Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Janice Archuleta
Hazardous and Radioactive Materials
Bureau
New Mexico Environment Department
2044 Galisteo St., Building A
P. O. Box 26110
Santa Fe, New Mexico 87505

Dear Ms. Archuleta:

Subject: Re-characterization of "Soil With Heavy Metals" in Storage at Technical Area (TA) 54 - Request for Removal from the Site Treatment Plan (STP)

The purpose of this letter is to present the Department of Energy's (DOE) and the University of California's (UC) position on the re-characterization of 47 fifty-five gallon containers of soil currently being stored at the Los Alamos National Laboratory (LANL) as Low-Level Mixed Waste (LLMW). These soils currently are included as part of 59 items listed in the STP under Section 3.1.2 in the Compliance Plan Volume (CPV, Rev. 1.0, June 12, 1996, Exhibit A) and the Background Volume in the treatability group *"soil with heavy metals,"* MWIR waste ID LA-W904 (it should be noted that the term "item" as it applies to this treatability group refers to containers of contaminated soil). Based on new information, the referenced soils are actually nonhazardous Low-Level Radioactive Waste (LLRW). They should, therefore, be managed as such.

Upon NMED approval, DOE and UC will manage the 47 referenced containers of contaminated soil as LLRW and will not consider them "covered waste" in the STP. DOE and UC are now assessing information regarding the remaining 12 containers in this treatability group. At this time, DOE and UC will continue to manage them as "covered wastes" in the STP.

Section V.B, "Covered Matters," of the October 4, 1995, Federal Facility Compliance Order (FFCO), issued by the New Mexico Environment Department (NMED) to implement the STP at LANL, requires that DOE and/or UC notify NMED by letter when they determine that a "covered waste," as defined in Section V.A of the FFCO, is actually radioactive waste without a hazardous waste component.

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Sampling of the waste combined with a detailed study and reevaluation of the information and analytical data for these 47 containers was recently completed. A discussion of re-characterization activities as specified in Section IX.C of the FFCO supporting our conclusion follows:

1.0 Waste Description

The subject 59 waste containers are included in the STP under Section 3.1.2 in the Compliance Plan Volume (CPV, Exhibit A) and the Background Volume as the treatability group "soil with heavy metals," MWIR waste ID LA-W904. The volume in this treatability group was originally reported in the STP to be 10.53 cubic meters; the actual volume has now been measured to be 11.14 cubic meters. Of these 59 containers, 47 containers were waste generated from the decommissioning and decontamination project for the TA-2 Water Boiler Reactor and TA-35 Los Alamos Power Reactor Experiment No. II (LAPRE II). The remaining 12 containers in this treatability group originated from other sources. In this letter, we are requesting the removal of 47 of the 59 containers (a total of 9.80 cubic meters) from the STP "covered waste" category.

Attachment A to this letter provides a listing of all 59 containers included in the STP, as currently contained in LANL's chemical and mixed waste database. The containers <u>not</u> proposed for removal from the STP are clearly identified by shading. Detailed records to support each container's entries in the database are contained in LANL's files. These soil containers were managed in accordance with the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Management Regulations (HWMR).

2.0 Background

The Decommissioning and Decontamination of the TA-2 Water Boiler Reactor and TA-35 (LAPRE II) was done by UC, with Johnson Controls, Inc., an on-site subcontractor to UC. The work was performed under the Surplus Facilities Management Program (SFMP), a DOE program that provided for the safe caretaking (surveillance and maintenance) and disposition (decommissioning) of retired, DOE-sponsored nuclear facilities that supported energy research and the development of nuclear power. UC was the Project Management Contractor for DOE and represented DOE in planning, managing, and implementing this SFMP project.

3.0 Potential Basis for Hazardous Waste Classification

Originally, the waste was classified as LLMW due to the presence of lead and chromium. The Water Boiler Reactor and LAPRE II were known to be contaminated with radioactive materials because of program activities by the Office of Nuclear Energy. The radioactive constituents were Cs137, Co60, Sr90, U235, U238, and Eu152. The main function for the two reactors was to provide researchers with an intense source of neutrons to conduct experiments. Numerous samples were introduced into irradiation

ports for analysis; therefore, over the years, different solutions of various isotopes were used in the reactors.

The lead component in the waste came from soil that was taken from under and over lead plates and vent piping. The chromium, a corrosion product, resulted from the fuel solution that stripped the chromium from the inside of the stainless steel tank. Therefore, based on the generator's knowledge of the presence of lead and chromium in the waste, the contaminated soil was originally classified as D007 and D008.

4.0 Characterization Methodology

The 47 containers from this treatability group (LA-W904) for which re-classification is being requested, were from an original inventory of 59 containers. Every container was opened and visually inspected. Each container contained chunks of concrete, rock and soil (refer to the color photos). Seven out of 47 containers were selected for sampling as indicated in Attachment A. The analytical data was assembled and examined by UC as summarized in Attachment B. Attachment C presents the analytical results for each sample. The 12 containers proposed to remain in the STP inventory are discussed in the following sections.

5.0 Basis for Re-Characterization as Nonhazardous Waste

Based on DOE's and UC's review of earlier studies and the recent analytical data, we have determined that 47 containers of *"soil with heavy metals"* should not have been classified as LLMW. Therefore, we believe that these containers are just LLRW based on our analytical results.

Twelve containers are proposed to remain in the STP inventory. The contents of two of the 12 containers, numbers 900587 and 900597, differed from those of the other ten containers. These two containers were filled with lab trash and oily rags. Evaluation of the remaining ten containers is still in progress. Hence, they are not discussed further in this transmittal. Therefore, DOE and UC will continue to manage the 12 containers as "covered wastes" according to the requirements of the STP.

6.0 Conclusion

DOE's and UC's data review supports the conclusion that 47 of the 59 containers of *"soil with heavy metals"* should correctly be classified as LLRW. It is our understanding that upon approval of this request by NMED, the referenced 47 containers of *"soil with heavy metals"* shall no longer be subject to the terms of the HWMR or the FFCO. LANL will then consider the referenced 47 containers in the treatability group *"soil with heavy metals,"* MWIR waste ID LA-W904, deleted from the STP and from LANL's LLMW inventory. The waste from the remaining 12 containers will continue to be managed in this treatability group in accordance with the requirements of the STP under Section 3.3 in the Compliance Plan Volume (CPV, FFCO Exhibit A).

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Upon approval of this request by NMED, the respondents will proceed as expeditiously as possible with the re-labeling and on-site disposal of the referenced 47 containers as LLRW. The remaining 12 containers will continue to be managed in accordance with the requirements of the HWMR.

LANL's records and documents described in this letter are available to NMED's staff on request. We would be happy to discuss the information contained in this letter with you at your earliest possible opportunity. If you have any questions, please contact me at (505) 665-5042.

Sincerely,

Everett A. Trollinger

for

H. L. "Jody" Plum
Office of Environment and Projects

LAAMEP:2JP-042

Enclosures

cc w/enclosures:
Benito Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo St., Building A
P. O. Box 26110
Santa Fe, New Mexico 87505

CERTIFICATION

I certify that I am the project manager responsible for overseeing the implementation of the Site Treatment Plan for the Los Alamos National Laboratory. To the best of my knowledge and belief, the information in this document is true, accurate, and complete.

Kenneth M. Hargis

Kenneth M. Hargis
Manager of Operations
Waste Managment Program
Environmental Management Programs
Los Alamos National Laboratory
Operator

9/18/96
Date Signed

H.L. Plum
Regulatory Permitting and Compliance Manager
Los Alamos Area Office
U.S. Department of Energy
Albuquerque Operations
Owner/Operator

9/20/96
Date Signed

or 8.1.3 will be satisfactory to use for test purposes.

9. Sampling from Tank Cars, Vehicle Tanks, Distributor Trucks or Recirculating Storage Tanks

9.1 The sample may be taken from the sample valve or tap if the tanks are provided with them. When such sampling devices are required, they are to be built into the tank itself. A sampling device of this type is shown in Fig. 1. Before the sample is taken, 1 gal (4 dm^3) shall be drawn from the sample valve and discarded.

9.2 Samples of liquid materials and materials made liquid by heating may be taken by the dip method using a clean wide-mouth or friction-top can in a suitable holder as shown in Fig. 4. A clean container must be used to take each sample, and the material sampled shall then be transferred to another new and clean container for retention or testing sample.

9.3 A detachable fitting, similar in design to the one shown in Fig. 5 may be inserted in the discharge line. Before the sample is taken 1 gal shall be drawn from this sampling valve and discarded.

10. Sampling from Tankers and Barges

10.1 For liquid materials (including all cutbacks made liquid by heating) top, middle, and lower samples shall be taken using the methods as described in 8.1.2 and 8.1.3.

10.2 For all other materials made liquid by heating, a top sample only shall be taken by the dip, thief, or throw-away container method.

11. Sampling from Pipe Lines During Loading or Unloading

11.1 When tankers and barges are being loaded or unloaded samples may conveniently be taken from the pipe line through which the material is flowing by insertion of a sampling pipe into a rising section of the pipe line on the discharge side of the pump or in a completely filled line in which gravity creates the materials flow. A suitable in-line sampling pipe is shown in Fig. 5. The sampling pipe shall be not more than one eighth the diameter of the pipe line and its opening should be turned to face the flow of the liquid. This pipe shall be provided with a valve or plug cock and shall discharge into a sample receiver. At least three 1-gal (4-dm^3) samples shall be taken at unif vals throughout the entire loading ing. At the completion of the loadi loading, the individual 1-gal sampl combined, thoroughly mixed witho its characteristics, and a 1-gal san therefrom.

11.2 When sampling tankers a /25 000 bbl (4000 m^3), or less, capaci five 1-gal samples shall be taken intervals throughout the entire load loading (25 000 bbl, or larger, capaci at least ten 1-gal samples). At con the loading or unloading the indiv samples shall be combined, thorou in a manner designed to not alter it istics, and a 1-gal sample taken ther

12. Sampling from Drums or Barrel

12.1 After thorough mixing, sam uid bituminous material from barrel shall be secured by tube or thief sa taking 1 qt (1 dm^3) of material fron selected at random according to Sec

13. Sampling Semisolid or Uncru Materials

13.1 *Drums, Barrels, Cartons, a* Where the lot of material to be obviously from a single run or b producer, one package shall be sele dom and sampled as described bel the lot of material to be sampled viously from a single run or batch ducer, or where the single samples described above fails on test to con requirements of the specifications, a packages shall be selected at random to the cube root of the total number in the lot. The following table is giv the number of samples to be select ments of various sizes.

Packages in Shipment	Packag
2 to 8	
9 to 27	
28 to 64	
65 to 125	
126 to 216	
217 to 343	
344 to 512	
513 to 729	
730 to 1000	
1001 to 1331	

Samples shall be taken from at lea

ASTM D-1452-65 Soil-like
ASTM D420-69

ATTACHMENT A
LA-W904
Soil With Heavy Metals

ITEM ID	ITEM ID	ITEM DESCRP	ITEM VOL	ITEM WGT	ITEM TA	WDR DATE	STORAGE CABINET ID	EPA CD	WDR TA	STF CD	ITEM PHY STATE	Waste Generator or Point of Contact	QA visual inspection	Sampled	pH	Reactive Cyanide	Reactive Sulfide	Gross Alpha	Gross Beta	C-14	H-3	I 129	Am 241	U 234	U 235	U 238	Pu 238	Pu 239	Th 22	Th 23	Th 232	Tc 99	Sr 90	TCLP (RCRA 8 metals plus Cu and	GC/MS Semi-	Gross spec. nat. & Man-made	Volatile	Specific	Proctor	PCB's	Free Liquids
1014811	899871	LEAD CONTAMINATED SOIL	0.2082	272.16				D008																																		
1017148	900555	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.515	02	30-Jan-90	900555	D008	02	LA-W904	S	Gilbert Montoya - 665-5396	yes																													
1000489	900556	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5149	02	30-Jan-90	900556	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1008249	900557	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5148	02	30-Jan-90	900557	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1014701	900559	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5147	02	30-Jan-90	900559	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1003534	900560	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5147	02	30-Jan-90	900560	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1014759	900561	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5146	02	30-Jan-90	900561	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1016158	900562	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5145	02	30-Jan-90	900562	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1018498	900563	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5145	02	30-Jan-90	900563	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1003018	900564	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.1136	113.3982	02	30-Jan-90	900564	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1013355	900566	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5143	02	30-Jan-90	900566	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1013819	900567	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5142	02	30-Jan-90	900567	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1015283	900568	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5142	02	30-Jan-90	900568	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1016916	900569	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5141	02	30-Jan-90	900569	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1002182	900573	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5138	02	30-Jan-90	900573	D008	02	LA-W904	S	Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1011562	900574	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5138	02	30-Jan-90	900574	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1010046	900575	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5137	02	30-Jan-90	900575	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1006990	900576	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5137	02	30-Jan-90	900576	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1001424	900577	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5136	02	30-Jan-90	900577	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1009670	900578	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5136	02	30-Jan-90	900578	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1006272	900579	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5135	02	30-Jan-90	900579	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1009735	900580	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5134	02	30-Jan-90	900580	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1006330	900581	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5134	02	30-Jan-90	900581	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1000062	900582	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5133	02	30-Jan-90	900582	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1006823	900583	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5132	02	30-Jan-90	900583	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1000985	900584	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5132	02	30-Jan-90	900584	D008	02	LA-W904	S	Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1009028	900585	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5131	02	30-Jan-90	900585	D008	02	LA-W904	S	Gilbert Montoya	yes																													
104841	900586	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5131	02	30-Jan-90	900586		02			Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1017225	900587	SOIL WITH LEAD AND <2.0 NCI/G RAD-contained oily rags (proposed for movement to another treatability grp.)	0.2082	317.513	02	30-Jan-90	900587	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1000785	900588	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5129	02	30-Jan-90	900588	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1008746	900589	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5129	02	30-Jan-90	900589	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1000833	900590	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5128	02	30-Jan-90	900590	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1008795	900591	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5128	02	30-Jan-90	900591	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1003827	900592	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5127	02	30-Jan-90	900592	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1015845	900593	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5126	02	30-Jan-90	900593	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1017381	900594	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5126	02	30-Jan-90	900594	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1000740	900595	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5125	02	30-Jan-90	900595	D008	02	LA-W904	S	Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1008584	900596	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5125	02	30-Jan-90	900596	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1003718	900597	SOIL WITH LEAD AND <2.0 NCI/G RAD-contained oily rags and other debri (proposed for movement to another treatability grp.)	0.2082	317.5124	02	30-Jan-90	900597	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1014950	900598	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5123	02	30-Jan-90	900598	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1016270	900599	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5123	02	30-Jan-90	900599	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1005386	900600	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5122	02	30-Jan-90	900600	D008	02	LA-W904	S	Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1002360	900601	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5122	02	30-Jan-90	900601	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1016393	900602	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.5121	02	30-Jan-90	900602	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1002822	900603	SOIL WITH LEAD AND <2.0 NCI/G RAD	0.2082	317.512	02	30-Jan-90	900603	D008	02	LA-W904	S	Gilbert Montoya	yes																													
1014788	91007509	CONTAM SOIL W/CHROMIUM & LEAD	0.2082	362.8743	35	28-Aug-91	91007509	D007, D008	35	LA-W904	S	Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1017655	91007510	CONTAM SOIL W/CHROMIUM & LEAD	0.2082	362.8743	35	28-Aug-91	91007510	D007, D008	35	LA-W904	S	Gilbert Montoya	yes																													
1008791	91007508	CONTAM SOIL W/PHOSPHORIC ACID RINSE	0.3142	192.777	35	28-Aug-91	91007508	D008	35	LA-W904	S	Gilbert Montoya	yes																													
1015259	91007511	CONTAM SOIL W/PHOSPHORIC ACID RINSE,LEAD	0.2082	181.4372	35	28-Aug-91	91007511	D008	35	LA-W904	S	Gilbert Montoya	yes																													
1011083	91007512	CONTAM SOIL W/PHOSPHORIC ACID RINSE,LEAD	0.2082	272.1557	35	28-Aug-91	91007512	D008	35	LA-W904	S	Gilbert Montoya	yes	yes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30195	C83038678	SOIL SAMPLES W/RAD AND METALS (DRUM RIUF1)	0.05299	34.02				D006, D008, D007, D009, D010																																		
30311	C83038702	SOIL SAMPLES W/METALS AND RAD	0.018925	2.268				D006, D008, D007, D009																																		
36832	C84041957	UR-3) SOIL SAMPLES W/METALS & RAD	0.018925	11.34				D005, D008, D007, D006, D009, D011																																		
37168	C84041820	SOIL SAMPLES CONTAM. W/HG AND RAD FROM TA-1 SOIL INVESTIGATION	0.208175	113.4				D009																																		
37169	C84041821	SOIL SAMPLES CONTAM. W/HG AND RAD FROM TA-1 SOIL INVESTIGATION	0.11355	68.04				D008																																		
35660	C84041751	RAD, HG AND PB CONTAMINATED SOIL SAMPLES COLLECTED FROM TA-1 FIELD INVESTIGATION	0.018925	4.536				D008, D009																																		
35661	C84041752	RAD (SUSPECT) HG 7& PB CONTAMINATED SOIL SAMPLES COLLECTED FROM TA-1 FIELD	0.056775	31.752				D008, D009																																		
28793	C82037791	SOIL SAMPLES COLLECTED FROM TA-1 FIELD SAMPLING INVESTIGATIONS	0.11355	113.4				D004, D005, D006, D007, D008, D009, D010																																		
28794	C82037792	SOIL SAMPLES COLLECTED FROM TA-1 FIELD SAMPLING INVESTIGATIONS	0.11355	113.4				D004, D005, D006, D007, D008, D009, D010																																		
		TOTAL	11.13677	15902.9																																						
		TOTAL	393.25 FT3	35065.916 lbs																																						

Only unshaded items are proposed for re-characterization as low level waste.

4-4-96 'Soil w/ heavy metals' (2)

900597

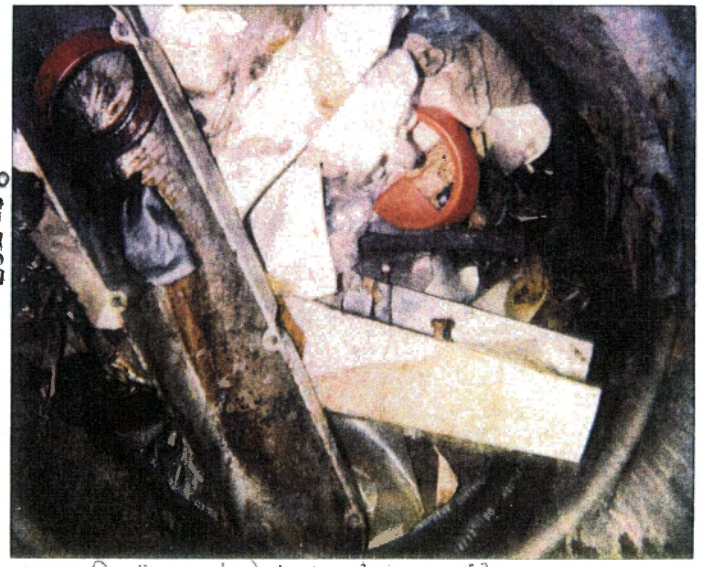
was not sampled. Under bag of oily rags was debri.

4-4-96 'Soil w/ heavy metals (1)

900587

was not sampled. Contained a bag of oily rags
Drum was removed from treatability group

4-4-96 'Soil w/ heavy metals (3)



900587

was not sampled. Under bag of oily rags was debri.

4-4-96 'Soil w/ heavy metals' ①

was not sampled. Contained bag of oily rags. Drum was removed from hazardous group

91007509

4-4-96 'Soil w/ heavy metals' ①

was sampled

91007509

4-4-96 'Soil w/ heavy metals' ②

was sampled

91007509

4-4-96 'Soil w/ heavy metals' ①

was sampled

3-26-96 'Soil w/ heavy metals' (1)

was sampled.

3-26-96 'Soil w/ heavy metals' (2)

900584

was sampled Inner drum covered w/ plastic.

3-14-96 'Soil w/ heavy metals' (4)

900573

was sampled

3-14-96 'Soil w/ heavy metals' (5)

900573

was sampled

4-4-96 'Soil w/ heavy metals' ②

91007512

Damaged inner drum lid.

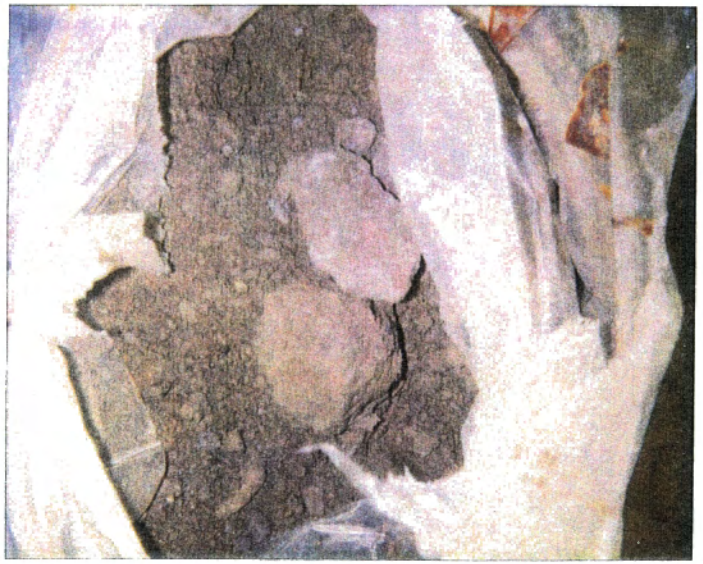
3-26-96 Soil w/ heavy metal. ②

48500b

was sampled. Soil on top, concrete (large pieces) ≈ 30% of drum

4-4-96 'Soil w/ heavy metals' ③

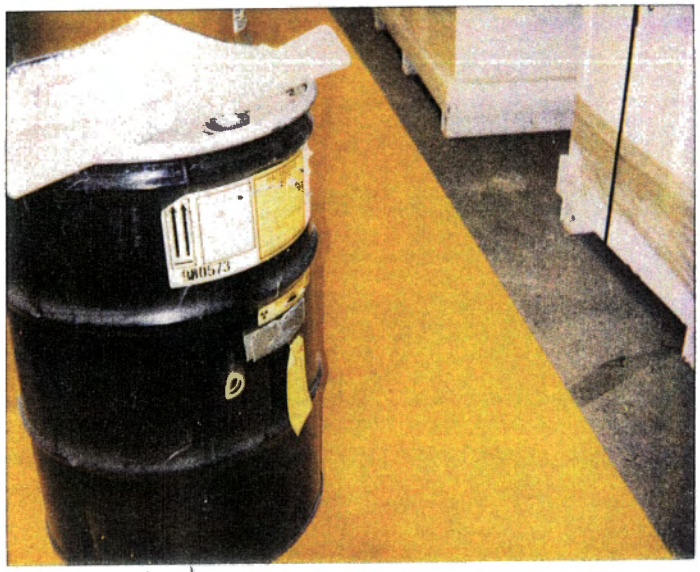
91007512



Rust on drum, concrete + dirt

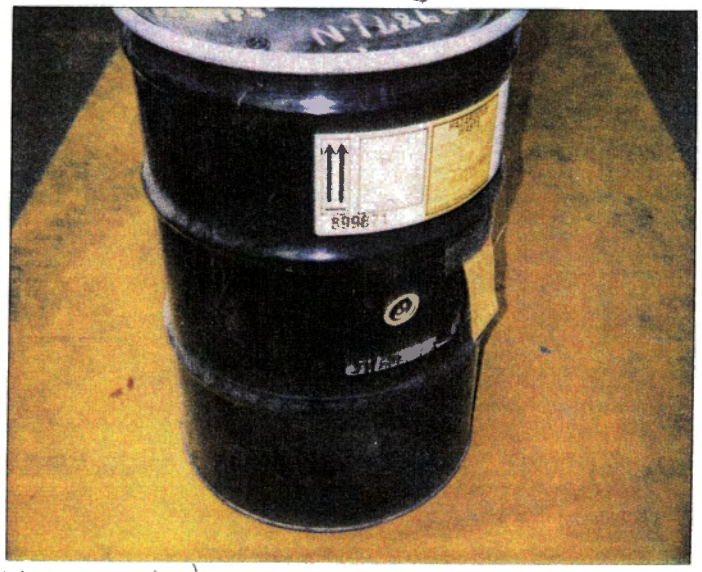
4-4-96 'Soil w/ heavy metals' ①

3-26-96 'Soil w/ heavy metals' (2)



was sampled

4-4-96 "Soil w/ heavy metals" (1)



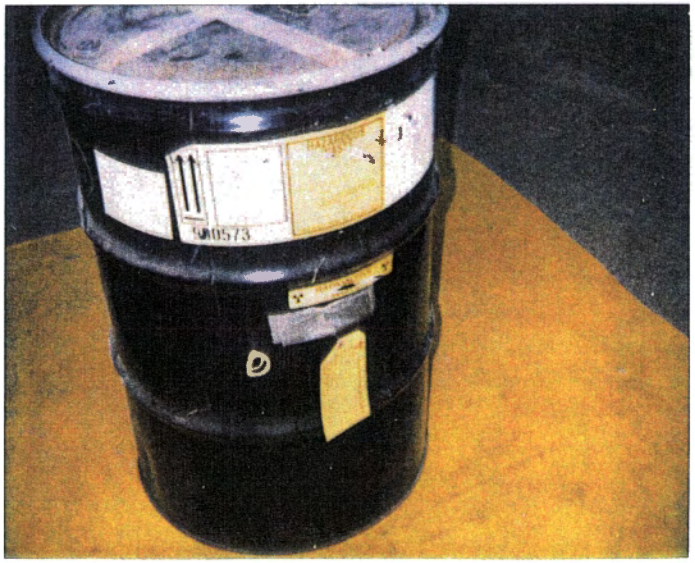
Was sampled

3-14-96 'Soil w/ heavy metals' (3)

900573

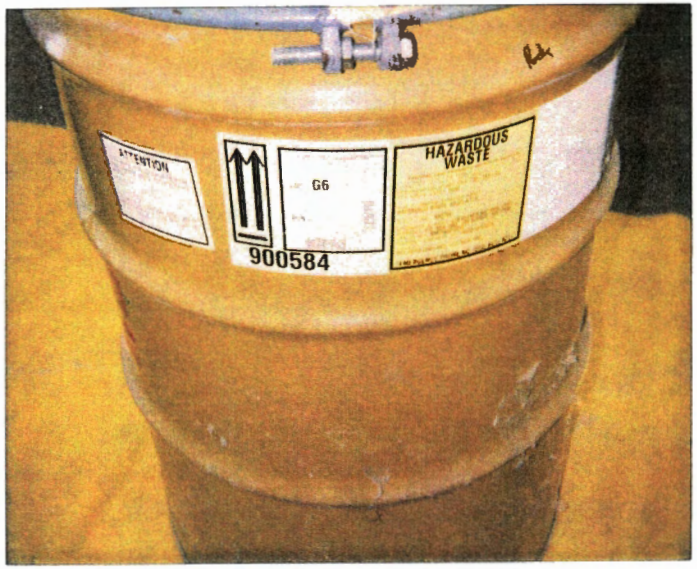
was sampled

3-26-96 'Soil w/ heavy metals' (1)



was sampled

3-26-96 'Soil w/ heavy metals' (1)



was sampled.

