					Further Evaluation
Anthracene	Soil	217	17	0.36	18.6	24,000	mg/kg	200	0.33	9.8		217			No Concern
Anthracene	Water	5				10,000	µg/l	5	10	11		5			No Concern
Antimony	Soil	264	59	0.022	2.6	32	mg/kg	205	0.02	11.2		264			No Concern
Antimony	Water	10				6	µg/l	10	5	56		1	9		Special Case
Aroclor 1016	Soil	29					mg/kg	29	0.033	0.26					Null Case
Aroclor 1221	Soil	29					mg/kg	29	0.033	0.26					Null Case
Aroclor 1232	Soil	29					mg/kg	29	0.033	0.26					Null Case
Aroclor 1242	Soil	33					mg/kg	33	0.033	1					Null Case
Aroclor 1248	Soil	29					mg/kg	29	0.033	0.26					Null Case
Aroclor 1254	Soil	36	12	0.054	2.3		mg/kg	24	0.034	1					Further Evaluation
Aroclor 1260	Soil	36	1	0.07	0.07		mg/kg	35	0.033	1					Further Evaluation
Aroclor [Mixed-]	Soil	46	35	0.1	2.3	0.09	mg/kg	11	0.034	1	39	3	4		Exceeds SAL
Aromatic hydrocarbons	Soil	3	3				mg/kg								Null Case
Aromatic hydrocarbons	Water	4	4				µg/l								Null Case
Arsenic	Soil	267	252	0.6	29.8	0.4	mg/kg	15	0.6	0.66				267	Within Bkgd Range
Arsenic	Water	10	1	17.5	17.5	50	µg/l	9	2	3		10			No Concern
Azobenzene	Water	2					µg/l	2	10	10					Null Case
Azobenzene	Soil	136					mg/kg	136	0.33	0.47					Null Case
Benzene	Water	5				5	µg/l	5	5	5		5			No Concern
Benzene	Soil	37				0.67	mg/kg	37	0.005	0.171		37			No Concern
Benzidine [m-]	Water	2					µg/l	2	10	10					Null Case
Benzidine [m-]	Soil	136					mg/kg	136	0.33	1.1					Null Case
Benzo[a]anthracene	Soil	217	25	0.39	28	0.64	mg/kg	192	0.33	3.4	22	191	4		Exceeds SAL
Benzo[a]anthracene	Water	5				0.1	µg/l	5	10	11			5		Special Case
Benzo[a]pyrene	Soil	217	23	0.41	28.8	0.1	mg/kg	194	0.33	3.4	23		194		Exceeds SAL
Benzo[a]pyrene	Water	5				0.2	µg/l	5	10	11			5		Special Case
Benzo[b]fluoranthene	Water	5				0.2	µg/l	5	10	11			5		Special Case
Benzo[b]fluoranthene	Soil	217	27	0.34	28.4	0.7	mg/kg	190	0.33	3.4	22	191	4		Exceeds SAL
Benzo[g,h,i]perylene	Soil	216	15	0.38	20	44	mg/kg	201	0.33	3.4		216			No Concern
Benzo[g,h,i]perylene	Water	5					µg/l	5	10	11					Null Case
Benzo[k]fluoranthene	Soil	217	24	0.34	23	1.5	mg/kg	193	0.33	3.4	15	199	3		Exceeds SAL
Benzo[k]fluoranthene	Water	5				0.2	µg/l	5	10	11			5		Special Case
Benzoic acid	Soil	217				320,000	mg/kg	217	0.33	49		217			No Concern
Benzoic acid	Water	5				140,000	µg/l	5	10	55		5			No Concern

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Benzyl alcohol	Water	5					µg/l	5	10	11					Null Case
Benzyl alcohol	Soil	217					mg/kg	217	0.33	9.8					Null Case
Beryllium	Soil	264	262	0.16	7.8	0.16	mg/kg	2	0.2	0.2		1		263	Within Bkgd Range
Beryllium	Water	10				4	µg/l	10	1	2		10			No Concern
BHC [alpha-]	Soil	33	2	0.027	0.041	0.1	mg/kg	31	0.001	0.026		33			No Concern
BHC [beta-]	Soil	33	2	0.002	0.002	4	mg/kg	31	0.002	0.026		33			No Concern
BHC [delta-]	Soil	33	2	0.026	0.037		mg/kg	31	0.002	0.026					Further Evaluation
Bis(2-chloroethoxy)methane	Soil	217					mg/kg	217	0.33	9.8					Null Case
Bis(2-chloroethoxy)methane	Water	5					µg/l	5	10	11					Null Case
Bis(2-chloroethyl)ether	Soil	217				0.12	mg/kg	217	0.33	9.8			217		Special Case
Bis(2-chloroethyl)ether	Water	5				0.032	µg/l	5	10	11			5		Special Case
Bis(2-chloroisopropyl)ether	Soil	217				100	mg/kg	217	0.33	9.8		217			No Concern
Bis(2-chloroisopropyl)ether	Water	5				0.5	µg/l	5	10	11			5		Special Case
Bis(2-ethylhexyl)phthalate	Water	5	2	11	75	4	µg/l	3	10	10	2		3		Exceeds SAL
Bis(2-ethylhexyl)phthalate	Soil	217	14	0.42	1,500	50	mg/kg	203	0.33	1.9	2	215			Exceeds SAL
Bromobenzene	Water	5					µg/l	5	5	5					Null Case
Bromobenzene	Soil	37					mg/kg	37	0.005	0.171					Null Case
Bromochloromethane	Soil	37					mg/kg	37	0.005	0.171					Null Case
Bromochloromethane	Water	5					µg/l	5	5	5					Null Case
Bromodichloromethane	Soil	37				11	mg/kg	37	0.005	0.171		37			No Concern
Bromodichloromethane	Water	5				0.56	µg/l	5	5	5			5		Special Case
Bromoform	Soil	37				89	mg/kg	37	0.005	0.171		37			No Concern
Bromoform	Water	5				4.4	µg/l	5	5	5			5		Special Case
Bromomethane	Water	5				49	µg/l	5	10	10		5			No Concern
Bromomethane	Soil	37				0.43	mg/kg	37	0.01	0.342		37			No Concern
Bromophenylphenyl ether [4-]	Soil	217					mg/kg	217	0.33	9.8					Null Case
Bromophenylphenyl ether [4-]	Water	5					µg/l	5	10	11					Null Case
Butanone [2-]	Soil	37	1	1.6	1.6	4,000	mg/kg	36	0.02	0.36		37			No Concern
Butanone [2-]	Water	5				1,700	µg/l	5	20	20		5			No Concern
Butyl benzyl phthalate	Soil	217	5	0.44	26	16,000	mg/kg	212	0.33	6.7		217			No Concern
Butyl benzyl phthalate	Water	5				100	µg/l	5	10	11		5			No Concern
Butylbenzene [n-]	Soil	37	1	0.7	0.7		mg/kg	36	0.005	0.09					Further Evaluation
Butylbenzene [n-]	Water	5					µg/l	5	5	5					Null Case
Butylbenzene [sec-]	Water	5					µg/l	5	5	5					Null Case
Butylbenzene [sec-]	Soil	37	4	0.32	3.5		mg/kg	33	0.005	0.005					Further Evaluation
Butylbenzene [tert-]	Water	5					µg/l	5	5	5					Null Case
Butylbenzene [tert-]	Soil	37	2	0.19	0.85		mg/kg	35	0.005	0.09					Further Evaluation
Cadmium	Soil	264	86	0.4	620	80	mg/kg	178	0.4	4	1	263			Exceeds SAL
Cadmium	Water	10	1	9.2	9.2	5	µg/l	9	4	6	2	7	1		Exceeds SAL
Carbon disulfide	Soil	37	2	0.075	0.24	7.4	mg/kg	35	0.005	0.09		37			No Concern
Carbon disulfide	Water	5				3,500	µg/l	5	5	5		5			No Concern
Carbon tetrachloride	Soil	37				0.21	mg/kg	37	0.005	0.171		37			No Concern
Carbon tetrachloride	Water	5				5	µg/l	5	5	5		5			No Concern
Cesium-137	Soil	280	71	0.62	3.31	4	pCi/g	209	0.32	1.91		280			No Concern
Cesium-137	Water	10				110	pCi/l	10	17.1	53.7		10			No Concern

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values <LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Chlordane	Soil	16				0.54	mg/kg	16	0.005	0.006		16			No Concern
Chlordane [alpha-]	Soil	17					mg/kg	17	0.002	0.26					Null Case
Chlordane [gamma-]	Soil	15					mg/kg	15	0.002	0.26					Null Case
Chloro-3-methylphenol [4-]	Water	5				7,000	µg/l	5	10	11		5			No Concern
Chloro-3-methylphenol [4-]	Soil	217				16,000	mg/kg	217	0.33	49		217			No Concern
Chloro-o-tolyloxyacetic acid [4-]	Soil	6					mg/kg	6	50	108					Null Case
Chloroaniline [4-]	Soil	217				320	mg/kg	217	0.33	49		217			No Concern
Chloroaniline [4-]	Water	5				140	µg/l	5	10	11		5			No Concern
Chlorobenzene	Water	5				100	µg/l	5	5	5		5			No Concern
Chlorobenzene	Soil	37	1	0.72	0.72	67	mg/kg	36	0.005	0.171		37			No Concern
Chlorodibromomethane	Soil	37				83	mg/kg	37	0.005	0.171		37			No Concern
Chlorodibromomethane	Water	5				4.2	µg/l	5	5	5			5		Special Case
Chloroethane	Water	5					µg/l	5	10	10					Null Case
Chloroethane	Soil	37				3,300	mg/kg	37	0.01	0.342		37			No Concern
Chloroform	Water	5	2	8.6	9.1	100	µg/l	3	5	5		5			No Concern
Chloroform	Soil	37	1	5.1	5.1	0.21	mg/kg	36	0.005	0.09	1	36			Exceeds SAL
Chloromethane	Water	5				27	µg/l	5	10	10		5			No Concern
Chloromethane	Soil	37				6.4	mg/kg	37	0.01	0.342		37			No Concern
Chloronaphthalene [2-]	Soil	217				6,400	mg/kg	217	0.33	9.8		217			No Concern
Chloronaphthalene [2-]	Water	5				2,800	µg/l	5	10	11		5			No Concern
Chlorophenol [o-]	Soil	217				400	mg/kg	217	0.33	9.8		217			No Concern
Chlorophenol [o-]	Water	5				170	µg/l	5	10	11		5			No Concern
Chlorophenoxyacetic acid [2-methyl-4-]	Soil	26					mg/kg	26	49	1,070					Null Case
Chlorophenylphenyl ether [4-]	Soil	217					mg/kg	217	0.33	9.8					Null Case
Chlorophenylphenyl ether [4-]	Water	5					µg/l	5	10	11					Null Case
Chlorotoluene [o-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Chlorotoluene [o-]	Water	5					µg/l	5	5	5					Null Case
Chlorotoluene [p-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Chlorotoluene [p-]	Water	5					µg/l	5	5	5					Null Case
Chromium	Soil	264	261	0.85	670	400	mg/kg	3	0.8	0.8	1	263			Exceeds SAL
Chromium	Water	10	2	7.8	46.7	100	µg/l	8	4	8		10			No Concern
Chrysene	Water	5				0.2	µg/l	5	10	11			5		Special Case
Chrysene	Soil	217	28	0.35	36	22	mg/kg	189	0.33	3.4	4	213			Exceeds SAL
Cyanide	Soil	22	7	0.75	22.5	1,600	mg/kg	15	0.05	0.2		22			No Concern
Cyanide	Water	2				1,300	µg/l	2	4	4		2			No Concern
D [2,4-]	Soil	42	2	1.89	2.32		mg/kg	40	0.023	2.2					Further Evaluation
Dalapon	Soil	42					mg/kg	42	0.12	2.28					Null Case
DB [2,4-]	Soil	42					mg/kg	42	0.12	6.71					Null Case
DDD [p,p'-]	Soil	33	2	0.008	0.012	2.9	mg/kg	31	0.004	0.052		33			No Concern
DDE [p,p'-]	Soil	33	6	0.001	0.002		mg/kg	27	0.001	0.052					Further Evaluation
DDT [p,p'-]	Soil	33	6	0.004	0.023	2.1	mg/kg	27	0.004	0.052		33			No Concern
Di-n-butyl phthalate	Soil	217	22	0.4	65	8,000	mg/kg	195	0.33	3.4		217			No Concern
Di-n-butyl phthalate	Water	5				3,500	µg/l	5	10	11		5			No Concern
Di-n-octyl phthalate	Soil	217	1	10	10	1,600	mg/kg	216	0.33	6.7		217			No Concern
Di-n-octyl phthalate	Water	5				700	µg/l	5	10	11		5			No Concern

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Dibenzo[a,h]anthracene	Water	5				0.3	µg/l	5	10	11			5		Special Case
Dibenzo[a,h]anthracene	Soil	217	4	0.4	4.7	0.086	mg/kg	213	0.33	9.8	4		213		Exceeds SAL
Dibenzofuran	Water	5					µg/l	5	10	11					Null Case
Dibenzofuran	Soil	217	5	0.44	9.3		mg/kg	212	0.33	9.8					Further Evaluation
Dibromo-3-chloropropane [1,2-]	Soil	37					mg/kg	37	0.01	0.342					Null Case
Dibromo-3-chloropropane [1,2-]	Water	5					µg/l	5	10	10					Null Case
Dibromoethane [1,2-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Dibromoethane [1,2-]	Water	5					µg/l	5	5	5					Null Case
Dibromomethane	Soil	37					mg/kg	37	0.005	0.171					Null Case
Dibromomethane	Water	5					µg/l	5	5	5					Null Case
Dicamba	Soil	42					mg/kg	42	0.046	1.78					Null Case
Dichlorobenzene (1,2) [o-]	Water	10				600	µg/l	10	5	11		10			No Concern
Dichlorobenzene (1,2) [o-]	Soil	254				1,600	mg/kg	254	0.005	9.8		254			No Concern
Dichlorobenzene (1,3) [m-]	Soil	254				7,200	mg/kg	254	0.005	9.8		254			No Concern
Dichlorobenzene (1,3) [m-]	Water	10				600	µg/l	10	5	11		10			No Concern
Dichlorobenzene (1,4) [p-]	Soil	254	2	1.4	5.3	290	mg/kg	252	0.005	9.8		254			No Concern
Dichlorobenzene (1,4) [p-]	Water	10				75	µg/l	10	5	11		10			No Concern
Dichlorobenzidine [3,3'-]	Soil	217				1.6	mg/kg	217	0.33	20		210	7		Special Case
Dichlorobenzidine [3,3'-]	Water	5				0.078	µg/l	5	10	22			5		Special Case
Dichlorodifluoromethane	Soil	37					mg/kg	37	0.01	0.342					Null Case
Dichlorodifluoromethane	Water	5					µg/l	5	10	10					Null Case
Dichloroethane [1,1-]	Soil	37	2	0.054	3.9	410	mg/kg	35	0.005	0.09		37			No Concern
Dichloroethane [1,1-]	Water	5				3,500	µg/l	5	5	5		5			No Concern
Dichloroethane [1,2-]	Soil	37				0.2	mg/kg	37	0.005	0.171		37			No Concern
Dichloroethane [1,2-]	Water	5				5	µg/l	5	5	5		5			No Concern
Dichloroethene [1,1-]	Water	5				7	µg/l	5	5	5		5			No Concern
Dichloroethene [1,1-]	Soil	37				0.4	mg/kg	37	0.005	0.171		37			No Concern
Dichloroethene [trans-1,2-]	Soil	37				1,600	mg/kg	37	0.005	0.171		37			No Concern
Dichloroethene [trans-1,2-]	Water	5				100	µg/l	5	5	5		5			No Concern
Dichloroethylene [cis-1,2-]	Soil	37				800	mg/kg	37	0.005	0.171		37			No Concern
Dichloroethylene [cis-1,2-]	Water	5				70	µg/l	5	5	5		5			No Concern
Dichlorophenol [2,4-]	Soil	217				240	mg/kg	217	0.33	9.8		217			No Concern
Dichlorophenol [2,4-]	Water	5				100	µg/l	5	10	11		5			No Concern
Dichloropropane [1,2-]	Soil	37				6.5	mg/kg	37	0.005	0.171		37			No Concern
Dichloropropane [1,2-]	Water	5				5	µg/l	5	5	5		5			No Concern
Dichloropropane [1,3-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Dichloropropane [1,3-]	Water	5					µg/l	5	5	5					Null Case
Dichloropropane [2,2-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Dichloropropane [2,2-]	Water	5					µg/l	5	5	5					Null Case
Dichloropropene [1,1-]	Water	5					µg/l	5	5	5					Null Case
Dichloropropene [1,1-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Dichloropropene [cis-1,3-]	Water	5				0.19	µg/l	5	5	5			5		Special Case
Dichloropropene [cis-1,3-]	Soil	37				0.17	mg/kg	37	0.005	0.171		36	1		Special Case
Dichloropropene [trans-1,3-]	Soil	37				0.17	mg/kg	37	0.005	0.171		36	1		Special Case
Dichloropropene [trans-1,3-]	Water	5				0.19	µg/l	5	5	5			5		Special Case

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Dieldrin	Soil	33	2	0.0007	0.0008		mg/kg	31	0.0007	0.052					Further Evaluation
Diethyl phthalate	Soil	217	1	30	30	64,000	mg/kg	216	0.33	9.8		217			No Concern
Diethyl phthalate	Water	5				5,000	µg/l	5	10	11		5			No Concern
Dimethyl phthalate	Water	5				350,000	µg/l	5	10	11		5			No Concern
Dimethyl phthalate	Soil	217				800,000	mg/kg	217	0.33	9.8		217			No Concern
Dimethylphenol [2,4-]	Water	5				700	µg/l	5	10	11		5			No Concern
Dimethylphenol [2,4-]	Soil	217	1	0.7	0.7	1,600	mg/kg	216	0.33	9.8		217			No Concern
Dinitrobenzene [1,3-]	Soil	38	1	6.1	6.1	8	mg/kg	37	0.245	0.65		38			No Concern
Dinitrobenzene [1,3-]	Water	2				3.5	µg/l	2	0.31	0.31		2			No Concern
Dinitrophenol [2,4-]	Soil	217				160	mg/kg	217	0.33	49		217			No Concern
Dinitrophenol [2,4-]	Water	5				70	µg/l	5	10	55		5			No Concern
Dinitrotoluene [2,4-]	Soil	255	1	2.5	2.5	1	mg/kg	254	0.255	9.8	1	247	7		Exceeds SAL
Dinitrotoluene [2,4-]	Water	7				0.05	µg/l	7	0.31	11			7		Special Case
Dinitrotoluene [2,6-]	Water	7				0.05	µg/l	7	0.3	11			7		Special Case
Dinitrotoluene [2,6-]	Soil	255				1	mg/kg	255	0.255	9.8		248	7		Special Case
Dinoseb	Soil	42	1	0.692	0.692		mg/kg	41	0.012	0.556					Further Evaluation
Endosulfan I	Soil	33	1	0.006	0.006		mg/kg	32	0.002	0.026					Further Evaluation
Endosulfan II	Soil	33	6	0.002	0.011		mg/kg	27	0.001	0.052					Further Evaluation
Endosulfan sulfate	Soil	33	1	0.018	0.018		mg/kg	32	0.004	0.052					Further Evaluation
Endrin	Soil	33	2	0.002	0.003		mg/kg	31	0.002	0.052					Further Evaluation
Endrin aldehyde	Soil	23	1	0.009	0.009		mg/kg	22	0.004	0.042					Further Evaluation
Endrin ketone	Soil	15					mg/kg	15	0.004	0.052					Null Case
Ethylbenzene	Soil	37	4	0.15	1.9	3,100	mg/kg	33	0.005	0.005		37			No Concern
Ethylbenzene	Water	5				700	µg/l	5	5	5		5			No Concern
Fluoranthene	Soil	217	41	0.34	54.1	3,200	mg/kg	176	0.33	3.4		217			No Concern
Fluoranthene	Water	5				1,400	µg/l	5	10	11		5			No Concern
Fluorene	Water	5				1,400	µg/l	5	10	11		5			No Concern
Fluorene	Soil	217	9	0.33	15.1	3,200	mg/kg	208	0.33	9.8		217			No Concern
Heptachlor	Soil	33					mg/kg	33	0.0009	0.026					Null Case
Heptachlor epoxide	Soil	33					mg/kg	33	0.002	0.18					Null Case
Hexachlorobenzene	Soil	217				0.44	mg/kg	217	0.33	9.8		203	14		Special Case
Hexachlorobenzene	Water	5				1	µg/l	5	10	11			5		Special Case
Hexachlorobutadiene	Soil	217				90	mg/kg	217	0.33	9.8		217			No Concern
Hexachlorobutadiene	Water	5				4.5	µg/l	5	10	11			5		Special Case
Hexachlorocyclopentadiene	Soil	217				560	mg/kg	217	0.33	9.8		217			No Concern
Hexachlorocyclopentadiene	Water	5				50	µg/l	5	10	11		5			No Concern
Hexachloroethane	Soil	217				80	mg/kg	217	0.33	9.8		217			No Concern
Hexachloroethane	Water	5				25	µg/l	5	10	11		5			No Concern
Hexanone [2-]	Soil	37	1	0.059	0.059		mg/kg	36	0.02	0.684					Further Evaluation
Hexanone [2-]	Water	5					µg/l	5	20	20					Null Case
HMX	Water	2				1,800	µg/l	2	0.63	0.63		2			No Concern
HMX	Soil	38				4,000	mg/kg	38	1.2	12		38			No Concern
Indeno[1,2,3-cd]pyrene	Soil	217	16	0.35	18	0.41	mg/kg	201	0.33	3.4	28	175	14		Exceeds SAL
Indeno[1,2,3-cd]pyrene	Water	5				0.4	µg/l	5	10	11			5		Special Case
Isophorone	Water	5				370	µg/l	5	10	11		5			No Concern