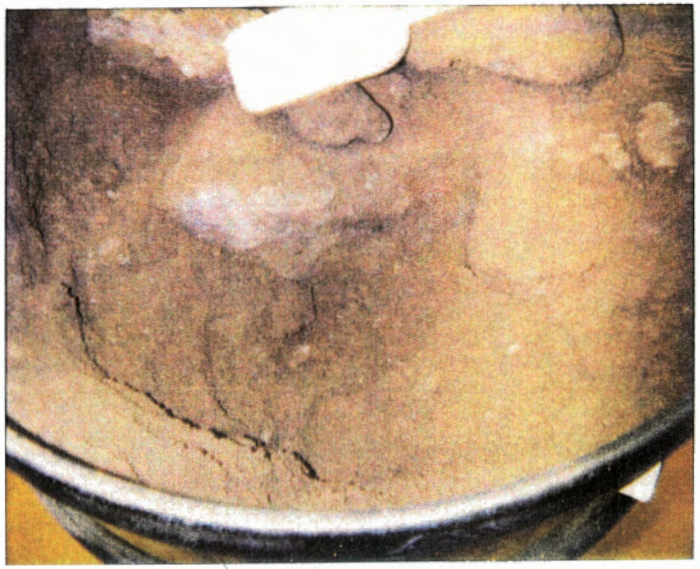
3-26-96 'Soil w/ heavy metals' (2)

900584

was sampled Inner drum covered w/ plastic.

3-14-96 'Soil w/ heavy metals,' (4)

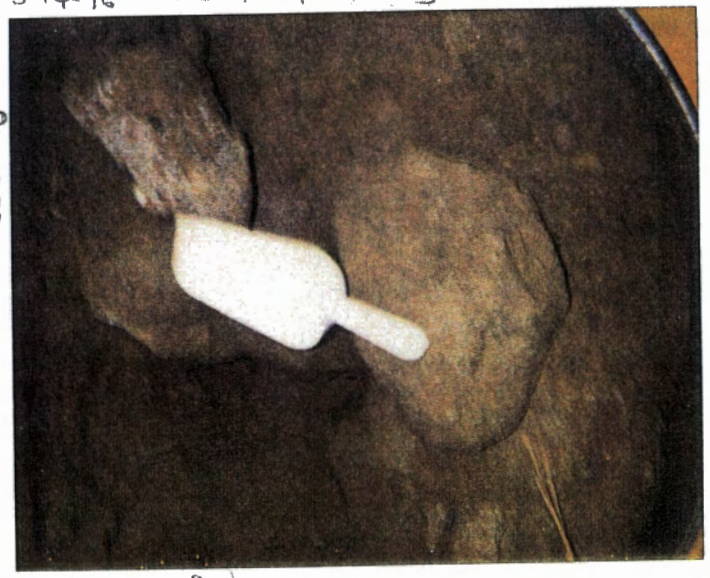
900573



was sampled

3-14-96 'Soil w/ heavy metals' (5)

900573



was sampled

4-4-96 'Soil w/ heavy metals' (2)

Damaged inner drum lid.

21St0016

3-26-96 Soil w/ heavy metals (3)

was sampled. Soil on top; concrete (large pieces) ≈ 30% of drum

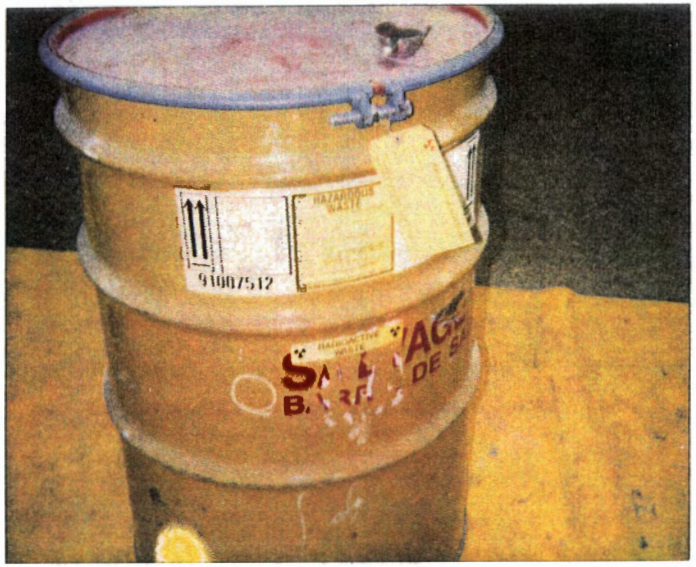
4-8-5006

4-4-96 'Soil w/ heavy metals' (3)

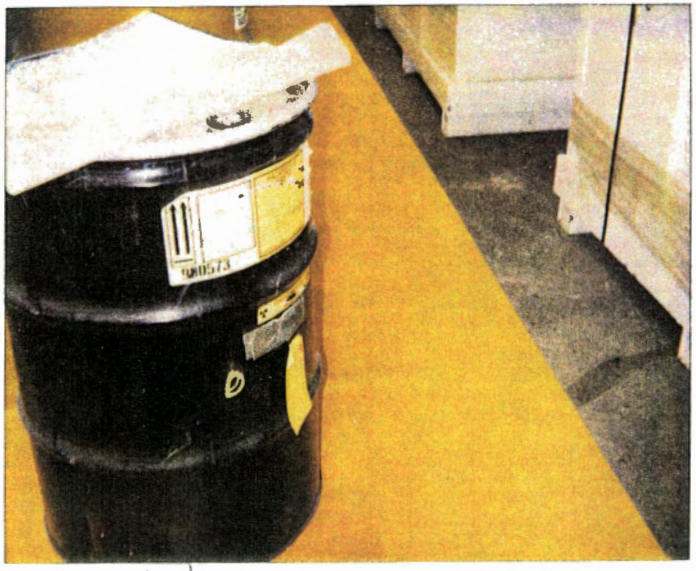
Rust on drum, concrete + dirt

21St0016

4-4-96 'Soil w/ heavy metals' (1)

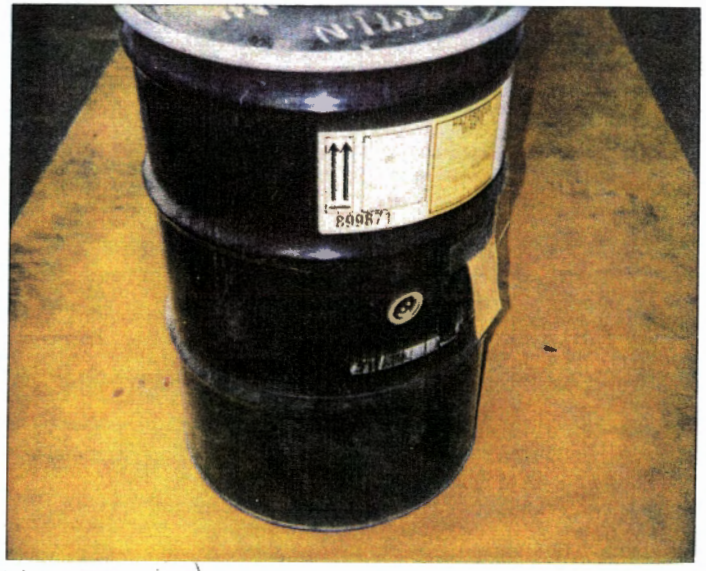


3-26-96 'Soil w/ heavy metals' (2)



was sampled

4-4-96 "Soil w/ heavy metals" (1)



Was sampled

3-14-96 'Soil w/ heavy metals' (3)

was sampled

3-26-96 'Soil w/ heavy metals' (1)

was sampled

900573

C-LINE #52584
35MM PRINTS

4-4-96 'Soil w/ heavy metals' (2)

900597

was not sampled. Under bag of oily rags was debri.

4-4-96 'Soil w/ heavy metals (1)

900587

was not sampled. Contained a bag of oily rags
Drum was removed from treatability group

4-4-96 'Soil w/ heavy metals (3)

900587

was not sampled. Under bag of oily rags was debri

4-4-96 'Soil w/ heavy metals' ①

91007510

was sampled

4-4-96 'Soil w/ heavy metals' ①

#6 9005 9

was not sampled. Contained bag of oily rags
Scum was removed from tankabbl. grap

4-4-96 'Soil w/ heavy metals' ①

was sampled

4-4-96 'Soil w/ heavy metals' ②

91007509

was sampled

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
pH							**SW-846/ 9045A**
	900586 - TA2	96.02622	29/3/96		8.53	N/A	Barringer
	900600 - TA2	96.02623	29/3/96		11.09	N/A	Barringer
	900595 - TA2	96.02624	29/3/96		10.83	N/A	Barringer
	900573 - TA2	96.02488	26/3/96		10.54	N/A	Barringer
	900584 - TA2	96.02492	26/3/96		10.61	N/A	Barringer
	91007509 - TA35	96.02802	4/4/96		8.99	N/A	Barringer
	91007512 - TA35	96.02807	4/4/96		7.04	N/A	Barringer
REACTIVE CYANIDE					**mg/kg**		**7.3.3.2**
	900586 - TA2	96.02622	29/3/96		U	N/A	Barringer
	900600 - TA2	96.02623	29/3/96		U	N/A	Barringer
	900595 - TA2	96.02624	29/3/96		U	N/A	Barringer
	900573 - TA2	96.02488	26/3/96		U	N/A	Barringer
	900584 - TA2	96.02492	26/3/96		U	N/A	Barringer
	91007509 - TA35	96.02802	4/4/96		U	N/A	Barringer
	91007512 - TA35	96.02807	4/4/96		U	N/A	Barringer
REACTIVE SULFIDE					**mg/kg**		**7.3.4.2**
	900586 - TA2	96.02622	29/3/96		U	N/A	Barringer
	900600 - TA2	96.02623	29/3/96		U	N/A	Barringer
	900595 - TA2	96.02624	29/3/96		U	N/A	Barringer
	900573 - TA2	96.02488	26/3/96		U	N/A	Barringer
	900584 - TA2	96.02492	26/3/96		U	N/A	Barringer
	91007509 - TA35	96.02802	4/4/96		U	N/A	Barringer
	91007512 - TA35	96.02807	4/4/96		U	N/A	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
METALS				**TCLP Metals (RCRA 8 + Cu , Zn & Hg)**	**mg/l**		**6010A**
	900586 - TA2	96.02622	29/3/96	Arsenic	U	N/A	Barringer
				Barium	1.2	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	0.06	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	U	N/A	Barringer
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.8	N/A	Barringer
				Mercury	0.002	N/A	**7470A** Barringer
	900600 - TA2	96.02623	29/3/96	Arsenic	U	N/A	Barringer
				Barium	1.3	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	U	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	U	N/A	Barringer
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.6	N/A	Barringer
				Mercury	U	N/A	**7470A** Barringer
	900595 - TA2	96.02624	29/3/96	Arsenic	U	N/A	Barringer
				Barium	1.2	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	U	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	1.1	N/A	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
METALS					**mg/l**		**6010A**
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.5	N/A	Barringer
				Mercury	U	N/A	**7470A** Barringer
	900573 - TA2	96.02488	26/3/96	Arsenic	U	N/A	Barringer
				Barium	1.3	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	0.4	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	U	N/A	Barringer
				Mercury	U	N/A	**7470A** Barringer
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.9	N/A	Barringer
	900584 - TA2	96.02492	26/3/96	Arsenic	U	N/A	Barringer
				Barium	1.4	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	0.2	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	U	N/A	Barringer
				Mercury	U	N/A	**7470A** Barringer
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.8	N/A	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
METALS					**mg/l**		**6010A**
	91007509 - TA35	96.02802	4/4/96	Arsenic	U	N/A	Barringer
				Barium	1.5	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	U	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	U	N/A	Barringer
				Mercury	0.003	N/A	**7470A** Barringer
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.5	N/A	Barringer
	91007512 -TA35	96.02807	4/4/96	Arsenic	U	N/A	Barringer
				Barium	1.4	N/A	Barringer
				Cadmium	U	N/A	Barringer
				Copper	3.51	N/A	Barringer
				Chromium	U	N/A	Barringer
				Lead	U	N/A	Barringer
				Mercury	U	N/A	**7470A** Barringer
				Selenium	U	N/A	Barringer
				Silver	U	N/A	Barringer
				Zinc	0.7	N/A	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
GC/MS SEMI-VOLATILE ORGANICS				**GC/MS semi-volatile organics**	**microg/kg**		**8270**
	900586 - TA2	96.02617	29/3/96	Di-n-butylphthalate	210J	N/A	Barringer
	900586 - TA2	96.02618	29/3/96		U	N/A	Barringer
	900600 - TA2	96.02619	29/3/96	Di-n-butylphthalate	180J	N/A	Barringer
	900595 - TA2	96.0262	29/3/96		U	N/A	Barringer
	900573 - TA2	96.02487	26/3/96	Di-n-butylphthalate	180J	N/A	Barringer
	900584 - TA2	96.02491	26/3/96		U	N/A	Barringer
	91007509 - TA35	96.02803	4/4/96	Di-n-butylphthalate	190J	N/A	Barringer
	91007509 - TA35	96.02804	4/4/96		U	N/A	Barringer
	91007512 - TA35	96.02808	4/4/96		U	N/A	Barringer
	91007512 - TA35	96.02809	4/4/96		U	N/A	Barringer
	900586 TA-2	96.02617	29/3/96	methylene chloride	0.011B	lab contaminant	Barringer
	900586 - TA2	96.02618	29/3/96	methylene chloride	0.034B	lab contaminant	Barringer
	900600 TA-2	96.02619	29/3/96	methylene chloride	0.010B	lab contaminant	Barringer
VOLATILE ORGANICS					**mg/kg**		**8240**
	900595 TA-2	96.0262	29/3/96	methylene chloride	0.011B	lab contaminant	Barringer
	900573 - TA2	96.02487	26/3/96	methylene chloride	0.016B	lab contaminant	Barringer
	900584 - TA2	96.02491	26/3/96	methylene chloride	0.017B	lab contaminant	Barringer
				ethylbenzene	0.0042J	not ignitable	Barringer
				xylenes (total)	0.047	not ignitable	Barringer
	91007509 - TA35	96.02803	4/4/96	methylene chloride	0.012B	lab contaminant	Barringer
				Acetone	0.086	not ignitable	Barringer
	91007509 - TA35	96.02804	4/4/96	methylene chloride	0.010B	lab contaminant	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
VOLATILE ORGANICS					**mg/kg**		**8240**
				Acetone	0.081	not ignitable	Barringer
	91007512 -TA35	96.02808	4/4/96	methylene chloride	0.014B	lab contaminant	Barringer
				Acetone	0.12	not ignitable	Barringer
	91007512 -TA35	96.02809	4/4/96	methylene chloride	0.014B	lab contaminant	Barringer
				Acetone	0.074	not ignitable	Barringer
Specific Gravify					**conc.**		**2710F**
	900586 - TA2	96.02626	29/3/96		2.52	N/A	Barringer
	900600 - TA2	96.02627	29/3/96		2.59	N/A	Barringer
	900595 - TA2	96.02628	29/3/96		2.51	N/A	Barringer
	900573 - TA2	96.02486	26/3/96		2.54	N/A	Barringer
	900584 - TA2	96.0249	26/3/96		2.57	N/A	Barringer
	91007509 - TA35	96.02805	4/4/96		2.58	N/A	Barringer
	91007512 - TA35	96.0281	4/4/96		2.63	N/A	Barringer
Proctor					**lb/cu**		**D698**
	900584 - TA2	96.03264	26/3/96		95.1	N/A	Barringer
	900573 - TA2	96.03265	26/3/96		91.2	N/A	Barringer
	900595 - TA2	96.03266	26/3/96		91.2	N/A	Barringer
	900600 - TA2	96.03267	26/3/96		insufficient sample	N/A	Barringer
	900586 - TA2	96.03268	26/3/96		92.6	N/A	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

ATTACHMENT B
CHEMICAL ANALYSIS SUMMARY SHEET
Soil With Heavy Metals
LA-W904

test	container number-generator location	sample id	sampling date	analyte(s)	result of analyte(s)	EPA Waste Code/ Comments	method
Proctor					**lb/cu**		**D698**
	91007509 - TA35	96.02805	4/4/96		125	N/A	Barringer
	91007512 - TA35	96.0281	4/4/96		111	N/A	Barringer
PCB'S					**mg/kg**		**8080**
	900586 -TA2	96.02617	29/3/96		U	N/A	Barringer
	900586 -TA2	96.02618	29/3/96		U	N/A	Barringer
	900600 - TA2	96.02619	29/3/96		U	N/A	Barringer
	900595 - TA2	96.0262	29/3/96		U	N/A	Barringer
	900573 - TA2	96.02487	26/3/96		U	N/A	Barringer
PCB'S					**mg/kg**		**8080**
	900584 - TA2	96.02491	26/3/96		U	N/A	Barringer
	91007509 - TA35	96.02803	4/4/96	Aroclor 1260	0.61	<50ppm	Barringer
	91007509 - TA35	96.02804	4/4/96	Aroclor 1260	0.55	<50ppm	Barringer
	91007512 - TA35	96.02808	4/4/96	Aroclor 1260	0.92	<50ppm	Barringer
	91007512 - TA35	96.02809	4/4/96	Aroclor 1260	0.94	<50ppm	Barringer
Free Liquids							**9095**
	900573 - TA2	96.02486	26/3/96		None	N/A	Barringer
	900584 - TA2	96.0249	26/3/96		None	N/A	Barringer

(1) B - Analyte also found in blank
(2) J - Estimated value
(3) U-code - Undetected

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-8 CHAIN OF CUSTODY DOCUMENT

NBR: [illegible]

Request: 23244 Desc: OLS -- SOILS FOR INORGANIC ANALYSES

Sample	Cut	Type	Size	Comments
1 96.02802 120/80	1	GLASS	250 ML	METALS ANALYSIS
2 96.02805 320/110	1	METAL	1 GALLON	PROCTOR, BULK DENSITY ANALYSIS
3 96.02807 400/120	1	GLASS	250 ML	METALS ANALYSIS
4 96.02810 2400/100		METAL	1 GALLON	PROCTOR, BULK DENSITY ANALYSIS
5 96.02812	1	METAL	1 GALLON	PROCTOR, BULK DENSITY ANALYSIS

Relinquished By (Print Name & Sign)		Date	Time	Received By (Print Name & Sign)	
Shelly C Serna	Shelly C Serna	4/11/96	9:00a	Rick Curtsinger	Rick Curtsinger 04/12/96

Received for Laboratory by: [illegible] Date/Time: [illegible]

[illegible] LABORATORY

Los Alamos
NATIONAL LABORATORY

memorandum

April 08, 1996

Frank Latenser/Mark A. Rocha
Barringer Lab.
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Dear Frank :

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23244.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES		SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
AG, AS, BA, CD, CN, CR, CU,	1	96.02802-1	S	04-APR-96
HG, PB, S, SE, SOIL_PH, ZN	3	96.02807-1	S	04-APR-96
BULKDENSE, PROC_TEST	2	96.02805-1	S	04-APR-96
	4	96.02810-1	S	04-APR-96
	5	96.02812-1	S	04-APR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C Serna

Shelly Serna
File (2)

[illegible] DOCUMENT

[illegible] NBR: [illegible]

[illegible] -- SOILS FOR ORGANIC ANALYSES

				Size	Comments
6	[illegible]	1	GLASS	125 ML	PCB, VOA, SVOA ANALYSIS
7	96.02804	1	GLASS	125 ML	PCB, VOA, SVOA ANALYSIS
8	96.02809260/100	1	GLASS	125 ML	PCB, VOA, SVOA ANALYSIS
9	96.02809400/120	1	GLASS	125 ML	PCB, VOA, SVOA ANALYSIS

Relinquished By(Print Name & Sign)		Date	Time	Received By(Print Name & Sig
Shelly C. Serna	Shelly C. Serna	4/11/96	9:00a	R. Curtsinger R. Curtsinger 04/11/1996

Received for Disposal By(Print Name and Sign) Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

April 08, 1996

Frank Latenser/Mark A. Rocha
Barringer Lab.
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Dear Frank :

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23245.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES		SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
1336363, SEMIVOL, VOLATILES	6	96.02803-1	S	04-APR-96
	7	96.02804-1	S	04-APR-96
	8	96.02808-1	S	04-APR-96
	9	96.02809-1	S	04-APR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUME

NBR: 19719

Request: 23246

Desc: DLS -- SOILS FOR RADCM ANALYSES

Sample	Qut	Type	Size	Comments
11 96.02800 180/8 1		GLASS	500 ML	RADCM ANAL SIS
11 96.02811 900/2 001		GLASS	500 ML	RADCM ANAL SIS

Relinquished By(Print Name & Sign) Shelly C Serna Shelly C Serna

Date 4/10/96

Time 9:00a

Received By(Print Name & Sign) R. Curtsinger R. Curtsinger

04/12/96 0

Received for Disposal By(Print Name and Sign)

Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

April 8, 1996

Frank Latenser/Mark A. Rocha
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23246.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES	SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
ALPHA, AM-241, BETA, C-14, GSCAN, H-3, I-129, PU-238, PU-239, SR-90, TH-228, TH-229, TH-230, U-234, U-235, U-238	96.02806-1	S	04-APR-96
	96.02611-1	S	04-APR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUMEN

NBR: 13674

Request: 23211 Desc: DLS -- SOILS FROM TA-2 FOR - METALS

	Sample	Cut	Type	Size	Comments
1	96.02486	1	GLASS	500 ML	INORGANIC ANAL SIS
2	96.02488	1	GLASS	250 ML	INORGANIC ANALYSIS
3	96.02490	1	GLASS	500 ML	INORGANIC ANALYSIS
4	96.02492	1	GLASS	250 ML	INORGANIC ANALYSIS

Relinquished By(Print Name & Sign)		Date	Time	Received By(Print Name & Sig	
Shelly C Serna	Shelly C Serna	4/1/96	9:00a	R. Curtsinger R. Curtsinger	04/02/96

Received for Disposal By(Print Name and Sign) Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

March 28, 1996

Frank Latenser/Mark A. Rocha
Barringer Lab.
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Dear Frank :

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23211.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES		SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
AG, AS, BA, CD, CN, CR, CU,	2	96.02488-1	S	26-MAR-96
HG, PB, S, SE, SOIL_PH, ZN	4	96.02492-1	S	26-MAR-96
BULKDENSE, PFLT, PROC_TEST	1	96.02486-1	S	26-MAR-96
	3	96.02490-1	S	26-MAR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C. Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUME

MBR: 10870

Request: 00010 Desc: OLD -- SOILS FROM TA-2 FOR ORGANICS

Sample	Cnt	Type	Size	Comments
5 96.02487	1	GLASS	125 ML	ORGANICS ANALYSIS
6 96.02491	1	GLASS	125 ML	ORGANICS ANALYSIS

Relinquished By(Print Name & Sign)	Date	Time	Received By(Print Name & Sig
Shelly C Serna Shelly C Serna	4/1/96	9:00a	R. Curtsinger 04/02/96 0700 R. Curtsinger

Received for Disposal By(Print Name and Sign) Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

March 28, 1996

Frank Latenser/Mark A. Rocha
Barringer Lab.
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Dear Frank :

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23212.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES	SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
1336363, SEMIVOL, VOLATILES	96.02487-1	S	26-MAR-96
	96.02491-1	S	26-MAR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUME

NBR: [illegible]

Request: 20213

Desc: DLS -- SOILS FROM TA-2 FOR RADON

Sample	Cut	Type	Size	Date Ta
7 96.02489	1	GLASS	[illegible] ML	RADON ANALYSIS
8 96.02490	1	GLASS	[illegible] ML	RADON ANALYSIS

Relinquished By(Print Name & Sign)	Date	Time	Received By(Print Name & Sig
Shelly C Serna Shelly C Serna	4/1/96	9:00a	R. Curtsinger R. Curtsinger 04/02/96 0700

Received for Disposal By(Print Name and Sign) Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

March 28, 1996

Frank Latenser/Mark A. Rocha
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23213.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES	SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
ALPHA, AM-241, BETA, C-14, GSCAN, H-3, I-129, PU-238, PU-239, SR-90, TH-228, TH-229, TH-230, U-234, U-235, U-238	96.02489-1	S	26-MAR-96
	96.02493-1	S	26-MAR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUME

Request: 23221

NBR: 19626

Desc: DLS -- SAMPLES FOR INORGANIC ANALYSIS

Sample	Cut	Type	Size	Comments
1 96.02621	1	GLASS	500 ML	METALS ANALYSIS
2 96.02622	1	GLASS	250 ML	METALS ANALYSIS
3 96.02623	1	GLASS	250 ML	METALS ANALYSIS
4 96.02624	1	GLASS	250 ML	METALS ANALYSIS
5 96.02625	1	GLASS	500 ML	PROCTOR, BULK DENSITY ANALYS
6 96.02626	1	GLASS	500 ML	PROCTOR, BULK DENSITY ANALYS
7 96.02627	1	GLASS	500 ML	PROCTOR, BULK DENSITY ANALYS
8 96.02628	1	GLASS	500 ML	PROCTOR, BULK DENSITY ANALYS
9 96.02629	1	POLYETHYLENE	60 ML	METALS ANALYSIS
10 96.02630	1	POLYETHYLENE	60 ML	CN ANALYSIS
96.02631	1	POLYETHYLENE	50 ML	HG ANALYSIS

Relinquished By(Print Name & Sign) Shelly C Serna Shelly C Serna Date 4/3/96 Time 9:11a

Received By(Print Name & Sign) C Stephenson C Stephenson 4/4/96 0915

Received for Disposal By(Print Name and Sign)

Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

April 01, 1996

Frank Latenser/Mark A. Rocha
Barringer Lab.
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Dear Frank :

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23221.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES		SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
AG, AS, BA, CD, CN, CR, CU, HG, PB, S, SE, SOIL_PH, ZN	1	96.02621-1	S	29-MAR-96
	2	96.02622-1	S	29-MAR-96
	3	96.02623-1	S	29-MAR-96
	4	96.02624-1	S	29-MAR-96
AG, AS, BA, CD, CR, CU, PB, SE, ZN	9	96.02629-1	S	31-MAR-95
BULKDENSE, PROC_TEST	5	96.02625-1	S	29-MAR-96
	6	96.02626-1	S	29-MAR-96
	7	96.02627-1	S	29-MAR-96
	8	96.02628-1	S	29-MAR-96
CN	10	96.02630-1	S	03-AUG-94
HG	11	96.02631-1	S	10-NOV-94

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUMENT

NBR: 13639

Request: 23223 Desc: DLS -- SAMPLES FOR RADCM ANALYSIS

Sample	Qut	Type	Size	Comments
12 96.02611	1	GLASS	500 ML	RADCM ANALYSIS
13 96.02612	1	GLASS	500 ML	RADCM ANALYSIS
14 96.02613	1	GLASS	500 ML	RADCM ANALYSIS
15 96.02614	1	GLASS	500 ML	RADCM ANALYSIS
16 96.02639	1	POLYETHYLENE	60 ML	RADCM ANAL SIS
17 96.02640	1	POLYETHYLENE	60 ML	AM-241, ISO-PU ANALYSIS
18 96.02641	1	POLYETHYLENE	60 ML	ISO-U, ISO-TH ANALYSIS

Relinquished By(Print Name & Sign)	Date	Time	Received By(Print Name & Sign)	
Shelly C Serna Shelly C Serna	4/3/96	9:11a	C Stephenson C Stephenson	4/4/96 0915

Received for Disposal By(Print Name and Sign) Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

April 1, 1996

Frank Latenser/Mark A. Rocha
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Please analyze the enclosed samples according to the schedule below. These samples are on Request Number: 23223.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES	SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
ALPHA, AM-241, BETA, C-14, GSCAN,	96.02611-1 12	S	29-MAR-96
H-3, I-129, PU-238, PU-239, SR-90,	96.02612-1 13	S	29-MAR-96
TH-228, TH-229, TH-230, U-234, U-235,	96.02613-1 14	S	29-AMR-96
U-238	96.02614-1 15	S	29-MAR-96
SR-90	96.02639-1 16	S	22-JAN-96
AM-241, PU-238, PU-239	96.02640-1 17	S	22-SEP-95
TH-228, TH-230, TH-232, U-234, U-235, U-238	96.02641-1 18	S	22-JUN-95

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C Serna

Shelly Serna
File (2)

LOS ALAMOS
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

EM-9 CHAIN OF CUSTODY DOCUMEN

NBR: 19687

equest: 23222 Desc: DLS -- SAMPLES FOR ORGANIC ANALYSIS

Sample	Out	Type	Size	Comments
1496.02615	1	GLASS	125 ML	VOA,SVOA, PCB ANALYSIS
2-96.02616	1	GLASS	125 ML	VOA,SVOA, PCB ANALYSIS
2196.02617	1	GLASS	125 ML	VOA,SVOA, PCB ANALYSIS
2296.02618	1	GLASS	125 ML	VOA,SVOA, PCB ANALYSIS
2396.02619	1	GLASS	125 ML	VOA,SVOA, PCB ANALYSIS
2496.02620	1	GLASS	125 ML	VOA,SVOA, PCB ANALYSIS
2596.02632	1	POLYETHYLENE	BAGGIE	VOA ANALYSIS
2696.02635	1	GLASS	60 ML	SVOA ANALYSIS
2796.02637	1	GLASS	25 ML	PCB ANALYSIS

Relinquished By(Print Name & Sign)	Date	Time	Received By(Print Name & Sig
Shelly C Serna Shelly C Serna	4/3/96	9:11a	C Stephenson C Stephenson 4/4/96 09

Received for Disposal By(Print Name and Sign) Remarks

Los Alamos National Laboratory

Los Alamos
NATIONAL LABORATORY

memorandum

April 01, 1996

Frank Latenser/Mark A. Rocha
Barringer Lab.
15000 West 6th Avenue, Suite 300
Golden, CO 80401

Dear Frank :

Please analyze the enclosed samples according to the schedule below. These samples are Request Number: 23222.

Cost Center: 8B03 Program Fund Code: M3817300

ANALYTES	SAMPLE-CUT	MATRIX CODE	DATE COLLECTED
1336363	96.02637-117	S	22-AUG-94
1336363, SEMIVOL, VOLATILES	96.02615-119	S	29-MAR-96
	96.02616-120	S	29-MAR-96
	96.02617-121	S	29-MAR-96
	96.02618-122	S	29-MAR-96
	96.02619-123	S	29-MAR-96
	96.02620-124	S	29-MAR-96
SEMIVOL	96.02635-126	S	01-APR-96
VOLATILES	96.02632-125	S	01-APR-96

SAMPLES ARE INCLUSIVE !

SINCERELY,

Shelly C Serna

Shelly Serna
File (2)

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

21-Jun-96

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 4-Jun-96 16:45

Job: 962099E
Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

21-Jun-96
Page: i

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 4-Jun-96 16:45

Job: 962099E
Status: Final

CASE NARRATIVE

A total of 8 Soil samples were received on 4-Jun-96. As stated in the chain of custody, the samples were run for the following analysis: Tc-99. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

The RER for the duplicated sample 962099-8 exceeds the QC criteria due to nonhomogeneity of the sample.

Signed: .....
Radiochemistry Manager

Signed: .....
Project Review

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

21-Jun-96
Page: ii

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:

Received: 4-Jun-96 16:45

PO #:

Job: 962099E

Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
962099-1	Soil	96.02489	26-Mar-96
962099-2	Soil	96.02493	26-Mar-96
962099-3	Soil	96.02611	29-Mar-96
962099-4	Soil	96.02612	29-Mar-96
962099-5	Soil	96.02613	29-Mar-96
962099-6	Soil	96.02614	29-Mar-96
962099-7	Soil	96.02806	4-Apr-96
962099-8	Soil	96.02811	4-Apr-96

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Job: 962099E
Status: Final

CHEMICAL WASTE MANAGEMENT

Analyte: Tc-99
Fraction: Total
Method: TEVA SPEC
Units: pCi/g

Project:
Date Analyzed: 06/13-06/18
LLD: 1

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
962099-1	26-Mar-96	Soil	96.02489 TA 2	0.5±0.4	1
962099-2	26-Mar-96	Soil	96.02493 TA 2	1.7±0.5	1
962099-3	29-Mar-96	Soil	96.02611 TA 53	1.0±0.5	1
962099-4	29-Mar-96	Soil	96.02612 TA 2	0.0±0.4	1
962099-5	29-Mar-96	Soil	96.02613 TA 2	0.0±0.3	1
962099-6	29-Mar-96	Soil	96.02614 TA 2	5.4±0.6	1
962099-7	4-Apr-96	Soil	96.02806 TA 35	4.5±0.5	1
962099-8	4-Apr-96	Soil	96.02811 TA 35	24±1	1

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Tc-99 Total pCi/g	± 2σ
Duplicate	24	±1
Duplicate	39	±1
RER	2.16	
Std (found value)	94.6	±3.0
Std (true value)	99.8	
Std % rec.	95	
Blank	0.0	±0.8
Spike % rec.	87	

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

21-Jun-96
Page: Q-2

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:

Received: 4-Jun-96 16:45
PO #:

Job: 962099E
Status: Final

Abbreviations:

Parameters:
Tc-99 : Technetium-99

Units:
pCi/g : picoCuries per gram as received

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

21-Jun-96
Page: Q-3

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 4-Jun-96 16:45

Job: 962099E
Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc
Via:

Sample Container Type: 500g jar, 8oz jar
Additional Lab Preparation: 100 Mesh

Parameter	Method	Preservative	Init	Analysis Dates
Tc-99	TEVA SPEC	None	JP	06/13-06/18

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

2-Aug-96

Attn:
Project:
PO #:
Received: 18-Jul-96 15:43

Job: 962528E
Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Aug-96
Page: i

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 18-Jul-96 15:43

Job: 962528E
Status: Final

CASE NARRATIVE

A total of 2 Soil samples were received on 18-Jul-96. As stated in the chain of custody, the samples were run for the following analysis: Aroclors. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Signed: .....
Organic Manager

Signed: .....
Project Review

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Aug-96
Page: ii

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 18-Jul-96 15:43

Job: 962528E
Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
962528-1	Soil	96.02487	26-Mar-96
962528-2	Soil	96.02491	26-Mar-96

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Aug-96
Page: R-1
Job: 962528E
Status: Final

CHEMICAL WASTE MANAGEMENT

Aroclors

PCB

Sample Id: 96.02487
Lab Id: 962528-1
Date Sampled: 26-Mar-96
Date Extracted: 25-Jul-96
Date Analyzed: 30-Jul-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	69%	23-110%
DCB	111%	40-142%

Sample Id: 96.02491
Lab Id: 962528-2
Date Sampled: 26-Mar-96
Date Extracted: 25-Jul-96
Date Analyzed: 30-Jul-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	79%	23-110%
DCB	116%	40-142%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: Method Blank
Date Sampled: NA
Date Extracted: 25-Jul-96
Date Analyzed: 30-Jul-96

Project:
Dilution Factor: 1:1
Matrix:
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	69%	23-110%
DCB	105%	40-142%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

2-Aug-96
Page: Q-2

Attn:
Project:
PO #:
Received: 18-Jul-96 15:43

Job: 962528E
Status: Final

Abbreviations:

Units:

µg/kg	: micrograms per kilogram
%	: percent

Quality codes:

U	: Undetected

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

2-Aug-96
Page: Q-3

Attn:
Project:
PO #:
Received: 18-Jul-96 15:43

Job: 962528E
Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc Via:

Sample Container Type: 8oz jar
Additional Lab Preparation: None

Parameter	Method	Preservative	Init	Analysis Dates
Aroclors	8080	4°C	CC	07/30

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

3-May-96
Page: 1

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:

PO #:

Received: 30-Apr-96 12:51

Job: 961825E

Status: Final

CASE NARRATIVE

A total of 9 Soil samples were received on 30-Apr-96. As stated in the chain of custody, the samples were run for the following analyses: Spec. Grav. and Proctor. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Signed: .....
Inorganic
Laboratory

Signed: .....
Project Review

BARRINGER LABORATORIES, INC.
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3-May-96
Page: 11

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 30-Apr-96 12:51

Job: 961825E
Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
961825-1	Soil	96.02486	26-Mar-96
961825-2	Soil	96.02490	26-Mar-96
961825-3	Soil	96.02625	29-Mar-96
961825-4	Soil	96.02626	29-Mar-96
961825-5	Soil	96.02627	29-Mar-96
961825-6	Soil	96.02628	29-Mar-96
961825-7	Soil	96.02805	4-Apr-96
961825-8	Soil	96.02810	4-Apr-96
961825-9	Soil	96.02812	4-Apr-96

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3-May-96
Page: R-1
Job: 961825E
Status: Final

CHEMICAL WASTE MANAGEMENT

Sample Id: 96.02486 TA 2
Lab Id: 961825-1
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.54	0.01	26-Apr-96

Sample Id: 96.02490 TA-2
Lab Id: 961825-2
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.57	0.01	26-Apr-96

Sample Id: 96.02625
Lab Id: 961825-3
Date Sampled: 29-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.61	0.01	26-Apr-96

Sample Id: 96.02626 TA-2
Lab Id: 961825-4
Date Sampled: 29-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.52	0.01	26-Apr-96

Sample Id: 96.02627
Lab Id: 961825-5
Date Sampled: 29-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.59	0.01	26-Apr-96

Sample Id: 96.02628
Lab Id: 961825-6
Date Sampled: 29-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.51	0.01	26-Apr-96

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3-May-96
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Job: 961825E
Status: Final

CHEMICAL WASTE MANAGEMENT

Sample Id: 96.02805
Lab Id: 961825-7
Date Sampled: 4-Apr-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.58	0.01	26-Apr-96

Sample Id: 96.02810
Lab Id: 961825-8
Date Sampled: 4-Apr-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	2.63	0.01	26-Apr-96

Sample Id: 96.02812
Lab Id: 961825-9
Date Sampled: 4-Apr-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Spec. Grav.		2710F	3.02	0.01	26-Apr-96

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3-May-96
Page: R-3
Job: 961825E
Status: Final

CHEMICAL WASTE MANAGEMENT

Sample Id: 96.02805
Lab Id: 961825-7 **Project:**
Date Sampled: 4-Apr-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	125 lb/cu		24-Apr-96

Sample Id: 96.02810
Lab Id: 961825-8 **Project:**
Date Sampled: 4-Apr-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	111 lb/cu		24-Apr-96

Sample Id: 96.02812
Lab Id: 961825-9 **Project:**
Date Sampled: 4-Apr-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	124 lb/cu		24-Apr-96

BARRINGER LABORATORIES, INC.
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3-May-96
Page: Q-1
Job: 9618235
Status: Final

CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Spec. Grav.
Blank	NA
LCS (True)	NA
LCS (Found)	NA
LCS % Rec	NA
Duplicate	NA
Duplicate	NA
RPD	NA
Spike % Rec	NA

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-May-96
Page: Q-16

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc Via: Fed Ex

Sample Container Type: 500g jar, 8oz jar
Additional Lab Preparation: 100 Mesh

Parameter	Method	Preservative	Init	Analysis Dates
As	6010A	4°C	JH	04/12
Ba	6010A	4°C	JH	04/12
Cd	6010A	4°C	JH	04/12
Cu	6010A	4°C	JH	04/12
Cr	6010A	4°C	JH	04/12
Pb	6010A	4°C	JH	04/12
Hg	7470A	4°C	AW	04/09
Se	6010A	4°C	JH	04/12
Ag	6010A	4°C	JH	04/12
Zn	6010A	4°C	JH	04/12
CN-R	7.3.3.2	4°C	AW	04/03
S-R	7.3.4.2	4°C	AW	04/03
pH-S	9045A	4°C	RB	04/03
PFLT	9095	4°C	RB	04/03
Gross Alpha	900.0	4°C	ME	04/10-04/16
Gross Beta	900.0	4°C	ME	04/10-04/16
Am-241	907.0	4°C	MB	04/04-04/18
C-14	520-84-006	4°C	JP	04/21-04/25
Tritium	906.0	4°C	AM	04/15-04/16
I-129	902.0	4°C	BB	04/10-04/24
Pu-238	907.0	4°C	MB	04/04-04/10
Pu-239	907.0	4°C	MB	04/04-04/10
Sr-90	905.0	4°C	BB	04/08-04/23
Th-228	USAEC	4°C	SK	04/09-04/11
Th-230	USAEC	4°C	SK	04/09-04/11
Th-232	USAEC	4°C	SK	04/09-04/11
U-234	908.0	4°C	CR	04/05-04/11
U-235	908.0	4°C	CR	04/05-04/11
U-238	908.0	4°C	CR	04/05-04/11

BARRINGER LABORATORIES, INC.
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2-May-96
Page: 2-17

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

Gamma Spectroscopy	901.1	4°C	BS	04/15-04/26
Semi-Volatiles	8270	4°C	RH	04/08-04/09
Volatiles	8240	4°C	JG	04/05

Note: TCLP performed.

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.

BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300
GOLDEN COLORADO 80401
PHONE: (303) 277-1687

Inorganic

Data Validation

Package

Meeting The Analytical Challenges Of A Changing World

SPECIFIC GRAVITY TESTS ASTM D 854
CLIENT: Barringer Labs
JOB NO. 2221-08

	SOIL DESCR.
BORING NO.	
DEPTH	961611-3
SAMPLE NO.	
DATE SAMPLED	
DATE TESTED	4-26-96 JS
Pycnometer #	9
Weight of oven dry soil (g) (Wo)	25.451
Weight of flask, soil, and water. (g) (Wb)	172.090
Temperature (deg. C) (Tx)	23.6
Weight of water & flask at Tx (from cal. curve)(Wa)	156.527
Specific Gravity*	2.57

BORING NO.	
DEPTH	
SAMPLE NO.	
DATE SAMPLED	
DATE TESTED	
Pycnometer #	
Weight of oven dry soil (g) (Wo)	
Weight of flask, soil, and water. (g) (Wb)	
Temperature (deg. C) (Tx)	
Weight of water & flask at Tx (from cal. curve)(Wa)	
Specific Gravity*	

*Specific Gravity = Wo/[Wo+(Wa-Wb)]

Data entry by: NAA Date: 4-29-96
Data checked by: [illegible] Date: 4-29-96
FileName:BRE0611B

ADVANCED TERRA TESTING, INC.

SPECIFIC GRAVITY TESTS ASTM D 854
CLIENT: Barringer Labs SOIL DESCR.
JOB NO. 2221-08

BORING NO.	
DEPTH	
SAMPLE NO.	96-1611-1
DATE SAMPLED	
DATE TESTED	4-30-96 WEB
Pycnometer #	11
Weight of oven dry soil (g) (Wo)	29.033
Weight of flask, soil, and water. (g) (Wb)	174.425
Temperature (deg. C) (Tx)	22.6
Weight of water & flask at Tx (from cal. curve)(Wa)	156.833
Specific Gravity*	2.54

BORING NO.	
DEPTH	
SAMPLE NO.	
DATE SAMPLED	
DATE TESTED	
Pycnometer #	
Weight of oven dry soil (g) (Wo)	
Weight of flask, soil, and water. (g) (Wb)	
Temperature (deg. C) (Tx)	
Weight of water & flask at Tx (from cal. curve)(Wa)	
Specific Gravity*	

*Specific Gravity = Wo/[Wo+(Wa-Wb)]

Data entry by: NAA Date: 5-1-96
Data checked by: WEB Date: 5-1-96
FileName:BRE01611 ADVANCED TERRA TESTING, INC.

SPECIFIC GRAVITY TESTS ASTM D 854
CLIENT: Barringer Labs SOIL DESCR.
JOB NO. 2221-07

BORING NO.	
DEPTH	
SAMPLE NO.	96-1672-6
DATE SAMPLED	
DATE TESTED	4-30-96 WEB
Pycnometer #	6
Weight of oven dry soil (g) (Wo)	29.429
Weight of flask, soil, and water. (g) (Wb)	175.093
Temperature (deg. C) (Tx)	22.6
Weight of water & flask at Tx (from cal. curve)(Wa)	157.330
Specific Gravity*	2.52

BORING NO.	
DEPTH	
SAMPLE NO.	
DATE SAMPLED	
DATE TESTED	
Pycnometer #	
Weight of oven dry soil (g) (Wo)	
Weight of flask, soil, and water. (g) (Wb)	
Temperature (deg. C) (Tx)	
Weight of water & flask at Tx (from cal. curve)(Wa)	
Specific Gravity*	

*Specific Gravity = Wo/[Wo+(Wa-Wb)]

Data entry by: NAA Date: 5-1-96
Data checked by: WEB Date: 5-1-96
FileName:BRE01672 ADVANCED TERRA TESTING, INC.

SPECIFIC GRAVITY TESTS ASTM D 854
CLIENT: Barringer Labs SOIL DESCR.
JOB NO. 2221-07

BORING NO.			
DEPTH			
SAMPLE NO.	961672-5	961672-7	961672-8
DATE SAMPLED			
DATE TESTED	4-26-96 JS	4-26-96 JS	4-26-96 JS
Pycnometer #	2	3	8
Weight of oven dry soil (g) (Wo)	25.739	25.322	25.855
Weight of flask, soil, and water. (g) (Wb)	177.944	178.097	172.614
Temperature (deg. C) (Tx)	23.7	23.0	23.5
Weight of water & flask at Tx (from cal. curve)(Wa)	162.066	162.569	157.075
Specific Gravity*	2.61	2.59	2.51

BORING NO.	
DEPTH	
SAMPLE NO.	
DATE SAMPLED	
DATE TESTED	
Pycnometer #	
Weight of oven dry soil (g) (Wo)	
Weight of flask, soil, and water. (g) (Wb)	
Temperature (deg. C) (Tx)	
Weight of water & flask at Tx (from cal. curve)(Wa)	
Specific Gravity*	

*Specific Gravity = Wo/[Wo+(Wa-Wb)]

Data entry by: NAA Date: 4-29-96
Data checked by: SR Date: 4-29-96
FileName:BRE0611

ADVANCED TERRA TESTING, INC.

SPECIFIC GRAVITY TESTS ASTM D 854
CLIENT: Barringer Labs SOIL DESCR.
JOB NO. 2221-09

BORING NO.			
DEPTH			
SAMPLE NO.	96-1701-2	96-1701-4	96-1701-5
DATE SAMPLED			
DATE TESTED	4-30-96 WEB	4-30-96 WEB	4-30-96 WEB
Pycnometer #	6	6	11
Weight of oven dry soil (g) (Wo)	27.514	25.773	28.854
Weight of flask, soil, and water. (g) (Wb)	174.165	173.267	176.070
Temperature (deg. C) (Tx)	23.6	24.2	24.3
Weight of water & flask at Tx (from cal. curve)(Wa)	157.298	157.278	156.765
Specific Gravity*	2.58	2.63	3.02

BORING NO.	
DEPTH	
SAMPLE NO.	
DATE SAMPLED	
DATE TESTED	
Pycnometer #	
Weight of oven dry soil (g) (Wo)	
Weight of flask, soil, and water. (g) (Wb)	
Temperature (deg. C) (Tx)	
Weight of water & flask at Tx (from cal. curve)(Wa)	
Specific Gravity*	

*Specific Gravity = Wo/[Wo+(Wa-Wb)]

Data entry by: NAA Date: 5-2-96
Data checked by: DW Date: 5-2-96
FileName:BRE07012

ADVANCED TERRA TESTING, INC.

COMPACTION TEST
ASTM D 698 A

CLIENT: Berringer Labs JOB NO. 2221-09

ING NO. SOIL DESCR.
TH DATE SAMPLED
SAMPLE NO. 961701-2 DATE TESTED 4-24-96 RV

Moisture determination

	1	2	3	4	5
Wt of Moisture added (ml)					
Wt. of soil & dish (g)	400.40	291.67	304.99	335.59	223.19
Dry wt. soil & dish (g)	374.22	268.93	279.26	305.53	197.03
Net loss of moisture (g)	26.18	22.74	25.73	30.06	26.16
Wt. of dish (g)	8.52	8.43	8.60	8.09	8.31
Net wt. of dry soil (g)	365.70	260.50	270.66	297.44	188.72
Moisture Content (%)	7.159	8.729	9.506	10.106	13.862
Corrected Moisture Content					

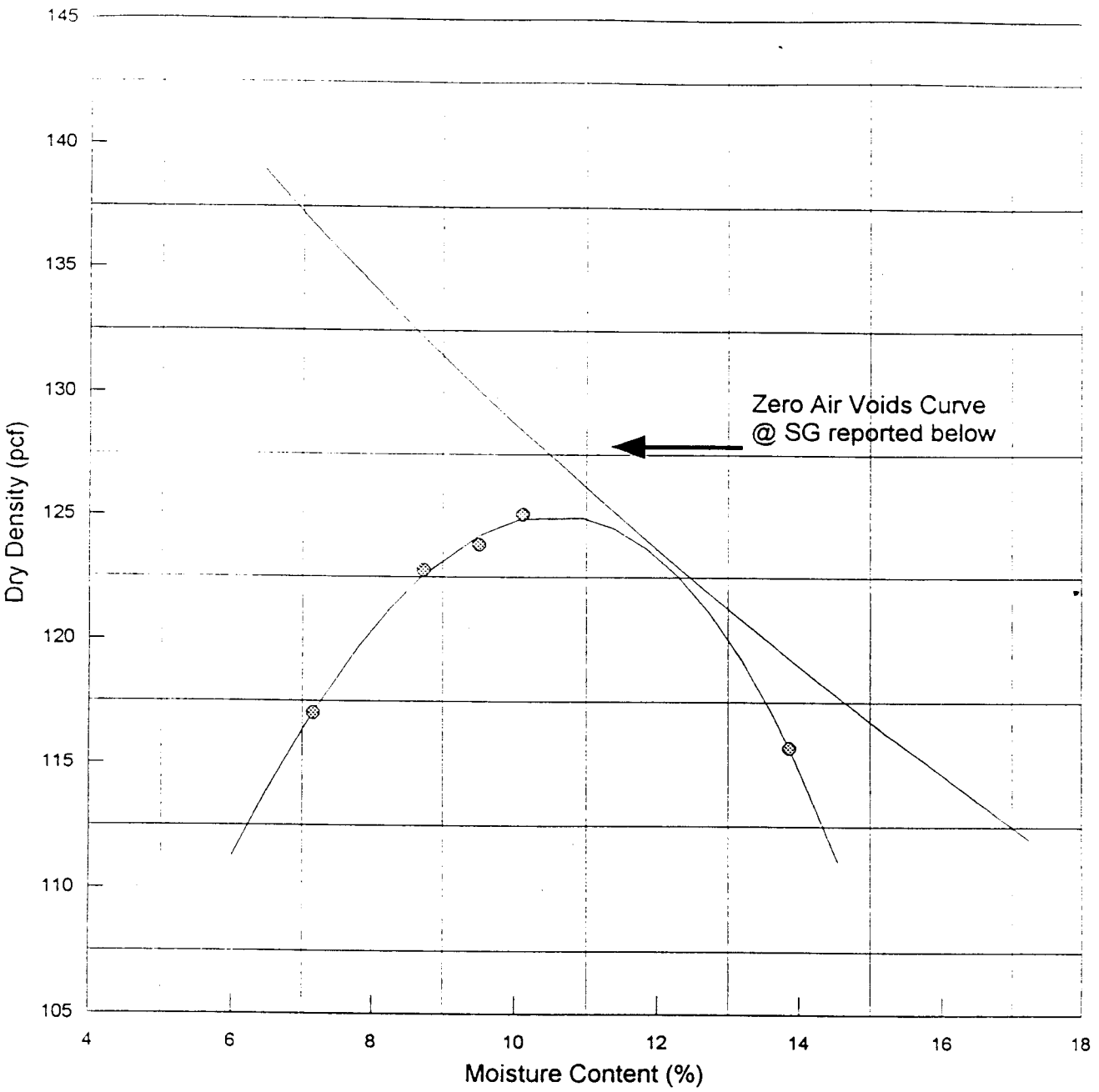
Density determination

Wt of soil & mold (lb)	14.55	14.82	14.89	14.96	14.76
of mold (lb)	10.37	10.37	10.37	10.37	10.37
wt. of wet soil (lb)	4.18	4.45	4.52	4.59	4.39
wt of dry soil (lb)	3.90	4.09	4.13	4.17	3.86
Dry Density, (pcf)	117.02	122.78	123.83	125.06	115.67
Corrected Dry Density (pcf)					
Volume Factor	30	30	30	30	30

entered by: RV Date: 4-26-96
Data checked by: CEB Date: 4-29-96
FileName: PR1710-2 ADVANCED TERRA TESTING, INC

Proctor Compaction Test

, , 961701-2



- Best Fit Curve
- Actual Data
- Zero Air VoidsCurve @ SG = 2.60

OPTIMUM MOISTURE CONTENT = 10.6 MAXIMUM DRY DENSITY = 125.0
ASTM D 698 A, Rock correction applied? N

ADVANCED TERRA TESTING, INC.