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Isophorone	Soil	217				7,400	mg/kg	217	0.33	9.8		217			No Concern
Isopropylbenzene	Soil	37	4	0.28	1.2		mg/kg	33	0.005	0.005					Further Evaluation
Isopropylbenzene	Water	5					µg/l	5	5	5					Null Case
Isopropyltoluene [4-]	Water	5					µg/l	5	5	5					Null Case
Isopropyltoluene [4-]	Soil	37	5	0.006	2.1		mg/kg	32	0.005	0.005					Further Evaluation
Lead	Soil	266	266	2	922	500	mg/kg				3	263			Exceeds SAL
Lead	Water	10	6	1	152	50	µg/l	4	1	60	2	7	1		Exceeds SAL
Lindane	Soil	33					mg/kg	33	0.001	0.026					Null Case
Mecoprop	Soil	32					mg/kg	32	38	1,090					Null Case
Mercury	Water	78	6	0.2	0.4	24	mg/kg	72	0.2	0.2		78			No Concern
Mercury	Soil	4	2	0.18	0.21	2	µg/l	2	0.1	0.1		4			No Concern
Methoxychlor	Soil	33					mg/kg	33	0.019	0.26					Null Case
Methyl iodide	Soil	37					mg/kg	37	0.005	0.171					Null Case
Methyl iodide	Water	5					µg/l	5	5	5					Null Case
Methyl-2-pentanone [4-]	Soil	37				510	mg/kg	37	0.02	0.684		37			No Concern
Methyl-2-pentanone [4-]	Water	5				1,700	µg/l	5	20	20		5			No Concern
Methyl-4,6-dinitrophenol [2-]	Soil	217					mg/kg	217	0.33	49					Null Case
Methyl-4,6-dinitrophenol [2-]	Water	5					µg/l	5	10	55					Null Case
Methylene chloride	Water	5				5	µg/l	5	5	5		5			No Concern
Methylene chloride	Soil	37	2	0.042	0.51	5.6	mg/kg	35	0.005	0.09		37			No Concern
Methylnaphthalene [2-]	Soil	217	3	0.8	31		mg/kg	214	0.33	9.8					Further Evaluation
Methylnaphthalene [2-]	Water	5					µg/l	5	10	11					Null Case
Methylphenol [2-]	Soil	217	1	0.37	0.37	4,000	mg/kg	216	0.33	9.8		217			No Concern
Methylphenol [2-]	Water	5				1,700	µg/l	5	10	11		5			No Concern
Methylphenol [4-]	Soil	217	2	0.98	600	400	mg/kg	215	0.33	6.7	1	216			Exceeds SAL
Methylphenol [4-]	Water	5	2	210	240	175	µg/l	3	10	11	2	3			Exceeds SAL
Naphthalene	Soil	217	7	0.39	26.6	3,200	mg/kg	210	0.33	9.8		217			No Concern
Naphthalene	Water	5				1,400	µg/l	5	10	11		5			No Concern
Nickel	Soil	264	220	2	850	1,600	mg/kg	44	12	2.8		264			No Concern
Nickel	Water	10	2	14.7	19.1	100	µg/l	8	14	20		10			No Concern
Nitroaniline [2-]	Soil	217					mg/kg	217	0.33	49					Null Case
Nitroaniline [2-]	Water	5					µg/l	5	10	55					Null Case
Nitroaniline [3-]	Soil	217					mg/kg	217	0.33	49					Null Case
Nitroaniline [3-]	Water	5					µg/l	5	10	55					Null Case
Nitroaniline [4-]	Soil	217					mg/kg	217	0.33	49					Null Case
Nitroaniline [4-]	Water	5					µg/l	5	10	55					Null Case
Nitrobenzene	Soil	255				5.3	mg/kg	255	0.255	9.8		252	3		Special Case
Nitrobenzene	Water	7				18	µg/l	7	0.31	11		7			No Concern
Nitrophenol [2-]	Water	5					µg/l	5	10	11					Null Case
Nitrophenol [2-]	Soil	217					mg/kg	217	0.33	9.8					Null Case
Nitrophenol [4-]	Soil	217					mg/kg	217	0.33	49					Null Case
Nitrophenol [4-]	Water	5					µg/l	5	10	55					Null Case
Nitrosodi-n-propylamine [N-]	Water	5				0.005	µg/l	5	10	11			5		Special Case
Nitrosodi-n-propylamine [N-]	Soil	217				0.1	mg/kg	217	0.33	9.8			217		Special Case
Nitrosodimethylamine [N-]	Soil	136					mg/kg	136	0.33	0.47					Null Case

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Nitrosodimethylamine [N-]	Water	2					µg/l	2	10	10					Null Case
Nitrosodiphenylamine [N-]	Soil	217				140	mg/kg	217	0.33	9.8		217			No Concern
Nitrosodiphenylamine [N-]	Water	5				7.1	µg/l	5	10	11			5		Special Case
Nitrotoluene [m-]	Soil	31					mg/kg	31	0.245	0.309					Null Case
Nitrotoluene [o-]	Soil	31					mg/kg	31	0.245	0.309					Null Case
Nitrotoluene [p-]	Soil	31					mg/kg	31	0.245	0.309					Null Case
Pentachlorophenol	Soil	217				5.8	mg/kg	217	0.33	49		211	6		Special Case
Pentachlorophenol	Water	5				1	µg/l	5	10	55			5		Special Case
Phenanthrene	Soil	217	33	0.34	66.8		mg/kg	184	0.33	3.4					Further Evaluation
Phenanthrene	Water	5					µg/l	5	10	11					Null Case
Phenol	Soil	217				48,000	mg/kg	217	0.33	9.8		217			No Concern
Phenol	Water	5	2	20	27	21,000	µg/l	3	10	11		5			No Concern
Plutonium-238	Soil	147	146	0.02	0.031	27	pCi/g	1	0.01	0.01		147			No Concern
Plutonium-238	Water	7	7	0.006	0.035	15	pCi/l					7			No Concern
Plutonium-239	Soil	147	145	0.02	0.95	24	pCi/g	2	0.01	0.01		147			No Concern
Plutonium-239	Water	7				15	pCi/l	7	0.04	0.04		7			No Concern
Propylbenzene	Water	5					µg/l	5	5	5					Null Case
Propylbenzene	Soil	37	4	0.59	6.9		mg/kg	33	0.005	0.005					Further Evaluation
Pyrene	Soil	217	45	0.35	51	2,400	mg/kg	172	0.33	3.4		217			No Concern
Pyrene	Water	5				1,000	µg/l	5	10	11		5			No Concern
RDX	Water	2				3.2	µg/l	2	0.63	0.63		2			No Concern
RDX	Soil	38	1	50	50	64	mg/kg	37	0.981	1.4		38			No Concern
Selenium	Soil	267	94	0.22	4.1	400	mg/kg	173	0.2	0.66		267			No Concern
Selenium	Water	10	1	3.6	3.6	50	µg/l	9	0.2	0.3		10			No Concern
Silver	Soil	264	24	1	208	400	mg/kg	240	1	1.4		264			No Concern
Silver	Water	10				170	µg/l	10	7	20		10			No Concern
Styrene	Soil	37				16,000	mg/kg	37	0.005	0.171		37			No Concern
Styrene	Water	5				100	µg/l	5	5	5		5			No Concern
T [2,4,5-]	Soil	42					mg/kg	42	0.012	1.38					Null Case
Tetrachloroethane [1,1,1,2-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Tetrachloroethane [1,1,1,2-]	Water	5					µg/l	5	5	5					Null Case
Tetrachloroethane [1,1,2,2-]	Soil	37	1	0.76	0.76	3.9	mg/kg	36	0.005	0.09		37			No Concern
Tetrachloroethane [1,1,2,2-]	Water	5				1.8	µg/l	5	5	5			5		Special Case
Tetrachloroethylene	Water	5				5	µg/l	5	5	5		5			No Concern
Tetrachloroethylene	Soil	37	1	0.51	0.51	5.9	mg/kg	36	0.005	0.09		37			No Concern
Tetryl(methyl-2,4,6-trinitrophenylnitramine	Soil	38				800	mg/kg	38	0.637	58		38			No Concern
Tetryl(methyl-2,4,6-trinitrophenylnitramine	Water	2				350	µg/l	2	3.1	3.1		2			No Concern
Toluene	Water	5	2	20	30	1,000	µg/l	3	5	5		5			No Concern
Toluene	Soil	43	4	0.16	32.8	890	mg/kg	39	0.005	0.005		43			No Concern
Toxaphene	Soil	33					mg/kg	33	0.079	0.52					Null Case
TP [2,4,5-]	Soil	42					mg/kg	42	0.012	0.804					Null Case
Trichloro-1,2,2-trifluoroethane [1,1,2-]	Soil	37	1	80.4	80.4		mg/kg	36	0.005	0.09					Further Evaluation
Trichloro-1,2,2-trifluoroethane [1,1,2-]	Water	5					µg/l	5	5	5					Null Case
Trichlorobenzene [1,2,4-]	Soil	217				160	mg/kg	217	0.33	9.8		217			No Concern
Trichlorobenzene [1,2,4-]	Water	5				70	µg/l	5	10	11		5			No Concern

TABLE 2-13

SUMMARY OF 1993 SAMPLE ANALYSES FOR OU 1122

Analyte	Matrix	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL	Number of Values with SAL >Bkgd*	Analyte Disposition
Trichloroethane [1,1,1-]	Water	5				200	µg/l	5	5	5		5			No Concern
Trichloroethane [1,1,1-]	Soil	37	1	78.6	78.6	1,000	mg/kg	36	0.005	0.09		37			No Concern
Trichloroethane [1,1,2-]	Water	5				5	µg/l	5	5	5		5			No Concern
Trichloroethane [1,1,2-]	Soil	37				6.3	mg/kg	37	0.005	0.171		37			No Concern
Trichloroethene	Water	5				5	µg/l	5	5	5		5			No Concern
Trichloroethene	Soil	37	1	91.2	91.2	3.2	mg/kg	36	0.005	0.09	1	36			Exceeds SAL
Trichlorofluoromethane	Soil	37					mg/kg	37	0.005	0.171					Null Case
Trichlorofluoromethane	Water	5					µg/l	5	5	5					Null Case
Trichlorophenol [2,4,5-]	Soil	217				8,000	mg/kg	217	0.33	49		217			No Concern
Trichlorophenol [2,4,5-]	Water	5				3,500	µg/l	5	10	55		5			No Concern
Trichlorophenol [2,4,6-]	Soil	217				64	mg/kg	217	0.33	9.8		217			No Concern
Trichlorophenol [2,4,6-]	Water	5				3.2	µg/l	5	10	11			5		Special Case
Trichloropropane [1,2,3-]	Soil	37					mg/kg	37	0.005	0.171					Null Case
Trichloropropane [1,2,3-]	Water	5					µg/l	5	5	5					Null Case
Trimethylbenzene [1,2,4-]	Soil	37	4	1.6	7.3		mg/kg	33	0.005	0.005					Further Evaluation
Trimethylbenzene [1,2,4-]	Water	5					µg/l	5	5	5					Null Case
Trimethylbenzene [1,3,5-]	Water	5					µg/l	5	5	5					Null Case
Trimethylbenzene [1,3,5-]	Soil	37	3	1.2	8.6		mg/kg	34	0.005	0.171					Further Evaluation
Trinitrobenzene [1,3,5-]	Water	2				1.8	µg/l	2	1.3	1.3		2			No Concern
Trinitrobenzene [1,3,5-]	Soil	38				4	mg/kg	38	0.245	23		37	1		Special Case
Trinitrotoluene [2,4,6-]	Soil	38				40	mg/kg	38	0.245	23		38			No Concern
Trinitrotoluene [2,4,6-]	Water	2				12	µg/l	2	1.3	1.3		2			No Concern
Tritium	Soil	146	146	0.06	8,912	15,000,000	pCi/g					146			No Concern
Tritium	Water	8				20,000	pCi/l	8	500	500		8			No Concern
Uranium, Total	Soil	242	242	1.1	90.9		mg/kg								Further Evaluation
Uranium, Total	Water	10	10	1	2.7		pCi/l								Further Evaluation
Vinyl acetate	Soil	24					mg/kg	24	0.01	0.18					Null Case
Vinyl acetate	Water	5					µg/l	5	10	10					Null Case
Vinyl chloride	Water	5				2	µg/l	5	10	10			5		Special Case
Vinyl chloride	Soil	37				0.012	mg/kg	37	0.01	0.342		33	4		Special Case
Xylenes (o + m + p) [Mixed-]	Soil	37	4	0.26	1.9	160,000	mg/kg	33	0.005	0.005		37			No Concern
Xylenes (o + m + p) [Mixed-]	Water	5				10,000	µg/l	5	5	5		5			No Concern
Zinc	Soil	263	263	9	9,800	24,000	mg/kg					263			No Concern
Zinc	Water	10	9	7.3	1,870	10,000	µg/l	1	20	20		10			No Concern
Total Number of Values		23,218	3,143					20,075			176	15,218	1,064	530	

Notes:

*background.

Analyte Disposition Column Categories:

1. " Exceeds SAL" indicates that one or more analyte values exceeded the SAL for that analyte.
2. "Further Evaluation" indicates that one or more analyte values were greater than the LOD and there is no current SAL for comparison.
3. "Special Case" indicates that the analyte values are less than the LOD for that analyte and the SAL is known to be less than the LOD.
4. "Null Case" indicates that the analyte values are less than the LOD for that analyte and the SAL is unknown.
5. "No Concern" indicates that the analyte values are all less than the SAL for that analyte.
6. "Within Background Range" indicates that the SAL is below background range, but the analyte is within background range.

2.15 ADS 1127—TA-35, TSL-125 (Project Leader: David McInroy)

An amended closure plan for surface impoundment TSL-85, which was sent to the NMED in October 1993, has been distributed for public comment; the Laboratory is waiting for approval of the plan before fieldwork begins.

2.16 ADS 1129—TAs-4, -5, -35, -42, -48, -52, -55, -63, -66 (Project Leader: Allyn Pratt)

The FY94 Baseline for OU 1129 was submitted to the ER Program Office in February. OU 1129 personnel have been working closely with the ER Program's Management Information System to finalize the baseline budget and schedule.

OU 1129 personnel have incorporated DOE comments into the addendum to the May 1992 RFI work plan for OU 1129 (LANL 1992, 0785) and are making final revisions to the document. The addendum includes sampling and analysis plans for Aggregates Q through Z, which list an additional 55 potential release sites (PRSs), and revisions to Table 6-1, "SWMUs and AOCs Recommended for No Further Action," which recommends an additional 26 PRSs for no further action.

The following Phase I site characterization activities took place at TA-35.

- Sampling took place at Aggregate F [PRSs 35-009(a through d)] from January 18 through February 10. Eighty-five soil samples and four water samples were collected. Analyses were requested for metals; VOCs; SVOCs; and gross-alpha, -beta, and -gamma activities. The samples were also analyzed using alpha spectrometry and gamma spectroscopy.

- OU 1129 personnel prepared a sample curation plan as a guideline for curation and storage of a sample at the Environmental Restoration Program's Sample Management Facility. A complete core taken from one of the 100-ft-deep boreholes at Aggregate D will be retained.

- Sampling began at Aggregate D on March 15.

Table 2-14 and Figures 2-3 through 2-7 summarize analytical results of Phase I site characterization at TA-48. The data summarized include all data available to the operable unit project leader as of March 28, 1994. The data have been reviewed for consistency and completeness. In Table 2-14, the LODs for radionuclide analyses have not been reported yet. For organic analyses, the numbers listed are the limits of quantitation. For some analytes, there is an LOD range because more than one LOD was reported (see Section 1.0 for further explanation of the table). The graphs in Figures 2-3 through 2-7 show the range of data (minimum and maximum values) for each analyte that was above the LOD. The graphs also show the comparison of the SALs with the range for each analyte.

TABLE 2-14

SUMMARY OF SOIL SAMPLE ANALYSES FOR TA-48, OU 1129

Analyte	Number of Values per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	Concentration Range Units	SAL	SAL Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	LOD Range Units	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Analyte Disposition
1,1,1,2-Tetrachloroethane	98							98		5	µg/kg			null case
1,1,1-Trichloroethane	98					1,000	mg/kg	98		5	µg/kg		98	no concern
1,1,2,2-Tetrachloroethane	98					3.9	mg/kg	98		5	µg/kg		98	no concern
1,1,2-Trichloro-1,2,2-trifluoroethane	98							98		5	µg/kg			null case
1,1,2-Trichloroethane	98					6.3	mg/kg	98		5	µg/kg		98	no concern
1,1-Dichloroethane	98					410	mg/kg	98		5	µg/kg		98	no concern
1,1-Dichloroethene	98					0.59	mg/kg	98		5	µg/kg		98	no concern
1,1-Dichloropropene	98							98		5	µg/kg			null case
1,2,3-Trichloropropane	98							98		5	µg/kg			null case
1,2,4-Trichlorobenzene	150					160	mg/kg	150		330	µg/kg		150	no concern
1,2,4-Trimethylbenzene	98							98		5	µg/kg			null case
1,2-Dibromo-3-chloropropane	98							98		10	µg/kg			null case
1,2-Dichloroethane	98					0.2	mg/kg	98		5	µg/kg		98	no concern
1,2-Dichloropropane	98					6.5	mg/kg	98		5	µg/kg		98	no concern
1,3,5-Trimethylbenzene	98							98		5	µg/kg			null case
1,3-Dichloropropane	98							98		5	µg/kg			null case
2,2-Dichloropropane	98							98		5	µg/kg			null case
2,4,5-Trichlorophenol	150					8,000	mg/kg	150		330	µg/kg		150	no concern
2,4,6-Trichlorophenol	150					64	mg/kg	150		330	µg/kg		150	no concern
2,4-Dichlorophenol	150					240	mg/kg	150		330	µg/kg		150	no concern
2,4-Dimethylphenol	150					1,600	mg/kg	150		330	µg/kg		150	no concern
2,4-Dinitrophenol	150					160	mg/kg	150		330	µg/kg		150	no concern
2,4-Dinitrotoluene	150							150		330	µg/kg			null case
2,6-Dinitrotoluene	150							150		330	µg/kg			null case
2-Butanone	98	1		53	µg/kg	4,000	mg/kg	97		20	µg/kg		98	no concern
2-Chloronaphthalene	150					6,400	mg/kg	150		330	µg/kg		150	no concern
2-Hexanone	98							98		20	µg/kg			null case
2-Methyl-4,6-dinitrophenol	150							150		330	µg/kg			null case
2-Methylnaphthalene	150							150		330	µg/kg			null case
2-Methylphenol	150					4,000	mg/kg	150		330	µg/kg		150	no concern
2-Nitroaniline	150					4.8	mg/kg	150		330	µg/kg		150	no concern
2-Nitrophenol	150							150		330	µg/kg			null case
3,3'-Dichlorobenzidine	150					1.6	mg/kg	150		330	µg/kg		150	no concern
3-Nitroaniline	150							150		330	µg/kg			null case
4-Bromophenylphenyl ether	150							150		330	µg/kg			null case
4-Chloro-3-methylphenol	150					16,000	mg/kg	150		330	µg/kg		150	no concern
4-Chloroaniline	150					320	mg/kg	150		330	µg/kg		150	no concern
4-Chlorophenylphenyl ether	150							150		330	µg/kg			null case
4-Isopropyltoluene	98	1		10	µg/kg			97		5	µg/kg			further evaluation
4-Methyl-2-pentanone	98					510	mg/kg	98		20	µg/kg		98	no concern
4-Methylphenol	150					4,000	mg/kg	150		330	µg/kg		150	no concern
4-Nitroaniline	150							150		330	µg/kg			null case
4-Nitrophenol	150							150		330	µg/kg			null case

TABLE 2-14

SUMMARY OF SOIL SAMPLE ANALYSES FOR TA-48, OU 1129

Analyte	Number of Values per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	Concentration Range Units	SAL	SAL Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	LOD Range Units	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Analyte Disposition
Acenaphthene	150	4	410	2,600	µg/kg	4,800	mg/kg	146		330	µg/kg		150	no concern
Acetone	98	11	25	200	µg/kg	8,000	mg/kg	87		20	µg/kg		98	no concern
Aluminum-ICPES	24	24	970	29,000	µg/g									further evaluation
Americium-241	25	14	0.001	1.16	pCi/g	22.0	pCi/g	11		NRD			25	no concern
Aniline	150							150		330	µg/kg			null case
Anthracene	150	4	390	5,100	µg/kg	24,000	mg/kg	146		330	µg/kg		150	no concern
Antimony-ICPMS	24					32	mg/kg	24	0.04	0.6	µg/kg		24	no concern
Antimony-XRF	122	3	5	7	ppm	32	mg/kg	119	4	10	ppm		122	no concern
Aroclor 1016	4							4		50	µg/kg			null case
Aroclor 1221	4							4		50	µg/kg			null case
Aroclor 1232	4							4		50	µg/kg			null case
Aroclor 1242	15							15		50	µg/kg			null case
Aroclor 1248	15							15		50	µg/kg			null case
Aroclor 1254	15	2	150	260	µg/kg			13		50	µg/kg			further evaluation
Aroclor 1260	15							15		50	µg/kg			null case
Arsenic-ETVAA	24	24	0.7	4.7	µg/g	0.4	mg/kg					24		exceeds SAL
Arsenic-XRF	122	1		36	ppm	0.4	mg/kg	121	4	10	ppm	1	121	exceeds SAL
Azobenzene	150							150		330	µg/kg			null case
Barium-ICPES	24	24	20	300	µg/g	5,600	mg/kg						24	no concern
Barium-XRF	122	122	116	733	ppm	5,600	mg/kg						122	no concern
Benzene	98					0.67	mg/kg	98		5	µg/kg		98	no concern
Benzo[a]anthracene	150	18	390	23,300	µg/kg	0.64	mg/kg	132		330	µg/kg	8	142	exceeds SAL
Benzo[a]pyrene	150	19	370	22,600	µg/kg	0.1	mg/kg	131		330	µg/kg	19		exceeds SAL
Benzo[b]fluoranthene	150	20	440	25,800	µg/kg	0.7	mg/kg	130		330	µg/kg	12	138	exceeds SAL
Benzo[g,h,i]perylene	150	8	410	13,300	µg/kg	44	mg/kg	142		330	µg/kg		150	no concern
Benzo[k]fluoranthene	150	7	800	107,000	µg/kg	1.5	mg/kg	143		330	µg/kg	6	144	exceeds SAL
Benzoic acid	150					320,000	mg/kg	150		330	µg/kg		150	no concern
Benzyl alcohol	150							150		330	µg/kg			null case
Beryllium-ICPES	24	24	0.18	2.2	µg/g	0.16	mg/kg					24		exceeds SAL
Bis(2-chloroethoxy)methane	150							150		330	µg/kg			null case
Bis(2-chloroethyl)ether	150					0.13	mg/kg	150		330	µg/kg		150	no concern
Bis(2-chloroisopropyl)ether	150							150		330	µg/kg			null case
Bis(2-ethylhexyl)phthalate	150	3	370	3,800	µg/kg	50	mg/kg	147		330	µg/kg		150	no concern
Bromobenzene	98							98		5	µg/kg			null case
Bromochloromethane	98							98		5	µg/kg			null case
Bromodichloromethane	98					11	mg/kg	98		5	µg/kg		98	no concern
Bromoform	98					89	mg/kg	98		5	µg/kg		98	no concern
Bromomethane	98					0.43	mg/kg	98		10	µg/kg		98	no concern
Butyl benzyl phthalate	150					16,000	mg/kg	150		330	µg/kg		150	no concern
Cadmium-ICPES	24					80	mg/kg	24		0.4	µg/g		24	no concern
Cadmium-XRF	122					80	mg/kg	122	3	10	ppm		122	no concern
Calcium-ICPES	24	24	390	570,000	µg/g									further evaluation
Calcium-XRF	122	122	0.17	5.8	%									further evaluation