COMPACTION TEST
ASTM D 698 A

CLIENT: Berringer Labs JOB NO. 2221-09

RING NO. SOIL DESCR.
DEPTH DATE SAMPLED
SAMPLE NO. 961701-5 DATE TESTED 4-25-96 RV

Moisture determination

	1	2	3	4	5
Wt of Moisture added (ml)					
Wt. of soil & dish (g)	345.75	309.09	309.71	307.95	316.47
Dry wt. soil & dish (g)	325.10	282.79	275.98	270.25	273.73
Net loss of moisture (g)	20.65	26.30	33.73	37.70	42.74
Wt. of dish (g)	8.16	8.33	8.33	8.18	8.25
Net wt. of dry soil (g)	316.94	274.46	267.65	262.07	265.48
Moisture Content (%)	6.515	9.582	12.602	14.385	16.099
Corrected Moisture Content					

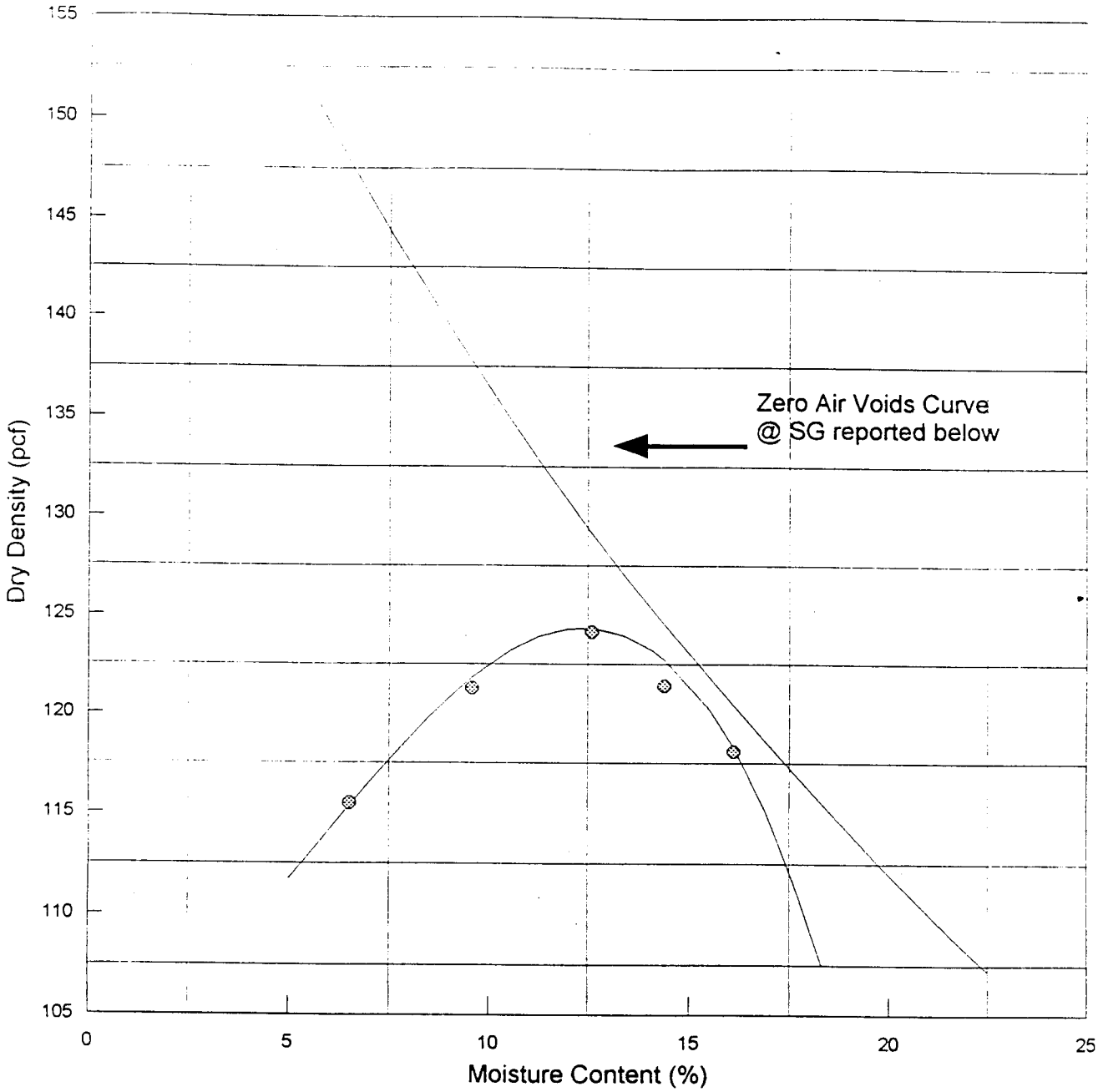
Density determination

Wt of soil & mold (lb)	14.47	14.80	15.03	15.00	14.94
Wt. of mold (lb)	10.37	10.37	10.37	10.37	10.37
wt. of wet soil (lb)	4.10	4.43	4.66	4.63	4.57
wt of dry soil (lb)	3.85	4.04	4.14	4.05	3.94
Dry Density, (pcf)	115.48	121.28	124.15	121.43	118.09
Corrected Dry Density (pcf)					
Volume Factor	30	30	30	30	30

Data entered by: RV Date: 4-26-96
Data checked by: WEB Date: 4-29-96
FileName: PR1710-5 ADVANCED TERRA TESTING, INC

Proctor Compaction Test

, , 961701-5



- Best Fit Curve
- Actual Data
- Zero Air VoidsCurve @ SG = 2.80

OPTIMUM MOISTURE CONTENT = 12.4 MAXIMUM DRY DENSITY = 124.4
ASTM D 698 A, Rock correction applied? N

ADVANCED TERRA TESTING, INC.

COMPACTION TEST
ASTM D 698 A

CLIENT: Barringer Labs JOB NO. 2221-09

.ING NO. SOIL DESCR.
TH DATE SAMPLED
SAMPLE NO. 961701-4 DATE TESTED 4-25-96

Moisture determination

	1	2	3	4	5
Wt of Moisture added (ml)					
Wt. of soil & dish (g)	300.71	312.95	301.41	259.94	264.83
Dry wt. soil & dish (g)	257.27	262.60	285.00	239.21	233.52
Net loss of moisture (g)	43.44	50.35	16.41	20.73	31.31
Wt. of dish (g)	8.56	8.44	8.20	8.60	8.24
Net wt. of dry soil (g)	248.71	254.16	276.80	230.61	225.28
Moisture Content (%)	17.466	19.810	5.928	8.989	13.898
Corrected Moisture Content					

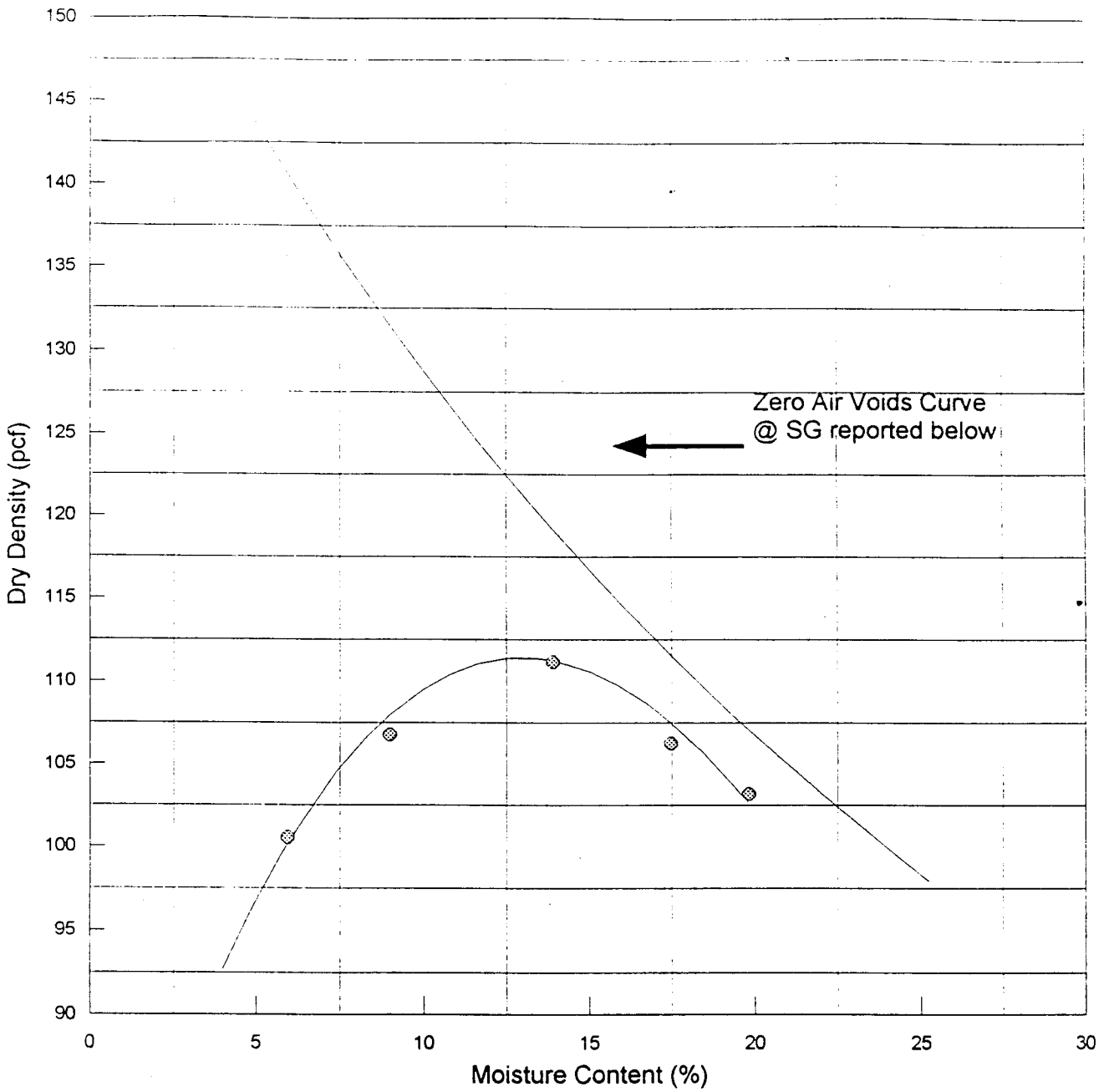
Density determination

Wt of soil & mold (lb)	14.53	14.49	13.92	14.25	14.59
Wt of mold (lb)	10.37	10.37	10.37	10.37	10.37
wt. of wet soil (lb)	4.16	4.12	3.55	3.88	4.22
wt of dry soil (lb)	3.54	3.44	3.35	3.56	3.71
Dry Density, (pcf)	106.24	103.16	100.54	106.80	111.15
Corrected Dry Density (pcf)					
Volume Factor	30	30	30	30	30

entered by: RV Date: 4-29-96
Data checked by: WEB Date: 4-29-96
FileName: PR1701-4 ADVANCED TERRA TESTING, INC

Proctor Compaction Test

, , 961701-4



- Best Fit Curve ⊗ Actual Data

- Zero Air VoidsCurve @ SG = 2.60

OPTIMUM MOISTURE CONTENT = 13.0 MAXIMUM DRY DENSITY = 111.4
ASTM D 698 A, Rock correction applied? N

ADVANCED TERRA TESTING, INC.

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

3-May-96

Attn:
Project:

PO #:

Received: 30-Apr-96 12:51

Job: 961825E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

29-May-96

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:

PO #:

Received: 24-Apr-96 09:10

Job: 961774E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

29-May-96
Page: 1

Attn:
Project:
PO #:
Received: 24-Apr-96 09:10

Job: 961774E
Status: Final

CASE NARRATIVE

A total of 5 Soil samples were received on 24-Apr-96. As stated in the chain of custody, the samples were run for the following analysis: Proctor. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Signed: .....
Inorganic
Laboratory

Signed: .....
Project Review

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

29-May-96
Page: ii

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 24-Apr-96 09:10

Job: 961774E
Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
961774-1	Soil	9603264	26-Mar-96
961774-2	Soil	9603265	26-Mar-96
961774-3	Soil	9603266	26-Mar-96
961774-4	Soil	9603267	26-Mar-96
961774-5	Soil	9603268	26-Mar-96

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29-May-96
Page: R-1
Job: 961774E
Status: Final

CHEMICAL WASTE MANAGEMENT

Sample Id: 9603264
Lab Id: 961774-1
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	95.1 lb/cu		24-May-96

Sample Id: 9603265
Lab Id: 961774-2
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	91.2 lb/cu		24-May-96

Sample Id: 9603266
Lab Id: 961774-3
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	91.2 lb/cu		24-May-96

Sample Id: 9603267
Lab Id: 961774-4
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	IS lb/cu		24-May-96

Sample Id: 9603268
Lab Id: 961774-5
Date Sampled: 26-Mar-96
Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Proctor		D698	92.6 lb/cu		24-May-96

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29-May-96
Page: Q-1
Job: 961774E
Status: Final

CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Proctor lb/cu ft
Blank	NA
LCS (True)	NA
LCS (Found)	NA
LCS % Rec	NA
Duplicate	NA
Duplicate	NA
RPD	NA
Spike % Rec	NA

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Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

29-May-96
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Attn:
Project:

PO #:

Received: 24-Apr-96 09:10

Job: 961774E

Status: Final

Abbreviations:

Parameters:

Proctor	: Proctor Test

Units:

lb/cu ft	: pounds per cubic foot

Quality codes:

IS	: Insufficient sample
NA	: Not Analyzed

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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

29-May-96
Page: Q-3

Attn:
Project:
PO #:
Received: 24-Apr-96 09:10

Job: 961774E
Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc
Via: Fed Ex

Sample Container Type: 16oz pl, paint can
Additional Lab Preparation: None

Parameter	Method	Preservative	Init	Analysis Dates
Proctor	D698	None	ATT	05/24

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.

BARRINGER LABORATORIES, INC.
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2-May-96

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project: Req #23223

Received: 4-Apr-96 09:15
PO #: 184686

Job: 961672E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....1

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

QC 96.02650
96.02660
96.02639
96.02661
96.02632
96.02634
96.02655

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LOS ALAMOS NATIONAL LABORATORY
Analytical Services (CST-3)
P.O. Box 1663, MS K484
Los Alamos, NM 87544

Attn:
Project: Req #23223 PO #: Received: 4-Apr-96 09:15

Job: 961672E Status: Final

CASE NARRATIVE

A total of 27 Soil samples were received on 4-Apr-96. As stated in the chain of custody, the samples were run for the following analyses: As, Ba, Cd, Cu, Cr, Pb, Se, Ag, Zn, Hg, pH-S, S-R, CN-R, Gross Alpha, Gross Beta, C-14, Tritium, I-129, Am-241, Pu-238, Pu-239, Sr-90, Th-228, Th-230, U-234, U-235, U-238, Th-232, Gamma Spectroscopy, Volatile Organic Compounds, PCB's in Soil and Semi-Volatile Organic Compounds. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Volatile Organics: Samples 961672-19 and 961672-20 showed a matrix effect on the response of internal and surrogate standards.

Method 8080: Aroclor 1260 and 1268 were manually calculated because of similar peaks in both Aroclors. Our automated calculation program was unable to accurately separate the two PCBs.

Signed:

Inorganic Manager	Radiochemistry Manager	Organic Manager

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LOS ALAMOS NATIONAL LABORATORY
Analytical Services (CST-3)
P.O. Box 1663, MS K484
Los Alamos, NM 87544

Attn:
Project: Req #23223 PO #:

Received: 4-Apr-96 09:15

Job: 961672E Status: Final

Signed: .....
Project Review

BARRINGER LABORATORIES, INC.
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2-May-96
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LOS ALAMOS NATIONAL LABORATORY
Analytical Services (CST-3)
P.O. Box 1663, MS K484
Los Alamos, NM 87544

Attn:
Project: Req #23223 PO #:
Received: 4-Apr-96 09:15

Job: 961672E Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
961672-1	Soil	96.02621	29-Mar-96
961672-2	Soil	96.02622	29-Mar-96
961672-3	Soil	96.02623	29-Mar-96
961672-4	Soil	96.02624	29-Mar-96
961672-5	Soil	96.02625	29-Mar-96
961672-6	Soil	96.02626	29-Mar-96
961672-7	Soil	96.02627	29-Mar-96
961672-8	Soil	96.02628	29-Mar-96
961672-9	Soil	96.02629	31-Mar-95
961672-10	Soil	96.02630	3-Aug-94
961672-11	Soil	96.02631	10-Nov-94
961672-12	Soil	96.02611	29-Mar-96
961672-13	Soil	96.02612	29-Mar-96
961672-14	Soil	96.02613	29-Mar-96
961672-15	Soil	96.02614	29-Mar-96
961672-16	Soil	96.02639	22-Jan-96
961672-17	Soil	96.02640	22-Sep-95
961672-18	Soil	96.02641	22-Jun-95
961672-19	Soil	96.02615	29-Mar-96
961672-20	Soil	96.02616	29-Mar-96
961672-21	Soil	96.02617	29-Mar-96
961672-22	Soil	96.02618	29-Mar-96
961672-23	Soil	96.02619	29-Mar-96
961672-24	Soil	96.02620	29-Mar-96
961672-25	Soil	96.02632	1-Apr-96
961672-26	Soil	96.02635	1-Apr-96
961672-27	Soil	96.02637	22-Aug-94

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Proctor lb/cu ft
Blank	NA
LCS (True)	NA
LCS (Found)	NA
LCS % Rec	NA
Duplicate	NA
Duplicate	NA
RPD	NA
Spike % Rec	NA

BARRINGER LABORATORIES, INC.
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3-May-96
Page: 2-3

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 30-Apr-96 12:51

Job: 961825E
Status: Final

Abbreviations:

Parameters:

Spec. Grav.	: Specific Gravity
Proctor	: Proctor Test

Units:

	: <unknown>
lb/cu ft	: pounds per cubic foot

Quality codes:

NA	: Not Analyzed

BARRINGER LABORATORIES, INC.
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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 30-Apr-96 12:51

Job: 961825E
Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc
Via:

Sample Container Type: 500g jar
Additional Lab Preparation: None

Parameter	Method	Preservative	Init	Analysis Dates
Spec. Grav.	2710F	None	ATT	04/26-04/30
Proctor	D698	None	ATT	04/24-04/25

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.

BARRINGER LABORATORIES, INC.
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2-May-96

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:

PO #:

Received: 2-Apr-96 09:00

Job: 961611E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

2-May-96
Page: i

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

CASE NARRATIVE

A total of 8 Soil samples were received on 2-Apr-96. As stated in the chain of custody, the samples were run for the following analyses: As, Ba, Cd, Cu, Cr, Pb, Hg, Se, Ag, Zn, CN-R, S-R, pH-S, PFLT, Gross Alpha, Gross Beta, Am-241, C-14, Tritium, I-129, Pu-238, Pu-239, Sr-90, Th-228, Th-230, Th-232, U-234, U-235, U-238, Gamma Spectroscopy, Semi-Volatiles and Volatiles. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Signed: ..... Inorganic Manager ..... Radiochemistry Manager ..... Organic Manager

Signed: ..... Project Review

BARRINGER LABORATORIES, INC.
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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

2-May-96
Page: 1

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
961611-1	Soil	96.02486	26-Mar-96
961611-2	Soil	96.02488	26-Mar-96
961611-3	Soil	96.02490	26-Mar-96
961611-4	Soil	96.02492	26-Mar-96
961611-5	Soil	96.02487	26-Mar-96
961611-6	Soil	96.02491	26-Mar-96
961611-7	Soil	96.02489	26-Mar-96
961611-8	Soil	96.02493	26-Mar-96

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Job: 961611E
Status: Final

CHEMICAL WASTE MANAGEMENT

TA-2

Sample Id: 96.02488
Lab Id: 961611-2
Date Sampled: 26-Mar-96

Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	12-Apr-96
Barium	TCLP	6010A	1.3 mg/l	0.1	12-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	12-Apr-96
Copper	TCLP	6010A	0.40 mg/l	0.05	12-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	12-Apr-96
Lead	TCLP	6010A	U mg/l	0.3	12-Apr-96
Mercury	TCLP	7470A	U mg/l	0.002	9-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	12-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	12-Apr-96
Zinc	TCLP	6010A	0.9 mg/l	0.1	12-Apr-96
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	3-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	3-Apr-96
pH		9045A	10.54 unit	0.01	3-Apr-96

TA-2

Sample Id: 96.02492
Lab Id: 961611-4
Date Sampled: 26-Mar-96

Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	12-Apr-96
Barium	TCLP	6010A	1.4 mg/l	0.1	12-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	12-Apr-96
Copper	TCLP	6010A	0.20 mg/l	0.05	12-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	12-Apr-96
Lead	TCLP	6010A	U mg/l	0.3	12-Apr-96
Mercury	TCLP	7470A	U mg/l	0.002	9-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	12-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	12-Apr-96
Zinc	TCLP	6010A	0.8 mg/l	0.1	12-Apr-96
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	3-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	3-Apr-96
pH		9045A	10.61 unit	0.01	3-Apr-96

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2-May-96
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Job: 961611E
Status: Final

CHEMICAL WASTE MANAGEMENT

TA-2
Sample Id: 96.02486
Lab Id: 961611-1
Date Sampled: 26-Mar-96

Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Free Liquids		9095	NO Yes/No		3-Apr-96

TA-2
Sample Id: 96.02490
Lab Id: 961611-3
Date Sampled: 26-Mar-96

Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Free Liquids		9095	NO Yes/No		3-Apr-96

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-May-96
Page: R-3
Job: 961611E
Status: Final

CHEMICAL WASTE MANAGEMENT

Analyte: Gross Alpha
Fraction: Total
Method: 900.0
Units: pCi/g

Project:
Date Analyzed: 04/10-04/16
LLD: 24

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	13±4	24
961611-8	26-Mar-96	Soil	96.02493 TA-2	15±4	24

Analyte: Gross Beta
Fraction: Total
Method: 900.0
Units: pCi/g

Project:
Date Analyzed: 04/10-04/16
LLD: 11

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	121±7	11
961611-8	26-Mar-96	Soil	96.02493 TA-2	35±5	11

Analyte: Am-241
Fraction: Total
Method: 907.0
Units: pCi/g

Project:
Date Analyzed: 04/04-04/18
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	1.6±0.6	0.5
961611-8	26-Mar-96	Soil	96.02493 TA-2	0.6±0.4	0.5

Analyte: C-14
Fraction: Total
Method: 520-84-006
Units: pCi/g

Project:
Date Analyzed: 04/21-04/25
LLD: 3

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	0.0±1.6	3
961611-8	26-Mar-96	Soil	96.02493 TA-2	0.0±1.7	3

Analyte: Tritium
Fraction: Total
Method: 906.0
Units: pCi/g

Project:
Date Analyzed: 04/15-04/16
LLD: 460

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	0.0±1.5	460
961611-8	26-Mar-96	Soil	96.02493 TA-2	0.0±1.5	460

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Analyte: I-129
Fraction: Total
Method: 902.0
Units: pCi/g

Project:
Date Analyzed: 04/10-04/24
LLD: 1

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	0.0±2.6	1
961611-8	26-Mar-96	Soil	96.02493 TA-2	0.0±2.6	1

Analyte: Pu-238
Fraction: Total
Method: 907.0
Units: pCi/g

Project:
Date Analyzed: 04/04-04/10
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	0.0±0.2	0.4
961611-8	26-Mar-96	Soil	96.02493 TA 2	0.0±0.2	0.4

Analyte: Pu-239
Fraction: Total
Method: 907.0
Units: pCi/g

Project:
Date Analyzed: 04/04-04/10
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	0.1±0.4	0.4
961611-8	26-Mar-96	Soil	96.02493 TA-2	0.1±0.2	0.4

Analyte: Sr-90
Fraction: Total
Method: 905.0
Units: pCi/g

Project:
Date Analyzed: 04/08-04/23
LLD: 1

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA 2	44±2	1
961611-8	26-Mar-96	Soil	96.02493 TA 2	4.1±0.8	1

Analyte: Th-228
Fraction: Total
Method: USAEC
Units: pCi/g

Project:
Date Analyzed: 04/09-04/11
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA 2	1.0±0.7	0.4
961611-8	26-Mar-96	Soil	96.02493 TA 2	1.8±0.9	0.4

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Analyte: Th-230
Fraction: Total
Method: USAEC
Units: pCi/g

Project:
Date Analyzed: 04/09-04/11
LLD: 0.8

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA-2	1.0±0.7	0.8
961611-8	26-Mar-96	Soil	96.02493 TA2	1.9±0.9	0.8

Analyte: Th-232
Fraction: Total
Method: USAEC
Units: pCi/g

Project:
Date Analyzed: 04/09-04/11
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA2	2.1±0.9	0.4
961611-8	26-Mar-96	Soil	96.02493 TA2	1.7±0.9	0.4

Analyte: U-234
Fraction: Total
Method: 908.0
Units: pCi/g

Project:
Date Analyzed: 04/05-04/11
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA2	1.6±0.8	0.5
961611-8	26-Mar-96	Soil	96.02493 TA2	1.0±0.7	0.5

Analyte: U-235
Fraction: Total
Method: 908.0
Units: pCi/g

Project:
Date Analyzed: 04/05-04/11
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA2	0.0±0.2	0.4
961611-8	26-Mar-96	Soil	96.02493 TA-2	0.0±0.3	0.4

Analyte: U-238
Fraction: Total
Method: 908.0
Units: pCi/g

Project:
Date Analyzed: 04/05-04/11
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961611-7	26-Mar-96	Soil	96.02489 TA2	0.9±0.6	0.4
961611-8	26-Mar-96	Soil	96.02493 TA2	1.8±0.9	0.4

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Gamma Spectroscopy

Sample Id: 96.02489 TA 2
Lab Id: 961611-7
Date Sampled: 26-Mar-96

Project:
Matrix: Soil

Analyte	Fraction	Conc.± 2σ		LLD	Date Analyzed
Na-22*	GS	ND	pCi/g	0.05	04/15-04/26
K-40*	GS	35±2	pCi/g	1.5	04/15-04/26
Cr-51*	GS	ND	pCi/g	0.7	04/15-04/26
Mn-54*	GS	ND	pCi/g	0.05	04/15-04/26
Fe-59*	GS	ND	pCi/g	0.09	04/15-04/26
Co-56*	GS	ND	pCi/g	0.05	04/15-04/26
Co-57*	GS	ND	pCi/g	0.06	04/15-04/26
Co-58*	GS	ND	pCi/g	0.05	04/15-04/26
Co-60*	GS	ND	pCi/g	0.06	04/15-04/26
Ni-56*	GS	ND	pCi/g	0.06	04/15-04/26
Zn-65*	GS	ND	pCi/g	0.1	04/15-04/26
Y-88*	GS	ND	pCi/g	0.05	04/15-04/26
Zr-95*	GS	ND	pCi/g	0.08	04/15-04/26
Nb-94*	GS	ND	pCi/g	0.04	04/15-04/26
Nb-95*	GS	ND	pCi/g	0.05	04/15-04/26
Ru-103*	GS	ND	pCi/g	0.08	04/15-04/26
Ru-106*	GS	ND	pCi/g	0.6	04/15-04/26
Sn-113*	GS	ND	pCi/g	0.1	04/15-04/26
Sb-125*	GS	ND	pCi/g	0.3	04/15-04/26
I-131*	GS	ND	pCi/g	0.08	04/15-04/26
Cs-134*	GS	ND	pCi/g	0.06	04/15-04/26
Cs-137*	GS	39±1	pCi/g	0.3	04/15-04/26
Ba-133*	GS	ND	pCi/g	0.1	04/15-04/26
Ba-140*	GS	ND	pCi/g	0.3	04/15-04/26
La-140*	GS	ND	pCi/g	0.05	04/15-04/26
Ce-141*	GS	ND	pCi/g	0.1	04/15-04/26
Ce-144*	GS	ND	pCi/g	0.5	04/15-04/26
Eu-152*	GS	ND	pCi/g	0.3	04/15-04/26
Eu-154*	GS	ND	pCi/g	0.1	04/15-04/26
Eu-155*	GS	ND	pCi/g	0.3	04/15-04/26
Tl-208*	GS	0.7±0.1	pCi/g	0.1	04/15-04/26
Pb-210*	GS	ND	pCi/g	1.6	04/15-04/26
Pb-212*	GS	2.5±0.2	pCi/g	0.2	04/15-04/26
Pb-214*	GS	1.8±0.4	pCi/g	0.2	04/15-04/26
Bi-212*	GS	1.6±0.6	pCi/g	0.8	04/15-04/26
Bi-214*	GS	2.0±0.3	pCi/g	0.2	04/15-04/26
Ac-228*	GS	1.9±0.5	pCi/g	0.2	04/15-04/26
Th-229*	GS	ND	pCi/g	0.2	04/15-04/26
Th-234*	GS	4.0±1.7	pCi/g	1.6	04/15-04/26
Pa-234*	GS	ND	pCi/g	0.3	04/15-04/26
Pa-234M*	GS	ND	pCi/g	8.7	04/15-04/26
U-235*	GS	ND	pCi/g	0.5	04/15-04/26
Am-241*	GS	ND	pCi/g	0.2	04/15-04/26

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Gamma Spectroscopy

Sample Id: 96.02493 ~~A~~2
Lab Id: 961611-8
Date Sampled: 26-Mar-96

Project:
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
Na-22*	GS	ND	pCi/g	0.06	04/15-04/26
K-40*	GS	35±4	pCi/g	2.6	04/15-04/26
Cr-51*	GS	ND	pCi/g	0.7	04/15-04/26
Mn-54*	GS	ND	pCi/g	0.08	04/15-04/26
Fe-59*	GS	ND	pCi/g	0.2	04/15-04/26
Co-56*	GS	ND	pCi/g	0.09	04/15-04/26
Co-57*	GS	ND	pCi/g	0.06	04/15-04/26
Co-58*	GS	ND	pCi/g	0.07	04/15-04/26
Co-60*	GS	ND	pCi/g	0.1	04/15-04/26
Ni-56*	GS	ND	pCi/g	0.06	04/15-04/26
Zn-65*	GS	ND	pCi/g	0.2	04/15-04/26
Y-88*	GS	ND	pCi/g	0.09	04/15-04/26
Zr-95*	GS	ND	pCi/g	0.1	04/15-04/26
Nb-94*	GS	ND	pCi/g	0.07	04/15-04/26
Nb-95*	GS	ND	pCi/g	0.07	04/15-04/26
Ru-103*	GS	ND	pCi/g	0.08	04/15-04/26
Ru-106*	GS	ND	pCi/g	0.7	04/15-04/26
Sn-113*	GS	ND	pCi/g	0.1	04/15-04/26
Sb-125*	GS	ND	pCi/g	0.3	04/15-04/26
I-131*	GS	ND	pCi/g	0.09	04/15-04/26
Cs-134*	GS	ND	pCi/g	0.1	04/15-04/26
Cs-137*	GS	8.6±0.5	pCi/g	0.3	04/15-04/26
Ba-133*	GS	ND	pCi/g	0.1	04/15-04/26
Ba-140*	GS	ND	pCi/g	0.3	04/15-04/26
La-140*	GS	ND	pCi/g	0.06	04/15-04/26
Ce-141*	GS	ND	pCi/g	0.1	04/15-04/26
Ce-144*	GS	ND	pCi/g	0.5	04/15-04/26
Eu-152*	GS	ND	pCi/g	0.3	04/15-04/26
Eu-154*	GS	ND	pCi/g	0.1	04/15-04/26
Eu-155*	GS	ND	pCi/g	0.3	04/15-04/26
Tl-208*	GS	0.7±0.2	pCi/g	0.2	04/15-04/26
Pb-210*	GS	ND	pCi/g	2.1	04/15-04/26
Pb-212*	GS	2.2±0.3	pCi/g	0.2	04/15-04/26
Pb-214*	GS	1.8±0.4	pCi/g	0.2	04/15-04/26
Bi-212*	GS	ND	pCi/g	1.1	04/15-04/26
Bi-214*	GS	2.2±0.5	pCi/g	0.2	04/15-04/26
Ac-228*	GS	2.0±0.6	pCi/g	0.4	04/15-04/26
Th-229*	GS	ND	pCi/g	0.3	04/15-04/26
Th-234*	GS	3.8±2.1	pCi/g	2.1	04/15-04/26
Pa-234*	GS	ND	pCi/g	0.3	04/15-04/26
Pa-234M*	GS	ND	pCi/g	14	04/15-04/26
U-235*	GS	ND	pCi/g	0.5	04/15-04/26
Am-241*	GS	ND	pCi/g	0.2	04/15-04/26

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02487 TA<
Lab Id: 961611-5
Date Sampled: 26-Mar-96
Date Extracted: 5-Apr-96
Date Analyzed: 8-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

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Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	1600
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02487
Lab Id: 961611-5
Date Sampled: 26-Mar-96
Date Extracted: 5-Apr-96
Date Analyzed: 8-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	180J	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	50%	25-121%
Phenol-d5	44%	24-113%
Nitrobenzene-d5	52%	23-120%
2-Fluorobiphenyl	48%	30-115%
2,4,6-Tribromophenol	26%	19-122%
Terphenyl-d14	90%	18-137%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02491 BZ
Lab Id: 961611-6
Date Sampled: 26-Mar-96
Date Extracted: 5-Apr-96
Date Analyzed: 8-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

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Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	1600
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02491
Lab Id: 961611-6
Date Sampled: 26-Mar-96
Date Extracted: 5-Apr-96
Date Analyzed: 8-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	36%	25-121%
Phenol-d5	39%	24-113%
Nitrobenzene-d5	49%	23-120%
2-Fluorobiphenyl	51%	30-115%
2,4,6-Tribromophenol	T6%	19-122%
Terphenyl-d14	87%	18-137%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Volatiles

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Sample Id: 96.02487 TA-2
Lab Id: 961611-5
Date Sampled: 26-Mar-96
Date Extracted: NA
Date Analyzed: 5-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	16B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02487
Lab Id: 961611-5
Date Sampled: 26-Mar-96
Date Extracted: NA
Date Analyzed: 5-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	101%	70-121%
Toluene-d8	101%	84-138%
p-Bromofluorobenzene	95%	59-113%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Volatiles

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Sample Id: 96.02491 TA-2
Lab Id: 961611-6
Date Sampled: 26-Mar-96
Date Extracted: NA
Date Analyzed: 5-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	17B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	4.2J	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	47	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02491
Lab Id: 961611-6
Date Sampled: 26-Mar-96
Date Extracted: NA
Date Analyzed: 5-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	102%	70-121%
Toluene-d8	103%	84-138%
p-Bromofluorobenzene	96%	59-113%

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2-May-96
Page: Q-1
Job: 961611E
Status: Final

CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Arsenic TCLP mg/l	Barium TCLP mg/l	Cadmium TCLP mg/l	Copper TCLP mg/l	Chromium TCLP mg/l
Blank	U	U	U	U	U
LCS (True)	5.00	10.0	1.00	2.00	2.00
LCS (Found)	5.16	10.5	1.00	2.13	2.08
LCS % Rec	103	105	100	106	104
Duplicate	U	1.3	U	0.40	U
Duplicate	U	1.3	U	0.45	U
RPD	NC	1.8	NC	11.7	NC
Spike % Rec	88.1	80.1	83.4	A102	84.0

Sample Id	Lead TCLP mg/l	Mercury TCLP mg/l	Selenium TCLP mg/l	Silver TCLP mg/l	Zinc TCLP mg/l
Blank	U	U	U	U	U
LCS (True)	5.00	0.0050	5.00	1.00	1.00
LCS (Found)	5.20	0.0054	5.31	0.99	1.04
LCS % Rec	104	108	106	98.8	104
Duplicate	U	U	U	U	0.9
Duplicate	U	U	U	U	0.8
RPD	NC	NC	NC	NC	13.7
Spike % Rec	85.3	98.5	95.4	H61.3	A97.7

Sample Id	Cyanide Reactive mg/kg	Sulfide Reactive mg/kg	pH unit
Blank	U	U	NA
LCS (True)	f0.100	f20.0	7.00
LCS (Found)	f0.110	f20.0	7.08
LCS % Rec	110	100	101
Duplicate	U	U	7.35
Duplicate	U	U	7.31
RPD	NC	NC	0.5
Spike % Rec	114	108	NA

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Free Liquids

Sample Id	Yes/No
Blank	NA
LCS (True)	NA
LCS (Found)	NA
LCS % Rec	NA
Duplicate	NO
Duplicate	NO
RPD	NC
Spike % Rec	NA

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Gross Alpha Total pCi/g	± 2σ	Gross Beta Total pCi/g	± 2σ
Duplicate	13	±4	121	±7
Duplicate	14	±4	123	±7
RER	0.10		0.08	
Std (found value)	87	±3	98	±2
Std (true value)	101		94	
Std % rec.	98		105	
Blank	1.0	±0.5	0.7	±0.5
Spike % rec.	116		32	

Sample Id	Am-241 Total pCi/g	± 2σ	C-14 Total pCi/g	± 2σ
Duplicate	0.6	±0.4	1.9	±1.1
Duplicate	0.4	±0.3	0.0	±1.0
RER	0.40		1.25	
Std (found value)	323	±8	81	±5
Std (true value)	292		99	
Std % rec.	111		82	
Blank	0.1	±0.2	0.6	±1.5
Spike % rec.	101		72	

Sample Id	Tritium Total pCi/g	± 2σ	I-129 Total pCi/g	± 2σ
Duplicate	d5970	±490	0.0	±2.6
Duplicate	d8310	±540	0.0	±2.3
RER	1.37		0.00	
Std (found value)	d7350	±520	5510	±100
Std (true value)	d7510		4950	
Std % rec.	98		111	
Blank	d142	±297	0.0	±2.3
Spike % rec.	95		112	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Pu-238 Total pCi/g	± 2σ	Pu-239 Total pCi/g	± 2σ
Duplicate	0.0	±0.2	0.1	±0.2
Duplicate	0.0	±0.2	0.0	±0.2
RER	0.00		0.24	
Std (found value)	35.4	±4.2	35.4	±4.2
Std (true value)	33.2		33.2	
Std % rec.	107		107	
Blank	0.0	±0.1	0.0	±0.1
Spike % rec.	111		111	

Sample Id	Sr-90 Total pCi/g	± 2σ	Th-228 Total pCi/g	± 2σ
Duplicate	44	±2	1.4	±0.8
Duplicate	44	±2	0.6	±0.6
RER	0.01		0.71	
Std (found value)	216	±8	15	±3
Std (true value)	233		19	
Std % rec.	92		80	
Blank	0.0	±0.6	0.0	±0.1
Spike % rec.	99		97	

Sample Id	Th-230 Total pCi/g	± 2σ	Th-232 Total pCi/g	± 2σ
Duplicate	1.8	±0.9	0.6	±0.6
Duplicate	2.1	±0.9	0.6	±0.6
RER	0.22		0.03	
Std (found value)	84	±7	17	±3
Std (true value)	97		18	
Std % rec.	86		96	
Blank	0.0	±0.2	0.0	±0.1
Spike % rec.	99		128	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	U-234 Total pCi/g	± 2σ	U-235 Total pCi/g	± 2σ
Duplicate	215	±14	11	±3
Duplicate	195	±14	12	±3
RER	0.44		0.25	
Std (found value)	170	±9	7.1	±2.0
Std (true value)	170		7.8	
Std % rec.	100		91	
Blank	0.0	±0.2	0.0	±0.1
Spike % rec.	80		93	

Sample Id	U-238 Total pCi/g	± 2σ
Duplicate	229	±15
Duplicate	209	±14
RER	0.39	
Std (found value)	162	±9
Std (true value)	170	
Std % rec.	95	
Blank	0.0	±0.2
Spike % rec.	86	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Gamma Spec GS pCi/g	+ 2σ
STD (found value)	163	±4
STD (true value)	167	±3
STD % rec.	98	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: 1611-MB
Date Sampled: NA
Date Extracted: 5-Apr-96
Date Analyzed: 9-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	1600
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: 1611-MB
Date Sampled: NA
Date Extracted: 5-Apr-96
Date Analyzed: 9-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	51%	25-121%
Phenol-d5	43%	24-113%
Nitrobenzene-d5	46%	23-120%
2-Fluorobiphenyl	55%	30-115%
2,4,6-Tribromophenol	37%	19-122%
Terphenyl-d14	83%	18-137%

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: vblk 307
Date Sampled: NA
Date Extracted: NA
Date Analyzed: 5-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration ug/l	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	11	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: vblk 307
Date Sampled: NA
Date Extracted: NA
Date Analyzed: 5-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	98%	76-114%
Toluene-d8	101%	88-110%
p-Bromofluorobenzene	97%	86-115%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	K-40* GS pCi/g	± 2σ	Cs-137* GS pCi/g	± 2σ
Duplicate	35	±2	39	±1
Duplicate	33	±3	40	±1
RER	0.25		0.12	

Sample Id	Tl-208* GS pCi/g	± 2σ	Pb-212* GS pCi/g	± 2σ
Duplicate	0.7	±0.1	2.5	±0.2
Duplicate	0.7	±0.2	2.4	±0.3
RER	0.00		0.16	

Sample Id	Pb-214* GS pCi/g	± 2σ	Bi-212* GS pCi/g	± 2σ
Duplicate	1.8	±0.4	1.6	±0.6
Duplicate	2.0	±0.5	1.7	±0.8
RER	0.26		0.09	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Bi-214* GS pCi/g	± 2σ	Ac-228* GS pCi/g	± 2σ	Th-229* GS pCi/g
Duplicate	2.0	±0.3	1.9	±0.5	<0.2
Duplicate	1.7	±0.4	1.9	±0.9	<0.3
RER	0.47		0.00		NC

Sample Id	Th-234* GS pCi/g	± 2σ
Duplicate	4.0	±1.7
Duplicate	<2.9	
RER	NC	

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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

Abbreviations:

Parameters:

Am-241	: Americium-241
C-14	: Carbon-14
I-129	: Iodine-129
Pu-238	: Plutonium-238
Pu-239	: Plutonium-239
Sr-90	: Strontium -90
Th-228	: Thorium-228
Th-230	: Thorium-230
Th-232	: Thorium-232
U-234	: Uranium-234
U-235	: Uranium-235
U-238	: Uranium-238
Na-22*	: Sodium 22-MDA reported at 1.645 sigma
K-40*	: Potassium 40-MDA reported at 1.645 sigma
Cr-51*	: Chromium 51-MDA reported at 1.645 sigma
Mn-54*	: Manganese 54-MDA reported at 1.645 sigma
Fe-59*	: Iron 59-MDA reported at 1.645 sigma
Co-56*	: Cobalt 56-MDA reported at 1.645 sigma
Co-57*	: Cobalt 57-MDA reported at 1.645 sigma
Co-58*	: Cobalt 58-MDA reported at 1.645 sigma
Co-60*	: Cobalt 60-MDA reported at 1.645 sigma
Ni-56*	: Nickel 56-MDA reported at 1.645 sigma
Zn-65*	: Zinc 65-MDA reported at 1.645 sigma
Y-88*	: Yttrium 88-MDA reported at 1.645 sigma
Zr-95*	: Zirconium 95-MDA reported at 1.645 sigma
Nb-94*	: Niobium 94-MDA reported at 1.645 sigma
Nb-95*	: Niobium 95-MDA reported at 1.645 sigma
Ru-103*	: Ruthenium 103-MDA reported at 1.645 sigma
Ru-106*	: Ruthenium 106-MDA reported at 1.645 sigma
Sn-113*	: Tin 113-MDA reported at 1.645 sigma
Sb-125*	: Antimony 125-MDA reported at 1.645 sigma
I-131*	: Iodine 131-MDA reported at 1.645 sigma
Cs-134*	: Cesium 134-MDA reported at 1.645 Sigma
Cs-137*	: Cesium 137-MDA reported at 1.645 Sigma

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2-May-96
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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

Ba-133*	: Barium 133-MDA reported at 1.645 sigma
Ba-140*	: Barium 140-MDA reported at 1.645 sigma
La-140*	: Lanthanum 140-MDA reported at 1.645 sigma
Ce-141*	: Cerium 141-MDA reported at 1.645 sigma
Ce-144*	: Cerium 144-MDA reported at 1.645 sigma
Eu-152*	: Europium 152-MDA reported at 1.645 sigma
Eu-154*	: Europium 154-MDA reported at 1.645 sigma
Eu-155*	: Europium 155-MDA reported at 1.645 sigma
Tl-208*	: Thallium 208 by Th-232
Pb-210*	: Lead 210-MDA reported at 1.645 sigma
Pb-212*	: Lead 212-MDA reported at 1.645 sigma
Pb-214*	: Lead 214-MDA reported at 1.645 sigma
Bi-212*	: Bismuth 212-MDA reported at 1.645 sigma
Bi-214*	: Bismuth 214-MDA reported at 1.645 sigma
Ac-228*	: Actinium 228-MDA reported at 1.645 sigma
Th-229*	: Thorium 229-MDA reported at 1.645 sigma
Th-234*	: Thorium 234-MDA reported at 1.645 sigma
Pa-234*	: Protactinium 234-MDA reported at 1.645 sigma
Pa-234M*	: Protactinium 234 by Th-234
U-235*	: Uranium 235-MDA reported at 1.645 sigma
Am-241*	: Americium 241-MDA reported at 1.645 sigma
Gamma Spec	: Gamma Spectroscopy

Methods:

GS	: Gamma Spectroscopy

Units:

mg/l	: milligrams per liter
mg/kg	: milligrams per kilogram
pCi/g	: picoCuries per gram
µg/kg	: micrograms per kilogram
%	: percent
% Rec.	: % Recovery
µg/l	: micrograms per liter

Quality codes:

d	: Picocuries per liter (pCi/l)
A	: Analytical Spike Used

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-May-96
Page: Q-15

Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 2-Apr-96 09:00

Job: 961611E
Status: Final

B	: Present in blank
ND	: Not detected
H	: Matrix Spike recovery was outside control limits.
J	: Estimated value
NA	: Not Analyzed
T	: Surrogate recovery outside reporting limit
U	: Undetected
f	: Milligrams per liter of fluid (mg/l)
NC	: Not Calculated

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-May-96
Page: R-1
Job: 961672E
Status: Final

LOS ALAMOS NATIONAL LABORATORY

Sample Id: 96.02621
Lab Id: 961672-1
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	0.9 mg/l	0.5	18-Apr-96
Barium	TCLP	6010A	0.9 mg/l	0.1	18-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	18-Apr-96
Copper	TCLP	6010A	0.13 mg/l	0.05	18-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	18-Apr-96
Lead	TCLP	6010A	356 mg/l	0.3	18-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	18-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	25-Apr-96
Zinc	TCLP	6010A	0.9 mg/l	0.1	18-Apr-96

Sample Id: 96.02622 A-2
Lab Id: 961672-2
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	18-Apr-96
Barium	TCLP	6010A	1.2 mg/l	0.1	18-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	18-Apr-96
Copper	TCLP	6010A	0.06 mg/l	0.05	18-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	18-Apr-96
Lead	TCLP	6010A	U mg/l	0.3	18-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	18-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	25-Apr-96
Zinc	TCLP	6010A	0.8 mg/l	0.1	18-Apr-96

Sample Id: 96.02623 A-2
Lab Id: 961672-3
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	18-Apr-96
Barium	TCLP	6010A	1.3 mg/l	0.1	18-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	18-Apr-96
Copper	TCLP	6010A	U mg/l	0.05	18-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	18-Apr-96
Lead	TCLP	6010A	U mg/l	0.3	18-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	18-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	25-Apr-96
Zinc	TCLP	6010A	0.6 mg/l	0.1	18-Apr-96

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Sample Id: 96.02624 TA-2
Lab Id: 961672-4
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	18-Apr-96
Barium	TCLP	6010A	1.2 mg/l	0.1	18-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	18-Apr-96
Copper	TCLP	6010A	U mg/l	0.05	18-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	18-Apr-96
Lead	TCLP	6010A	1.1 mg/l	0.3	18-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	18-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	25-Apr-96
Zinc	TCLP	6010A	0.5 mg/l	0.1	18-Apr-96

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Sample Id: 96.02621
Lab Id: 961672-1 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Mercury	TCLP	7470A	U mg/l	0.002	17-Apr-96

Sample Id: 96.02622
Lab Id: 961672-2 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Mercury	TCLP	7470A	0.002 mg/l	0.002	17-Apr-96

Sample Id: 96.02623
Lab Id: 961672-3 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Mercury	TCLP	7470A	U mg/l	0.002	17-Apr-96

Sample Id: 96.02624
Lab Id: 961672-4 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Mercury	TCLP	7470A	U mg/l	0.002	17-Apr-96

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Sample Id: 96.02621
Lab Id: 961672-1 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
pH		9045A	6.50 unit	0.01	16-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	19-Apr-96

Sample Id: 96.02622
Lab Id: 961672-2 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
pH		9045A	8.53 unit	0.01	16-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	19-Apr-96

Sample Id: 96.02623
Lab Id: 961672-3 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
pH		9045A	11.09 unit	0.01	16-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	19-Apr-96

Sample Id: 96.02624
Lab Id: 961672-4 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
pH		9045A	10.83 unit	0.01	16-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	19-Apr-96

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Sample Id: 96.02621
Lab Id: 961672-1 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96

Sample Id: 96.02622 A-2
Lab Id: 961672-2 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96

Sample Id: 96.02623 A-2
Lab Id: 961672-3 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96

Sample Id: 96.02624 A-2
Lab Id: 961672-4 **Project: Req #23223**
Date Sampled: 29-Mar-96 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96

Sample Id: 96.02630
Lab Id: 961672-10 **Project: Req #23223**
Date Sampled: 3-Aug-94 **Matrix: Soil**

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96

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Analyte: Gross Alpha
Fraction: Total
Method: 900.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/22-04/25
LLD: 27

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LL
961672-12	29-Mar-96	Soil	96.02611	7.3±3.6	2
961672-13	29-Mar-96	Soil	96.02612	13±4	2
961672-14	29-Mar-96	Soil	96.02613	8.3±3.5	2
961672-15	29-Mar-96	Soil	96.02614	15±6	2

Analyte: Gross Beta
Fraction: Total
Method: 900.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/22-04/25
LLD: 12

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ
961672-12	29-Mar-96	Soil	96.02611	[illegible]±6
961672-13	29-Mar-96	Soil	96.02612	118±[illegible]
961672-14	29-Mar-96	Soil	96.02613	[illegible]
961672-15	29-Mar-96	Soil	96.02614	

Analyte: C-14
Fraction: Total
Method: 520-84-006
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/21-04/25
LLD: 3

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LL
961672-12	29-Mar-96	Soil	96.02611	0.0±1.4	
961672-13	29-Mar-96	Soil	96.02612	3.1±1.0	
961672-14	29-Mar-96	Soil	96.02613	1.8±1.1	
961672-15	29-Mar-96	Soil	96.02614	1.9±1.1	

Analyte: Tritium
Fraction: Total
Method: 906.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/29-04/30
LLD: 460

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LL
961672-12	29-Mar-96	Soil	96.02611	2.5±1.5	[illegible]
961672-13	29-Mar-96	Soil	96.02612	3.7±1.5	[illegible]
961672-14	29-Mar-96	Soil	96.02613	2.9±1.5	[illegible]
961672-15	29-Mar-96	Soil	96.02614	3.9±1.5	[illegible]

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Analyte: I-129
Fraction: Total
Method: 902.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/10-04/24
LLD: 0.7

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.0±1.1	0.7
961672-13	29-Mar-96	Soil	96.02612 TA-[illegible]	0.0±1.2	0.7
961672-14	29-Mar-96	Soil	96.02613 TA-[illegible]	0.0±1.7	0.7
961672-15	29-Mar-96	Soil	96.02614 TA-[illegible]	0.0±1.5	0.7

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Analyte: Am-241
Fraction: Total
Method: 907.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/15-04/29
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.2±0.3	0.5
961672-13	29-Mar-96	Soil	96.02612	0.1±0.2	0.5
961672-14	29-Mar-96	Soil	96.02613	0.1±0.2	0.5
961672-15	29-Mar-96	Soil	96.02614	0.0±0.2	0.5
961672-17	22-Sep-95	Soil	96.02640	1.1±0.2	0.5

Analyte: Pu-238
Fraction: Total
Method: 907.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/15-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.1±0.3	0.4
961672-13	29-Mar-96	Soil	96.02612	0.4±0.9	0.4
961672-14	29-Mar-96	Soil	96.02613	0.0±0.5	0.4
961672-15	29-Mar-96	Soil	96.02614	0.1±0.4	0.4
961672-17	22-Sep-95	Soil	96.02640	1.0±0.3	0.4

Analyte: Pu-239
Fraction: Total
Method: 907.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/15-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.6±0.5	0.4
961672-13	29-Mar-96	Soil	96.02612	0.0±0.3	0.4
961672-14	29-Mar-96	Soil	96.02613	0.2±0.6	0.4
961672-15	29-Mar-96	Soil	96.02614	0.0±0.2	0.4
961672-17	22-Sep-95	Soil	96.02640	1.1±0.3	0.4

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Analyte: Sr-90
Fraction: Total
Method: 905.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/15-04/30
LLD: 1

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.3±0.5	1
961672-13	29-Mar-96	Soil	96.02612	32±1	1
961672-14	29-Mar-96	Soil	96.02613	0.2±0.6	1
961672-15	29-Mar-96	Soil	96.02614	0.8±0.6	1
961672-16	22-Jan-96	Soil	96.02639	24±2	1

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Analyte: Th-228
Fraction: Total
Method: USAEC
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/19-04/24
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	1.2±0.9	0.5
961672-13	29-Mar-96	Soil	96.02612	2.0±1.1	0.5
961672-14	29-Mar-96	Soil	96.02613	0.8±0.9	0.5
961672-15	29-Mar-96	Soil	96.02614	2.1±1.2	0.5
961672-18	22-Jun-95	Soil	96.02641	1.6±1.1	0.5