TABLE 2-14

SUMMARY OF SOIL SAMPLE ANALYSES FOR TA-48, OU 1129

Analyte	Number of Values per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	Concentration Range Units	SAL	SAL Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	LOD Range Units	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Analyte Disposition
Carbon disulfide	98	2	5.8	6	µg/kg	7.4	mg/kg	96		5	µg/kg		98	no concern
Carbon tetrachloride	98					0.21	mg/kg	98		5	µg/kg		98	no concern
Cesium-137	22	20	0.009	3.73	pCi/g	4.0	pCi/g	2		NRD			22	no concern
Chlorobenzene	98					67	mg/kg	98		5	µg/kg		98	no concern
Chlorodibromomethane	98					83	mg/kg	98		5	µg/kg		98	no concern
Chloroethane	98					3,300	mg/kg	98		10	µg/kg		98	no concern
Chloroform	98					0.21	mg/kg	98		5	µg/kg		98	no concern
Chloromethane	98					6.4	mg/kg	98		10	µg/kg		98	no concern
Chromium-ICPES	24	19	2.5	14	µg/g	400	mg/kg	5		0.5	µg/g		24	no concern
Chromium-XRF	122	56	10	107	ppm	400	mg/kg	66	10	13	ppm		122	no concern
Chrysene	150	18	360	260,000	µg/kg	22	mg/kg	132		330	µg/kg	1	149	exceeds SAL
cis-1,2-Dichloroethylene	98							98		5	µg/kg			null case
cis-1,3-Dichloropropene	98					0.17	mg/kg	98		5	µg/kg		98	no concern
Cobalt-60	22	4	0.026	0.0798	pCi/g	0.9	pCi/g	18		NRD			22	no concern
Cobalt-ICPES	24	23	0.7	5	µg/g			1		1	µg/g			further evaluation
Copper-ICPES	24	23	0.82	10	µg/g	3,000	mg/kg	1		0.6	µg/g		24	no concern
Copper-XRF	122	45	10	55	ppm	3,000	mg/kg	77	8	10	ppm		122	no concern
Di-n-butyl phthalate	150	3	470	1,800	µg/kg	8,000	mg/kg	147		330	µg/kg		150	no concern
Di-n-octyl phthalate	150					1,600	mg/kg	150		330	µg/kg		150	no concern
Dibenzo[a,h]anthracene	150	4	630	2,700	µg/kg	0.086	mg/kg	146		330	µg/kg	4		exceeds SAL
Dibenzofuran	150	1		940	µg/kg			149		330	µg/kg			further evaluation
Dibromomethane	98							98		5	µg/kg			null case
Dichlorodifluoromethane	98							98		5	µg/kg			null case
Diethyl phthalate	150					64,000	mg/kg	150		330	µg/kg		150	no concern
Dimethyl phthalate	150							150		330	µg/kg			null case
Ethylbenzene	98					3,100	mg/kg	98		5	µg/kg		98	no concern
Ethylene dibromide	98							98		5	µg/kg			null case
Fluoranthene	150	26	390	27,200	µg/kg	3,200	mg/kg	124		330	µg/kg		150	no concern
Fluorene	150	3	410	2,100	µg/kg	3,200	mg/kg	147		330	µg/kg		150	no concern
Hexachloroethane	150					80	mg/kg	150		330	µg/kg		150	no concern
Hexachlorobenzene	150					0.44	mg/kg	150		330	µg/kg		150	no concern
Hexachlorobutadiene	150					90	mg/kg	150		330	µg/kg		150	no concern
Hexachlorocyclopentadiene	150					560	mg/kg	150		330	µg/kg		150	no concern
Indeno[1,2,3-cd]pyrene	150	9	390	13,700	µg/kg	0.41	mg/kg	141		330	µg/kg	7	143	exceeds SAL
Iron-ICPES	24	24	4,300	21,000	µg/g									further evaluation
Iron-XRF	122	122	0.82	5.1	%									further evaluation
Isophorone	150					7,400	mg/kg	150		330	µg/kg		150	no concern
Isopropylbenzene	98							98		5	µg/kg			null case
Lead-ICPMS	24	22	4.6	25	µg/g	500	mg/kg	2		4	µg/g		24	no concern
Lead-XRF	122	117	10	47	ppm	500	mg/kg	5		10	ppm		122	no concern
m-Benzidine	150							150		330	µg/kg			null case
m-Dichlorobenzene (1,3)	98							98		5	µg/kg			null case
m-Dichlorobenzene (1,3)	150					7,200	mg/kg	150		330	µg/kg		150	no concern

TABLE 2-14

SUMMARY OF SOIL SAMPLE ANALYSES FOR TA-48, OU 1129

Analyte	Number of Values per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	Concentration Range Units	SAL	SAL Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	LOD Range Units	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Analyte Disposition
Magnesium-ICPES	24	24	270	2,600	µg/g									further evaluation
Manganese-ICPES	24	24	100	510	µg/g	8,000	mg/kg						24	no concern
Manganese-XRF	122	121	137	1,253	ppm	8,000	mg/kg	1		16	ppm		122	no concern
Mercury-XRF	122	6	10	50,110	ppm	24	mg/kg	116		10	ppm	4	118	exceeds SAL
Methyl iodide	98							98		5	µg/kg			null case
Methylene chloride	98					5.6	mg/kg	98		5	µg/kg		98	no concern
Mixed-Aroclor	15	2	150	260	µg/kg	0.09	mg/kg	13		50	µg/kg	2	13	exceeds SAL
Mixed-Xylenes (o+m+p)	98					160,000	mg/kg	98		5	µg/kg		98	no concern
n-Butylbenzene	98							98		5	µg/kg			null case
N-Nitrosodi-n-propylamine	150					0.1	mg/kg	150		330	µg/kg			special case
N-Nitrosodimethylamine	150							150		330	µg/kg			null case
N-Nitrosodiphenylamine	150					140	mg/kg	150		330	µg/kg		150	no concern
Naphthalene	150	1		610	µg/kg	3,200	mg/kg	149		330	µg/kg		150	no concern
Nickel-ICPES	24	15	4	11	µg/g	1,600	mg/kg	9		3	µg/g		24	no concern
Nickel-XRF	122	13	10	20	ppm	1,600	mg/kg	109	10	120	ppm		122	no concern
Nitrobenzene	150					5.3	mg/kg	150		330	µg/kg		150	no concern
o-Chlorophenol	150							150		330	µg/kg			null case
o-Chlorotoluene	98							98		5	µg/kg			null case
o-Dichlorobenzene (1,2)	98							98		5	µg/kg			null case
o-Dichlorobenzene (1,2)	150					1,600	mg/kg	150		330	µg/kg		150	no concern
p-Chlorotoluene	98							98		5	µg/kg			null case
p-Dichlorobenzene (1,4)	98							98		5	µg/kg			null case
p-Dichlorobenzene (1,4)	150					290	mg/kg	150		330	µg/kg		150	no concern
Pentachlorophenol	150					5.8	mg/kg	150		330	µg/kg		150	no concern
Phenanthrene	150	23	330	26,200	µg/kg			127		330	µg/kg			further evaluation
Phenol	150					48,000	mg/kg	150		330	µg/kg		150	no concern
Plutonium-238	76	66	0.001	0.172	pCi/g	27.0	pCi/g	10		NRD			76	no concern
Plutonium-239	76	76	0.001	6.4	pCi/g	24.0	pCi/g						76	no concern
Potassium-ICPES	24	24	250	2,300	µg/g									further evaluation
Potassium-XRF	122	122	1.91	5.53	%									further evaluation
Propylbenzene	98							98		5	µg/kg			null case
Pyrene	150	26	380	44,400	µg/kg	2,400	mg/kg	124		330	µg/kg		150	no concern
Ruthenium-106	22	5	0.191	3	pCi/g	15.0	pCi/g	17		NRD			22	no concern
sec-Butylbenzene	98							98		5	µg/kg			null case
Selenium-ETVAA	24	5	0.3	0.6	µg/g	400	mg/kg	19		0.2	µg/g		24	no concern
Selenium-XRF	122					400	mg/kg	122	4	10	ppm		122	no concern
Silver-ICPES	24					400	mg/kg	24		1	µg/g		24	no concern
Sodium-ICPES	24	24	49	200	µg/g									further evaluation
Styrene	98					16,000	mg/kg	98		5	µg/kg		98	no concern
tert-Butylbenzene	98							98		5	µg/kg			null case
Tetrachloroethylene	98							98		5	µg/g			null case
Thallium-ICPMS	24	9	20	180	µg/g	6.4	mg/kg	15	0.04	0.1	µg/g		24	no concern
Thorium-228	24	24	0.955	1.92	pCi/g									further evaluation

TABLE 2-14

SUMMARY OF SOIL SAMPLE ANALYSES FOR TA-48, OU 1129

Analyte	Number of Values per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	Concentration Range Units	SAL	SAL Units	Number of Values <LOD	LOD Range Minimum	LOD Range Maximum	LOD Range Units	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Analyte Disposition
Thorium-230	24	24	0.568	2.35	pCi/g	10.0	pCi/g						24	no concern
Thorium-232	24	24	0.752	1.61	pCi/g	0.88	pCi/g					23	1	exceeds SAL
Thorium-XRF	122	101	10	57	ppm	1	pCi/g	21	8	10	ppm	*		further evaluation
Titanium-XRF	122	121	1,016	7,000	ppm			1		10	ppm			further evaluation
Toluene	98					890	mg/kg	98		5	µg/kg		98	no concern
trans-1,2,-Dichloroethene	98					1,600	mg/kg	98		5	µg/kg		98	no concern
trans-1,3-Dichloropropene	98					0.17	mg/kg	98		5	µg/kg		98	no concern
Trichloroethene	98					3.2	mg/kg	98		5	µg/kg		98	no concern
Trichlorofluoromethane	98							98		5	µg/kg			null case
Uranium-234	35	35	0.509	6.63	pCi/g	86.0	pCi/g						35	no concern
Uranium-235	35	35	0.009	0.403	pCi/g	18.0	pCi/g						35	no concern
Uranium-238	35	35	0.561	4.65	pCi/g	59.0	pCi/g						35	no concern
Uranium-XRF	122	13	10	18	ppm	66	pCi/g	109	8	10	ppm	*		further evaluation
Vanadium-ICPES	24	24	2.5	23	µg/g	560	mg/kg						24	no concern
Vinyl chloride	98					0.013	mg/kg	98		10	µg/kg		98	no concern
Zinc-ICPES	24	24	23	140	µg/g	24,000	mg/kg						24	no concern
Zinc-XRF	122	121	18	720	ppm	24,000	mg/kg	1		10	ppm		122	no concern
Total Number of Values	**19,409**	**2,188**						**17,221**				**135**	**11,761**	

Notes:

ETVAA = electro thermo vaporization atomic absorption

ICPES = inductively coupled plasma emission spectrometry.

ICPMS = inductively coupled plasma mass spectrometry.

NRD = not reported to date by CST-9.

*The difference in units between the reported results and the SAL does not allow a comparison; therefore, SAL comparison totals are off by 244.

Analyte Disposition Column Categories:

1. "No concern" means that the concentration values are less than the SAL for that analyte.
2. "Null case" means that the concentration values are less than the LOD and there is no SAL for that analyte.
3. "Further evaluation" means that one or more of the concentration values were greater than the LOD, and that there is no SAL for that analyte.
4. "Exceeds SAL" means that one or more of the concentration values were greater than the SAL for that analyte.
5. "Special case" indicates that the analyte values are less than the LOD for that analyte, and the SAL is known to be less than the LOD.

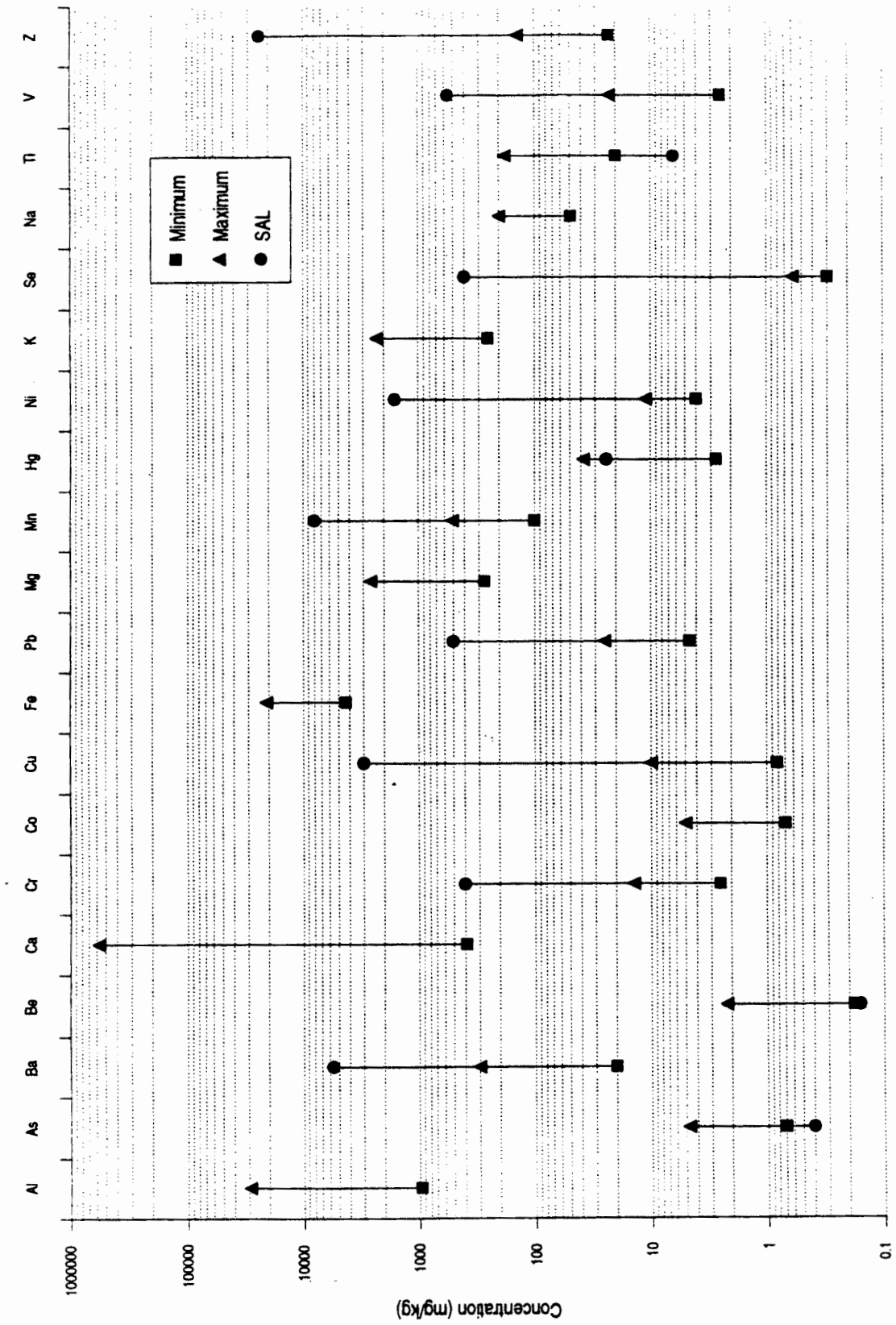

Figure 2-4. Summary of metals (ICPES) soil sample analyses for TA-48, OU 1129.

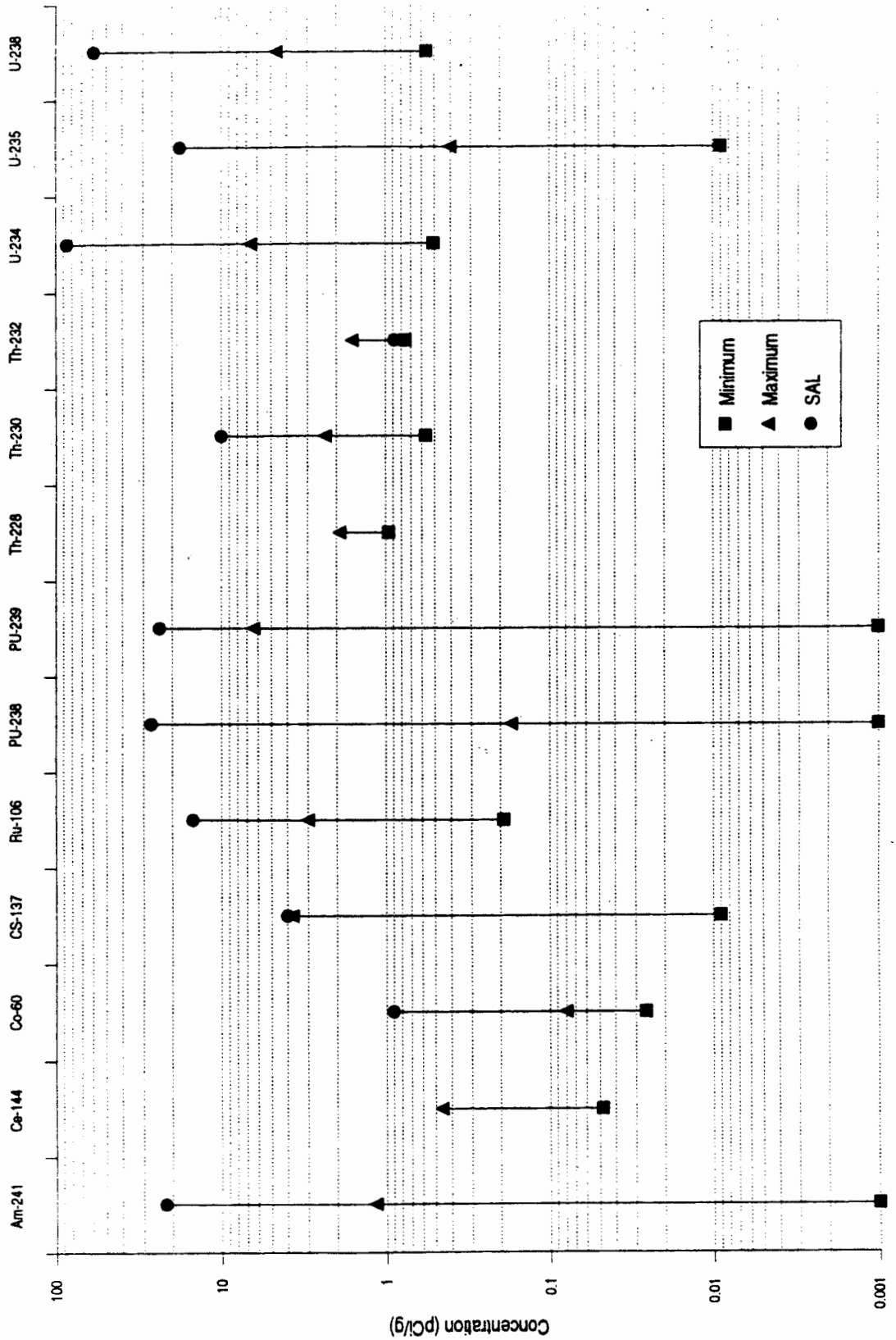

Figure 2-3. Summary of radionuclide soil sample analyses for TA-48, OU 1129.

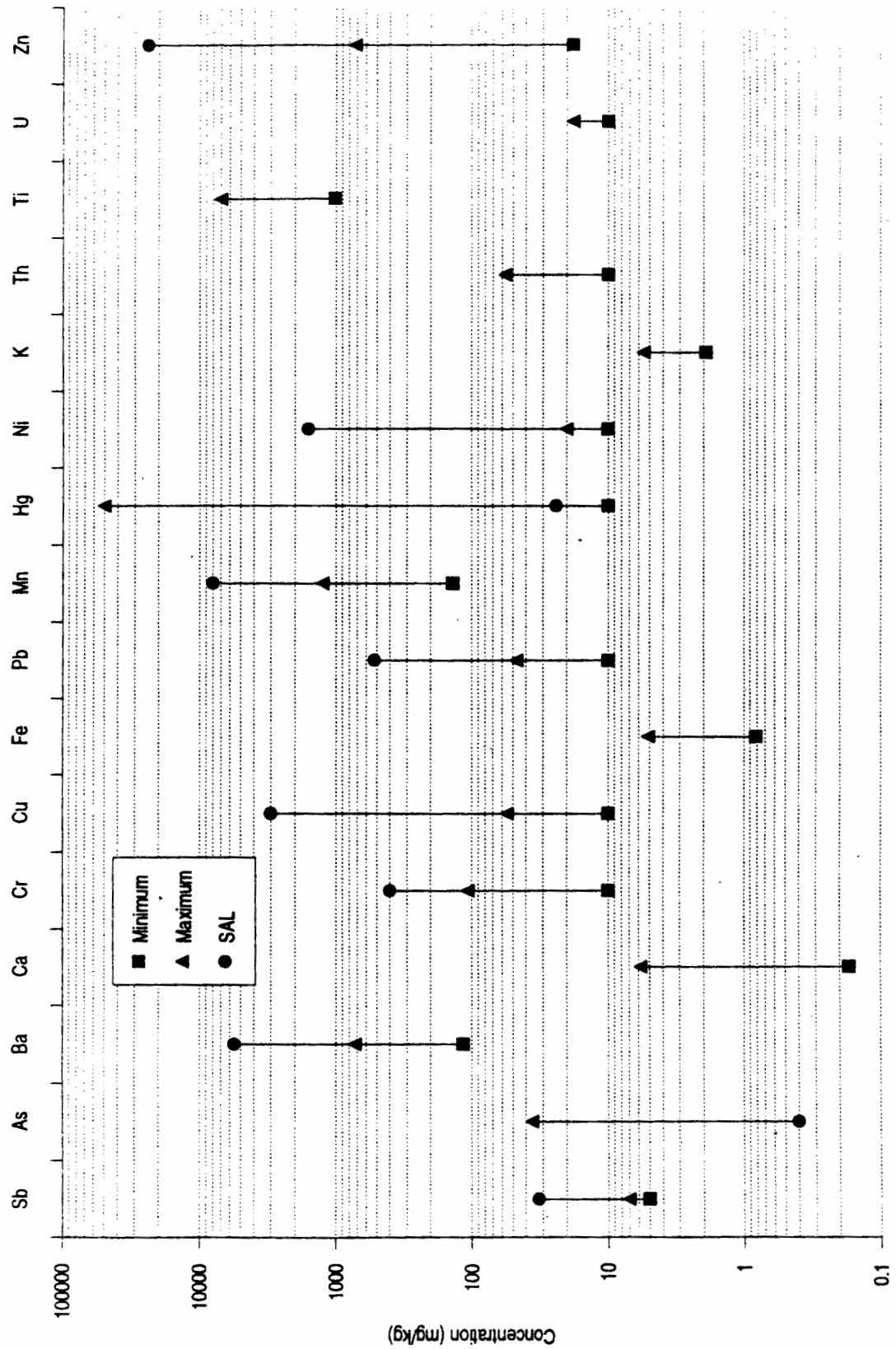

Figure 2-5. Summary of metals (XRF) soil sample analyses for TA-48, OU 1129.