Analyte: Th-230
Fraction: Total
Method: USAEC
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/19-04/24
LLD: 0.7

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.8±0.7	0.7
961672-13	29-Mar-96	Soil	96.02612	6.3±1.6	0.7
961672-14	29-Mar-96	Soil	96.02613	1.9±1.0	0.7
961672-15	29-Mar-96	Soil	96.02614	2.1±1.0	0.7
961672-18	22-Jun-95	Soil	96.02641	0.9±0.8	0.7

Analyte: U-234
Fraction: Total
Method: 908.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/23-04/30
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.4±0.5	0.5
961672-13	29-Mar-96	Soil	96.02612	0.7±0.6	0.5
961672-14	29-Mar-96	Soil	96.02613	0.1±0.3	0.5
961672-15	29-Mar-96	Soil	96.02614	0.4±0.5	0.5
961672-18	22-Jun-95	Soil	96.02641	0.1±0.3	0.5

Analyte: U-235
Fraction: Total
Method: 908.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/23-04/30
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.0±0.3	0.5
961672-13	29-Mar-96	Soil	96.02612	0.2±0.4	0.5
961672-14	29-Mar-96	Soil	96.02613	0.2±0.4	0.5
961672-15	29-Mar-96	Soil	96.02614	0.2±0.4	0.5
961672-18	22-Jun-95	Soil	96.02641	0.1±0.3	0.5

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Analyte: U-238
Fraction: Total
Method: 908.0
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/23-04/30
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration+ 2σ	LLD
961672-12	29-Mar-96	Soil	96.02611	0.7±0.6	0.5
961672-13	29-Mar-96	Soil	96.02612	0.5±0.5	0.5
961672-14	29-Mar-96	Soil	96.02613	0.7±0.6	0.5
961672-15	29-Mar-96	Soil	96.02614	0.8±0.6	0.5
961672-18	22-Jun-95	Soil	96.02641	0.7±0.6	0.5

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Analyte: Th-232
Fraction: Total
Method: USAEC
Units: pCi/g

Project: Req #23223
Date Analyzed: 04/19-04/24
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961672-18	22-Jun-95	Soil	96.02641	0.7±0.9	0.5

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Gamma Spectroscopy

Sample Id: 96.02611
Lab Id: 961672-12
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc.± 2σ		LLD	Date Analyzed
K-40*	GS	31±2	pCi/g	1.9	04/24-04/28
Co-60*	GS	0.7±0.1	pCi/g	0.1	04/24-04/28
Cs-137*	GS	ND	pCi/g	0.05	04/24-04/28
Tl-208*	GS	0.46±0.07	pCi/g	0.05	04/24-04/28
Pb-210*	GS	1.4±0.8	pCi/g	0.8	04/24-04/28
Pb-212*	GS	1.4±0.1	pCi/g	0.1	04/24-04/28
Pb-214*	GS	1.2±0.2	pCi/g	0.1	04/24-04/28
Bi-212*	GS	ND	pCi/g	0.5	04/24-04/28
Bi-214*	GS	1.2±0.2	pCi/g	0.1	04/24-04/28
Ac-228*	GS	1.3±0.3	pCi/g	0.2	04/24-04/28
Th-234*	GS	1.6±0.8	pCi/g	0.9	04/24-04/28

Sample Id: 96.02612
Lab Id: 961672-13
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc.± 2σ		LLD	Date Analyzed
K-40*	GS	37±3	pCi/g	3.5	04/24-04/28
Co-60*	GS	ND	pCi/g	0.1	04/24-04/28
Cs-137*	GS	2.7±0.2	pCi/g	0.2	04/24-04/28
Tl-208*	GS	0.9±0.2	pCi/g	0.2	04/24-04/28
Pb-210*	GS	ND	pCi/g	2.3	04/24-04/28
Pb-212*	GS	2.8±0.3	pCi/g	0.3	04/24-04/28
Pb-214*	GS	2.2±0.4	pCi/g	0.3	04/24-04/28
Bi-212*	GS	1.7±0.8	pCi/g	0.9	04/24-04/28
Bi-214*	GS	2.0±0.5	pCi/g	0.3	04/24-04/28
Ac-228*	GS	2.5±0.6	pCi/g	0.5	04/24-04/28
Th-234*	GS	ND	pCi/g	2.4	04/24-04/28

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Gamma Spectroscopy

Sample Id: 96.02613
Lab Id: 961672-14
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
K-40*	GS	30±3	pCi/g	2.9	04/24-04/28
Co-60*	GS	ND	pCi/g	0.08	04/24-04/28
Cs-137*	GS	0.24±0.09	pCi/g	0.1	04/24-04/28
Tl-208*	GS	0.6±0.1	pCi/g	0.1	04/24-04/28
Pb-210*	GS	ND	pCi/g	1.6	04/24-04/28
Pb-212*	GS	1.8±0.2	pCi/g	0.2	04/24-04/28
Pb-214*	GS	1.7±0.3	pCi/g	0.2	04/24-04/28
Bi-212*	GS	1.2±0.6	pCi/g	0.7	04/24-04/28
Bi-214*	GS	1.5±0.3	pCi/g	0.2	04/24-04/28
Ac-228*	GS	1.6±0.5	pCi/g	0.4	04/24-04/28
Th-234*	GS	ND	pCi/g	1.8	04/24-04/28

Sample Id: 96.02614
Lab Id: 961672-15
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
K-40*	GS	34±3	pCi/g	3.1	04/24-04/28
Co-60*	GS	ND	pCi/g	0.09	04/24-04/28
Cs-137*	GS	0.14±0.08	pCi/g	0.1	04/24-04/28
Tl-208*	GS	0.7±0.1	pCi/g	0.1	04/24-04/28
Pb-210*	GS	2.7±1.5	pCi/g	1.5	04/24-04/28
Pb-212*	GS	2.4±0.2	pCi/g	0.2	04/24-04/28
Pb-214*	GS	2.0±0.3	pCi/g	0.3	04/24-04/28
Bi-212*	GS	1.4±0.7	pCi/g	0.6	04/24-04/28
Bi-214*	GS	1.7±0.5	pCi/g	0.3	04/24-04/28
Ac-228*	GS	1.9±0.5	pCi/g	0.4	04/24-04/28
Th-234*	GS	ND	pCi/g	1.7	04/24-04/28

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02615
Lab Id: 961672-19
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	8.9B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02615
Lab Id: 961672-19
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	109%	70-121%
Toluene-d8	98%	84-138%
p-Bromofluorobenzene	91%	59-113%

BARRINGER LABORATORIES, INC.
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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02616
Lab Id: 961672-20
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	8.8B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02616
Lab Id: 961672-20
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	113%	70-121%
Toluene-d8	96%	84-138%
p-Bromofluorobenzene	87%	59-113%

BARRINGER LABORATORIES, INC.
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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02617
Lab Id: 961672-21
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	11B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02617
Lab Id: 961672-21
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	105%	70-121%
Toluene-d8	98%	84-138%
p-Bromofluorobenzene	92%	59-113%

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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02618 TA2
Lab Id: 961672-22
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	34B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02618
Lab Id: 961672-22
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	103%	70-121%
Toluene-d8	98%	84-138%
p-Bromofluorobenzene	93%	59-113%

BARRINGER LABORATORIES, INC.
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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02619
Lab Id: 961672-23
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration ug/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	10B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
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LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02619
Lab Id: 961672-23
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	104%	70-121%
Toluene-d8	99%	84-138%
p-Bromofluorobenzene	93%	59-113%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02620
Lab Id: 961672-24
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	11B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

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Status: Final

LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02620
Lab Id: 961672-24
Date Sampled: 29-Mar-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	106%	70-121%
Toluene-d8	101%	84-138%
p-Bromofluorobenzene	93%	59-113%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02632
Lab Id: 961672-25
Date Sampled: 1-Apr-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	110B	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U 175	5
1,2-Dichloroethane	107-06-2	180 60	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	160	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

Volatile Organic Compounds

Sample Id: 96.02632
Lab Id: 961672-25
Date Sampled: 1-Apr-96
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	99%	70-121%
Toluene-d8	100%	84-138%
p-Bromofluorobenzene	97%	59-113%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

PCB's in Soil

Sample Id: 96.02615
Lab Id: 961672-19
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 17-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	140	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	26J	33

Surrogate	Recovery	Limit
TCX	85%	23-110%
DCB	135%	40-142%

Sample Id: 96.02616
Lab Id: 961672-20
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 17-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	270	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	45	33

Surrogate	Recovery	Limit
TCX	76%	23-110%
DCB	121%	40-142%

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15000 W. 6TH AVE., SUITE 300 GOLDEN. CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

PCB's in Soil

Sample Id: 96.02617
Lab Id: 961672-21
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 17-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	69%	23-110%
DCB	128%	40-142%

Sample Id: 96.02618
Lab Id: 961672-22
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 17-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	80%	23-110%
DCB	137%	40-142%

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LOS ALAMOS NATIONAL LABORATORY

PCB's in Soil

Sample Id: 96.02619
Lab Id: 961672-23
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 17-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	76%	23-110%
DCB	118%	40-142%

Sample Id: 96.02620
Lab Id: 961672-24
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 17-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	74%	23-110%
DCB	115%	40-142%

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LOS ALAMOS NATIONAL LABORATORY

PCB's in Soil

Sample Id: 96.02637
Lab Id: 961672-27
Date Sampled: 22-Aug-94
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:10
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	330
Aroclor 1221	11104-28-2	U	660
Aroclor 1232	11141-16-5	U	330
Aroclor 1242	53469-21-9	U	330
Aroclor 1248	12672-29-6	U	330
Aroclor 1254	11097-69-1	16000	330
Aroclor 1260	11096-82-5	U	330
Aroclor 1262	37324-23-5	U	330
Aroclor 1268	11100-14-4	U	330

Surrogate	Recovery	Limit
TCX	73%	23-110%
DCB	118%	40-142%

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02615
Lab Id: 961672-19
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02615
Lab Id: 961672-19
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	55%	25-121%
Phenol-d5	54%	24-113%
Nitrobenzene-d5	49%	23-120%
2-Fluorobiphenyl	52%	30-115%
2,4,6-Tribromophenol	60%	19-122%
Terphenyl-d14	83%	18-137%

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02616
Lab Id: 961672-20
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	190J	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02616
Lab Id: 961672-20
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	260J	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	58%	25-121%
Phenol-d5	58%	24-113%
Nitrobenzene-d5	50%	23-120%
2-Fluorobiphenyl	60%	30-115%
2,4,6-Tribromophenol	65%	19-122%
Terphenyl-d14	91%	18-137%

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02617
Lab Id: 961672-21
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02617
Lab Id: 961672-21
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	210J	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	59%	25-121%
Phenol-d5	59%	24-113%
Nitrobenzene-d5	55%	23-120%
2-Fluorobiphenyl	58%	30-115%
2,4,6-Tribromophenol	63%	19-122%
Terphenyl-d14	92%	18-137%

BARRINGER LABORATORIES, INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02618 TA 2
Lab Id: 961672-22
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:2
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	660
bis(2-Chloroethyl)Ether	111-44-4	U	660
2-Chlorophenol	95-57-8	U	660
1,3-Dichlorobenzene	541-73-1	U	660
1,4-Dichlorobenzene	106-46-7	U	660
Benzyl Alcohol	100-51-6	U	1300
1,2-Dichlorobenzene	95-50-1	U	660
2-Methylphenol	95-48-7	U	660
bis(2-Chloroisopropyl)Ether	108-60-1	U	660
3 & 4-Methylphenol	108-39-4	U	660
N-Nitroso-Di-N-Propylamine	621-64-7	U	660
Hexachloroethane	67-72-1	U	660
Nitrobenzene	98-95-3	U	660
Isophorone	78-59-1	U	660
2-Nitrophenol	88-75-5	U	660
2,4-Dimethylphenol	105-67-9	U	660
Benzoic Acid	65-85-0	U	3200
bis(2-Chloroethoxy)Methane	111-91-1	U	660
2,4-Dichlorophenol	120-83-2	U	660
1,2,4-Trichlorobenzene	120-82-1	U	660
Naphthalene	91-20-3	U	660
4-Chloroaniline	106-47-8	U	1300
Hexachlorobutadiene	87-68-3	U	660
4-Chloro-3-methylphenol	59-50-7	U	1300
2-Methylnaphthalene	91-57-6	U	660
Hexachlorocyclopentadiene	77-47-4	U	660
2,4,6-Trichlorophenol	88-06-2	U	660
2,4,5-Trichlorophenol	95-95-4	U	660
2-Chloronaphthalene	91-58-7	U	660
2-Nitroaniline	88-74-4	U	3200
Dimethylphthalate	131-11-3	U	660
Acenaphthylene	208-96-8	U	660
2,6-Dinitrotoluene	606-20-2	U	660
3-Nitroaniline	99-09-2	U	3200
Acenaphthene	83-32-9	U	660
2,4-Dinitrophenol	51-28-5	U	3200
4-Nitrophenol	100-02-7	U	3200
Dibenzofuran	132-64-9	U	660
2,4-Dinitrotoluene	121-14-2	U	660
Diethylphthalate	84-66-2	U	660
4-Chlorophenyl-phenylether	7005-72-3	U	660

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02618
Lab Id: 961672-22
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:2
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	660
4-Nitroaniline	100-01-6	U	1300
4,6-Dinitro-2-Methylphenol	534-52-1	U	3200
n-Nitrosodiphenylamine	86-30-6	U	660
4-Bromophenyl-phenylether	101-55-3	U	660
Hexachlorobenzene	118-74-1	U	660
Pentachlorophenol	87-86-5	U	3200
Phenanthrene	85-01-8	U	660
Anthracene	120-12-7	U	660
Di-n-butylphthalate	84-74-2	U	660
Fluoranthene	206-44-0	U	660
Pyrene	129-00-0	U	660
Butylbenzylphthalate	85-68-7	U	660
3,3'-Dichlorobenzidine	91-94-1	U	1300
Benzo(a)anthracene	56-55-3	U	660
Chrysene	218-01-9	U	660
bis(2-Ethylhexyl)phthalate	117-81-7	U	660
Di-N-Octylphthalate	117-84-0	U	660
Benzo(b)fluoranthene	205-99-2	U	660
Benzo(k)fluoranthene	207-08-9	U	660
Benzo(a)pyrene	50-32-8	U	660
Indeno(1,2,3-cd)pyrene	193-39-5	U	660
Dibenzo(a,h)anthracene	53-70-3	U	660
Benzo(g,h,i)perylene	191-24-2	U	660
1-Chloronaphthalene	90-13-1	U	660
Diphenylamine	122-39-4	U	1300
1,2-Diphenylhydrazine	122-66-7	U	3200

Surrogate	Recovery	Limit
2-Fluorophenol	50%	25-121%
Phenol-d5	48%	24-113%
Nitrobenzene-d5	47%	23-120%
2-Fluorobiphenyl	52%	30-115%
2,4,6-Tribromophenol	49%	19-122%
Terphenyl-d14	82%	18-137%

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02619 TA-2
Lab Id: 961672-23
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02619
Lab Id: 961672-23
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	180J	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	48%	25-121%
Phenol-d5	52%	24-113%
Nitrobenzene-d5	49%	23-120%
2-Fluorobiphenyl	53%	30-115%
2,4,6-Tribromophenol	T15%	19-122%
Terphenyl-d14	77%	18-137%

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02620 TA-2
Lab Id: 961672-24
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration ug/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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Status: Final

LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02620
Lab Id: 961672-24
Date Sampled: 29-Mar-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	53%	25-121%
Phenol-d5	53%	24-113%
Nitrobenzene-d5	48%	23-120%
2-Fluorobiphenyl	51%	30-115%
2,4,6-Tribromophenol	44%	19-122%
Terphenyl-d14	81%	18-137%

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02635
Lab Id: 961672-26
Date Sampled: 1-Apr-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	2800	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	2900	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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LOS ALAMOS NATIONAL LABORATORY

Semi-Volatile Organic Compounds

Sample Id: 96.02635
Lab Id: 961672-26
Date Sampled: 1-Apr-96
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	54%	25-121%
Phenol-d5	52%	24-113%
Nitrobenzene-d5	49%	23-120%
2-Fluorobiphenyl	60%	30-115%
2,4,6-Tribromophenol	63%	19-122%
Terphenyl-d14	94%	18-137%

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LOS ALAMOS NATIONAL LABORATORY

Gamma Spectroscopy

Sample Id: 96.02611
Lab Id: 961672-12
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
Na-22*	GS	U	pCi/g	0.05	04/24-04/28
Cr-51*	GS	U	pCi/g	0.3	04/24-04/28
Mn-54*	GS	U	pCi/g	0.04	04/24-04/28
Fe-59*	GS	U	pCi/g	0.1	04/24-04/28
Co-56*	GS	U	pCi/g	0.05	04/24-04/28
Co-57*	GS	U	pCi/g	0.04	04/24-04/28
Co-58*	GS	U	pCi/g	0.04	04/24-04/28
Ni-56*	GS	U	pCi/g	0.03	04/24-04/28
Zn-65*	GS	U	pCi/g	0.09	04/24-04/28
Y-88*	GS	U	pCi/g	0.05	04/24-04/28
Zr-95*	GS	U	pCi/g	0.08	04/24-04/28
Nb-94*	GS	U	pCi/g	0.04	04/24-04/28
Nb-95*	GS	U	pCi/g	0.04	04/24-04/28
Ru-103*	GS	U	pCi/g	0.04	04/24-04/28
Ru-106*	GS	U	pCi/g	0.4	04/24-04/28
Sn-113*	GS	U	pCi/g	0.05	04/24-04/28
Sb-125*	GS	U	pCi/g	0.1	04/24-04/28
I-131*	GS	U	pCi/g	0.04	04/24-04/28
Cs-134*	GS	U	pCi/g	0.05	04/24-04/28
Ba-133*	GS	U	pCi/g	0.05	04/24-04/28
Ba-140*	GS	U	pCi/g	0.1	04/24-04/28
La-140*	GS	U	pCi/g	0.03	04/24-04/28
Ce-141*	GS	U	pCi/g	0.07	04/24-04/28
Ce-144*	GS	U	pCi/g	0.3	04/24-04/28
Eu-152*	GS	U	pCi/g	0.1	04/24-04/28
Eu-154*	GS	U	pCi/g	0.08	04/24-04/28
Eu-155*	GS	U	pCi/g	0.1	04/24-04/28
Th-229*	GS	U	pCi/g	0.2	04/24-04/28
Pa-234*	GS	U	pCi/g	0.2	04/24-04/28
Pa-234M*	GS	U	pCi/g	6.9	04/24-04/28
U-235*	GS	U	pCi/g	0.3	04/24-04/28
Am-241*	GS	U	pCi/g	0.1	04/24-04/28
Bi-212*	GS	U	pCi/g	0.5	04/24-04/28

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LOS ALAMOS NATIONAL LABORATORY

Gamma Spectroscopy

Sample Id: 96.02612
Lab Id: 961672-13
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
Na-22*	GS	U	pCi/g	0.1	04/24-04/28
Cr-51*	GS	U	pCi/g	0.7	04/24-04/28
Mn-54*	GS	U	pCi/g	0.08	04/24-04/28
Fe-59*	GS	U	pCi/g	0.2	04/24-04/28
Co-56*	GS	U	pCi/g	0.1	04/24-04/28
Co-57*	GS	U	pCi/g	0.08	04/24-04/28
Co-58*	GS	U	pCi/g	0.06	04/24-04/28
Ni-56*	GS	U	pCi/g	0.07	04/24-04/28
Zn-65*	GS	U	pCi/g	0.2	04/24-04/28
Y-88*	GS	U	pCi/g	0.1	04/24-04/28
Zr-95*	GS	U	pCi/g	0.2	04/24-04/28
Nb-94*	GS	U	pCi/g	0.06	04/24-04/28
Nb-95*	GS	U	pCi/g	0.08	04/24-04/28
Ru-103*	GS	U	pCi/g	0.08	04/24-04/28
Ru-106*	GS	U	pCi/g	0.8	04/24-04/28
Sn-113*	GS	U	pCi/g	0.1	04/24-04/28
Sb-125*	GS	U	pCi/g	0.3	04/24-04/28
I-131*	GS	U	pCi/g	0.1	04/24-04/28
Cs-134*	GS	U	pCi/g	0.1	04/24-04/28
Ba-133*	GS	U	pCi/g	0.1	04/24-04/28
Ba-140*	GS	U	pCi/g	0.3	04/24-04/28
La-140*	GS	U	pCi/g	0.08	04/24-04/28
Ce-141*	GS	U	pCi/g	0.2	04/24-04/28
Ce-144*	GS	U	pCi/g	0.6	04/24-04/28
Eu-152*	GS	U	pCi/g	0.2	04/24-04/28
Eu-154*	GS	U	pCi/g	0.2	04/24-04/28
Eu-155*	GS	U	pCi/g	0.4	04/24-04/28
Th-229*	GS	U	pCi/g	0.4	04/24-04/28
Pa-234*	GS	U	pCi/g	0.3	04/24-04/28
Pa-234M*	GS	U	pCi/g	16	04/24-04/28
U-235*	GS	U	pCi/g	0.7	04/24-04/28
Am-241*	GS	U	pCi/g	0.2	04/24-04/28
Bi-212*	GS	U	pCi/g	0.9	04/24-04/28

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Not on Chem. Analysis

LOS ALAMOS NATIONAL LABORATORY

Gamma Spectroscopy

Sample Id: 96.02613 TA-2
Lab Id: 961672-14
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
Na-22*	GS	U	pCi/g	0.07	04/24-04/28
Cr-51*	GS	U	pCi/g	0.6	04/24-04/28
Mn-54*	GS	U	pCi/g	0.09	04/24-04/28
Fe-59*	GS	U	pCi/g	0.2	04/24-04/28
Co-56*	GS	U	pCi/g	0.08	04/24-04/28
Co-57*	GS	U	pCi/g	0.06	04/24-04/28
Co-58*	GS	U	pCi/g	0.05	04/24-04/28
Ni-56*	GS	U	pCi/g	0.05	04/24-04/28
Zn-65*	GS	U	pCi/g	0.2	04/24-04/28
Y-88*	GS	U	pCi/g	0.08	04/24-04/28
Zr-95*	GS	U	pCi/g	0.1	04/24-04/28
Nb-94*	GS	U	pCi/g	0.07	04/24-04/28
Nb-95*	GS	U	pCi/g	0.07	04/24-04/28
Ru-103*	GS	U	pCi/g	0.06	04/24-04/28
Ru-106*	GS	U	pCi/g	0.7	04/24-04/28
Sn-113*	GS	U	pCi/g	0.09	04/24-04/28
Sb-125*	GS	U	pCi/g	0.2	04/24-04/28
I-131*	GS	U	pCi/g	0.07	04/24-04/28
Cs-134*	GS	U	pCi/g	0.1	04/24-04/28
Ba-133*	GS	U	pCi/g	0.1	04/24-04/28
Ba-140*	GS	U	pCi/g	0.2	04/24-04/28
La-140*	GS	U	pCi/g	0.07	04/24-04/28
Ce-141*	GS	U	pCi/g	0.1	04/24-04/28
Ce-144*	GS	U	pCi/g	0.5	04/24-04/28
Eu-152*	GS	U	pCi/g	0.2	04/24-04/28
Eu-154*	GS	U	pCi/g	0.1	04/24-04/28
Eu-155*	GS	U	pCi/g	0.2	04/24-04/28
Th-229*	GS	U	pCi/g	0.3	04/24-04/28
Pa-234*	GS	U	pCi/g	0.3	04/24-04/28
Pa-234M*	GS	U	pCi/g	12	04/24-04/28
U-235*	GS	U	pCi/g	0.5	04/24-04/28
Am-241*	GS	U	pCi/g	0.2	04/24-04/28
Bi-212*	GS	U	pCi/g	0.7	04/24-04/28

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Rec. Analysis Summary
Based on above is no distribution.

LOS ALAMOS NATIONAL LABORATORY

Gamma Spectroscopy

Sample Id: 96.02614 TA-2
Lab Id: 961672-15
Date Sampled: 29-Mar-96

Project: Req #23223
Matrix: Soil

Analyte	Fraction	Conc.± 2σ		LLD	Date Analyzed
Na-22*	GS	U	pCi/g	0.06	04/24-04/28
Cr-51*	GS	U	pCi/g	0.6	04/24-04/28
Mn-54*	GS	U	pCi/g	0.09	04/24-04/28
Fe-59*	GS	U	pCi/g	0.1	04/24-04/28
Co-56*	GS	U	pCi/g	0.08	04/24-04/28
Co-57*	GS	U	pCi/g	0.06	04/24-04/28
Co-58*	GS	U	pCi/g	0.07	04/24-04/28
Ni-56*	GS	U	pCi/g	0.05	04/24-04/28
Zn-65*	GS	U	pCi/g	0.2	04/24-04/28
Y-88*	GS	U	pCi/g	0.08	04/24-04/28
Zr-95*	GS	U	pCi/g	0.1	04/24-04/28
Nb-94*	GS	U	pCi/g	0.07	04/24-04/28
Nb-95*	GS	U	pCi/g	0.08	04/24-04/28
Ru-103*	GS	U	pCi/g	0.06	04/24-04/28
Ru-106*	GS	U	pCi/g	0.7	04/24-04/28
Sn-113*	GS	U	pCi/g	0.1	04/24-04/28
Sb-125*	GS	U	pCi/g	0.2	04/24-04/28
I-131*	GS	U	pCi/g	0.07	04/24-04/28
Cs-134*	GS	U	pCi/g	0.1	04/24-04/28
Ba-133*	GS	U	pCi/g	0.1	04/24-04/28
Ba-140*	GS	U	pCi/g	0.2	04/24-04/28
La-140*	GS	U	pCi/g	0.08	04/24-04/28
Ce-141*	GS	U	pCi/g	0.1	04/24-04/28
Ce-144*	GS	U	pCi/g	0.5	04/24-04/28
Eu-152*	GS	U	pCi/g	0.2	04/24-04/28
Eu-154*	GS	U	pCi/g	0.1	04/24-04/28
Eu-155*	GS	U	pCi/g	0.3	04/24-04/28
Th-229*	GS	U	pCi/g	0.3	04/24-04/28
Pa-234*	GS	U	pCi/g	0.3	04/24-04/28
Pa-234M*	GS	U	pCi/g	14	04/24-04/28
U-235*	GS	U	pCi/g	0.5	04/24-04/28
Am-241*	GS	U	pCi/g	0.2	04/24-04/28
Bi-212*	GS	U	pCi/g	0.6	04/24-04/28

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QUALITY CONTROL REPORT

Sample Id	Arsenic TCLP mg/l	Barium TCLP mg/l	Cadmium TCLP mg/l	Copper TCLP mg/l	Chromium TCLP mg/l
Blank	U	U	U	U	U
LCS (True)	5.00	10.0	1.00	2.00	2.00
LCS (Found)	5.13	10.3	1.04	2.08	2.15
LCS % Rec	103	103	104	104	107
Duplicate	0.9	0.9	U	0.13	U
Duplicate	0.9	0.9	U	0.12	U
RPD	1.2	1.7	NC	3.7	NC
Spike % Rec	85.4	80.7	82.8	NA	86.2

Sample Id	Lead TCLP mg/l	Selenium TCLP mg/l	Silver TCLP mg/l	Zinc TCLP mg/l
Blank	U	U	U	U
LCS (True)	5.00	5.00	1.00	1.00
LCS (Found)	5.42	5.24	0.98	1.08
LCS % Rec	108	105	97.5	108
Duplicate	356	U	U	0.9
Duplicate	364	U	U	0.9
RPD	2.0	NC	NC	0.9
Spike % Rec	(1)	78.5	H28.7	NA

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LOS ALAMOS NATIONAL LABORATORY

QUALITY CONTROL REPORT

Sample Id	Mercury TCLP mg/l
Blank	U
LCS (True)	0.0050
LCS (Found)	0.0049
LCS % Rec	98.8
Duplicate	U
Duplicate	U
RPD	NC
Spike % Rec	H56.5

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QUALITY CONTROL REPORT

Sample Id	pH unit	Sulfide Reactive mg/kg
Blank	NA	U
LCS (True)	7.00	f20.0
LCS (Found)	7.09	f18.4
LCS % Rec	101	92.0
Duplicate	9.13	U
Duplicate	9.10	U
RPD	0.3	NC
Spike % Rec	NA	120

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QUALITY CONTROL REPORT

Sample Id	Cyanide Reactive mg/kg
Blank	U
LCS (True)	f0.100
LCS (Found)	f0.110
LCS % Rec	110
Duplicate	U
Duplicate	U
RPD	NC
Spike % Rec	H51.5

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QUALITY CONTROL REPORT

Sample Id	Gross Alpha Total pCi/g	± 2σ	Gross Beta Total pCi/g	± 2σ
Duplicate	15	±6	43	±9
Duplicate	13	±5	42	±9
RER	0.31		0.03	
Std (found value)	80	±5	100	±3
Std (true value)	101		93	
Std % rec.	79		107	
Blank	1.1	±0.5	0.7	±0.5
Spike % rec.	74		93	

Sample Id	C-14 Total pCi/g	± 2σ	Tritium Total pCi/g	± 2σ
Duplicate	1.9	±1.1	4.7	±1.6
Duplicate	0.0	±1.0	4.2	±1.6
RER	1.25		0.21	
Std (found value)	81	±5	69	±5
Std (true value)	99		67	
Std % rec.	82		103	
Blank	0.6	±1.5	1.1	±2.5
Spike % rec.	72		95	

Sample Id	I-129 Total pCi/g	± 2σ
Duplicate	0.0	±2.6
Duplicate	0.0	±2.3
RER	0.00	
Std (found value)	5510	±100
Std (true value)	4950	
Std % rec.	111	
Blank	0.0	±2.3
Spike % rec.	112	

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QUALITY CONTROL REPORT

Sample Id	Am-241 Total pCi/g	± 2σ	Pu-238 Total pCi/g	± 2σ
Duplicate	0.2	±0.3	0.1	±0.3
Duplicate	0.2	±0.3	0.1	±0.3
RER	0.00		0.02	
Std (found value)	100	±3	10.4	±2.0
Std (true value)	101		10.4	
Std % rec.	99		100	
Blank	0.0	±0.1	0.1	±0.3
Spike % rec.	96		94	

Sample Id	Pu-239 Total pCi/g	± 2σ
Duplicate	0.6	±0.5
Duplicate	1.0	±0.6
RER	0.53	
Std (found value)	10.4	±2.0
Std (true value)	10.4	
Std % rec.	100	
Blank	0.0	±0.5
Spike % rec.	94	

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QUALITY CONTROL REPORT

Sample Id	Sr-90 Total pCi/g	± 2σ
Duplicate	24	±2
Duplicate	26	±2
RER	0.33	
Std (found value)	247	±8
Std (true value)	233	
Std % rec.	106	
Blank	0.0	±0.7
Spike % rec.	98	

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QUALITY CONTROL REPORT

Sample Id	Th-228 Total pCi/g	± 2σ	Th-230 Total pCi/g	± 2σ
Duplicate	1.2	±0.9	0.8	±0.7
Duplicate	0.2	±0.6	1.5	±0.8
RER	0.91		0.64	
Std (found value)	16	±3	106	±8
Std (true value)	19		97	
Std % rec.	82		109	
Blank	0.0	±0.2	0.0	±0.2
Spike % rec.	NA		98	

Sample Id	U-234 Total pCi/g	± 2σ	U-235 Total pCi/g	± 2σ
Duplicate	0.7	±0.6	0.2	±0.4
Duplicate	0.5	±0.5	0.0	±0.3
RER	0.28		0.50	
Std (found value)	163	±10	8.4	±5.4
Std (true value)	170		7.8	
Std % rec.	96		108	
Blank	0.0	±0.1	0.0	±0.1
Spike % rec.	107		57	

Sample Id	U-238 Total pCi/g	± 2σ
Duplicate	0.5	±0.5
Duplicate	0.8	±0.6
RER	0.35	
Std (found value)	175	±10
Std (true value)	170	
Std % rec.	103	
Blank	0.0	±0.1
Spike % rec.	108	

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QUALITY CONTROL REPORT

Sample Id	Th-232 Total pCi/g	± 2σ
Duplicate	0.4	±0.7
Duplicate	1.1	±0.9
RER	0.63	
Std (found value)	20	±4
Std (true value)	18	
Std % rec.	109	
Blank	0.0	±0.2
Spike % rec.	NA	

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QUALITY CONTROL REPORT

Sample Id	K-40* GS pCi/g	± 2σ	Co-60* GS pCi/g	± 2σ
Duplicate	31	±2	0.7	±0.1
Duplicate	29	±2	0.7	±0.1
% RER	0.29		0.00	

Sample Id	Cs-137* GS pCi/g	± 2σ	Tl-208* GS pCi/g	± 2σ
Duplicate	ND		0.46	±0.07
Duplicate	ND		0.44	±0.08
% RER	NA		0.14	

Sample Id	Pb-210* GS pCi/g	± 2σ	Pb-212* GS pCi/g	± 2σ
Duplicate	1.4	±0.8	1.4	±0.1
Duplicate	1.2	±0.7	1.4	±0.1
% RER	0.18		0.00	

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QUALITY CONTROL REPORT

Sample Id	Pb-214* GS pCi/g	± 2σ	Bi-212* GS pCi/g	± 2σ
Duplicate	1.2	±0.2	ND	
Duplicate	1.2	±0.2	ND	
% RER	0.00		NA	

Sample Id	Bi-214* GS pCi/g	± 2σ	Ac-228* GS pCi/g	± 2σ
Duplicate	1.2	±0.2	1.3	±0.3
Duplicate	1.4	±0.2	1.3	±0.3
% RER	0.51		0.00	

Sample Id	Th-234* GS pCi/g	± 2σ
Duplicate	1.6	±0.8
Duplicate	1.2	±0.8
% RER	0.34	

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Sample Id	Gamma Spec GS pCi/g	± 2σ
Std (found value)	159	±4
Std (true value)	167	±3
Std % rec.	95	

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LOS ALAMOS NATIONAL LABORATORY

QUALITY CONTROL REPORT

Lab Id: vblk 310
Date Sampled: NA
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix:
Method: 8240

Analyte	CAS Number	Concentration µg/l	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	15	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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QUALITY CONTROL REPORT

Lab Id: vblk 310
Date Sampled: NA
Date Extracted: NA
Date Analyzed: 10-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix:
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	105%	76-114%
Toluene-d8	100%	88-110%
p-Bromofluorobenzene	94%	86-115%

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LOS ALAMOS NATIONAL LABORATORY

QUALITY CONTROL REPORT

Lab Id: 1672-MB
Date Sampled: NA
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	72%	23-110%
DCB	112%	40-142%

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LOS ALAMOS NATIONAL LABORATORY

QUALITY CONTROL REPORT

Lab Id: 1672-MB
Date Sampled: NA
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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LOS ALAMOS NATIONAL LABORATORY

QUALITY CONTROL REPORT

Lab Id: 1672-MB
Date Sampled: NA
Date Extracted: 12-Apr-96
Date Analyzed: 16-Apr-96

Project: Req #23223
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	50%	25-121%
Phenol-d5	51%	24-113%
Nitrobenzene-d5	49%	23-120%
2-Fluorobiphenyl	50%	30-115%
2,4,6-Tribromophenol	51%	19-122%
Terphenyl-d14	75%	18-137%

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LOS ALAMOS NATIONAL LABORATORY
Analytical Services (CST-3)
P.O. Box 1663, MS K484
Los Alamos, NM 87544

Attn:
Project: Req #23223 PO #:
Received: 4-Apr-96 09:15

Job: 961672E Status: Final

Abbreviations:

Parameters:

C-14	: Carbon-14
I-129	: Iodine-129
Am-241	: Americium-241
Pu-238	: Plutonium-238
Pu-239	: Plutonium-239
Sr-90	: Strontium -90
Th-228	: Thorium-228
Th-230	: Thorium-230
U-234	: Uranium-234
U-235	: Uranium-235
U-238	: Uranium-238
Th-232	: Thorium-232
K-40*	: Potassium 40-MDA reported at 1.645 sigma
Co-60*	: Cobalt 60-MDA reported at 1.645 sigma
Cs-137*	: Cesium 137-MDA reported at 1.645 Sigma
Tl-208*	: Thallium 208 by Th-232
Pb-210*	: Lead 210-MDA reported at 1.645 sigma
Pb-212*	: Lead 212-MDA reported at 1.645 sigma
Pb-214*	: Lead 214-MDA reported at 1.645 sigma
Bi-212*	: Bismuth 212-MDA reported at 1.645 sigma
Bi-214*	: Bismuth 214-MDA reported at 1.645 sigma
Ac-228*	: Actinium 228-MDA reported at 1.645 sigma
Th-234*	: Thorium 234-MDA reported at 1.645 sigma
Gamma Spec	: Gamma Spectroscopy
Na-22*	: Sodium 22-MDA reported at 1.645 sigma
Cr-51*	: Chromium 51-MDA reported at 1.645 sigma
Mn-54*	: Manganese 54-MDA reported at 1.645 sigma
Fe-59*	: Iron 59-MDA reported at 1.645 sigma
Co-56*	: Cobalt 56-MDA reported at 1.645 sigma
Co-57*	: Cobalt 57-MDA reported at 1.645 sigma
Co-58*	: Cobalt 58-MDA reported at 1.645 sigma
Ni-56*	: Nickel 56-MDA reported at 1.645 sigma
Zn-65*	: Zinc 65-MDA reported at 1.645 sigma
Y-88*	: Yttrium 88-MDA reported at 1.645 sigma

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Attn:
Project: Req #23223 PO #:
Received: 4-Apr-96 09:15

Job: 961672E Status: Final

Zr-95*	: Zirconium 95-MDA reported at 1.645 sigma
Nb-94*	: Niobium 94-MDA reported at 1.645 sigma
Nb-95*	: Niobium 95-MDA reported at 1.645 sigma
Ru-103*	: Ruthenium 103-MDA reported at 1.645 sigma
Ru-106*	: Ruthenium 106-MDA reported at 1.645 sigma
Sn-113*	: Tin 113-MDA reported at 1.645 sigma
Sb-125*	: Antimony 125-MDA reported at 1.645 sigma
I-131*	: Iodine 131-MDA reported at 1.645 sigma
Cs-134*	: Cesium 134-MDA reported at 1.645 Sigma
Ba-133*	: Barium 133-MDA reported at 1.645 sigma
Ba-140*	: Barium 140-MDA reported at 1.645 sigma
La-140*	: Lanthanum 140-MDA reported at 1.645 sigma
Ce-141*	: Cerium 141-MDA reported at 1.645 sigma
Ce-144*	: Cerium 144-MDA reported at 1.645 sigma
Eu-152*	: Europium 152-MDA reported at 1.645 sigma
Eu-154*	: Europium 154-MDA reported at 1.645 sigma
Eu-155*	: Europium 155-MDA reported at 1.645 sigma
Th-229*	: Thorium 229-MDA reported at 1.645 sigma
Pa-234*	: Protactinium 234-MDA reported at 1.645 sigma
Pa-234M*	: Protactinium 234 by Th-234
U-235*	: Uranium 235-MDA reported at 1.645 sigma
Am-241*	: Americium 241-MDA reported at 1.645 sigma

Methods:

GS	: Gamma Spectroscopy

Units:

mg/l	: milligrams per liter
mg/kg	: milligrams per kilogram
pCi/g	: picoCuries per gram
pCi/g	: picoCuries per gram as received
µg/kg	: micrograms per kilogram
%	: percent
% Rec.	: % Recovery
µg/l	: micrograms per liter

Quality codes:

(1)	: Sample > 4 times spike

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Attn:
Received: 4-Apr-96 09:15
Project: Req #23223
PO #:

Job: 961672E
Status: Final

B	: Present in blank
ND	: Not detected
H	: Matrix Spike recovery was outside control limits.
J	: Estimated value
NA	: Not Analyzed
NR	: Not requested
T	: Surrogate recovery outside reporting limit
U	: Undetected
f	: Milligrams per liter of fluid (mg/l)
NC	: Not Calculated

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Attn:
Project: Req #23223 PO #:
Received: 4-Apr-96 09:15

Job: 961672E Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc Via: Fed Ex

Sample Container Type: 500g jar, 8oz jar
Additional Lab Preparation: 100 Mesh

Parameter	Method	Preservative	Init	Analysis Dates
As	6010A	4°C	JH	04/18
Ba	6010A	4°C	JH	04/18
Cd	6010A	4°C	JH	04/18
Cu	6010A	4°C	JH	04/18
Cr	6010A	4°C	JH	04/18
Pb	6010A	4°C	JH	04/18
Se	6010A	4°C	JH	04/18-04/25
Ag	6010A	4°C	JH	04/25
Zn	6010A	4°C	JH	04/18
Hg	7470A	4°C	AW	04/17
pH-S	9045A	4°C	RB	04/16
S-R	7.3.4.2	4°C	AW	04/19
CN-R	7.3.3.2	4°C	AW	04/19
Gross Alpha	900.0	4°C	ME	04/22-04/25
Gross Beta	900.0	4°C	ME	04/22-04/25
C-14	520-84-006	4°C	JP	04/21-04/25
Tritium	906.0	4°C	AM	04/29-04/30
I-129	902.0	4°C	BB	04/10-04/24
Am-241	907.0	4°C	MTB	04/15-04/29
Pu-238	907.0	4°C	MTB	04/15-04/30
Pu-239	907.0	4°C	MTB	04/15-04/30
Sr-90	905.0	4°C	BB	04/15-04/30
Th-228	USAEC	4°C	ME	04/19-04/24
Th-230	USAEC	4°C	ME	04/19-04/24
U-234	908.0	4°C	SM	04/23-04/30
U-235	908.0	4°C	SM	04/23-04/30
U-238	908.0	4°C	SM	04/23-04/30
Th-232	USAEC	4°C	ME	04/19-04/24
Gamma Spectroscopy	901.1	4°C	BS	04/24-04/28

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Attn:
Project: Req #23223 PO #:
Received: 4-Apr-96 09:15

Job: 961672E Status: Final

Volatile Organics	8240	4°C	JG	04/10
PCB's in Soil	8080	4°C	RH	04/16-04/17
Semi-Volatiles	8270	4°C	RH	04/16

Note: TCLP performed.

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.

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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

1-May-96

Attn:
Project:

PO #:

Received: 12-Apr-96 08:55

Job: 961701E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

1-May-96
Page: 1

Attn:
Project:
PO #:
Received: 12-Apr-96 08:55

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CASE NARRATIVE

A total of 11 Soil samples were received on 12-Apr-96. As stated in the chain of custody, the samples were run for the following analyses: As, Ba, Cd, Cu, Cr, Pb, Hg, Se, Ag, Zn, CN-R, S-R, pH-S, Gross Alpha, Gross Beta, Am-241, C-14, Tritium, I-129, Pu-238, Pu-239, Sr-90, Th-228, Th-230, U-234, U-235, U-238, Gamma Spectroscopy, Volatiles, Semi-Volatiles and Aroclors. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Signed: ..... Inorganic Manager
..... Radiochemistry Manager
..... Organic Manager

Signed: ..... Project Review

BARRINGER LABORATORIES, INC.
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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

1-May-96
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Attn:
Project:
PO #:
Received: 12-Apr-96 08:55

Job: 961701E
Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
961701-1	Soil	96.02802	4-Apr-96
961701-2	Soil	96.02805	4-Apr-96
961701-3	Soil	96.02807	4-Apr-96
961701-4	Soil	96.02810	4-Apr-96
961701-5	Soil	96.02812	4-Apr-96
961701-6	Soil	96.02803	4-Apr-96
961701-7	Soil	96.02804	4-Apr-96
961701-8	Soil	96.02808	4-Apr-96
961701-9	Soil	96.02809	4-Apr-96
961701-10	Soil	96.02806	4-Apr-96
961701-11	Soil	96.02811	4-Apr-96

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Job: 961701E
Status: Final

CHEMICAL WASTE MANAGEMENT

Sample Id: 96.02802 TA 85
Lab Id: 961701-1
Date Sampled: 4-Apr-96

Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	18-Apr-96
Barium	TCLP	6010A	1.5 mg/l	0.1	18-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	18-Apr-96
Copper	TCLP	6010A	U mg/l	0.05	18-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	18-Apr-96
Lead	TCLP	6010A	U mg/l	0.3	18-Apr-96
Mercury	TCLP	7470A	0.003 mg/l	0.002	17-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	18-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	25-Apr-96
Zinc	TCLP	6010A	0.5 mg/l	0.1	18-Apr-96
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	19-Apr-96
pH		9045A	8.99 unit	0.01	16-Apr-96

Sample Id: 96.02807 TA-85
Lab Id: 961701-3
Date Sampled: 4-Apr-96

Project:
Matrix: Soil

Analyte	Fraction	Method	Concentration	MDL	Date Analyzed
Arsenic	TCLP	6010A	U mg/l	0.5	18-Apr-96
Barium	TCLP	6010A	1.4 mg/l	0.1	18-Apr-96
Cadmium	TCLP	6010A	U mg/l	0.03	18-Apr-96
Copper	TCLP	6010A	3.51 mg/l	0.05	18-Apr-96
Chromium	TCLP	6010A	U mg/l	0.05	18-Apr-96
Lead	TCLP	6010A	U mg/l	0.3	18-Apr-96
Mercury	TCLP	7470A	U mg/l	0.002	17-Apr-96
Selenium	TCLP	6010A	U mg/l	0.5	18-Apr-96
Silver	TCLP	6010A	U mg/l	0.05	25-Apr-96
Zinc	TCLP	6010A	0.7 mg/l	0.1	18-Apr-96
Cyanide	Reactive	7.3.3.2	U mg/kg	0.3	19-Apr-96
Sulfide	Reactive	7.3.4.2	U mg/kg	50	19-Apr-96
pH		9045A	7.04 unit	0.01	16-Apr-96

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1-May-96
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Job: 961701E
Status: Final

CHEMICAL WASTE MANAGEMENT

Analyte: Gross Alpha
Fraction: Total
Method: 900.0
Units: pCi/g

Project:
Date Analyzed: 04/22-04/25
LLD: 14

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	10±4	14
961701-11	4-Apr-96	Soil	96.02811 [illegible]	517±21	14

Analyte: Gross Beta
Fraction: Total
Method: 900.0
Units: pCi/g

Project:
Date Analyzed: 04/22-04/25
LLD: 8

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	54±6	8
961701-11	4-Apr-96	Soil	96.02811 [illegible]	12600±100	8

Analyte: Am-241
Fraction: Total
Method: 907.0
Units: pCi/g

Project:
Date Analyzed: 04/15-04/29
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	0.0±0.2	0.5
961701-11	4-Apr-96	Soil	96.02811 [illegible]	0.5±0.4	0.5

Analyte: C-14
Fraction: Total
Method: 520-84-006
Units: pCi/g

Project:
Date Analyzed: 04/21-04/25
LLD: 3

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	1.5±0.9	3
961701-11	4-Apr-96	Soil	96.02811 [illegible]	1.9±1.1	3

Analyte: Tritium
Fraction: Total
Method: 906.0
Units: pCi/g

Project:
Date Analyzed: 04/29-04/30
LLD: 460

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	2.4±1.5	460
961701-11	4-Apr-96	Soil	96.02811	4.7±1.6	460

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1-May-96
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Job: 961701E
Status: Final

CHEMICAL WASTE MANAGEMENT

Analyte: I-129
Fraction: Total
Method: 902.0
Units: pCi/g

Project:
Date Analyzed: 04/26-04/30
LLD: 1

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	2.1±0.4	1
961701-11	4-Apr-96	Soil	96.02811 [illegible]	2.4±0.4	1

Analyte: Pu-238
Fraction: Total
Method: 907.0
Units: pCi/g

Project:
Date Analyzed: 04/15-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	0.1±0.4	0.4
961701-11	4-Apr-96	Soil	96.02811 [illegible]	0.0±0.5	0.4

Analyte: Pu-239
Fraction: Total
Method: 907.0
Units: pCi/g

Project:
Date Analyzed: 04/15-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	0.1±0.4	0.4
961701-11	4-Apr-96	Soil	96.02811 [illegible]	2.5±1.7	0.4

Analyte: Sr-90
Fraction: Total
Method: 905.0
Units: pCi/g

Project:
Date Analyzed: 04/19-04/30
LLD: 1

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	0.3±0.7	1
961701-11	4-Apr-96	Soil	96.02811 [illegible]	4480±90	1

Analyte: Th-228
Fraction: Total
Method: USAEC
Units: pCi/g

Project:
Date Analyzed: 04/19-04/29
LLD: 0.5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806 [illegible]	1.6±1.0	0.5
961701-11	4-Apr-96	Soil	96.02811 [illegible]	1.1±0.9	0.5

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CHEMICAL WASTE MANAGEMENT

Analyte: Th-230
Fraction: Total
Method: USAEC
Units: pCi/g

Project:
Date Analyzed: 04/19-04/24
LLD: 0.7

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806	0.4±0.6	0.7
961701-11	4-Apr-96	Soil	96.02811	2.1±0.9	0.7

Analyte: U-234
Fraction: Total
Method: 908.0
Units: pCi/g

Project:
Date Analyzed: 04/26-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806	0.6±0.7	0.4
961701-11	4-Apr-96	Soil	96.02811	195±8	0.4

Analyte: U-235
Fraction: Total
Method: 908.0
Units: pCi/g

Project:
Date Analyzed: 04/26-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806	0.0±0.4	0.4
961701-11	4-Apr-96	Soil	96.02811	50±4	0.4

Analyte: U-238
Fraction: Total
Method: 908.0
Units: pCi/g

Project:
Date Analyzed: 04/26-04/30
LLD: 0.4

Lab Id	Date Sampled	Matrix	Sample Id	Concentration± 2σ	LLD
961701-10	4-Apr-96	Soil	96.02806	0.3±0.6	0.4
961701-11	4-Apr-96	Soil	96.02811	135±7	0.4

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CHEMICAL WASTE MANAGEMENT

Gamma Spectroscopy

Sample Id: 96.02806 TA-31
Lab Id: 961701-10
Date Sampled: 4-Apr-96

Project:
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
Na-22*	GS	ND	pCi/g	0.2	04/25-04/29
K-40*	GS	21±2	pCi/g	1.7	04/25-04/29
Cr-51*	GS	ND	pCi/g	0.7	04/25-04/29
Mn-54*	GS	ND	pCi/g	0.1	04/25-04/29
Fe-59*	GS	ND	pCi/g	0.2	04/25-04/29
Co-56*	GS	ND	pCi/g	0.1	04/25-04/29
Co-57*	GS	ND	pCi/g	1.2	04/25-04/29
Co-58*	GS	ND	pCi/g	0.1	04/25-04/29
Co-60*	GS	1.3±0.2	pCi/g	0.2	04/25-04/29
Ni-56*	GS	ND	pCi/g	0.08	04/25-04/29
Zn-65*	GS	ND	pCi/g	0.2	04/25-04/29
Y-88*	GS	ND	pCi/g	0.1	04/25-04/29
Zr-95*	GS	ND	pCi/g	0.2	04/25-04/29
Nb-94*	GS	ND	pCi/g	0.1	04/25-04/29
Nb-95*	GS	ND	pCi/g	0.1	04/25-04/29
Ru-103*	GS	ND	pCi/g	0.08	04/25-04/29
Ru-106*	GS	ND	pCi/g	0.9	04/25-04/29
Sn-113*	GS	ND	pCi/g	0.1	04/25-04/29
Sb-125*	GS	ND	pCi/g	0.2	04/25-04/29
I-131*	GS	ND	pCi/g	0.1	04/25-04/29
Cs-134*	GS	ND	pCi/g	0.1	04/25-04/29
Cs-137*	GS	0.4±0.1	pCi/g	0.1	04/25-04/29
Ba-133*	GS	0.2±0.1	pCi/g	0.1	04/25-04/29
Ba-140*	GS	ND	pCi/g	0.3	04/25-04/29
La-140*	GS	ND	pCi/g	0.06	04/25-04/29
Ce-141*	GS	ND	pCi/g	0.2	04/25-04/29
Ce-144*	GS	ND	pCi/g	0.7	04/25-04/29
Eu-152*	GS	42±2	pCi/g	0.8	04/25-04/29
Eu-154*	GS	2.9±0.5	pCi/g	0.5	04/25-04/29
Eu-155*	GS	ND	pCi/g	0.4	04/25-04/29
Tl-208*	GS	0.5±0.1	pCi/g	0.1	04/25-04/29
Pb-210*	GS	ND	pCi/g	3.7	04/25-04/29
Pb-212*	GS	1.4±0.2	pCi/g	0.2	04/25-04/29
Pb-214*	GS	1.3±0.3	pCi/g	0.2	04/25-04/29
Bi-214*	GS	1.1±0.2	pCi/g	0.2	04/25-04/29
Ac-228*	GS	1.4±0.5	pCi/g	0.3	04/25-04/29
Th-229*	GS	ND	pCi/g	0.3	04/25-04/29
Th-234*	GS	ND	pCi/g	2.3	04/25-04/29
Pa-234*	GS	ND	pCi/g	0.4	04/25-04/29
Pa-234M*	GS	ND	pCi/g	15	04/25-04/29
U-235*	GS	ND	pCi/g	0.7	04/25-04/29
Am-241*	GS	ND	pCi/g	0.2	04/25-04/29

BARRINGER LABORATORIES, INC.
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Status: Final