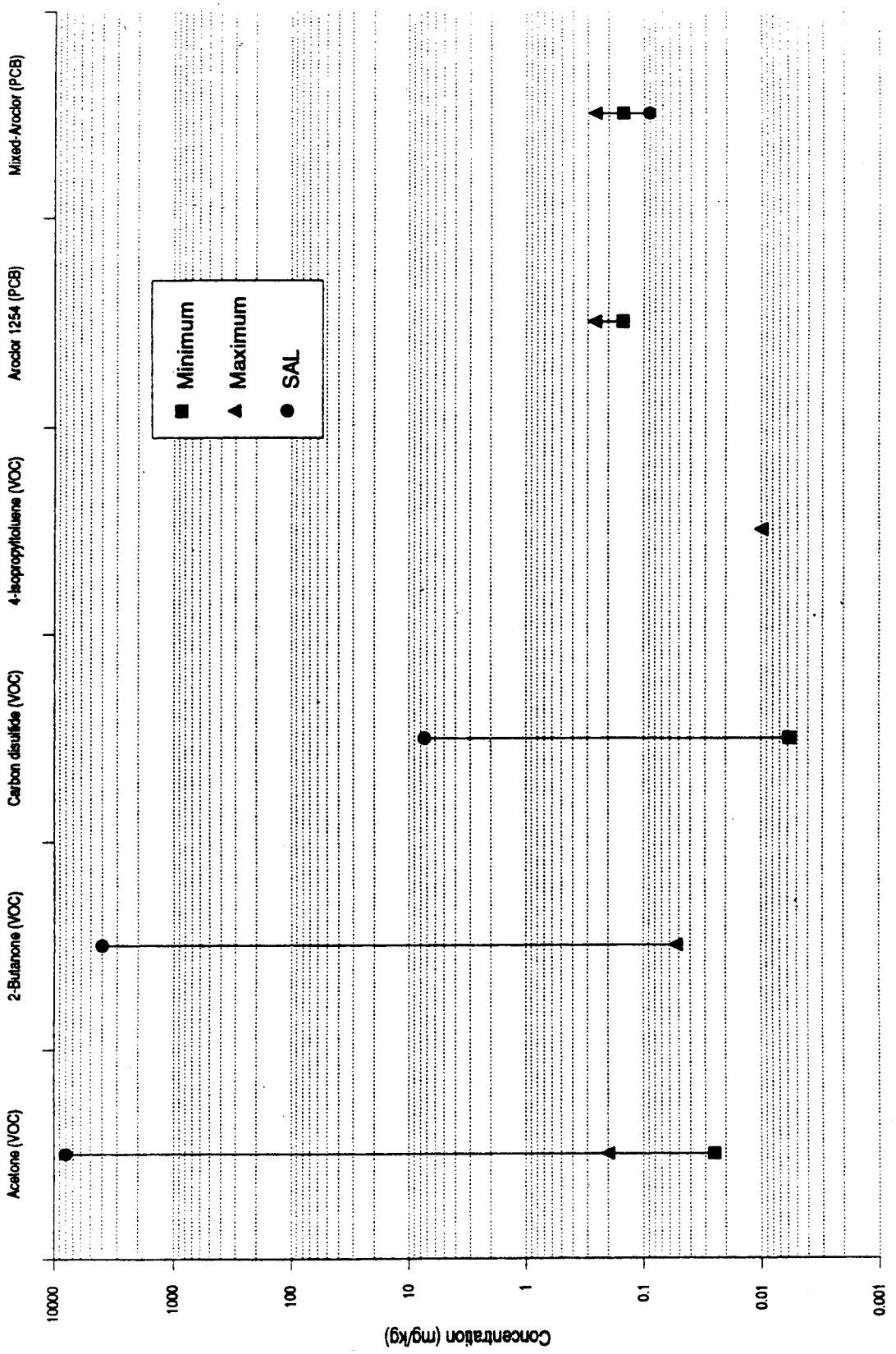

Figure 2-6. Summary of VOC/PCB soil sample analyses for TA-48, OU 1129.

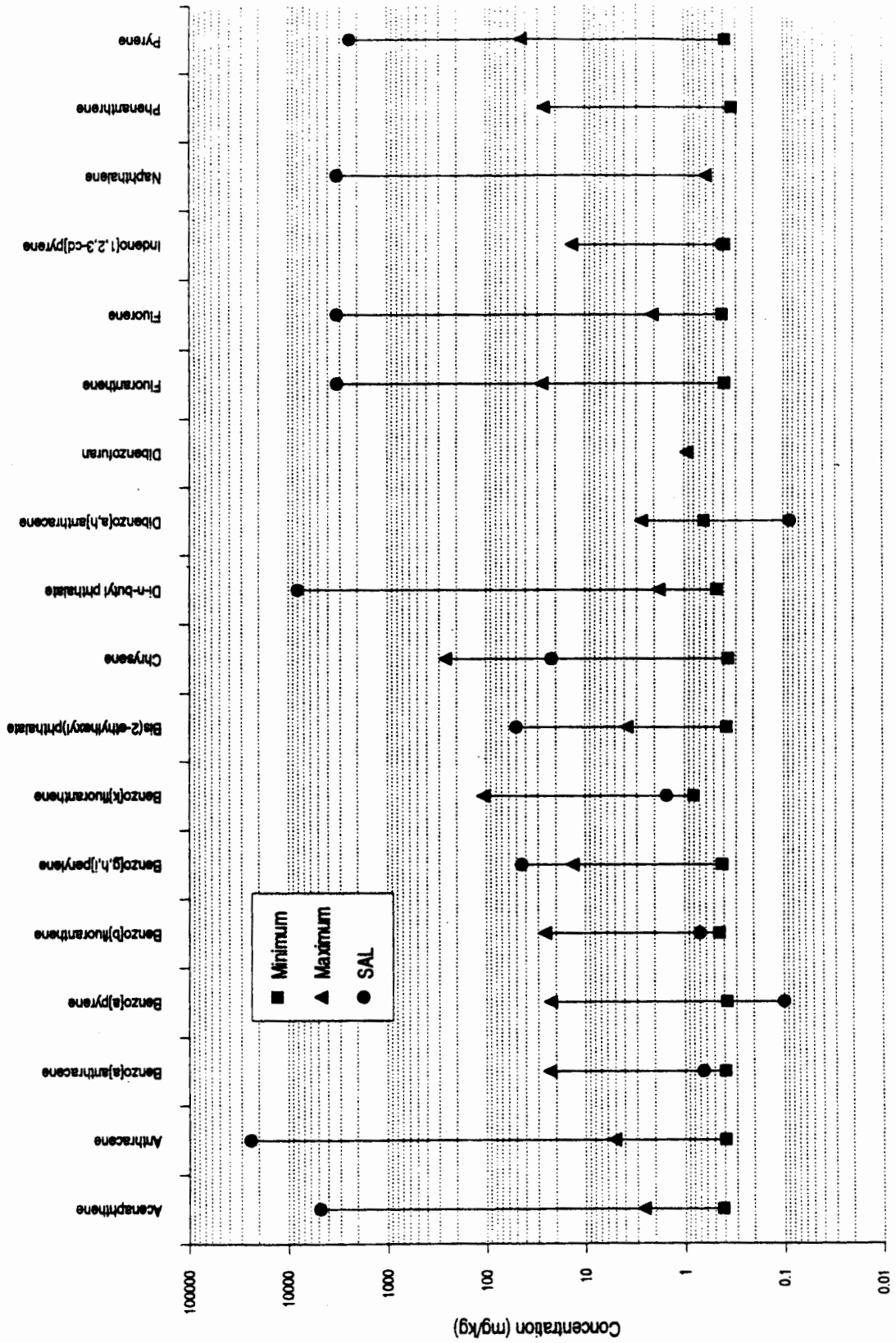

Figure 2-7. Summary of SVOC soil sample analyses for TA-48, OU 1129.

2.17 ADS 1130—TAs-36, -68, -71 (Project Leader: Gene Gould)

A field report was prepared for the 1993 field activities, which included land, radiation, and geophysical surveys. The field team started preparations for the 1994 field season, which included completion of the waste management plan and the site-specific health and safety plan. Software was obtained for implementing a database for printing field forms and for transferring information to and from FIMAD.

A notice of deficiency on the RFI work plan for OU 1130 was received from the EPA on February 7. A response to the notice was submitted to the ER Program Office on March 3.

2.18 ADS 1132—TA-39 (Project Leader: Gene Gould)

The field team began making preparations for the 1994 field season. The first training session on the ER Program's standard operating procedures (SOPs) was conducted on March 31.

2.19 ADS 1135—TA-40 (Project Leader: David McInroy)

A final sampling and cleanup strategy for TA-40 was submitted to the NMED in the form of a closure plan amendment.

2.20 ADS 1136—TA-43 (Project Leader: David Bradbury)

The first draft of the revised RFI work plan for OU 1136, which includes the investigation of three PRSs, was delivered for informal DOE review; comments from that review are being incorporated.

2.21 ADS 1140—TA-46 (Project Leader: Roy Michelotti)

Planning for the FY94 fieldwork season continued this quarter. A new outfall SWMU was located and reported; a sampling plan was developed for this new SWMU.

The fieldwork was completed for the Facilities Engineering (ENG) Division/Johnson Controls World Services Inc. (JCI) projects to reroute outfalls. The team is working with JCI to ensure that data resulting from the characterization of the waste generated by this work will provide useful ER information. A radiation survey was conducted in the vicinity of the ENG/JCI project near Building 46-31 because anecdotal information indicated above-background readings. No above-background hot spots were located.

2.22 ADS 1144—TA-49 (Project Leader: Ines Triay)

Drilling and sampling of a 700-ft "cold" borehole (49-2-700-1) in Area 12, immediately to the east of Area 2, were completed (see Figure 2-8). Drilling and sampling of four 10-ft boreholes (49-2-10-1 through 49-2-10-4) and two 150-ft "hot" boreholes (49-2-150-1 and 49-2-150-2) in Area 2 were also completed (see Figure 2-8). Soil moisture data were obtained from these seven boreholes using an on-site mobile radiological laboratory. The gravimetric moisture content is accurate to 0.01% (see Figure 2-9). When the percentage of moisture of the two 150-ft boreholes is compared with that of the 700-ft cold borehole, there is a significant difference in moisture content from a depth of approximately 10 ft to 40 ft. This contrast is most likely caused by rainwater that seeped through the cracks in the asphalt pad, saturated the fill material overlying the tuff, and eventually seeped to a 40-ft depth (i.e., approximately 30 ft into the tuff).

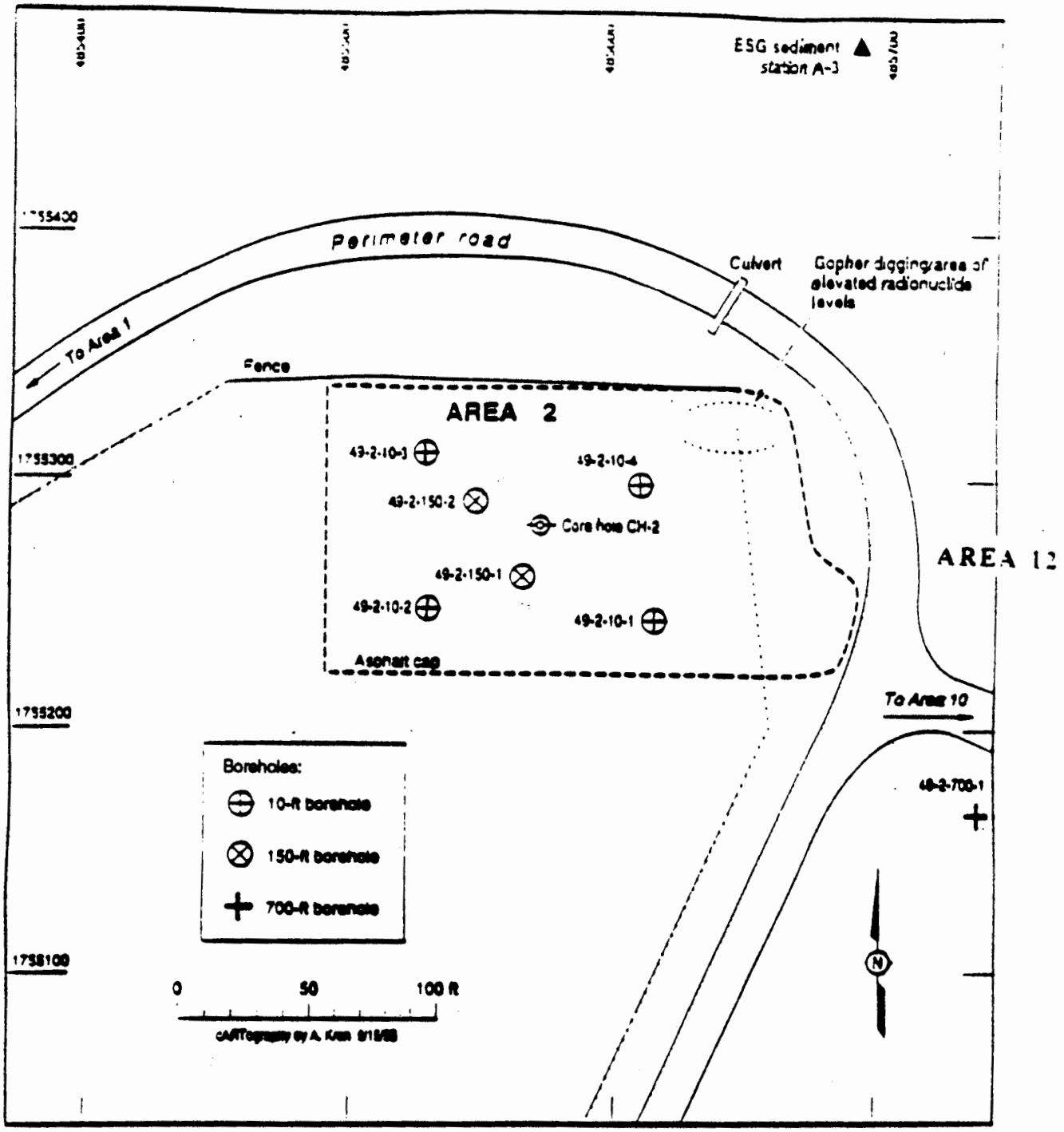

Figure 2-8. Locations of boreholes for Areas 2 and 12, OU 1144.

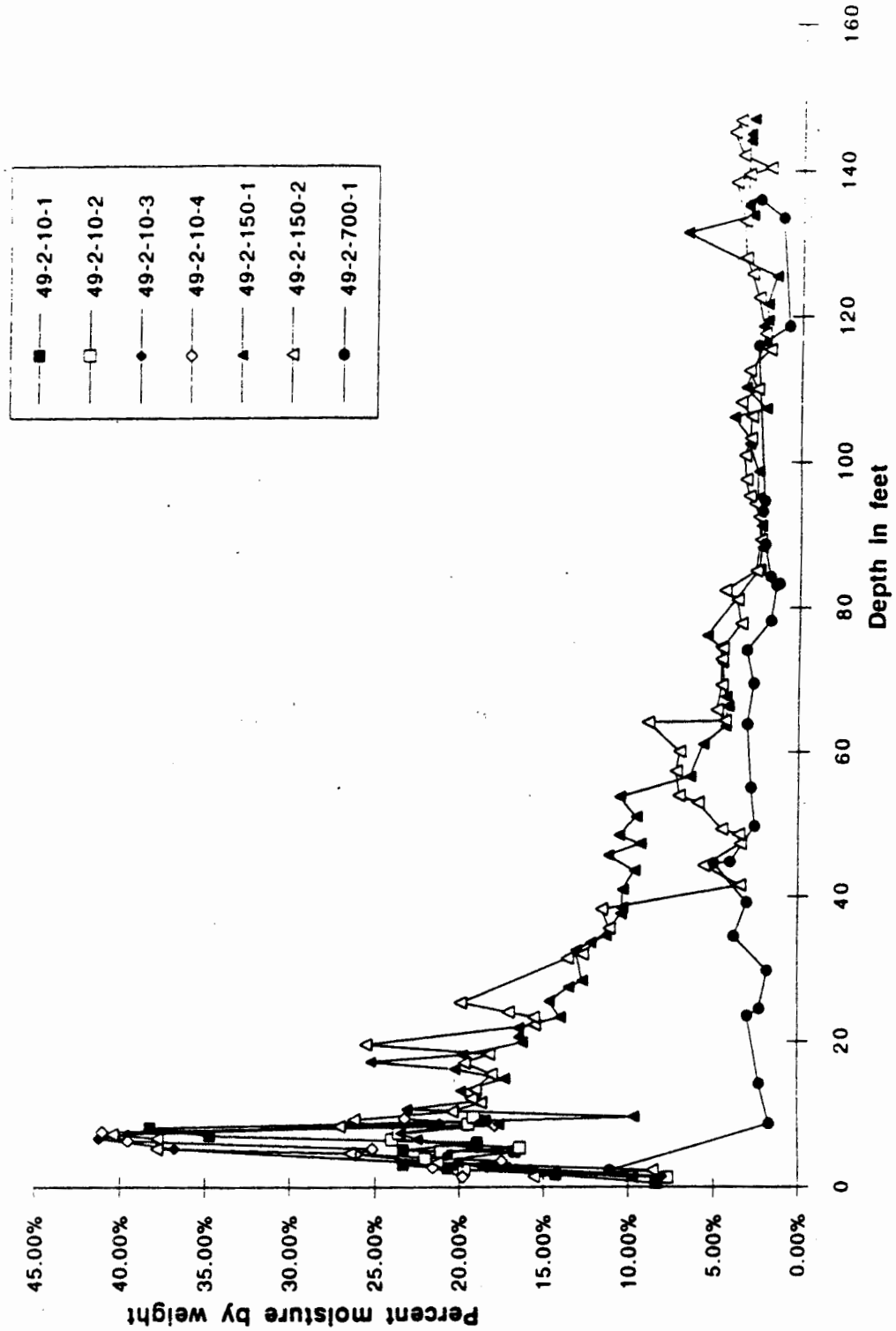

Figure 2-9. Area 2 preliminary moisture data for TA-49, OU 1144.

2.23 ADS 1147—TA-50 (Project Leader: Cheryl K. Rofer)

Comments on the RFI work plan for OU 1147 (LANL 1992, 0787) have been received from the State of New Mexico and will be discussed with Agreement-in-Principle personnel. The final version of the RFI work plan is being prepared.

Soil samples were collected from Aggregate 5, possible fallout from operations at TA-50 [PRSs 50-006(c), 50-007, and 50-008]; Aggregate 6, Ten Site Canyon [PRS 50-006(a)] and Mortandad Canyon [PRS 50-006(d)]; and MDA C (PRS 50-009) and were analyzed as specified in the RFI work plan. Approximately half of the chemical analysis results for the soil samples have been received and are being reviewed. Available results are summarized in Tables 2-15 through 2-17 in this report (see Section 1.0 for an explanation of these summary tables).

The available results for Aggregate 5 are summarized in Table 2-15. The constituents detected above SALS are condensed-ring hydrocarbons, arsenic, beryllium, cadmium, chromium, radium-226, silver, and thorium-232. The available results for Ten Site Canyon are summarized in Table 2-16. The constituents detected above SALS are PCBs, arsenic, beryllium, radium-226, and thorium-232. The available results for Mortandad Canyon are summarized in Table 2-17. The constituents detected above SALS are PCBs, condensed-ring hydrocarbons, arsenic, beryllium, cesium-137, cobalt-60, plutonium-239, radium-226, strontium-90, and thorium-232. Interpretation of the data that indicate constituents above SALs is under way, but arsenic, beryllium, and thorium-232 are naturally present in Los Alamos soils at levels near those determined for these samples.

TABLE 2-15

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(c), 50-007, AND 50-008 AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Acenaphthene	52				4,800	mg/kg	52	0.33	0.39		52	
Acenaphthylene	52					mg/kg	52	0.33	0.39			
Aniline	52					mg/kg	52	0.33	0.39			
Anthracene	52	1	0.41	0.41	24,000	mg/kg	51	0.33	0.39		52	
Antimony	8	8	0.06	0.14	32	mg/kg					8	
Aroclor 1242	52					mg/kg	52	0.05	1			
Aroclor 1254	52	1	1	1		mg/kg	51	0.05	1			
Aroclor 1260	52	9	0.07	0.52		mg/kg	43	0.05	1			
Aroclor [Mixed-]	52	10	0.07	1	0.09	mg/kg	42	0.05	1	9	36	7
Arsenic	8	8	2	3.6	0.4	mg/kg				8		
Azobenzene	52					mg/kg	52	0.33	0.39			
Barium	8	7	0.54	800	5,600	mg/kg	1	0.1	0.1		8	
Benzenes, substituted	2*					mg/kg						
Benzidine [m-]	52					mg/kg	52	0.33	0.94			
Benzo[a]anthracene	52	7	0.45	1.8	0.64	mg/kg	45	0.33	0.39	5	47	
Benzo[a]pyrene	52	8	0.36	2.4	0.1	mg/kg	44	0.33	0.39	8		44
Benzo[b]fluoranthene	52	7	0.5	2.2	0.7	mg/kg	45	0.33	0.39	4	48	
Benzo[g,h,i]perylene	52	6	0.5	1.4	44	mg/kg	46	0.33	0.39		52	
Benzo[k]fluoranthene	52	7	0.42	1.4	1.5	mg/kg	45	0.33	0.39		52	
Benzoic acid	52				320,000	mg/kg	52	0.33	0.94		52	
Benzyl alcohol	52					mg/kg	52	0.33	0.94			
Beryllium	8	7	0.41	150	0.16	mg/kg	1	0.08	0.08	7	1	
Bis(2-chloroethoxy)methane	52					mg/kg	52	0.33	0.39			
Bis(2-chloroethyl)ether	52				0.12	mg/kg	52	0.33	0.39			52
Bis(2-chloroisopropyl)ether	52				100	mg/kg	52	0.33	0.39		52	
Bis(2-ethylhexyl)phthalate	52	2	0.69	0.7	50	mg/kg	50	0.33	0.39		52	
Bromophenylphenyl ether [4-]	52					mg/kg	52	0.33	0.39			
Butyl benzyl phthalate	52				16,000	mg/kg	52	0.33	0.39		52	
Cadmium	8	4	0.5	170	80	mg/kg	4	0.4	0.4	2	6	
Cesium-137	32	2	0.979	2.05	4	mg/kg	30	0.256	0.752		32	
Chloro-3-methylphenol [4-]	52				16,000	mg/kg	52	0.33	0.94		52	
Chloroaniline [4-]	52				320	mg/kg	52	0.33	0.94		52	
Chloronaphthalene [2-]	52				6,400	mg/kg	52	0.33	0.39		52	
Chlorophenol [o-]	52				400	mg/kg	52	0.33	0.39		52	
Chlorophenylphenyl ether [4-]	52					mg/kg	52	0.33	0.39			
Chromium	8	8	1.1	810	400	mg/kg				1	7	

TABLE 2-15

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(c), 50-007, AND 50-008 AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Chrysene	52	8	0.37	2.9	22	mg/kg	44	0.33	0.39		52	
Cobalt-60	31				0.9	pCi/g	31	0.258	0.773		31	
Di-n-butyl phthalate	52	1	1.8	1.8	8,000	mg/kg	51	0.33	0.39		52	
Di-n-octyl phthalate	52				1,600	mg/kg	52	0.33	0.39		52	
Dibenzo[a,h]anthracene	52	2	0.55	0.69	0.086	mg/kg	50	0.33	0.39	2		50
Dibenzofuran	52					mg/kg	52	0.33	0.39			
Dichlorobenzene (1,2) [o-]	52				1,600	mg/kg	52	0.33	0.39		52	
Dichlorobenzene (1,3) [m-]	52				7,200	mg/kg	52	0.33	0.39		52	
Dichlorobenzene (1,4) [p-]	52				290	mg/kg	52	0.33	0.39		52	
Dichlorobenzidine [3,3'-]	52				1.6	mg/kg	52	0.33	0.94		52	
Dichlorophenol [2,4-]	52				240	mg/kg	52	0.33	0.39		52	
Diethyl phthalate	52				64,000	mg/kg	52	0.33	0.39		52	
Dimethyl phthalate	52				800,000	mg/kg	52	0.33	0.39		52	
Dimethylphenol [2,4-]	52				1,600	mg/kg	52	0.33	0.39		52	
Dinitrophenol [2,4-]	52				160	mg/kg	52	0.33	0.94		52	
Dinitrotoluene [2,4-]	52				1	mg/kg	52	0.33	0.39		52	
Dinitrotoluene [2,6-]	52				1	mg/kg	52	0.33	0.39		52	
Fluoranthene	52	10	0.7	4.1	3,200	mg/kg	42	0.33	0.39		52	
Fluorene	52				3,200	mg/kg	52	0.33	0.39		52	
Hexachlorobenzene	52				0.44	mg/kg	52	0.33	0.39		52	
Hexachlorobutadiene	52				90	mg/kg	52	0.33	0.39		52	
Hexachlorocyclopentadiene	52				560	mg/kg	52	0.33	0.39		52	
Hexachloroethane	52				80	mg/kg	52	0.33	0.39		52	
Indeno[1,2,3-cd]pyrene	52	6	0.54	1.6	0.41	mg/kg	46	0.33	0.39	6	46	
Isophorone	52				7,400	mg/kg	52	0.33	0.39		52	
Lead	8	8	6	35	500	mg/kg					8	
Methyl-4,6-dinitrophenol [2-]	52					mg/kg	52	0.33	0.94			
Methylnaphthalene [2-]	52					mg/kg	52	0.33	0.39			
Methylphenol [2-]	52				4,000	mg/kg	52	0.33	0.39		52	
Methylphenol [4-]	52				400	mg/kg	52	0.33	0.39		52	
Naphthalene	52				3,200	mg/kg	52	0.33	0.39		52	
Nickel	8	3	9	870	1,600	mg/kg	5	2	2		8	
Nitroaniline [2-]	52					mg/kg	52	0.33	0.94			
Nitroaniline [3-]	52					mg/kg	52	0.33	0.94			
Nitroaniline [4-]	52					mg/kg	52	0.33	0.94			
Nitrobenzene	52				5.3	mg/kg	52	0.33	0.39		52	
Nitrophenol [2-]	52					mg/kg	52	0.33	0.39			
Nitrophenol [4-]	52					mg/kg	52	0.33	0.94			

TABLE 2-15

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(c), 50-007, AND 50-008 AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range		SAL	Units	Number of Values < LOD	LOD Range		Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
			Mini-mum	Maxi-mum				Mini-mum	Maxi-mum			
Nitrosodi-n-propylamine [N-]	52				0.1	mg/kg	52	0.33	0.39			52
Nitrosodimethylamine [N-]	52					mg/kg	52	0.33	0.39			
Nitrosodiphenylamine [N-]	52				140	mg/kg	52	0.33	0.39		52	
Pentachlorophenol	52				5.8	mg/kg	52	0.33	0.94		52	
Phenanthrene	52	10	0.38	2.1		mg/kg	42	0.33	0.39			
Phenol	52				48,000	mg/kg	52	0.33	0.39		52	
Plutonium-239	32	32	0.001	1.606	24	pCi/g					32	
Potassium-40	32	26	2.69	29.67		pCi/g	6	19.7	27.9			
Pyrene	52	10	0.74	4.8	2,400	mg/kg	42	0.33	0.39		52	
Radium-226	33	11	1.34	5.22	0.73	pCi/g	22	1.73	3.08	11		22
Selenium	8	1	0.2	0.2	400	mg/kg	7	0.2	0.2		8	
Silver	8	2	17	410	400	mg/kg	6	1	1	1	7	
Strontium-90	33				8.9	pCi/g	33	1	1		33	
Thallium	8	8	0.09	0.18	6.4	mg/kg					8	
Thorium-232	31	8	2.13	4.43	0.88	pCi/g	23	2.58	4.61	8		23
Trichlorobenzene [1,2,4-]	52				160	mg/kg	52	0.33	0.39		52	
Trichlorophenol [2,4,5-]	52				8,000	mg/kg	52	0.33	0.39		52	
Trichlorophenol [2,4,6-]	52				64	mg/kg	52	0.33	0.39		52	
Tritium	30	30	0.009	0.25	15,000,000	pCi/g					30	
Uranium-234	31	31	0.706	1.531	86	pCi/g					31	
Uranium-235	32	32	0.013	0.146	18	pCi/g					32	
Uranium-238	31	31	0.744	1.634	59	pCi/g					31	
Total Number of Values	**4,232**	**372**					**3,860**			**72**	**2,786**	**250**

TABLE 2-16

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(a) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Acenaphthene	134	1	0.51	0.51	4,800	mg/kg	133	0.33	12		134	
Acenaphthylene	134					mg/kg	134	0.33	12			
Acetone	134	22	0.011	0.082	8,000	mg/kg	112	0.01	0.08		134	
Aniline	95					mg/kg	95	0.33	12			
Anthracene	134	1	0.9	0.9	24,000	mg/kg	133	0.33	12		134	
Antimony	137	6	0.08	0.53	32	mg/kg	131	0.04	11.2		137	
Aroclor 1016	35					mg/kg	35	0.033	0.074			
Aroclor 1221	35					mg/kg	35	0.033	0.136			
Aroclor 1232	35					mg/kg	35	0.033	0.074			
Aroclor 1242	95					mg/kg	95	0.033	1			
Aroclor 1248	35					mg/kg	35	0.033	0.074			
Aroclor 1254	95	1	6	6		mg/kg	94	0.033	1			
Aroclor 1260	95	18	0.054	1.52		mg/kg	77	0.033	1			
Aroclor [Mixed-]	95	19	0.054	6	0.09	mg/kg	76	0.033	1	14	80	1
Arsenic	137	137	0.7	4.7	0.4	mg/kg				137		
Azobenzene	95					mg/kg	95	0.33	12			
Barium	136	136	17	190	5,600	mg/kg					136	
Benzene	134				0.67	mg/kg	134	0.005	0.02		134	
Benzidine [m-]	95					mg/kg	95	0.33	29			
Benzo[a]anthracene	134	8	0.37	1.1	0.64	mg/kg	126	0.33	12	3	127	4
Benzo[a]pyrene	134	10	0.37	1.2	0.1	mg/kg	124	0.33	12	10		124
Benzo[b]fluoranthene	134	9	0.38	1.5	0.7	mg/kg	125	0.33	12	3	127	4
Benzo[g,h,i]perylene	134	4	0.37	0.66	44	mg/kg	130	0.33	12		134	
Benzo[k]fluoranthene	134	7	0.36	1.13	1.5	mg/kg	127	0.33	12		131	3
Benzoic acid	134				320,000	mg/kg	134	0.33	29		134	
Benzyl alcohol	134					mg/kg	134	0.33	29			
Beryllium	136	131	0.09	2.8	0.16	mg/kg	5	0.2	0.2	130	1	5
Bis(2-chloroethoxy)methane	134					mg/kg	134	0.33	12			
Bis(2-chloroethyl)ether	134				0.12	mg/kg	134	0.33	12			134
Bis(2-chloroisopropyl)ether	134				100	mg/kg	134	0.33	12		134	
Bis(2-ethylhexyl)phthalate	134	4	0.47	1.1	50	mg/kg	130	0.33	12		134	
Bromobenzene	109					mg/kg	109	0.005	0.02			
Bromochloromethane	134					mg/kg	134	0.005	0.02			
Bromodichloromethane	134				11	mg/kg	134	0.005	0.02		134	
Bromoform	109				89	mg/kg	109	0.005	0.02		109	
Bromomethane	134				0.43	mg/kg	134	0.01	0.04		134	
Bromophenylphenyl ether [4-]	134					mg/kg	134	0.33	12			
Butanone [2-]	134				4,000	mg/kg	134	0.01	0.08		134	
Butyl benzyl phthalate	134	1	0.51	0.51	16,000	mg/kg	133	0.33	12		134	

TABLE 2-16

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(a) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Butylbenzene [n-]	110					mg/kg	110	0.005	0.02			
Butylbenzene [sec-]	110					mg/kg	110	0.005	0.02			
Butylbenzene [tert-]	110	1	0.009	0.009		mg/kg	109	0.005	0.02			
Cadmium	136	28	0.4	1.7	80	mg/kg	108	0.4	0.8		136	
Carbon disulfide	134				7.4	mg/kg	134	0.005	0.02		134	
Carbon tetrachloride	134				0.21	mg/kg	134	0.005	0.02		134	
Cesium-137	97	31	0.34	3.187	4	pCi/g	66	0.249	0.746		97	
Chloro-3-methylphenol [4-]	134				16,000	mg/kg	134	0.33	12		134	
Chloroaniline [4-]	134				320	mg/kg	134	0.33	12		134	
Chlorobenzene	134				67	mg/kg	134	0.005	0.02		134	
Chlorodibromomethane	134				83	mg/kg	134	0.005	0.02		134	
Chloroethane	134				3,300	mg/kg	134	0.01	0.04		134	
Chloroform	134				0.21	mg/kg	134	0.005	0.02		134	
Chloromethane	134				6.4	mg/kg	134	0.01	0.04		134	
Chloronaphthalene [2-]	134				6,400	mg/kg	134	0.33	12		134	
Chlorophenol [o-]	134				400	mg/kg	134	0.33	12		134	
Chlorophenylphenyl ether [4-]	134					mg/kg	134	0.33	12			
Chlorotoluene [o-]	110					mg/kg	110	0.005	0.02			
Chlorotoluene [p-]	110					mg/kg	110	0.005	0.02			
Chromium	136	136	1.1	13	400	mg/kg					136	
Chrysene	134	10	0.4	1.4	22	mg/kg	124	0.33	12		134	
Cobalt-60	97	2	0.496	0.535	0.9	pCi/g	95	0.101	0.743		97	
Di-n-butyl phthalate	134	29	0.4	3	8,000	mg/kg	105	0.33	12		134	
Di-n-octyl phthalate	134				1,600	mg/kg	134	0.33	12		134	
Dibenzo[a,h]anthracene	134				0.086	mg/kg	134	0.33	12			134
Dibenzofuran	134					mg/kg	134	0.33	12			
Dibromo-3-chloropropane [1,2-]	109					mg/kg	109	0.01	0.04			
Dibromoethane [1,2-]	134					mg/kg	134	0.005	0.02			
Dibromomethane	134					mg/kg	134	0.005	0.02			
Dichlorobenzene (1,2-) [o-]	244				1,600	mg/kg	244	0.005	12		244	
Dichlorobenzene (1,3-) [m-]	244				7,200	mg/kg	244	0.005	12		244	
Dichlorobenzene (1,4-) [p-]	244				290	mg/kg	244	0.005	12		244	
Dichlorobenzidine [3,3'-]	134				1.6	mg/kg	134	0.33	12		130	4
Dichlorodifluoromethane	134					mg/kg	134	0.01	0.04			
Dichloroethane [1,1-]	134				410	mg/kg	134	0.005	0.02		134	
Dichloroethane [1,2-]	134				0.2	mg/kg	134	0.005	0.02		134	
Dichloroethene [1,1-]	134				0.4	mg/kg	134	0.005	0.02		134	
Dichloroethene [trans-1,2-]	134				1,600	mg/kg	134	0.005	0.02		134	
Dichloroethylene [cis-1,2-]	134				800	mg/kg	134	0.005	0.02		134	

TABLE 2-16

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(a) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Dichlorophenol [2,4-]	134				240	mg/kg	134	0.33	12		134	
Dichloropropane [1,2-]	134				6.5	mg/kg	134	0.005	0.02		134	
Dichloropropane [1,3-]	134					mg/kg	134	0.005	0.02			
Dichloropropane [2,2-]	134					mg/kg	134	0.005	0.02			
Dichloropropene [1,1-]	134					mg/kg	134	0.005	0.02			
Dichloropropene [cis-1,3-]	134				0.17	mg/kg	134	0.005	0.02		134	
Dichloropropene [trans-1,3-]	134				0.17	mg/kg	134	0.005	0.02		134	
Diethyl phthalate	134				64,000	mg/kg	134	0.33	12		134	
Dimethyl phthalate	134				800,000	mg/kg	134	0.33	12		134	
Dimethylphenol [2,4-]	134				1,600	mg/kg	134	0.33	12		134	
Dinitrophenol [2,4-]	134				160	mg/kg	134	0.33	29		134	
Dinitrotoluene [2,4-]	134				1	mg/kg	134	0.33	12		130	4
Dinitrotoluene [2,6-]	134				1	mg/kg	134	0.33	12		130	4
Ethylbenzene	134				3,100	mg/kg	134	0.005	0.02		134	
Fluoranthene	134	15	0.37	2.4	3,200	mg/kg	119	0.33	12		134	
Fluorene	134	1	0.47	0.47	3,200	mg/kg	133	0.33	12		134	
Hexachlorobenzene	134				0.44	mg/kg	134	0.33	12		129	5
Hexachlorobutadiene	134				90	mg/kg	134	0.33	12		134	
Hexachlorocyclopentadiene	134				560	mg/kg	134	0.33	12		134	
Hexachloroethane	134				80	mg/kg	134	0.33	12		134	
Hexanone [2-]	134	1	0.014	0.014		mg/kg	133	0.01	0.08			
Indeno[1,2,3-cd]pyrene	134	3	0.41	0.66	0.41	mg/kg	131	0.33	12	3	110	21
Isophorone	134				7,400	mg/kg	134	0.33	12		134	
Isopropylbenzene	109					mg/kg	109	0.005	0.02			
Isopropyltoluene [4-]	110	1	0.035	0.035		mg/kg	109	0.005	0.02			
Lead	135	134	3.9	39.1	500	mg/kg	1	4	4		135	
Mercury	258	15	0.02	0.2	24	mg/kg	243	0.02	0.1		258	
Methyl iodide	134					mg/kg	134	0.005	0.02			
Methyl-2-pentanone [4-]	134				510	mg/kg	134	0.01	0.08		134	
Methyl-4,6-dinitrophenol [2-]	134					mg/kg	134	0.33	29			
Methylene chloride	134	5	0.007	0.008	5.6	mg/kg	129	0.005	0.02		134	
Methylnaphthalene [2-]	133					mg/kg	133	0.33	12			
Methylphenol [2-]	134				4,000	mg/kg	134	0.33	12		134	
Methylphenol [4-]	134				400	mg/kg	134	0.33	12		134	
Naphthalene	134				3,200	mg/kg	134	0.33	12		134	
Nickel	136	112	2.6	58.9	1,600	mg/kg	24	2	2.8		136	
Nitroaniline [2-]	134					mg/kg	134	0.33	29			
Nitroaniline [3-]	134					mg/kg	134	0.33	29			
Nitroaniline [4-]	134					mg/kg	134	0.33	29			

TABLE 2-16

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(a) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, including <LOD	Number of Values < LOD, with LOD>=SAL
Nitrobenzene	134				5.3	mg/kg	134	0.33	12		132	2
Nitrophenol [2-]	134					mg/kg	134	0.33	12			
Nitrophenol [4-]	134					mg/kg	134	0.33	29			
Nitrosodi-n-propylamine [N-]	134				0.1	mg/kg	134	0.33	12			134
Nitrosodimethylamine [N-]	95					mg/kg	95	0.33	12			
Nitrosodiphenylamine [N-]	134				140	mg/kg	134	0.33	12		134	
Pentachlorophenol	134				5.8	mg/kg	134	0.33	29		132	2
Phenanthrene	134	8	0.39	3.1		mg/kg	126	0.33	12			
Phenol	134				48,000	mg/kg	134	0.33	12		134	
Plutonium-238	99	99	0.002	16.811	27	pCi/g					99	
Plutonium-239	99	99	0.002	9.258	24	pCi/g					99	
Potassium-40	97	97	13.75	52.505		pCi/g						
Propylbenzene	110					mg/kg	110	0.005	0.02			
Pyrene	134	15	0.39	2.4	2,400	mg/kg	119	0.33	12		134	
Radium-226	97	47	1.086	3.656	0.73	pCi/g	50	1.27	2.38	47		50
Selenium	137	10	0.2	0.62	400	mg/kg	127	0.2	3		137	
Silver	136	2	1	2	400	mg/kg	134	1	1.4		136	
Strontium-90	96	3	1.17	2.11	8.9	pCi/g	93	1	1		96	
Styrene	134				16,000	mg/kg	134	0.005	0.02		134	
Tetrachloroethane [1,1,1,2-]	134					mg/kg	134	0.005	0.02			
Tetrachloroethane [1,1,2,2-]	109				3.9	mg/kg	109	0.005	0.02		109	
Tetrachloroethylene	134				5.9	mg/kg	134	0.005	0.02		134	
Thallium	137	41	0.02	1.1	6.4	mg/kg	96	0.04	1		137	
Thorium-232	97	53	1.666	5.257	0.88	pCi/g	44	2.06	3.83	53		44
Toluene	134	2	0.016	0.022	890	mg/kg	132	0.005	0.02		134	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	134					mg/kg	134	0.005	0.02			
Trichlorobenzene [1,2,4-]	134				160	mg/kg	134	0.33	12		134	
Trichloroethane [1,1,1-]	134				1,000	mg/kg	134	0.005	0.02		134	
Trichloroethane [1,1,2-]	134				6.3	mg/kg	134	0.005	0.02		134	
Trichloroethene	134				3.2	mg/kg	134	0.005	0.02		134	
Trichlorofluoromethane	134					mg/kg	134	0.005	0.02			
Trichlorophenol [2,4,5-]	134				8,000	mg/kg	134	0.33	29		134	
Trichlorophenol [2,4,6-]	134				64	mg/kg	134	0.33	12		134	
Trichloropropane [1,2,3-]	109					mg/kg	109	0.005	0.02			
Trimethylbenzene [1,2,4-]	110					mg/kg	110	0.005	0.02			
Trimethylbenzene [1,3,5-]	110					mg/kg	110	0.005	0.02			
Tritium	95				15,000,000	pCi/g	95	2	2		95	
Uranium-234	96	96	0.594	2.469	86	pCi/g					96	
Uranium-235	96	96	0.013	0.255	18	pCi/g					96	

TABLE 2-16

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(a) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Uranium-238	96	96	0.541	3.006	59	pCi/g					96	
Vinyl acetate	91					mg/kg	91	0.01	0.01			
Vinyl chloride	134				0.012	mg/kg	134	0.01	0.04		133	1
Xylenes (o + m + p) [Mixed-]	134				160,000	mg/kg	134	0.005	0.02		134	
Total Number of Values	**20,355**	**1,803**					**18,552**			**400**	**13,373**	**680**

TABLE 2-17

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(d) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Acenaphthene	55				4,800	mg/kg	55	0.33	0.66		55	
Acenaphthylene	55					mg/kg	55	0.33	0.66			
Acetone	39	1	0.027	0.027	8,000	mg/kg	38	0.02	0.02		39	
Aniline	55					mg/kg	55	0.33	0.66			
Anthracene	55				24,000	mg/kg	55	0.33	0.66		55	
Antimony	58	10	0.09	0.15	32	mg/kg	48	0.06	0.1		58	
Aroclor 1016	18					mg/kg	18	0.014	0.043			
Aroclor 1221	18					mg/kg	18	0.014	0.043			
Aroclor 1232	18					mg/kg	18	0.014	0.043			
Aroclor 1242	57					mg/kg	57	0.014	1			
Aroclor 1248	18					mg/kg	18	0.014	0.043			
Aroclor 1254	57					mg/kg	57	0.014	1			
Aroclor 1260	57	5	0.02	0.11		mg/kg	52	0.014	1			
Aroclor [Mixed-]	57	5	0.02	0.11	0.09	mg/kg	52	0.0137	1	1	52	4
Arsenic	58	58	0.52	5.18	0.4	mg/kg				58		
Azobenzene	55					mg/kg	55	0.33	0.66			
Barium	58	58	7	160	5,600	mg/kg					58	
Benzene	39				0.67	mg/kg	39	0.005	0.005		39	
Benzo[a]anthracene	55				0.64	mg/kg	55	0.33	0.66		24	31
Benzo[a]pyrene	55				0.1	mg/kg	55	0.33	0.66			55
Benzo[b]fluoranthene	55				0.7	mg/kg	55	0.33	0.66		55	
Benzo[g,h,i]perylene	55				44	mg/kg	55	0.33	0.66		55	
Benzo[k]fluoranthene	55				1.5	mg/kg	55	0.33	0.66		55	
Benzoic acid	55	1	5.7	5.7	320,000	mg/kg	54	0.33	3.3		55	
Benzyl alcohol	55					mg/kg	55	0.33	1.3			
Beryllium	58	58	0.1	0.83	0.16	mg/kg				56	2	
Bis(2-chloroethoxy)methane	55					mg/kg	55	0.33	0.66			
Bis(2-chloroethyl)ether	55				0.12	mg/kg	55	0.33	0.66			55
Bis(2-chloroisopropyl)ether	55				100	mg/kg	55	0.33	0.66		55	
Bis(2-ethylhexyl)phthalate	55	2	0.36	0.39	50	mg/kg	53	0.34	0.66		55	
Bromobenzene	39					mg/kg	39	0.005	0.005			
Bromochloromethane	39					mg/kg	39	0.005	0.005			
Bromodichloromethane	39				11	mg/kg	39	0.005	0.005		39	
Bromoform	39				89	mg/kg	39	0.005	0.005		39	
Bromomethane	39				0.43	mg/kg	39	0.01	0.01		39	
Bromophenylphenyl ether [4-]	55					mg/kg	55	0.33	0.66			
Butanone [2-]	39				4,000	mg/kg	39	0.02	0.02		39	
Butyl benzyl phthalate	55				16,000	mg/kg	55	0.33	0.66		55	
Butylbenzene [n-]	39					mg/kg	39	0.005	0.005			

TABLE 2-17

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(d) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Butylbenzene [sec-]	39					mg/kg	39	0.005	0.005			
Butylbenzene [tert-]	39					mg/kg	39	0.005	0.005			
Cadmium	58				80	mg/kg	58	0.4	0.4		58	
Carbon disulfide	39				7.4	mg/kg	39	0.005	0.005		39	
Carbon tetrachloride	39				0.21	mg/kg	39	0.005	0.005		39	
Cesium-137	16	13	0.44	187.49	4	pCi/g	3	0.338	0.666	7	9	
Chloro-3-methylphenol [4-]	55				16,000	mg/kg	55	0.33	1.3		55	
Chloroaniline [4-]	55				320	mg/kg	55	0.33	1.3		55	
Chlorobenzene	39				67	mg/kg	39	0.005	0.005		39	
Chlorodibromomethane	39				83	mg/kg	39	0.005	0.005		39	
Chloroethane	39				3,300	mg/kg	39	0.01	0.01		39	
Chloroform	39				0.21	mg/kg	39	0.005	0.005		39	
Chloromethane	39				6.4	mg/kg	39	0.01	0.01		39	
Chloronaphthalene [2-]	55				6,400	mg/kg	55	0.33	0.66		55	
Chlorophenol [o-]	55				400	mg/kg	55	0.33	0.66		55	
Chlorophenylphenyl ether [4-]	55					mg/kg	55	0.33	0.66			
Chlorotoluene [o-]	39					mg/kg	39	0.005	0.005			
Chlorotoluene [p-]	39					mg/kg	39	0.005	0.005			
Chromium	58	58	0.9	56	400	mg/kg					58	
Chrysene	55				22	mg/kg	55	0.33	0.66		55	
Cobalt-60	16	7	0.56	5.22	0.9	pCi/g	9	0.242	0.589	6	10	
Di-n-butyl phthalate	55	1	0.45	0.45	8,000	mg/kg	54	0.33	0.66		55	
Di-n-octyl phthalate	55				1,600	mg/kg	55	0.33	0.66		55	
Dibenzo[a,h]anthracene	55				0.086	mg/kg	55	0.33	0.66			55
Dibenzofuran	55					mg/kg	55	0.33	0.66			
Dibromo-3-chloropropane [1,2-]	39					mg/kg	39	0.01	0.01			
Dibromoethane [1,2-]	39					mg/kg	39	0.005	0.005			
Dibromomethane	39					mg/kg	39	0.005	0.005			
Dichlorobenzene (1,2-) [o-]	94				1,600	mg/kg	94	0.005	0.66		94	
Dichlorobenzene (1,3-) [m-]	94				7,200	mg/kg	94	0.005	0.66		94	
Dichlorobenzene (1,4-) [p-]	94				290	mg/kg	94	0.005	0.66		94	
Dichlorobenzidine [3,3'-]	55				1.6	mg/kg	55	0.33	1.3		55	
Dichlorodifluoromethane	39					mg/kg	39	0.01	0.01			
Dichloroethane [1,1-]	39				410	mg/kg	39	0.005	0.005		39	
Dichloroethane [1,2-]	39				0.2	mg/kg	39	0.005	0.005		39	
Dichloroethene [1,1-]	39				0.4	mg/kg	39	0.005	0.005		39	
Dichloroethene [trans-1,2-]	39				1,600	mg/kg	39	0.005	0.005		39	
Dichloroethylene [cis-1,2-]	39				800	mg/kg	39	0.005	0.005		39	