CHEMICAL WASTE MANAGEMENT

Gamma Spectroscopy

Sample Id: 96.02811
Lab Id: 961701-11
Date Sampled: 4-Apr-96

Project:
Matrix: Soil

Analyte	Fraction	Conc. ± 2σ		LLD	Date Analyzed
Na-22*	GS	ND	pCi/g	0.3	04/25-04/29
K-40*	GS	27±5	pCi/g	5.7	04/25-04/29
Cr-51*	GS	ND	pCi/g	17	04/25-04/29
Mn-54*	GS	ND	pCi/g	0.5	04/25-04/29
Fe-59*	GS	ND	pCi/g	0.6	04/25-04/29
Co-56*	GS	ND	pCi/g	0.5	04/25-04/29
Co-57*	GS	ND	pCi/g	1.5	04/25-04/29
Co-58*	GS	ND	pCi/g	0.5	04/25-04/29
Co-60*	GS	ND	pCi/g	0.3	04/25-04/29
Ni-56*	GS	ND	pCi/g	1.3	04/25-04/29
Zn-65*	GS	ND	pCi/g	0.7	04/25-04/29
Y-88*	GS	ND	pCi/g	0.5	04/25-04/29
Zr-95*	GS	ND	pCi/g	0.8	04/25-04/29
Nb-94*	GS	ND	pCi/g	0.4	04/25-04/29
Nb-95*	GS	ND	pCi/g	0.5	04/25-04/29
Ru-103*	GS	ND	pCi/g	2.1	04/25-04/29
Ru-106*	GS	ND	pCi/g	12	04/25-04/29
Sn-113*	GS	ND	pCi/g	3.0	04/25-04/29
Sb-125*	GS	ND	pCi/g	7.5	04/25-04/29
I-131*	GS	ND	pCi/g	2.3	04/25-04/29
Cs-134*	GS	ND	pCi/g	0.5	04/25-04/29
Cs-137*	GS	6380±130	pCi/g	1.4	04/25-04/29
Ba-133*	GS	ND	pCi/g	3.0	04/25-04/29
Ba-140*	GS	ND	pCi/g	6.2	04/25-04/29
La-140*	GS	ND	pCi/g	0.1	04/25-04/29
Ce-141*	GS	ND	pCi/g	2.8	04/25-04/29
Ce-144*	GS	ND	pCi/g	12	04/25-04/29
Eu-152*	GS	ND	pCi/g	6.6	04/25-04/29
Eu-154*	GS	ND	pCi/g	3.2	04/25-04/29
Eu-155*	GS	ND	pCi/g	5.9	04/25-04/29
Tl-208*	GS	ND	pCi/g	1.5	04/25-04/29
Pb-210*	GS	ND	pCi/g	38	04/25-04/29
Pb-212*	GS	ND	pCi/g	3.5	04/25-04/29
Pb-214*	GS	ND	pCi/g	4.8	04/25-04/29
Bi-214*	GS	ND	pCi/g	2.7	04/25-04/29
Ac-228*	GS	ND	pCi/g	1.7	04/25-04/29
Th-229*	GS	ND	pCi/g	4.5	04/25-04/29
Th-234*	GS	ND	pCi/g	34	04/25-04/29
Pa-234*	GS	ND	pCi/g	6.3	04/25-04/29
Pa-234M*	GS	ND	pCi/g	66	04/25-04/29
U-235*	GS	36±12	pCi/g	13	04/25-04/29
Am-241*	GS	ND	pCi/g	3.7	04/25-04/29

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02803
Lab Id: 961701-6
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	12B	5
Acetone	67-64-1	86	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02803
Lab Id: 961701-6
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	105%	70-121%
Toluene-d8	101%	84-138%
p-Bromofluorobenzene	93%	59-113%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02804
Lab Id: 961701-7
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	10B	5
Acetone	67-64-1	81	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02804
Lab Id: 961701-7
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	114%	70-121%
Toluene-d8	101%	84-138%
p-Bromofluorobenzene	89%	59-113%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02808
Lab Id: 961701-8
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	14B	5
Acetone	67-64-1	120	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02808 TA-3
Lab Id: 961701-8
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	106%	70-121%
Toluene-d8	100%	84-138%
p-Bromofluorobenzene	91%	59-113%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02809
Lab Id: 961701-9
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Analyte	CAS Number	Concentration µg/kg	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	14B	5
Acetone	67-64-1	74	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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CHEMICAL WASTE MANAGEMENT

Volatiles

Sample Id: 96.02809
Lab Id: 961701-9
Date Sampled: 4-Apr-96
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	106%	70-121%
Toluene-d8	99%	84-138%
p-Bromofluorobenzene	89%	59-113%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02803
Lab Id: 961701-6
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02803
Lab Id: 961701-6
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	190J	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	52%	25-121%
Phenol-d5	48%	24-113%
Nitrobenzene-d5	45%	23-120%
2-Fluorobiphenyl	61%	30-115%
2,4,6-Tribromophenol	46%	19-122%
Terphenyl-d14	78%	18-137%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02804 TA-55
Lab Id: 961701-7
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02804 TA-SS
Lab Id: 961701-7
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	51%	25-121%
Phenol-d5	48%	24-113%
Nitrobenzene-d5	44%	23-120%
2-Fluorobiphenyl	58%	30-115%
2,4,6-Tribromophenol	47%	19-122%
Terphenyl-d14	70%	18-137%

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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02808
Lab Id: 961701-8
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02808
Lab Id: 961701-8
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	47%	25-121%
Phenol-d5	43%	24-113%
Nitrobenzene-d5	38%	23-120%
2-Fluorobiphenyl	53%	30-115%
2,4,6-Tribromophenol	47%	19-122%
Terphenyl-d14	67%	18-137%

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CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02809
Lab Id: 961701-9
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

BARRINGER LABORATORIES, INC.
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1-May-96
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Job: 961701E
Status: Final

CHEMICAL WASTE MANAGEMENT

Semi-Volatiles

Sample Id: 96.02809 [illegible]
Lab Id: 961701-9
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration ug/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	41%	25-121%
Phenol-d5	40%	24-113%
Nitrobenzene-d5	37%	23-120%
2-Fluorobiphenyl	51%	30-115%
2,4,6-Tribromophenol	56%	19-122%
Terphenyl-d14	71%	18-137%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Aroclors

Sample Id: 96.02803
Lab Id: 961701-6
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 18-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	610	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	78%	23-110%
DCB	104%	40-142%

Sample Id: 96.02804
Lab Id: 961701-7
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 18-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	550	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	91%	23-110%
DCB	100%	40-142%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

Aroclors

Sample Id: 96.02808
Lab Id: 961701-8
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 19-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	920	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	83%	23-110%
DCB	110%	40-142%

Sample Id: 96.02809
Lab Id: 961701-9
Date Sampled: 4-Apr-96
Date Extracted: 17-Apr-96
Date Analyzed: 19-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	940	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	71%	23-110%
DCB	104%	40-142%

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Arsenic TCLP mg/l	Barium TCLP mg/l	Cadmium TCLP mg/l	Copper TCLP mg/l	Chromium TCLP mg/l
Blank	U	U	U	U	U
LCS (True)	5.00	10.0	1.00	2.00	2.00
LCS (Found)	5.13	10.3	1.04	2.08	2.15
LCS % Rec	103	103	104	104	107
Duplicate	0.9	0.9	U	0.13	U
Duplicate	0.9	0.9	U	0.12	U
RPD	1.2	1.7	NC	3.7	NC
Spike % Rec	85.4	80.7	82.8	NA	86.2

Sample Id	Lead TCLP mg/l	Mercury TCLP mg/l	Selenium TCLP mg/l	Silver TCLP mg/l	Zinc TCLP mg/l
Blank	U	U	U	U	U
LCS (True)	5.00	0.0050	5.00	1.00	1.00
LCS (Found)	5.42	0.0049	5.24	0.98	1.08
LCS % Rec	108	98.8	105	97.5	108
Duplicate	356	U	U	U	0.9
Duplicate	364	U	U	U	0.9
RPD	2.0	NC	NC	NC	0.9
Spike % Rec	(1)	H56.5	78.5	H28.7	NA

Sample Id	Cyanide Reactive mg/kg	Sulfide Reactive mg/kg	pH unit
Blank	U	U	NA
LCS (True)	f0.100	f20.0	7.00
LCS (Found)	f0.110	f18.4	7.09
LCS % Rec	110	92.0	101
Duplicate	U	U	9.13
Duplicate	U	U	9.10
RPD	NC	NC	0.3
Spike % Rec	H51.5	120	NA

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Gross Alpha Total pCi/g	± 2σ	Gross Beta Total pCi/g	± 2σ
Duplicate	17	±13	42	±20
Duplicate	15	±13	46	±18
RER	0.10		0.14	
Std (found value)	96	±4	105	±2
Std (true value)	101		93	
Std % rec.	95		112	
Blank	0.5	±0.5	0.5	±0.6
Spike % rec.	83		113	

Sample Id	Am-241 Total pCi/g	± 2σ	C-14 Total pCi/g	± 2σ
Duplicate	0.0	±0.2	1.9	±1.1
Duplicate	0.0	±0.2	0.0	±1.0
RER	0.00		1.25	
Std (found value)	100	±3	81	±5
Std (true value)	101		99	
Std % rec.	99		82	
Blank	0.0	±0.1	0.6	±1.5
Spike % rec.	96		72	

Sample Id	Tritium Total pCi/g	± 2σ	I-129 Total pCi/g	± 2σ
Duplicate	4.7	±1.6	0.0	±7.6
Duplicate	4.2	±1.6	0.0	±2.6
RER	0.21		0.00	
Std (found value)	69	±5	1130	±20
Std (true value)	67		990	
Std % rec.	103		114	
Blank	1.1	±2.5	0.0	±2.8
Spike % rec.	95		122	

BARRINGER LABORATORIES, INC.
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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Pu-238 Total pCi/g	± 2σ	Pu-239 Total pCi/g	± 2σ
Duplicate	0.1	±0.4	0.1	±0.4
Duplicate	0.0	±0.4	0.3	±0.5
RER	0.21		0.25	
Std (found value)	10.4	±2.0	10.4	±2.0
Std (true value)	10.4		10.4	
Std % rec.	100		100	
Blank	0.0	±0.5	0.0	±0.5
Spike % rec.	94		94	

Sample Id	Sr-90 Total pCi/g	± 2σ	Th-228 Total pCi/g	± 2σ
Duplicate	0.3	±0.7	1.2	±0.9
Duplicate	0.4	±1.0	0.2	±0.6
RER	0.10		0.91	
Std (found value)	257	±10	16	±3
Std (true value)	231		19	
Std % rec.	111		82	
Blank	0.9	±1.0	0.0	±0.2
Spike % rec.	104		NA	

Sample Id	Th-230 Total pCi/g	± 2σ	U-234 Total pCi/g	± 2σ
Duplicate	0.8	±0.7	14	±3
Duplicate	1.5	±0.8	22	±5
RER	0.64		1.25	
Std (found value)	106	±8	200	±11
Std (true value)	97		170	
Std % rec.	109		118	
Blank	0.0	±0.2	0.0	±0.2
Spike % rec.	98		85	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	U-235 Total pCi/g	± 2σ	U-238 Total pCi/g	± 2σ
Duplicate	0.6	±0.9	5.9	±1.9
Duplicate	1.8	±2.1	12	±4
RER	0.54		1.26	
Std (found value)	5.9	±3.5	205	±11
Std (true value)	7.8		170	
Std % rec.	76		121	
Blank	0.0	±0.2	0.0	±0.3
Spike % rec.	89		99	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Gamma Spec GS pCi/g	± 2σ
Std (found value)	160	±4
Std (true value)	167	±3
Std % rec.	96	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: vblk312
Date Sampled: NA
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: water
Method: 8240

Analyte	CAS Number	Concentration µg/l	MDL
Chloromethane	74-87-3	U	10
Bromomethane	74-83-9	U	10
Vinyl Chloride	75-01-4	U	10
Chloroethane	75-00-3	U	10
Methylene Chloride	75-09-2	9.3	5
Acetone	67-64-1	U	50
Carbon Disulfide	75-15-0	U	5
1,1-Dichloroethene	75-35-4	U	5
1,1-Dichloroethane	75-34-3	U	5
1,2-Dichloroethene (total)	540-59-0	U	5
Chloroform	67-66-3	U	5
1,2-Dichloroethane	107-06-2	U	5
2-Butanone	78-93-3	U	50
1,1,1-Trichloroethane	71-55-6	U	5
Carbon Tetrachloride	56-23-5	U	5
Vinyl Acetate	108-05-4	U	5
Bromodichloromethane	75-27-4	U	5
1,1,2,2-Tetrachloroethane	79-34-5	U	5
1,2-Dichloropropane	78-87-5	U	5
trans-1,3-Dichloropropene	10061-02-6	U	5
Trichloroethene	79-01-6	U	5
Dibromochloromethane	124-48-1	U	5
1,1,2-Trichloroethane	79-00-5	U	5
Benzene	71-43-2	U	5
cis-1,3-Dichloropropene	10061-01-5	U	5
2-Chloroethylvinyl Ether	110-75-8	U	5
Bromoform	75-25-2	U	5
2-Hexanone	591-78-6	U	50
4-Methyl-2-Pentanone	108-10-1	U	50
Tetrachloroethene	127-18-4	U	5
Toluene	108-88-3	U	5
Chlorobenzene	108-90-7	U	5
Ethylbenzene	100-41-4	U	5
Styrene	100-42-5	U	5
Xylenes (total)	1330-20-7	U	5
Dichlorodifluoromethane	75-71-8	U	10
Trichlorofluoromethane	75-69-4	U	10

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: vblk312
Date Sampled: NA
Date Extracted: NA
Date Analyzed: 15-Apr-96

Project:
Dilution Factor: 1:1
Matrix: water
Method: 8240

Surrogate	Recovery	Limit
1,2-Dichloroethane-d4	105%	76-114%
Toluene-d8	100%	88-110%
p-Bromofluorobenzene	95%	86-115%

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: 1701-MB
Date Sampled: NA
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Phenol	108-95-2	U	330
bis(2-Chloroethyl)Ether	111-44-4	U	330
2-Chlorophenol	95-57-8	U	330
1,3-Dichlorobenzene	541-73-1	U	330
1,4-Dichlorobenzene	106-46-7	U	330
Benzyl Alcohol	100-51-6	U	660
1,2-Dichlorobenzene	95-50-1	U	330
2-Methylphenol	95-48-7	U	330
bis(2-Chloroisopropyl)Ether	108-60-1	U	330
3 & 4-Methylphenol	108-39-4	U	330
N-Nitroso-Di-N-Propylamine	621-64-7	U	330
Hexachloroethane	67-72-1	U	330
Nitrobenzene	98-95-3	U	330
Isophorone	78-59-1	U	330
2-Nitrophenol	88-75-5	U	330
2,4-Dimethylphenol	105-67-9	U	330
Benzoic Acid	65-85-0	U	1600
bis(2-Chloroethoxy)Methane	111-91-1	U	330
2,4-Dichlorophenol	120-83-2	U	330
1,2,4-Trichlorobenzene	120-82-1	U	330
Naphthalene	91-20-3	U	330
4-Chloroaniline	106-47-8	U	660
Hexachlorobutadiene	87-68-3	U	330
4-Chloro-3-methylphenol	59-50-7	U	660
2-Methylnaphthalene	91-57-6	U	330
Hexachlorocyclopentadiene	77-47-4	U	330
2,4,6-Trichlorophenol	88-06-2	U	330
2,4,5-Trichlorophenol	95-95-4	U	330
2-Chloronaphthalene	91-58-7	U	330
2-Nitroaniline	88-74-4	U	1600
Dimethylphthalate	131-11-3	U	330
Acenaphthylene	208-96-8	U	330
2,6-Dinitrotoluene	606-20-2	U	330
3-Nitroaniline	99-09-2	U	1600
Acenaphthene	83-32-9	U	330
2,4-Dinitrophenol	51-28-5	U	1600
4-Nitrophenol	100-02-7	U	1600
Dibenzofuran	132-64-9	U	330
2,4-Dinitrotoluene	121-14-2	U	330
Diethylphthalate	84-66-2	U	330
4-Chlorophenyl-phenylether	7005-72-3	U	330

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: 1701-MB
Date Sampled: NA
Date Extracted: 17-Apr-96
Date Analyzed: 22-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8270

Analyte	CAS Number	Concentration µg/kg	MDL
Fluorene	86-73-7	U	330
4-Nitroaniline	100-01-6	U	660
4,6-Dinitro-2-Methylphenol	534-52-1	U	1600
n-Nitrosodiphenylamine	86-30-6	U	330
4-Bromophenyl-phenylether	101-55-3	U	330
Hexachlorobenzene	118-74-1	U	330
Pentachlorophenol	87-86-5	U	1600
Phenanthrene	85-01-8	U	330
Anthracene	120-12-7	U	330
Di-n-butylphthalate	84-74-2	U	330
Fluoranthene	206-44-0	U	330
Pyrene	129-00-0	U	330
Butylbenzylphthalate	85-68-7	U	330
3,3'-Dichlorobenzidine	91-94-1	U	660
Benzo(a)anthracene	56-55-3	U	330
Chrysene	218-01-9	U	330
bis(2-Ethylhexyl)phthalate	117-81-7	U	330
Di-N-Octylphthalate	117-84-0	U	330
Benzo(b)fluoranthene	205-99-2	U	330
Benzo(k)fluoranthene	207-08-9	U	330
Benzo(a)pyrene	50-32-8	U	330
Indeno(1,2,3-cd)pyrene	193-39-5	U	330
Dibenzo(a,h)anthracene	53-70-3	U	330
Benzo(g,h,i)perylene	191-24-2	U	330
1-Chloronaphthalene	90-13-1	U	330
Diphenylamine	122-39-4	U	660
1,2-Diphenylhydrazine	122-66-7	U	1600

Surrogate	Recovery	Limit
2-Fluorophenol	50%	25-121%
Phenol-d5	46%	24-113%
Nitrobenzene-d5	40%	23-120%
2-Fluorobiphenyl	53%	30-115%
2,4,6-Tribromophenol	38%	19-122%
Terphenyl-d14	71%	18-137%

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Lab Id: Method Blank
Date Sampled: NA
Date Extracted: 17-Apr-96
Date Analyzed: 18-Apr-96

Project:
Dilution Factor: 1:1
Matrix: Soil
Method: 8080

Analyte	CAS Number	Concentration µg/kg	MDL
Aroclor 1016	12674-11-2	U	33
Aroclor 1221	11104-28-2	U	66
Aroclor 1232	11141-16-5	U	33
Aroclor 1242	53469-21-9	U	33
Aroclor 1248	12672-29-6	U	33
Aroclor 1254	11097-69-1	U	33
Aroclor 1260	11096-82-5	U	33
Aroclor 1262	37324-23-5	U	33
Aroclor 1268	11100-14-4	U	33

Surrogate	Recovery	Limit
TCX	72%	23-110%
DCB	115%	40-142%

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	K-40* GS pCi/g	± 2σ	Co-60* GS pCi/g	± 2σ
Duplicate	21	±2	1.3	±0.2
Duplicate	22	±2	1.4	±0.2
RER	0.19		0.25	

Sample Id	Cs-137* GS pCi/g	± 2σ	Ba-133* GS pCi/g	± 2σ
Duplicate	0.4	±0.1	0.2	±0.1
Duplicate	0.3	±0.1	0.2	±0.1
RER	0.62		0.00	

Sample Id	Eu-152* GS pCi/g	± 2σ	Eu-154* GS pCi/g	± 2σ
Duplicate	42	±2	2.9	±0.5
Duplicate	41	±2	3.2	±0.6
RER	0.11		0.30	

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CHEMICAL WASTE MANAGEMENT

QUALITY CONTROL REPORT

Sample Id	Tl-208* GS pCi/g	± 2σ	Pb-212* GS pCi/g	± 2σ
Duplicate	0.5	±0.1	1.4	±0.2
Duplicate	0.5	±0.1	1.4	±0.2
RER	0.00		0.00	

Sample Id	Pb-214* GS pCi/g	± 2σ	Bi-214* GS pCi/g	± 2σ
Duplicate	1.3	±0.3	1.1	±0.2
Duplicate	1.2	±0.3	1.0	±0.2
RER	0.20		0.28	

Sample Id	Ac-228* GS pCi/g	± 2σ	Th-229* GS pCi/g	U-235* GS pCi/g
Duplicate	1.4	±0.5	<0.3	ND
Duplicate	1.3	±0.4	<0.3	ND
RER	0.14		NA	NA

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Larry Sherman
CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 12-Apr-96 08:55

Job: 961701E
Status: Final

Abbreviations:

Parameters:

Am-241	: Americium-241
C-14	: Carbon-14
I-129	: Iodine-129
Pu-238	: Plutonium-238
Pu-239	: Plutonium-239
Sr-90	: Strontium -90
Th-228	: Thorium-228
Th-230	: Thorium-230
U-234	: Uranium-234
U-235	: Uranium-235
U-238	: Uranium-238
Na-22*	: Sodium 22-MDA reported at 1.645 sigma
K-40*	: Potassium 40-MDA reported at 1.645 sigma
Cr-51*	: Chromium 51-MDA reported at 1.645 sigma
Mn-54*	: Manganese 54-MDA reported at 1.645 sigma
Fe-59*	: Iron 59-MDA reported at 1.645 sigma
Co-56*	: Cobalt 56-MDA reported at 1.645 sigma
Co-57*	: Cobalt 57-MDA reported at 1.645 sigma
Co-58*	: Cobalt 58-MDA reported at 1.645 sigma
Co-60*	: Cobalt 60-MDA reported at 1.645 sigma
Ni-56*	: Nickel 56-MDA reported at 1.645 sigma
Zn-65*	: Zinc 65-MDA reported at 1.645 sigma
Y-88*	: Yttrium 88-MDA reported at 1.645 sigma
Zr-95*	: Zirconium 95-MDA reported at 1.645 sigma
Nb-94*	: Niobium 94-MDA reported at 1.645 sigma
Nb-95*	: Niobium 95-MDA reported at 1.645 sigma
Ru-103*	: Ruthenium 103-MDA reported at 1.645 sigma
Ru-106*	: Ruthenium 106-MDA reported at 1.645 sigma
Sn-113*	: Tin 113-MDA reported at 1.645 sigma
Sb-125*	: Antimony 125-MDA reported at 1.645 sigma
I-131*	: Iodine 131-MDA reported at 1.645 sigma
Cs-134*	: Cesium 134-MDA reported at 1.645 Sigma
Cs-137*	: Cesium 137-MDA reported at 1.645 Sigma
Ba-133*	: Barium 133-MDA reported at 1.645 sigma

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Job: 961701E Status: Final

Ba-140*	: Barium 140-MDA reported at 1.645 sigma
La-140*	: Lanthanum 140-MDA reported at 1.645 sigma
Ce-141*	: Cerium 141-MDA reported at 1.645 sigma
Ce-144*	: Cerium 144-MDA reported at 1.645 sigma
Eu-152*	: Europium 152-MDA reported at 1.645 sigma
Eu-154*	: Europium 154-MDA reported at 1.645 sigma
Eu-155*	: Europium 155-MDA reported at 1.645 sigma
Tl-208*	: Thallium 208 by Th-232
Pb-210*	: Lead 210-MDA reported at 1.645 sigma
Pb-212*	: Lead 212-MDA reported at 1.645 sigma
Pb-214*	: Lead 214-MDA reported at 1.645 sigma
Bi-214*	: Bismuth 214-MDA reported at 1.645 sigma
Ac-228*	: Actinium 228-MDA reported at 1.645 sigma
Th-229*	: Thorium 229-MDA reported at 1.645 sigma
Th-234*	: Thorium 234-MDA reported at 1.645 sigma
Pa-234*	: Protactinium 234-MDA reported at 1.645 sigma
Pa-234M*	: Protactinium 234 by Th-234
U-235*	: Uranium 235-MDA reported at 1.645 sigma
Am-241*	: Americium 241-MDA reported at 1.645 sigma
Gamma Spec	: Gamma Spectroscopy

Methods:

GS	: Gamma Spectroscopy

Units:

mg/l	: milligrams per liter
mg/kg	: milligrams per kilogram
pCi/g	: picoCuries per gram
µg/kg	: micrograms per kilogram
%	: percent
% Rec.	: % Recovery
µg/l	: micrograms per liter

Quality codes:

(1)	: Sample > 4 times spike
B	: Present in blank
ND	: Not detected

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Attn:
Project:
PO #:
Received: 12-Apr-96 08:55

Job: 961701E Status: Final

H	: Matrix Spike recovery was outside control limits.
J	: Estimated value
NA	: Not Analyzed
U	: Undetected
f	: Milligrams per liter of fluid (mg/l)
NC	: Not Calculated

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Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 12-Apr-96 08:55

Job: 961701E
Status: Final

QUALITY CONTROL DATA SHEET

Received by: rc
Via: Fed Ex

Sample Container Type: 8oz jar, paint can, 4oz jar, 500g can
Additional Lab Preparation: 100 Mesh

Parameter	Method	Preservative	Init	Analysis Dates
As	6010A	4°C	JH	04/18
Ba	6010A	4°C	JH	04/18
Cd	6010A	4°C	JH	04/18
Cu	6010A	4°C	JH	04/18
Cr	6010A	4°C	JH	04/18
Pb	6010A	4°C	JH	04/18
Hg	7470A	4°C	AW	04/17
Se	6010A	4°C	JH	04/18-04/25
Ag	6010A	4°C	JH	04/25
Zn	6010A	4°C	JH	04/18
CN-R	7.3.3.2	4°C	AW	04/19
S-R	7.3.4.2	4°C	AW	04/19
pH-S	9045A	4°C	RB	04/16
Gross Alpha	900.0	4°C	ME	04/22-04/25
Gross Beta	900.0	4°C	ME	04/22-04/25
Am-241	907.0	4°C	MB	04/15-04/29
C-14	520-84-006	4°C	JP	04/21-04/25
Tritium	906.0	4°C	AM	04/29-04/30
I-129	902.0	4°C	MB	04/26-04/30
Pu-238	907.0	4°C	MB	04/15-04/30
Pu-239	907.0	4°C	MB	04/15-04/30
Sr-90	905.0	4°C	BB	04/19-04/30
Th-228	USAEC	4°C	ME	04/19-04/29
Th-230	USAEC	4°C	ME	04/19-04/24
U-234	908.0	4°C	SK	04/26-04/30
U-235	908.0	4°C	SK	04/26-04/30
U-238	908.0	4°C	SK	04/26-04/30
Gamma Spectroscopy	901.1	4°C	BS	04/25-04/29
Volatiles	8240	4°C	JG	04/15

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CHEMICAL WASTE MANAGEMENT
Los Alamos National Laboratory
P.O. Box 1663; MS J593
Los Alamos, NM 87544

Attn:
Project:
PO #:
Received: 12-Apr-96 08:55

Job: 961701E
Status: Final

Volatiles	8240	4°C	JG	04/15
Semi-Volatiles	8270	4°C	RH	04/22
Aroclors	8080	4°C	CC	04/18

Note: TCLP performed.

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