TABLE 2-17

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(d) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Dichlorophenol [2,4-]	55				240	mg/kg	55	0.33	0.66		55	
Dichloropropane [1,2-]	39				6.5	mg/kg	39	0.005	0.005		39	
Dichloropropane [1,3-]	39					mg/kg	39	0.005	0.005			
Dichloropropane [2,2-]	39					mg/kg	39	0.005	0.005			
Dichloropropene [1,1-]	39					mg/kg	39	0.005	0.005			
Dichloropropene [cis-1,3-]	39				0.17	mg/kg	39	0.005	0.005		39	
Dichloropropene [trans-1,3-]	39				0.17	mg/kg	39	0.005	0.005		39	
Diethyl phthalate	55				64,000	mg/kg	55	0.33	0.66		55	
Dimethyl phthalate	55				800,000	mg/kg	55	0.33	0.66		55	
Dimethylphenol [2,4-]	55				1,600	mg/kg	55	0.33	0.66		55	
Dinitrophenol [2,4-]	55				160	mg/kg	55	0.33	3.3		55	
Dinitrotoluene [2,4-]	55				1	mg/kg	55	0.33	0.66		55	
Dinitrotoluene [2,6-]	55				1	mg/kg	55	0.33	0.66		55	
Ethylbenzene	39				3,100	mg/kg	39	0.005	0.005		39	
Fluoranthene	55				3,200	mg/kg	55	0.33	0.66		55	
Fluorene	55				3,200	mg/kg	55	0.33	0.66		55	
Hexachlorobenzene	55				0.44	mg/kg	55	0.33	0.66		24	31
Hexachlorobutadiene	55				90	mg/kg	55	0.33	0.66		55	
Hexachlorocyclopentadiene	55				560	mg/kg	55	0.33	0.66		55	
Hexachloroethane	55				80	mg/kg	55	0.33	0.66		55	
Hexanone [2-]	39					mg/kg	39	0.02	0.02			
Indeno[1,2,3-cd]pyrene	55				0.41	mg/kg	55	0.33	0.66		20	35
Isophorone	55				7,400	mg/kg	55	0.33	0.66		55	
Isopropylbenzene	39					mg/kg	39	0.005	0.005			
Isopropyltoluene [4-]	39	2	0.017	0.044		mg/kg	37	0.005	0.005			
Lead	53	53	3	70	500	mg/kg					53	
Mercury	144	18	0.1	0.2	24	mg/kg	126	0.1	0.1		144	
Methyl iodide	39					mg/kg	39	0.005	0.005			
Methyl-2-pentanone [4-]	39				510	mg/kg	39	0.02	0.02		39	
Methyl-4,6-dinitrophenol [2-]	55					mg/kg	55	0.33	3.3			
Methylene chloride	39				5.6	mg/kg	39	0.005	0.005		39	
Methylnaphthalene [2-]	55					mg/kg	55	0.33	0.66			
Methylphenol [2-]	55				4,000	mg/kg	55	0.33	0.66		55	
Methylphenol [4-]	55				400	mg/kg	55	0.33	0.66		55	
Naphthalene	55				3,200	mg/kg	55	0.33	0.66		55	
Nickel	58	51	2	48	1,600	mg/kg	7	2	2		58	
Nitroaniline [2-]	55					mg/kg	55	0.33	3.3			
Nitroaniline [3-]	55					mg/kg	55	0.33	3.3			

TABLE 2-17

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(d) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, including <LOD	Number of Values < LOD, with LOD>=SAL
Nitroaniline [4-]	55					mg/kg	55	0.33	3.3			
Nitrobenzene	55				5.3	mg/kg	55	0.33	0.66		55	
Nitrophenol [2-]	55					mg/kg	55	0.33	0.66			
Nitrophenol [4-]	55					mg/kg	55	0.33	3.3			
Nitrosodi-n-propylamine [N-]	55				0.1	mg/kg	55	0.33	0.66			55
Nitrosodimethylamine [N-]	55					mg/kg	55	0.33	0.66			
Nitrosodiphenylamine [N-]	55				140	mg/kg	55	0.33	0.66		55	
Pentachlorophenol	55				5.8	mg/kg	55	0.33	3.3		55	
Phenanthrene	55					mg/kg	55	0.33	0.66			
Phenol	55				48,000	mg/kg	55	0.33	0.66		55	
Plutonium-238	15	15	0.006	13.804	27	pCi/g					15	
Plutonium-239	15	15	0.011	47.816	24	pCi/g				1	14	
Potassium-40	16	16	28.53	42.27		pCi/g						
Propylbenzene	39					mg/kg	39	0.005	0.005			
Pyrene	55				2,400	mg/kg	55	0.33	0.66		55	
Radium-226	16	13	1.72	4.08	0.73	pCi/g	3	1.44	1.93	13		3
Selenium	57	7	0.3	0.41	400	mg/kg	50	0.2	0.2		57	
Silver	58	2	1	8	400	mg/kg	56	1	1		58	
Strontium-90	15	7	1.05	18.3	8.9	pCi/g	8	1	1	1	14	
Styrene	39				16,000	mg/kg	39	0.005	0.005		39	
Tetrachloroethane [1,1,1,2-]	39					mg/kg	39	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	39				3.9	mg/kg	39	0.005	0.005		39	
Tetrachloroethylene	39				5.9	mg/kg	39	0.005	0.005		39	
Thallium	58	41	0.03	0.34	6.4	mg/kg	17	0.04	0.1		41	
Thorium-232	16	7	1.86	4.13	0.88	pCi/g	9	2.49	3.23	7		9
Toluene	39				890	mg/kg	39	0.005	0.005		39	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	39					mg/kg	39	0.005	0.005			
Trichlorobenzene [1,2,4-]	55				160	mg/kg	55	0.33	0.66		55	
Trichloroethane [1,1,1-]	39				1,000	mg/kg	39	0.005	0.005		39	
Trichloroethane [1,1,2-]	39				6.3	mg/kg	39	0.005	0.005		39	
Trichloroethene	39				3.2	mg/kg	39	0.005	0.005		39	
Trichlorofluoromethane	39	2	0.019	0.022		mg/kg	37	0.005	0.005			
Trichlorophenol [2,4,5-]	55				8,000	mg/kg	55	0.33	0.66		55	
Trichlorophenol [2,4,6-]	55				64	mg/kg	55	0.33	0.66		55	
Trichloropropane [1,2,3-]	39					mg/kg	39	0.005	0.005			
Trimethylbenzene [1,2,4-]	39	1	0.026	0.026		mg/kg	38	0.005	0.005			
Trimethylbenzene [1,3,5-]	39	1	0.008	0.008		mg/kg	38	0.005	0.005			
Tritium	15	15	0.091	105.024	15,000,000	pCi/g					15	

TABLE 2-17

SUMMARY OF SOIL SAMPLE ANALYSES FOR PRSs 50-006(d) AT OU 1147

Analyte	Number of Values Per Analyte	Number of Values >= LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values < LOD, with LOD>=SAL
Uranium-234	16	16	0.945	5.022	86	pCi/g					16	
Uranium-235	16	16	0.049	0.315	18	pCi/g					16	
Uranium-238	16	16	0.843	6.068	59	pCi/g					16	
Vinyl chloride	39				0.012	mg/kg	39	0.01	0.01		39	
Xylenes (o + m + p) [Mixed-]	39				160,000	mg/kg	39	0.005	0.005		39	
Total Number of Values	**7,383**	**591**					**6,792**			**150**	**4,714**	**333**

2.24 ADS 1148—TAs-51, -54 (Project Leader: Don Krier)

The data received from sampling activities at OU 1148 were reviewed this quarter. The tables included in this section contain the data on the FIMAD database as of April 5, 1994, with the one noted exception. Tables 2-18 and 2-19 contain the data for Location 54-1001. Tables 2-20 through 2-25 summarize the data for Locations 54-1002 through 54-1007, respectively. Table 2-26 provides a summary of the metals data according to depth for Location 54-1007. Tables 2-27 through 2-29 contain data for Location 54-1009. The database contained no analytical data for Location 54-1008; therefore, no summary table is provided for that location.

Tables 2-19, 2-28, and 2-29 contain a cursory evaluation of the organic data according to the EPA's 1988 "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses." These tables indicate "hits" for volatile organics and semivolatile organics. Data received in hard copy format were used to generate these tables, including some data for Location 54-1001 that were not contained in the FIMAD database and therefore not contained in Table 2-18. One n-butylbenzene and several acetone detections were not considered "hits" because contamination was found in associated blanks. As a result, the number of "hits" found on these tables differs significantly from the number of detections indicated on Table 2-18, Tables 2-20 through 2-25, and Table 2-27. All detected values were well below their respective SALs.

A summary of the metals data contained in the FIMAD database is given in Table 2-26. The beryllium and arsenic SALs are below regional background values and are less than the detection limits used for the TA-54 soil samples; therefore, all detected beryllium and arsenic values were above their respective SALs. No other inorganic analytes were detected above their respective SALs.

Detailed Bandelier Tuff lithologies and stratigraphic boundaries are being mapped within three of the six cores removed from TA-54 during last fall's drilling. The detailed logs will provide the framework to apply to the additional six cores taken during the same period. Together, they will lock in our knowledge of the local structure and lithologies which host the subsurface volatile organic plume at MDA L. A field program to measure air permeability of the different lithologic units exposed in the boreholes was completed. The data (in addition to subsurface pressure data being acquired) will be used in the design of the pilot vapor extraction well planned for the vapor plume later this calendar year.

TABLE 2-18

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1001 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acetone	11	1	0.023	0.023	8,000	mg/kg	10	0.02	0.02		11	
Benzene	11				0.67	mg/kg	11	0.005	0.005		11	
Bromobenzene	11					mg/kg	11	0.005	0.005			
Bromochloromethane	11					mg/kg	11	0.005	0.005			
Bromodichloromethane	11				11	mg/kg	11	0.005	0.005		11	
Bromoform	11				89	mg/kg	11	0.005	0.005		11	
Bromomethane	11				0.43	mg/kg	11	0.01	0.01		11	
Butanone [2-]	11				4,000	mg/kg	11	0.02	0.02		11	
Butylbenzene [n-]	11					mg/kg	11	0.005	0.005			
Butylbenzene [sec-]	11					mg/kg	11	0.005	0.005			
Butylbenzene [tert-]	11					mg/kg	11	0.005	0.005			
Carbon disulfide	11				7.4	mg/kg	11	0.005	0.005		11	
Carbon tetrachloride	11				0.21	mg/kg	11	0.005	0.005		11	
Chlorobenzene	11				67	mg/kg	11	0.005	0.005		11	
Chlorodibromomethane	11				83	mg/kg	11	0.005	0.005		11	
Chloroethane	11				3,300	mg/kg	11	0.01	0.01		11	
Chloroform	11				0.21	mg/kg	11	0.005	0.005		11	
Chloromethane	11				6.4	mg/kg	11	0.01	0.01		11	
Chlorotoluene [o-]	11					mg/kg	11	0.005	0.005			
Chlorotoluene [p-]	11					mg/kg	11	0.005	0.005			
Dibromo-3-chloropropane [1,2-]	11					mg/kg	11	0.01	0.01			
Dibromoethane [1,2-]	11					mg/kg	11	0.005	0.005			
Dibromomethane	11					mg/kg	11	0.005	0.005			
Dichlorobenzene (1,2) [o-]	11				1,600	mg/kg	11	0.005	0.005		11	
Dichlorobenzene (1,3) [m-]	11				7,200	mg/kg	11	0.005	0.005		11	
Dichlorobenzene (1,4) [p-]	11				290	mg/kg	11	0.005	0.005		11	
Dichlorodifluoromethane	11					mg/kg	11	0.01	0.01			
Dichloroethane [1,1-]	11				410	mg/kg	11	0.005	0.005		11	
Dichloroethane [1,2-]	11				0.2	mg/kg	11	0.005	0.005		11	
Dichloroethene [1,1-]	11				0.4	mg/kg	11	0.005	0.005		11	
Dichloroethene [trans-1,2-]	11				1,600	mg/kg	11	0.005	0.005		11	
Dichloroethylene [cis-1,2-]	11				800	mg/kg	11	0.005	0.005		11	
Dichloropropane [1,2-]	11				6.5	mg/kg	11	0.005	0.005		11	
Dichloropropane [1,3-]	11					mg/kg	11	0.005	0.005			
Dichloropropane [2,2-]	11					mg/kg	11	0.005	0.005			
Dichloropropene [1,1-]	11					mg/kg	11	0.005	0.005			
Dichloropropene [cis-1,3-]	11				0.17	mg/kg	11	0.005	0.005		11	

TABLE 2-18

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1001 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [trans-1,3-]	11				0.17	mg/kg	11	0.005	0.005		11	
Ethylbenzene	11				3,100	mg/kg	11	0.005	0.005		11	
Ethylene dibromide	11					mg/kg	11	0.005	0.005			
Hexanone [2-]	11					mg/kg	11	0.02	0.02			
Isopropylbenzene	11					mg/kg	11	0.005	0.005			
Isopropyltoluene [4-]	11					mg/kg	11	0.005	0.005			
Methyl iodide	11					mg/kg	11	0.005	0.005			
Methyl-2-pentanone [4-]	11				510	mg/kg	11	0.02	0.02		11	
Methylene chloride	11				5.6	mg/kg	11	0.005	0.005		11	
Propylbenzene	11					mg/kg	11	0.005	0.005			
Styrene	11				16,000	mg/kg	11	0.005	0.005		11	
Tetrachloroethane [1,1,1,2-]	11					mg/kg	11	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	11				3.9	mg/kg	11	0.005	0.005		11	
Tetrachloroethylene	11				5.9	mg/kg	11	0.005	0.005		11	
Toluene	11				890	mg/kg	11	0.005	0.005		11	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	11					mg/kg	11	0.005	0.005			
Trichloroethane [1,1,1-]	11				1,000	mg/kg	11	0.005	0.005		11	
Trichloroethane [1,1,2-]	11				6.3	mg/kg	11	0.005	0.005		11	
Trichloroethene	11				3.2	mg/kg	11	0.005	0.005		11	
Trichlorofluoromethane	11					mg/kg	11	0.005	0.005			
Trichloropropane [1,2,3-]	11					mg/kg	11	0.005	0.005			
Trimethylbenzene [1,2,4-]	11					mg/kg	11	0.005	0.005			
Trimethylbenzene [1,3,5-]	11					mg/kg	11	0.005	0.005			
Vinyl chloride	11				0.012	mg/kg	11	0.01	0.01		11	
Xylenes (o + m + p) [Mixed-]	11				160,000	mg/kg	11	0.005	0.005		11	
Total Number of Values	**682**	**1**					**681**			**0**	**396**	**0**

TABLE 2-19

VOLATILE ORGANIC "HITS" FOR LOCATION 54-1001

Sample ID Number	Depth (ft)	Analyte	Concentration (µg/kg)	Detection Limit (µg/kg)
AAA5537*	100.3	Acetone	22	20
AAA4324	300.1	Acetone	23	20

*This datum was loaded into the FIMAD database during the week of April 11, 1994.

TABLE 2-20

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1002 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acetone	16	9	0.021	0.098	8,000	mg/kg	7	0.02	0.02		16	
Benzene	16				0.67	mg/kg	16	0.005	0.005		16	
Bromobenzene	16					mg/kg	16	0.005	0.005			
Bromochloromethane	16					mg/kg	16	0.005	0.005			
Bromodichloromethane	16				11	mg/kg	16	0.005	0.005		16	
Bromoform	16				89	mg/kg	16	0.005	0.005		16	
Bromomethane	16				0.43	mg/kg	16	0.01	0.01		16	
Butanone [2-]	16				4,000	mg/kg	16	0.02	0.02		16	
Butylbenzene [n-]	16					mg/kg	16	0.005	0.005			
Butylbenzene [sec-]	16					mg/kg	16	0.005	0.005			
Butylbenzene [tert-]	16					mg/kg	16	0.005	0.005			
Carbon disulfide	16				7.4	mg/kg	16	0.005	0.005		16	
Carbon tetrachloride	16				0.21	mg/kg	16	0.005	0.005		16	
Chlorobenzene	16				67	mg/kg	16	0.005	0.005		16	
Chlorodibromomethane	16				83	mg/kg	16	0.005	0.005		16	
Chloroethane	16				3,300	mg/kg	16	0.01	0.01		16	
Chloroform	16				0.21	mg/kg	16	0.005	0.005		16	
Chloromethane	16				6.4	mg/kg	16	0.01	0.01		16	
Chlorotoluene [o-]	16					mg/kg	16	0.005	0.005			
Chlorotoluene [p-]	16					mg/kg	16	0.005	0.005			
Dibromo-3-chloropropane [1,2-]	16					mg/kg	16	0.01	0.01			
Dibromoethane [1,2-]	16					mg/kg	16	0.005	0.005			
Dibromomethane	16					mg/kg	16	0.005	0.005			
Dichlorobenzene (1,2) [o-]	16				1,600	mg/kg	16	0.005	0.005		16	
Dichlorobenzene (1,3) [m-]	16				7,200	mg/kg	16	0.005	0.005		16	
Dichlorobenzene (1,4) [p-]	16				290	mg/kg	16	0.005	0.005		16	
Dichlorodifluoromethane	16					mg/kg	16	0.01	0.01			
Dichloroethane [1,1-]	16				410	mg/kg	16	0.005	0.005		16	
Dichloroethane [1,2-]	16				0.2	mg/kg	16	0.005	0.005		16	
Dichloroethene [1,1-]	16				0.4	mg/kg	16	0.005	0.005		16	
Dichloroethene [trans-1,2-]	16				1,600	mg/kg	16	0.005	0.005		16	
Dichloroethylene [cis-1,2-]	16				800	mg/kg	16	0.005	0.005		16	
Dichloropropane [1,2-]	16				6.5	mg/kg	16	0.005	0.005		16	
Dichloropropane [1,3-]	16					mg/kg	16	0.005	0.005			
Dichloropropane [2,2-]	16					mg/kg	16	0.005	0.005			

TABLE 2-20

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1002 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [1,1-]	16					mg/kg	16	0.005	0.005			
Dichloropropene [cis-1,3-]	16				0.17	mg/kg	16	0.005	0.005		16	
Dichloropropene [trans-1,3-]	16				0.17	mg/kg	16	0.005	0.005		16	
Ethylbenzene	16				3,100	mg/kg	16	0.005	0.005		16	
Ethylene dibromide	16					mg/kg	16	0.005	0.005			
Hexanone [2-]	16					mg/kg	16	0.02	0.02			
Isopropylbenzene	16					mg/kg	16	0.005	0.005			
Isopropyltoluene [4-]	16					mg/kg	16	0.005	0.005			
Methyl iodide	16					mg/kg	16	0.005	0.005			
Methyl-2-pentanone [4-]	16				510	mg/kg	16	0.02	0.02		16	
Methylene chloride	16				5.6	mg/kg	16	0.005	0.005		16	
Propylbenzene	16					mg/kg	16	0.005	0.005			
Styrene	16				16,000	mg/kg	16	0.005	0.005		16	
Tetrachloroethane [1,1,1,2-]	16					mg/kg	16	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	16				3.9	mg/kg	16	0.005	0.005		16	
Tetrachloroethylene	16				5.9	mg/kg	16	0.005	0.005		16	
Toluene	16				890	mg/kg	16	0.005	0.005		16	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	16					mg/kg	16	0.005	0.005			
Trichloroethane [1,1,1-]	16				1,000	mg/kg	16	0.005	0.005		16	
Trichloroethane [1,1,2-]	16				6.3	mg/kg	16	0.005	0.005		16	
Trichloroethene	16				3.2	mg/kg	16	0.005	0.005		16	
Trichlorofluoromethane	16					mg/kg	16	0.005	0.005			
Trichloropropane [1,2,3-]	16					mg/kg	16	0.005	0.005			
Trimethylbenzene [1,2,4-]	16					mg/kg	16	0.005	0.005			
Trimethylbenzene [1,3,5-]	16					mg/kg	16	0.005	0.005			
Vinyl chloride	16				0.012	mg/kg	16	0.01	0.01		16	
Xylenes (o + m + p) [Mixed-]	16				160,000	mg/kg	16	0.005	0.005		16	
Total Number of Values	**992**	**9**					**983**			**0**	**576**	**0**

TABLE 2-21

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1003 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acetone	15				8,000	mg/kg	15	0.02	0.02		15	
Benzene	15				0.67	mg/kg	15	0.005	0.005		15	
Bromobenzene	15	1	0.008	0.008		mg/kg	14	0.005	0.005			
Bromochloromethane	15					mg/kg	15	0.005	0.005			
Bromodichloromethane	15				11	mg/kg	15	0.005	0.005		15	
Bromoform	15				89	mg/kg	15	0.005	0.005		15	
Bromomethane	15				0.43	mg/kg	15	0.01	0.01		15	
Butanone [2-]	15				4,000	mg/kg	15	0.02	0.02		15	
Butylbenzene [n-]	15					mg/kg	15	0.005	0.005			
Butylbenzene [sec-]	15					mg/kg	15	0.005	0.005			
Butylbenzene [tert-]	15					mg/kg	15	0.005	0.005			
Carbon disulfide	15				7.4	mg/kg	15	0.005	0.005		15	
Carbon tetrachloride	15				0.21	mg/kg	15	0.005	0.005		15	
Chlorobenzene	15				67	mg/kg	15	0.005	0.005		15	
Chlorodibromomethane	15				83	mg/kg	15	0.005	0.005		15	
Chloroethane	15				3,300	mg/kg	15	0.01	0.01		15	
Chloroform	15				0.21	mg/kg	15	0.005	0.005		15	
Chloromethane	15				6.4	mg/kg	15	0.01	0.01		15	
Chlorotoluene [o-]	15					mg/kg	15	0.005	0.005			
Chlorotoluene [p-]	15					mg/kg	15	0.005	0.005			
Dibromo-3-chloropropane [1,2-]	15					mg/kg	15	0.01	0.01			
Dibromoethane [1,2-]	15					mg/kg	15	0.005	0.005			
Dibromomethane	15	1	0.007	0.007		mg/kg	14	0.005	0.005			
Dichlorobenzene (1,2) [o-]	15	1	0.013	0.013	1,600	mg/kg	14	0.005	0.005		15	
Dichlorobenzene (1,3) [m-]	15				7,200	mg/kg	15	0.005	0.005		15	
Dichlorobenzene (1,4) [p-]	15				290	mg/kg	15	0.005	0.005		15	
Dichlorodifluoromethane	15					mg/kg	15	0.01	0.01			
Dichloroethane [1,1-]	15				410	mg/kg	15	0.005	0.005		15	
Dichloroethane [1,2-]	15				0.2	mg/kg	15	0.005	0.005		15	
Dichloroethene [1,1-]	15				0.4	mg/kg	15	0.005	0.005		15	
Dichloroethene [trans-1,2-]	15				1,600	mg/kg	15	0.005	0.005		15	
Dichloroethylene [cis-1,2-]	15				800	mg/kg	15	0.005	0.005		15	
Dichloropropane [1,2-]	15				6.5	mg/kg	15	0.005	0.005		15	
Dichloropropane [1,3-]	15	1	0.007	0.007		mg/kg	14	0.005	0.005			
Dichloropropane [2,2-]	15					mg/kg	15	0.005	0.005			

TABLE 2-21

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1003 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [1,1-]	15					mg/kg	15	0.005	0.005			
Dichloropropene [cis-1,3-]	15				0.17	mg/kg	15	0.005	0.005		15	
Dichloropropene [trans-1,3-]	15				0.17	mg/kg	15	0.005	0.005		15	
Ethylbenzene	15				3,100	mg/kg	15	0.005	0.005		15	
Ethylene dibromide	15					mg/kg	15	0.005	0.005			
Hexanone [2-]	15					mg/kg	15	0.02	0.02			
Isopropylbenzene	15					mg/kg	15	0.005	0.005			
Isopropyltoluene [4-]	15	1	0.005	0.005		mg/kg	14	0.005	0.005			
Methyl iodide	15					mg/kg	15	0.005	0.005			
Methyl-2-pentanone [4-]	15				510	mg/kg	15	0.02	0.02		15	
Methylene chloride	15				5.6	mg/kg	15	0.005	0.005		15	
Propylbenzene	15					mg/kg	15	0.005	0.005			
Styrene	15				16,000	mg/kg	15	0.005	0.005		15	
Tetrachloroethane [1,1,1,2-]	15					mg/kg	15	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	15				3.9	mg/kg	15	0.005	0.005		15	
Tetrachloroethylene	15				5.9	mg/kg	15	0.005	0.005		15	
Toluene	15				890	mg/kg	15	0.005	0.005		15	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	15					mg/kg	15	0.005	0.005			
Trichloroethane [1,1,1-]	15				1,000	mg/kg	15	0.005	0.005		15	
Trichloroethane [1,1,2-]	15				6.3	mg/kg	15	0.005	0.005		15	
Trichloroethene	15				3.2	mg/kg	15	0.005	0.005		15	
Trichlorofluoromethane	15					mg/kg	15	0.005	0.005			
Trichloropropane [1,2,3-]	15	1	0.014	0.014		mg/kg	14	0.005	0.005			
Trimethylbenzene [1,2,4-]	15					mg/kg	15	0.005	0.005			
Trimethylbenzene [1,3,5-]	15					mg/kg	15	0.005	0.005			
Vinyl chloride	15				0.012	mg/kg	15	0.01	0.01		15	
Xylenes (o + m + p) [Mixed-]	15				160,000	mg/kg	15	0.005	0.005		15	
Total Number of Values	**930**	**6**					**924**			**0**	**540**	**0**

TABLE 2-22

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1004 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acetone	17	1	0.064	0.064	8,000	mg/kg	16	0.02	0.06		17	
Benzene	17				0.67	mg/kg	17	0.005	0.006		17	
Bromobenzene	17					mg/kg	17	0.005	0.006			
Bromochloromethane	17					mg/kg	17	0.005	0.006			
Bromodichloromethane	17				11	mg/kg	17	0.005	0.006		17	
Bromoform	17				89	mg/kg	17	0.005	0.006		17	
Bromomethane	17				0.43	mg/kg	17	0.01	0.011		17	
Butanone [2-]	17				4,000	mg/kg	17	0.02	0.022		17	
Butylbenzene [n-]	17					mg/kg	17	0.005	0.006			
Butylbenzene [sec-]	17					mg/kg	17	0.005	0.006			
Butylbenzene [tert-]	17					mg/kg	17	0.005	0.006			
Carbon disulfide	17				7.4	mg/kg	17	0.005	0.006		17	
Carbon tetrachloride	17				0.21	mg/kg	17	0.005	0.006		17	
Chlorobenzene	17				67	mg/kg	17	0.005	0.006		17	
Chlorodibromomethane	17				83	mg/kg	17	0.005	0.006		17	
Chloroethane	17				3,300	mg/kg	17	0.01	0.011		17	
Chloroform	17				0.21	mg/kg	17	0.005	0.006		17	
Chloromethane	17				6.4	mg/kg	17	0.01	0.011		17	
Chlorotoluene [o-]	17					mg/kg	17	0.005	0.006			
Chlorotoluene [p-]	17					mg/kg	17	0.005	0.006			
Dibromo-3-chloropropane [1,2-]	17					mg/kg	17	0.01	0.011			
Dibromoethane [1,2-]	17					mg/kg	17	0.005	0.006			
Dibromomethane	17					mg/kg	17	0.005	0.006			
Dichlorobenzene (1,2) [o-]	17				1,600	mg/kg	17	0.005	0.006		17	
Dichlorobenzene (1,3) [m-]	17				7,200	mg/kg	17	0.005	0.006		17	
Dichlorobenzene (1,4) [p-]	17				290	mg/kg	17	0.005	0.006		17	
Dichlorodifluoromethane	17					mg/kg	17	0.01	0.011			
Dichloroethane [1,1-]	17				410	mg/kg	17	0.005	0.006		17	
Dichloroethane [1,2-]	17				0.2	mg/kg	17	0.005	0.006		17	
Dichloroethene [1,1-]	17				0.4	mg/kg	17	0.005	0.006		17	
Dichloroethene [trans-1,2-]	17				1,600	mg/kg	17	0.005	0.006		17	
Dichloroethylene [cis-1,2-]	17				800	mg/kg	17	0.005	0.006		17	
Dichloropropane [1,2-]	17				6.5	mg/kg	17	0.005	0.006		17	
Dichloropropane [1,3-]	17					mg/kg	17	0.005	0.006			
Dichloropropane [2,2-]	17					mg/kg	17	0.005	0.006			

TABLE 2-22

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1004 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [1,1-]	17					mg/kg	17	0.005	0.006			
Dichloropropene [cis-1,3-]	17				0.17	mg/kg	17	0.005	0.006		17	
Dichloropropene [trans-1,3-]	17				0.17	mg/kg	17	0.005	0.006		17	
Ethylbenzene	17				3,100	mg/kg	17	0.005	0.006		17	
Ethylene dibromide	17					mg/kg	17	0.005	0.006			
Hexanone [2-]	17					mg/kg	17	0.02	0.022			
Isopropylbenzene	17					mg/kg	17	0.005	0.006			
Isopropyltoluene [4-]	17					mg/kg	17	0.005	0.006			
Methyl iodide	17					mg/kg	17	0.005	0.006			
Methyl-2-pentanone [4-]	17				510	mg/kg	17	0.02	0.022		17	
Methylene chloride	17				5.6	mg/kg	17	0.005	0.006		17	
Propylbenzene	17					mg/kg	17	0.005	0.006			
Styrene	17				16,000	mg/kg	17	0.005	0.006		17	
Tetrachloroethane [1,1,1,2-]	17					mg/kg	17	0.005	0.006			
Tetrachloroethane [1,1,2,2-]	17				3.9	mg/kg	17	0.005	0.006		17	
Tetrachloroethylene	17				5.9	mg/kg	17	0.005	0.006		17	
Toluene	17				890	mg/kg	17	0.005	0.006		17	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	17					mg/kg	17	0.005	0.006			
Trichloroethane [1,1,1-]	17				1,000	mg/kg	17	0.005	0.006		17	
Trichloroethane [1,1,2-]	17				6.3	mg/kg	17	0.005	0.006		17	
Trichloroethene	17				3.2	mg/kg	17	0.005	0.006		17	
Trichlorofluoromethane	17					mg/kg	17	0.005	0.011			
Trichloropropane [1,2,3-]	17					mg/kg	17	0.005	0.006			
Trimethylbenzene [1,2,4-]	17					mg/kg	17	0.005	0.006			
Trimethylbenzene [1,3,5-]	17					mg/kg	17	0.005	0.006			
Vinyl chloride	17				0.012	mg/kg	17	0.01	0.011		17	
Xylenes (o + m + p) [Mixed-]	17				160,000	mg/kg	17	0.005	0.006		17	
Total Number of Values	**1,055**	**1**					**1,053**			**0**	**612**	**0**

TABLE 2-23

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1005 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acetone	3				8,000	mg/kg	3	0.02	0.02		3	
Benzene	3				0.67	mg/kg	3	0.005	0.005		3	
Bromobenzene	3					mg/kg	3	0.005	0.005			
Bromochloromethane	3					mg/kg	3	0.005	0.005			
Bromodichloromethane	3				11	mg/kg	3	0.005	0.005		3	
Bromoform	3				89	mg/kg	3	0.005	0.005		3	
Bromomethane	3				0.43	mg/kg	3	0.01	0.01		3	
Butanone [2-]	3				4,000	mg/kg	3	0.02	0.02		3	
Butylbenzene [n-]	3					mg/kg	3	0.005	0.005			
Butylbenzene [sec-]	3					mg/kg	3	0.005	0.005			
Butylbenzene [tert-]	3					mg/kg	3	0.005	0.005			
Carbon disulfide	3				7.4	mg/kg	3	0.005	0.005		3	
Carbon tetrachloride	3				0.21	mg/kg	3	0.005	0.005		3	
Chlorobenzene	3				67	mg/kg	3	0.005	0.005		3	
Chlorodibromomethane	3				83	mg/kg	3	0.005	0.005		3	
Chloroethane	3				3,300	mg/kg	3	0.01	0.01		3	
Chloroform	3				0.21	mg/kg	3	0.005	0.005		3	
Chloromethane	3				6.4	mg/kg	3	0.01	0.01		3	
Chlorotoluene [o-]	3					mg/kg	3	0.005	0.005			
Chlorotoluene [p-]	3					mg/kg	3	0.005	0.005			
Dibromo-3-chloropropane [1,2-]	3					mg/kg	3	0.01	0.01			
Dibromoethane [1,2-]	3					mg/kg	3	0.005	0.005			
Dibromomethane	3					mg/kg	3	0.005	0.005			
Dichlorobenzene (1,2) [o-]	3				1,600	mg/kg	3	0.005	0.005		3	
Dichlorobenzene (1,3) [m-]	3				7,200	mg/kg	3	0.005	0.005		3	
Dichlorobenzene (1,4) [p-]	3				290	mg/kg	3	0.005	0.005		3	
Dichlorodifluoromethane	3					mg/kg	3	0.01	0.01			
Dichloroethane [1,1-]	3				410	mg/kg	3	0.005	0.005		3	
Dichloroethane [1,2-]	3				0.2	mg/kg	3	0.005	0.005		3	
Dichloroethene [1,1-]	3				0.4	mg/kg	3	0.005	0.005		3	
Dichloroethene [trans-1,2-]	3				1,600	mg/kg	3	0.005	0.005		3	
Dichloroethylene [cis-1,2-]	3				800	mg/kg	3	0.005	0.005		3	
Dichloropropane [1,2-]	3				6.5	mg/kg	3	0.005	0.005		3	
Dichloropropane [1,3-]	3					mg/kg	3	0.005	0.005			
Dichloropropane [2,2-]	3					mg/kg	3	0.005	0.005			

TABLE 2-23

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1005 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [1,1-]	3					mg/kg	3	0.005	0.005			
Dichloropropene [cis-1,3-]	3				0.17	mg/kg	3	0.005	0.005		3	
Dichloropropene [trans-1,3-]	3				0.17	mg/kg	3	0.005	0.005		3	
Ethylbenzene	3				3,100	mg/kg	3	0.005	0.005		3	
Ethylene dibromide	3					mg/kg	3	0.005	0.005			
Hexanone [2-]	3					mg/kg	3	0.02	0.02			
Isopropylbenzene	3					mg/kg	3	0.005	0.005			
Isopropyltoluene [4-]	3					mg/kg	3	0.005	0.005			
Methyl iodide	3					mg/kg	3	0.005	0.005			
Methyl-2-pentanone [4-]	3				510	mg/kg	3	0.02	0.02		3	
Methylene chloride	3				5.6	mg/kg	3	0.006	0.015		3	
Propylbenzene	3					mg/kg	3	0.005	0.005			
Styrene	3				16,000	mg/kg	3	0.005	0.005		3	
Tetrachloroethane [1,1,1,2-]	3					mg/kg	3	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	3				3.9	mg/kg	3	0.005	0.005		3	
Tetrachloroethylene	3				5.9	mg/kg	3	0.005	0.005		3	
Toluene	3				890	mg/kg	3	0.005	0.005		3	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	3					mg/kg	3	0.005	0.005			
Trichloroethane [1,1,1-]	3				1,000	mg/kg	3	0.005	0.005		3	
Trichloroethane [1,1,2-]	3				6.3	mg/kg	3	0.005	0.005		3	
Trichloroethene	3				3.2	mg/kg	3	0.005	0.005		3	
Trichlorofluoromethane	3					mg/kg	3	0.01	0.01			
Trichloropropane [1,2,3-]	3					mg/kg	3	0.005	0.005			
Trimethylbenzene [1,2,4-]	3					mg/kg	3	0.005	0.005			
Trimethylbenzene [1,3,5-]	3					mg/kg	3	0.005	0.005			
Vinyl chloride	3				0.012	mg/kg	3	0.01	0.01		3	
Xylenes (o + m + p) [Mixed-]	3				160,000	mg/kg	3	0.005	0.005		3	
Total Number of Values	**186**	**0**					**186**			**0**	**108**	**0**

TABLE 2-24

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1006 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, including <LOD	Number of Values <LOD, with LOD>=SAL
Acetone	16	1	0.022	0.022	8,000	mg/kg	15	0.02	0.02		16	
Benzene	16				0.67	mg/kg	16	0.005	0.005		16	
Bromobenzene	16					mg/kg	16	0.005	0.005			
Bromochloromethane	16					mg/kg	16	0.005	0.005			
Bromodichloromethane	16				11	mg/kg	16	0.005	0.005		16	
Bromoform	16				89	mg/kg	16	0.005	0.005		16	
Bromomethane	16				0.43	mg/kg	16	0.01	0.01		16	
Butanone [2-]	16				4,000	mg/kg	16	0.02	0.02		16	
Butylbenzene [n-]	16					mg/kg	16	0.005	0.005			
Butylbenzene [sec-]	16					mg/kg	16	0.005	0.005			
Butylbenzene [tert-]	16					mg/kg	16	0.005	0.005			
Carbon disulfide	16				7.4	mg/kg	16	0.005	0.005		16	
Carbon tetrachloride	16				0.21	mg/kg	16	0.005	0.005		16	
Chlorobenzene	16				67	mg/kg	16	0.005	0.005		16	
Chlorodibromomethane	16				83	mg/kg	16	0.005	0.005		16	
Chloroethane	16				3,300	mg/kg	16	0.01	0.01		16	
Chloroform	16				0.21	mg/kg	16	0.005	0.005		16	
Chloromethane	16				6.4	mg/kg	16	0.01	0.01		16	
Chlorotoluene [o-]	16					mg/kg	16	0.005	0.005			
Chlorotoluene [p-]	16					mg/kg	16	0.005	0.005			
Dibromo-3-chloropropane [1,2-]	16					mg/kg	16	0.01	0.01			
Dibromoethane [1,2-]	16					mg/kg	16	0.005	0.005			
Dibromomethane	16					mg/kg	16	0.005	0.005			
Dichlorobenzene (1,2) [o-]	16				1,600	mg/kg	16	0.005	0.005		16	
Dichlorobenzene (1,3) [m-]	16				7,200	mg/kg	16	0.005	0.005		16	
Dichlorobenzene (1,4) [p-]	16				290	mg/kg	16	0.005	0.005		16	
Dichlorodifluoromethane	16					mg/kg	16	0.01	0.01			
Dichloroethane [1,1-]	16				410	mg/kg	16	0.005	0.005		16	
Dichloroethane [1,2-]	16				0.2	mg/kg	16	0.005	0.005		16	
Dichloroethene [1,1-]	16				0.4	mg/kg	16	0.005	0.005		16	
Dichloroethene [trans-1,2-]	16				1,600	mg/kg	16	0.005	0.005		16	
Dichloroethylene [cis-1,2-]	16				800	mg/kg	16	0.005	0.005		16	
Dichloropropane [1,2-]	16				6.5	mg/kg	16	0.005	0.005		16	
Dichloropropane [1,3-]	16					mg/kg	16	0.005	0.005			
Dichloropropane [2,2-]	16					mg/kg	16	0.005	0.005			

TABLE 2-24

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1006 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [1,1-]	16					mg/kg	16	0.005	0.005			
Dichloropropene [cis-1,3-]	16				0.17	mg/kg	16	0.005	0.005		16	
Dichloropropene [trans-1,3-]	16				0.17	mg/kg	16	0.005	0.005		16	
Ethylbenzene	16				3,100	mg/kg	16	0.005	0.005		16	
Ethylene dibromide	16					mg/kg	16	0.005	0.005			
Hexanone [2-]	16					mg/kg	16	0.02	0.02			
Isopropylbenzene	16					mg/kg	16	0.005	0.005			
Isopropyltoluene [4-]	16					mg/kg	16	0.005	0.005			
Methyl iodide	16					mg/kg	16	0.005	0.005			
Methyl-2-pentanone [4-]	16				510	mg/kg	16	0.02	0.02		16	
Methylene chloride	16				5.6	mg/kg	16	0.005	0.005		16	
Propylbenzene	16					mg/kg	16	0.005	0.005			
Styrene	16				16,000	mg/kg	16	0.005	0.005		16	
Tetrachloroethane [1,1,1,2-]	16					mg/kg	16	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	16				3.9	mg/kg	16	0.005	0.005		16	
Tetrachloroethylene	16				5.9	mg/kg	16	0.005	0.005		16	
Toluene	16				890	mg/kg	16	0.005	0.005		16	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	16					mg/kg	16	0.005	0.005			
Trichloroethane [1,1,1-]	16				1,000	mg/kg	16	0.005	0.005		16	
Trichloroethane [1,1,2-]	16				6.3	mg/kg	16	0.005	0.005		16	
Trichloroethene	16				3.2	mg/kg	16	0.005	0.005		16	
Trichlorofluoromethane	16					mg/kg	16	0.005	0.005			
Trichloropropane [1,2,3-]	16					mg/kg	16	0.005	0.005			
Trimethylbenzene [1,2,4-]	16					mg/kg	16	0.005	0.005			
Trimethylbenzene [1,3,5-]	16					mg/kg	16	0.005	0.005			
Vinyl chloride	16				0.012	mg/kg	16	0.01	0.01		16	
Xylenes (o + m + p) [Mixed-]	16				160,000	mg/kg	16	0.005	0.005		16	
Total Number of Values	**992**	**1**					**991**			**0**	**576**	**0**

TABLE 2-25

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1007 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, including <LOD	Number of Values <LOD, with LOD>=SAL
Aluminum	4	4	475	1,200		mg/kg						
Antimony	4				32	mg/kg	4	0.2	0.21		4	
Arsenic	4				0.4	mg/kg	4	0.81	1.5			4
Barium	4				5,600	mg/kg	4	3.4	17		4	
Beryllium	4				0.16	mg/kg	4	0.22	0.57			4
Cadmium	4				80	mg/kg	4	0.62	0.85		4	
Calcium	4	2	1,150	1,290		mg/kg	2	784	967			
Chromium	4	3	4.1	4.3	400	mg/kg	1	0.9	0.9		4	
Cobalt	4					mg/kg	4	1.8	1.9			
Copper	4	3	17.3	81.4	3,000	mg/kg	1	2.7	2.7		4	
Iron	4	4	1,450	5,530		mg/kg						
Lead	4	4	3.4	7.3	500	mg/kg					4	
Magnesium	4					mg/kg	4	48.5	309			
Manganese	4	4	149	285	8,000	mg/kg					4	
Mercury	4				24	mg/kg	4	0.02	0.02		4	
Molybdenum	4				400	mg/kg	4	5.9	6.2		4	
Nickel	4				1,600	mg/kg	4	2.2	2.4		4	
Potassium	4					mg/kg	4	220	777			
Selenium	4				400	mg/kg	4	0.41	0.43		4	
Silver	4				400	mg/kg	4	1	1.1		4	
Sodium	4					mg/kg	4	256	538			
Thallium	4				6.4	mg/kg	4	0.2	0.21		4	
Vanadium	4				560	mg/kg	4	1	1.2		4	
Zinc	4	4	34.3	60.7	24,000	mg/kg					4	
Total Number of Values	96	28					68			0	60	8

TABLE 2-26

SUMMARY OF METALS DATA FOR LOCATION 54-1007

Sample ID Number	Analyte	Concentration	Units	Depth (ft)
AAA7450	Aluminum	475	mg/kg	98.5
AAA7451	Aluminum	601	mg/kg	106.4
AAA7447	Aluminum	1,200	mg/kg	130.8
AAA7447-D	Aluminum	1,175	mg/kg	130.8
AAA7449	Aluminum	563	mg/kg	145.5
AAA7450	Antimony	<0.2	mg/kg	98.5
AAA7451	Antimony	<0.21	mg/kg	106.4
AAA7447	Antimony	<0.21	mg/kg	130.8
AAA7447-D	Antimony	<0.21	mg/kg	130.8
AAA7449	Antimony	<0.21	mg/kg	145.5
AAA7450	Arsenic	<0.81	mg/kg	98.5
AAA7451	Arsenic	<0.82	mg/kg	106.4
AAA7447	Arsenic	<1.5	mg/kg	130.8
AAA7447-D	Arsenic	1.8	mg/kg	130.8
AAA7449	Arsenic	<0.82	mg/kg	145.5
AAA7450	Barium	<3.4	mg/kg	98.5
AAA7451	Barium	<3.4	mg/kg	106.4
AAA7447	Barium	<16.4	mg/kg	130.8
AAA7447-D	Barium	17.5	mg/kg	130.8
AAA7449	Barium	<17	mg/kg	145.5
AAA7450	Beryllium	<0.37	mg/kg	98.5
AAA7451	Beryllium	<0.22	mg/kg	106.4
AAA7447	Beryllium	<0.57	mg/kg	130.8
AAA7447-D	Beryllium	0.5	mg/kg	130.8
AAA7449	Beryllium	<0.42	mg/kg	145.5
AAA7450	Cadmium	<0.85	mg/kg	98.5
AAA7451	Cadmium	<0.62	mg/kg	106.4
AAA7447	Cadmium	<0.64	mg/kg	130.8
AAA7447-D	Cadmium	<0.64	mg/kg	130.8
AAA7449	Cadmium	<0.62	mg/kg	145.5
AAA7450	Calcium	1,290	mg/kg	98.5
AAA7451	Calcium	1,150	mg/kg	106.4

TABLE 2-26

SUMMARY OF METALS DATA FOR LOCATION 54-1007

Sample ID Number	Analyte	Concentration	Units	Depth (ft)
AAA7447	Calcium	<967	mg/kg	130.8
AAA7447-D	Calcium	950	mg/kg	130.8
AAA7449	Calcium	<784	mg/kg	145.5
AAA7450	Chromium	4.1	mg/kg	98.5
AAA7451	Chromium	4.3	mg/kg	106.4
AAA7447	Chromium	<0.9	mg/kg	130.8
AAA7447-D	Chromium	1.23	mg/kg	130.8
AAA7449	Chromium	4.3	mg/kg	145.5
AAA7450	Cobalt	<1.8	mg/kg	98.5
AAA7451	Cobalt	<1.8	mg/kg	106.4
AAA7447	Cobalt	<1.9	mg/kg	130.8
AAA7447-D	Cobalt	<1.9	mg/kg	130.8
AAA7449	Cobalt	<1.8	mg/kg	145.5
AAA7450	Copper	<2.7	mg/kg	98.5
AAA7451	Copper	81.4	mg/kg	106.4
AAA7447	Copper	17.3	mg/kg	130.8
AAA7447-D	Copper	16.8	mg/kg	130.8
AAA7449	Copper	34.9	mg/kg	145.5
AAA7450	Iron	5,530	mg/kg	98.5
AAA7451	Iron	2,550	mg/kg	106.4
AAA7447	Iron	2,500	mg/kg	130.8
AAA7447-D	Iron	2,678	mg/kg	130.8
AAA7449	Iron	1,450	mg/kg	145.5
AAA7450	Lead	7.3	mg/kg	98.5
AAA7451	Lead	4.4	mg/kg	106.4
AAA7447	Lead	7.1	mg/kg	130.8
AAA7447-D	Lead	7	mg/kg	130.8
AAA7449	Lead	3.4	mg/kg	145.5
AAA7450	Magnesium	<99.9	mg/kg	98.5
AAA7451	Magnesium	<48.5	mg/kg	106.4
AAA7447	Magnesium	<59	mg/kg	130.8
AAA7447-D	Magnesium	81.1	mg/kg	130.8

TABLE 2-26

SUMMARY OF METALS DATA FOR LOCATION 54-1007

Sample ID Number	Analyte	Concentration	Units	Depth (ft)
AAA7449	Magnesium	<309	mg/kg	145.5
AAA7450	Manganese	285	mg/kg	98.5
AAA7451	Manganese	156	mg/kg	106.4
AAA7447	Manganese	149	mg/kg	130.8
AAA7447-D	Manganese	162	mg/kg	130.8
AAA7449	Manganese	163	mg/kg	145.5
AAA7450	Mercury	<0.02	mg/kg	98.5
AAA7451	Mercury	<0.02	mg/kg	106.4
AAA7447	Mercury	<0.02	mg/kg	130.8
AAA7447-D	Mercury	<0.02	mg/kg	130.8
AAA7449	Mercury	<0.02	mg/kg	145.5
AAA7450	Molybdenum	<5.9	mg/kg	98.5
AAA7451	Molybdenum	<5.9	mg/kg	106.4
AAA7447	Molybdenum	<6.2	mg/kg	130.8
AAA7447-D	Molybdenum	<6.2	mg/kg	130.8
AAA7449	Molybdenum	<6	mg/kg	145.5
AAA7450	Nickel	<2.2	mg/kg	98.5
AAA7451	Nickel	<2.3	mg/kg	106.4
AAA7447	Nickel	<2.4	mg/kg	130.8
AAA7447-D	Nickel	<2.4	mg/kg	130.8
AAA7449	Nickel	<2.3	mg/kg	145.5
AAA7450	Potassium	<269	mg/kg	98.5
AAA7451	Potassium	<294	mg/kg	106.4
AAA7447	Potassium	<777	mg/kg	130.8
AAA7447-D	Potassium	721	mg/kg	130.8
AAA7449	Potassium	<220	mg/kg	145.5
AAA7450	Selenium	<0.41	mg/kg	98.5
AAA7451	Selenium	<0.41	mg/kg	106.4
AAA7447	Selenium	<0.43	mg/kg	130.8
AAA7447-D	Selenium	<0.43	mg/kg	130.8
AAA7449	Selenium	<0.41	mg/kg	145.5
AAA7450	Silver	<1	mg/kg	98.5

TABLE 2-26

SUMMARY OF METALS DATA FOR LOCATION 54-1007

Sample ID Number	Analyte	Concentration	Units	Depth (ft)
AAA7451	Silver	<1	mg/kg	106.4
AAA7447	Silver	<1.1	mg/kg	130.8
AAA7447-D	Silver	<1.1	mg/kg	130.8
AAA7449	Silver	<1	mg/kg	145.5
AAA7450	Sodium	<263	mg/kg	98.5
AAA7451	Sodium	<308	mg/kg	106.4
AAA7447	Sodium	<538	mg/kg	130.8
AAA7447-D	Sodium	523	mg/kg	130.8
AAA7449	Sodium	<256	mg/kg	145.5
AAA7450	Thallium	<0.2	mg/kg	98.5
AAA7451	Thallium	<0.21	mg/kg	106.4
AAA7447	Thallium	<0.21	mg/kg	130.8
AAA7447-D	Thallium	<0.21	mg/kg	130.8
AAA7449	Thallium	<0.21	mg/kg	145.5
AAA7450	Vanadium	<1	mg/kg	98.5
AAA7451	Vanadium	<1	mg/kg	106.4
AAA7447	Vanadium	<1.1	mg/kg	130.8
AAA7447-D	Vanadium	<1.1	mg/kg	130.8
AAA7449	Vanadium	<1.2	mg/kg	145.5
AAA7450	Zinc	51.8	mg/kg	98.5
AAA7451	Zinc	60.7	mg/kg	106.4
AAA7447	Zinc	52.3	mg/kg	130.8
AAA7447-D	Zinc	53.1	mg/kg	130.8
AAA7449	Zinc	34.3	mg/kg	145.5

D = laboratory duplicate.

TABLE 2-27

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1009 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Acenaphthene	12				4,800	mg/kg	12	0.33	0.33		12	
Acenaphthylene	12					mg/kg	12	0.33	0.33			
Acetone	12	9	0.022	0.1	8,000	mg/kg	3	0.02	0.02		12	
Aniline	12					mg/kg	12	0.33	0.33			
Anthracene	12				24,000	mg/kg	12	0.33	0.33		12	
Azobenzene	12					mg/kg	12	0.33	0.33			
Benzene	12				0.67	mg/kg	12	0.005	0.005		12	
Benzidine [m-]	12					mg/kg	12	0.33	0.33			
Benzo[a]anthracene	12				0.64	mg/kg	12	0.33	0.33		12	
Benzo[a]pyrene	12				0.1	mg/kg	12	0.33	0.33			12
Benzo[b]fluoranthene	12				0.7	mg/kg	12	0.33	0.33		12	
Benzo[g,h,i]perylene	12				44	mg/kg	12	0.33	0.33		12	
Benzo[k]fluoranthene	12				1.5	mg/kg	12	0.33	0.33		12	
Benzoic acid	12				320,000	mg/kg	12	0.33	0.33		12	
Benzyl alcohol	12					mg/kg	12	0.33	0.33			
Bis(2-chloroethoxy)methane	12					mg/kg	12	0.33	0.33			
Bis(2-chloroethyl)ether	12				0.12	mg/kg	12	0.33	0.33			12
Bis(2-chloroisopropyl)ether	12				100	mg/kg	12	0.33	0.33		12	
Bis(2-ethylhexyl)phthalate	12				50	mg/kg	12	0.33	0.33		12	
Bromobenzene	12					mg/kg	12	0.005	0.005			
Bromochloromethane	12					mg/kg	12	0.005	0.005			
Bromodichloromethane	12				11	mg/kg	12	0.005	0.005		12	
Bromoform	12				89	mg/kg	12	0.005	0.005		12	
Bromomethane	12				0.43	mg/kg	12	0.01	0.01		12	
Bromophenylphenyl ether [4-]	12					mg/kg	12	0.33	0.33			
Butanone [2-]	12				4,000	mg/kg	12	0.02	0.02		12	
Butyl benzyl phthalate	12				16,000	mg/kg	12	0.33	0.33		12	
Butylbenzene [n-]	12	1	0.012	0.012		mg/kg	11	0.005	0.005			
Butylbenzene [sec-]	12					mg/kg	12	0.005	0.005			
Butylbenzene [tert-]	12					mg/kg	12	0.005	0.005			
Carbon disulfide	12				7.4	mg/kg	12	0.005	0.005		12	
Carbon tetrachloride	12				0.21	mg/kg	12	0.005	0.005		12	
Chloro-3-methylphenol [4-]	12				16,000	mg/kg	12	0.33	0.33		12	
Chloroaniline [4-]	12				320	mg/kg	12	0.33	0.33		12	

TABLE 2-27

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1009 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Chlorobenzene	12				67	mg/kg	12	0.005	0.005		12	
Chlorodibromomethane	12				83	mg/kg	12	0.005	0.005		12	
Chloroethane	12				3,300	mg/kg	12	0.01	0.01		12	
Chloroform	12				0.21	mg/kg	12	0.005	0.005		12	
Chloromethane	12				6.4	mg/kg	12	0.01	0.01		12	
Chloronaphthalene [2-]	12				6,400	mg/kg	12	0.33	0.33		12	
Chlorophenol [o-]	12				400	mg/kg	12	0.33	0.33		12	
Chlorophenylphenyl ether [4-]	12					mg/kg	12	0.33	0.33			
Chlorotoluene [o-]	12					mg/kg	12	0.005	0.005			
Chlorotoluene [p-]	12					mg/kg	12	0.005	0.005			
Chrysene	12				22	mg/kg	12	0.33	0.33		12	
Di-n-butyl phthalate	12	4	0.44	1	8,000	mg/kg	8	0.33	0.33		12	
Di-n-octyl phthalate	12				1,600	mg/kg	12	0.33	0.33		12	
Dibenzo[a,h]anthracene	12				0.086	mg/kg	12	0.33	0.33			12
Dibenzofuran	12					mg/kg	12	0.33	0.33			
Dibromo-3-chloropropane [1,2-]	12					mg/kg	12	0.01	0.01			
Dibromoethane [1,2-]	12					mg/kg	12	0.005	0.005			
Dibromomethane	12					mg/kg	12	0.005	0.005			
Dichlorobenzene (1,2) [o-]	24				1,600	mg/kg	24	0.005	0.33		24	
Dichlorobenzene (1,3) [m-]	24	1	0.011	0.011	7,200	mg/kg	23	0.005	0.33		24	
Dichlorobenzene (1,4) [p-]	24				290	mg/kg	24	0.005	0.33		24	
Dichlorobenzidine [3,3'-]	12				1.6	mg/kg	12	0.33	0.33		12	
Dichlorodifluoromethane	12					mg/kg	12	0.01	0.01			
Dichloroethane [1,1-]	12				410	mg/kg	12	0.005	0.005		12	
Dichloroethane [1,2-]	12	1	0.009	0.009	0.2	mg/kg	11	0.005	0.005		12	
Dichloroethene [1,1-]	12				0.4	mg/kg	12	0.005	0.005		12	
Dichloroethene [trans-1,2-]	12				1,600	mg/kg	12	0.005	0.005		12	
Dichloroethylene [cis-1,2-]	12				800	mg/kg	12	0.005	0.005		12	
Dichlorophenol [2,4-]	12				240	mg/kg	12	0.33	0.33		12	
Dichloropropane [1,2-]	12				6.5	mg/kg	12	0.005	0.005		12	
Dichloropropane [1,3-]	12					mg/kg	12	0.005	0.005			
Dichloropropane [2,2-]	12					mg/kg	12	0.005	0.005			
Dichloropropene [1,1-]	12					mg/kg	12	0.005	0.005			
Dichloropropene [cis-1,3-]	12				0.17	mg/kg	12	0.005	0.005		12	

TABLE 2-27

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1009 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Minimum	Concentration Range Maximum	SAL	Units	Number of Values < LOD	LOD Range Minimum	LOD Range Maximum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Dichloropropene [trans-1,3-]	12				0.17	mg/kg	12	0.005	0.005		12	
Diethyl phthalate	12				64,000	mg/kg	12	0.33	0.33		12	
Dimethyl phthalate	12				800,000	mg/kg	12	0.33	0.33		12	
Dimethylphenol [2,4-]	12				1,600	mg/kg	12	0.33	0.33		12	
Dinitrophenol [2,4-]	12				160	mg/kg	12	0.33	0.33		12	
Dinitrotoluene [2,4-]	12				1	mg/kg	12	0.33	0.33		12	
Dinitrotoluene [2,6-]	12				1	mg/kg	12	0.33	0.33		12	
Ethylbenzene	12				3,100	mg/kg	12	0.005	0.005		12	
Ethylene dibromide	12					mg/kg	12	0.005	0.005			
Fluoranthene	12				3,200	mg/kg	12	0.33	0.33		12	
Fluorene	12				3,200	mg/kg	12	0.33	0.33		12	
Hexachlorobenzene	12				0.44	mg/kg	12	0.33	0.33		12	
Hexachlorobutadiene	12				90	mg/kg	12	0.33	0.33		12	
Hexachlorocyclopentadiene	12				560	mg/kg	12	0.33	0.33		12	
Hexachloroethane	12				80	mg/kg	12	0.33	0.33		12	
Hexanone [2-]	12	2	0.02	0.021		mg/kg	10	0.02	0.02			
Indeno[1,2,3-cd]pyrene	12				0.41	mg/kg	12	0.33	0.33		12	
Isophorone	12				7,400	mg/kg	12	0.33	0.33		12	
Isopropylbenzene	12					mg/kg	12	0.005	0.005			
Isopropyltoluene [4-]	12	1	0.006	0.006		mg/kg	11	0.005	0.005			
Methyl iodide	12					mg/kg	12	0.005	0.005			
Methyl-2-pentanone [4-]	12	2	0.034	0.078	510	mg/kg	10	0.02	0.02		12	
Methyl-4,6-dinitrophenol [2-]	12					mg/kg	12	0.33	0.33			
Methylene chloride	12				5.6	mg/kg	12	0.005	0.005		12	
Methylnaphthalene [2-]	12					mg/kg	12	0.33	0.33			
Methylphenol [2-]	12				4,000	mg/kg	12	0.33	0.33		12	
Methylphenol [4-]	12				400	mg/kg	12	0.33	0.33		12	
Naphthalene	12				3,200	mg/kg	12	0.33	0.33		12	
Nitroaniline [2-]	12					mg/kg	12	0.33	0.33			
Nitroaniline [3-]	12					mg/kg	12	0.33	0.33			
Nitroaniline [4-]	12					mg/kg	12	0.33	0.33			
Nitrobenzene	12				5.3	mg/kg	12	0.33	0.33		12	
Nitrophenol [2-]	12					mg/kg	12	0.33	0.33			
Nitrophenol [4-]	12					mg/kg	12	0.33	0.33			

TABLE 2-27

SUMMARY OF SOIL SAMPLE ANALYSES FOR LOCATION 54-1009 AT OU 1148

Analyte	Number of Values Per Analyte	Number of Values >=LOD	Concentration Range Mini-mum	Concentration Range Maxi-mum	SAL	Units	Number of Values < LOD	LOD Range Mini-mum	LOD Range Maxi-mum	Number of Values >=SAL	Number of Values <SAL, Including <LOD	Number of Values <LOD, with LOD>=SAL
Nitrosodi-n-propylamine [N-]	12				0.1	mg/kg	12	0.33	0.33			12
Nitrosodimethylamine [N-]	12					mg/kg	12	0.33	0.33			
Nitrosodiphenylamine [N-]	12				140	mg/kg	12	0.33	0.33		12	
Pentachlorophenol	12				5.8	mg/kg	12	0.33	0.33		12	
Phenanthrene	12					mg/kg	12	0.33	0.33			
Phenol	12				48,000	mg/kg	12	0.33	0.33		12	
Propylbenzene	12					mg/kg	12	0.005	0.005			
Pyrene	12				2,400	mg/kg	12	0.33	0.33		12	
Styrene	12				16,000	mg/kg	12	0.005	0.005		12	
Tetrachloroethane [1,1,1,2-]	12					mg/kg	12	0.005	0.005			
Tetrachloroethane [1,1,2,2-]	12				3.9	mg/kg	12	0.005	0.005		12	
Tetrachloroethylene	12				5.9	mg/kg	12	0.005	0.005		12	
Toluene	12				890	mg/kg	12	0.005	0.005		12	
Trichloro-1,2,2-trifluoroethane [1,1,2-]	12					mg/kg	12	0.005	0.005			
Trichlorobenzene [1,2,4-]	12				160	mg/kg	12	0.33	0.33		12	
Trichloroethane [1,1,1-]	12				1,000	mg/kg	12	0.005	0.005		12	
Trichloroethane [1,1,2-]	12				6.3	mg/kg	12	0.005	0.005		12	
Trichloroethene	12				3.2	mg/kg	12	0.005	0.005		12	
Trichlorofluoromethane	12					mg/kg	12	0.005	0.005			
Trichlorophenol [2,4,5-]	12				8,000	mg/kg	12	0.33	0.33		12	
Trichlorophenol [2,4,6-]	12				64	mg/kg	12	0.33	0.33		12	
Trichloropropane [1,2,3-]	12					mg/kg	12	0.005	0.005			
Trimethylbenzene [1,2,4-]	12					mg/kg	12	0.005	0.005			
Trimethylbenzene [1,3,5-]	12					mg/kg	12	0.005	0.005			
Vinyl acetate	12					mg/kg	12	0.01	0.01			
Vinyl chloride	12				0.012	mg/kg	12	0.01	0.01		12	
Xylenes (o + m + p) [Mixed-]	12				160,000	mg/kg	12	0.005	0.005		12	
Total Number of Values	**1,584**	**21**					**1,563**			**0**	**996**	**48**

TABLE 2-28

VOLATILE ORGANIC "HITS" FOR LOCATION 54-1009

Sample ID Number	Depth (ft)	Analyte	Concentration (µg/kg)	Detection Limit (µg/kg)
AAA7406	6.0	Acetone	23	20
AAA7417	15.7	2-Hexanone	21	20
AAA7417	15.7	Acetone	35	20
AAA7410	26.0	Acetone	30	20
AAA7397	45.5	1,3-Dichlorobenzene	11	5
AAA7397	45.5	2-Hexanone	20	20
AAA7397	45.5	Acetone	71	20
AAA7412	59.0	4-Methyl-2-pentanone	34	20
AAA7412	59.0	Acetone	62	20
AAA7404	65.0	Acetone	46	20
AAA7407	83.3	Acetone	22	20
AAA7416	95.0	Acetone	27	20
AAA7403	115.5	1,2-Dichloroethane	9.3	5
AAA7403	115.5	4-Methyl-2-pentanone	78	20
AAA7403	115.5	Acetone	100	20
AAA7403	115.5	p-Isopropyltoluene	6	5

TABLE 2-29

SEMIVOLATILE ORGANIC "HITS" FOR LOCATION 54-1009

Sample ID Number	Depth (ft)	Analyte	Concentration (µg/kg)	Detection Limit (µg/kg)
AAA7401	38.0	Di-n-butylphthalate	1000	330
AAA7404	65.0	Di-n-butylphthalate	450	330
AAA7402	94.0	Di-n-butylphthalate	440	330
AAA7403	115.5	Di-n-butylphthalate	750	330

2.25 ADS 1154—TA-57 (Project Leader: Tracy Glatzmaier)

The formal internal, formal value engineering (external), and informal DOE reviews for the RFI work plan for OU 1154 have been conducted, and applicable comments have been incorporated into the next version of the work plan. The third draft of the work plan is currently undergoing formal DOE review.

Scheduling and costing of the ADS for the FY94 Baseline was completed in order to meet the April 1, 1994, deadline to DOE.

2.26 ADS 1157—TAs-8, -9, -23, -69 (Project Leader: Tracy Glatzmaier)

The data from the geophysics surveys conducted last quarter at the TA-9 decommissioned area circles and at the TA-8 gun firing site and MDA Q were analyzed.

Two electromagnetic surveys (using Geonics EM31 and EM61 equipment) and a ground-penetrating radar (GPR) survey were performed over a 60-by-270-ft study area encompassing PRS 9-012, (the TA-9 decommissioned area circles). The EM31 survey revealed a linear anomaly in the in-phase and quadrature data that coincided with the bald spots. The in-phase data suggest that buried metallic objects may be present beneath and between the bald spots. The shape of the anomaly is typical of a utility line such as a buried cable. The EM31 survey also revealed an anomalous zone in the central western section of PRS 9-012 having both quadrature and in-phase anomalies. This zone intersected the linear zone and extended to the west at least 60 ft. This was interpreted to be a zone of buried debris. The EM61 survey revealed no anomalous zones that corresponded with the bald spots and only a small number of minor anomalies that corresponded with EM31 anomalies in the west-central zone. This lack of agreement with the EM31 data suggests that the shallow targets (less than 3 ft) beneath the bald spots are nonmetallic or too small to be detected with the EM61. The GPR data showed discrete targets ranging in depth from 2 ft to greater that 6 ft beneath the bald spots. Shallow, small targets were observed between the bald spots and may indicate a north-south utility line such as a buried cable. The results of the GPR survey over the west-central anomaly were inconclusive. Although a disturbed subsurface zone was interpreted in this area, no discrete targets were detected.

Two electromagnetic surveys (using Geonics EM31 and EM61 equipment), as well as a GPR survey were also performed over PRS 8-002 (the TA-8 gun firing site) and PRS 8-006 (MDA Q). The EM61 data showed that over 70% of the study area had significant anomalies suggesting the presence of metal in the near surface. The lateral extent of the anomalies indicates that buried metallic debris exists outside of the study area. Several linear anomalies detected by the EM61 survey are interpreted as buried utility lines. These lines are located in the southwest corner and extend to the south and northeast. A major EM61 anomaly, approximately 60 by 70 ft in dimension, was located. This was the single largest anomaly in extent and magnitude that was not related to surface debris. It is interpreted to be the most likely area where the suspected naval guns may be buried (MDA Q, PRS 8-006). GPR data collected over PRS 8-002 revealed numerous disturbed subsurface zones and discrete targets that corresponded with the EM61 results. The data indicated that the major anomaly consists of multiple buried objects that are buried between 1 and 4 ft deep. Additional objects may be buried at greater depths. The GPR data also confirmed the presence of the buried utility lines (2 to 4 ft deep). The EM31 survey confirmed the lateral extent of the major anomaly, as well as the presence of the two buried utility lines.

A readiness review was held March 31 to prepare for surface and near-surface soil sampling throughout the operable unit and for the sampling of unknown bottle contents and asbestos in MDA M at TA-9. The site-specific health and safety plan and the waste management plan have been written and approved for this season's scheduled fieldwork.

Field screening for radiological contamination was performed at MDA M. Also, because of the size of MDA M (over 3 acres) and the smaller satellite dumping area, these areas were divided into smaller grids. Each unit of the grid has been mapped and photographed to document the contents of the unit.

Scheduling and costing of the ADS for the FY94 Baseline was completed in order to meet the April 1, 1994, deadline to DOE.

3.0 REFERENCES

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1129," Los Alamos National Laboratory Report LA-UR-92-800, Los Alamos, New Mexico. (LANL 1992, 0785)

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1147," Los Alamos National Laboratory Report LA-UR-92-969, Los Alamos, New Mexico. (LANL 1992, 0787)

LANL (Los Alamos National Laboratory), November 1993. "Installation Work Plan for Environmental Restoration," Revision 3, Los Alamos National Laboratory Report LA-UR-93-3987, Los Alamos, New Mexico. (LANL 1993, 1017)