644 0 File: 541.460.000n C.H.

THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 644

644 1

File: 541.460-0009
C.H.
644

REMEDIATION REPORT

REMOVAL ACTION AT BUILDING 949
FORMER DEFENSE DISTRIBUTION DEPOT, MEMPHIS

PREPARED FOR

MOBILE DISTRICT
U.S. ARMY CORPS OF ENGINEERS
CONTRACT NO. DACA01-99-D-0040

BY

JACOBS FEDERAL PROGRAMS

OAK RIDGE, TENNESSEE

February 15, 2002

USACE CONTRACT NO. DACA01-99-D-0040
DELIVERY ORDER NO. 8
JACOBS ENGINEERING PROJECT NUMBER C5X51107

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LIST OF APPENDICES

1.0 INTRODUCTION

Jacobs Engineering was contracted by the Mobile District Corps of Engineers to perform remedial services at Building 949 at the Defense Depot – Memphis, Tennessee (DDMT). This report documents remedial activities, which occurred at Building 949 from 6 August to 9 October, 2001.

1.1 Remedial Action Objectives

Remedial action objectives consisted of:

1) Excavation and disposal of shallow soil, which contained elevated metals (lead and chromium) concentrations in the soil above the site action levels. This activity included pre-excavation waste profile sampling/analysis, excavation, and confirmation sampling/analysis.

2) The action levels for lead is based on the site-specific Risk Assessment and the chromium level is based on the Region 9 preliminary remediation goals for industrial use sites. The action levels are set at 1536 ppm (lead) and 450 ppm (chromium).

3) Restoration of site including backfilling and regrading.

4) Transportation and disposal of metals impacted soil and decontamination fluids generated during the excavation activity.

1.2 Project Scope of Work

The following task list details the field activities associated with Building 949:

- Pre-excavation sampling was performed to determine the proper disposal method of the removed soil.

- The soil was excavated and placed in roll-off boxes pending transportation and disposal.

- Confirmation sampling was performed to verify that the full extent of soils above the action levels had been excavated. It was necessary to expand the excavation slightly to the south and west to accomplish removal of impacted soils above the action levels.

- Soil was transported to a permitted disposal facility for final treatment and disposal.

1.3 Site Description and Background

The Memphis Depot covers 642 acres of land in Shelby County, Memphis, Tennessee, in the southwestern portion of the state. The Memphis Depot began operations in the early 1940's with the mission to inventory and supply materials for the U.S. Army. The Depot has been used for a wide range of storage, distribution, and maintenance practices over the years. The specific area for this Task Order includes Building 949, now occupied by Barnhart Crane and Rigging Company, in the west central portion of the Memphis Depot.

2.0 CHRONOLOGY OF EVENTS

The chronology of events associated with the remedial activities at Building 949 is summarized below.

Date	Activity Description
6-Aug-01	Pre-screening sampling to collect shallow soil samples for waste characterization analysis.
27-Aug-01	Mobilization to site for remedial actions.
29-Aug-01	Initial excavation is completed. Soil is placed in roll-off boxes pending transport and disposal off-site.
30-Aug-01	Collected verification samples from sidewalls and bottom of excavation.
19-Sep-01	First shipment of 9-20 C.Y. rolloff boxes is sent to Safety Kleen Lone Mountain, OK facility.
24-Sep-01	Performed over-excavation at the north end and on the east and south sides of the excavation to remove soil exceeding the established action levels. Collected verification samples from the sidewalls and bottom of the over-excavation areas.
25-Sep-01	Based on previous days' sample results, performed a second over-excavation at south end of excavation. Collected verification samples from over-excavation areas. Backfilled excavation. Second shipment of 8-20 C.Y. rolloff boxes is made to the Lone Mountain Disposal Facility.
10-Oct-01	Final shipment of soil, in the amount of 2 C.Y. is sent to Lone Mountain Disposal Facility.

3.0 REMEDIAL ACTIONS

Remedial activities are summarized below. Selected photographs depicting representative remedial activities are found in Appendix C.

3.1 Soil Excavation and Confirmation Sampling

A pre-excavation sampling event was conducted prior to mobilization for the excavation task. This event allowed for immediate transport off-site of the contaminated soil as the excavation progressed. The waste characterization analysis indicated that the soil was TCLP hazardous (chromium). Table B-1 presents results of three waste characterization soil samples. The laboratory report of analysis results is located as the first item in Appendix D.

Site utilities were field located before the start of the excavation work. Prior to the commencement of excavation all security, exclusion zones, and protective markings for utilities were in place.

Areas of lead and chromium-impacted soils were excavated to the horizontal and vertical limits of excavation shown in Figure A-1. The limits of this initial excavation were defined in the "Remedial Action Scope of Work for Lead-Contaminated Soil Removal at Building 949, Main Installation, Memphis Depot", prepared by CH2M-Hill and dated April 11, 2001 (Revision 1). The initial excavation was to a depth of one foot. The excavation area was clearly marked with temporary fencing.

Initial confirmation samples were collected at the locations shown on Figure A-1. Confirmation samples were collected from the excavation sidewalls and bottom and analyzed for total lead and for total chromium. A total of 14 samples plus 2 duplicates were collected from the excavation (9 from the excavation sidewalls and 5 from the excavation floor). Each sample was a composite comprised of four equal aliquots collected from within each sample area. The west sidewall adjacent to the concrete slab was not sampled, since the excavation did not extend beneath the slab. Previous sampling by CH2M-Hill indicated this area did not contain impacted soils. Laboratory analytical reports for all confirmation samples are contained in Appendix D. A summary of the confirmation sample analysis is presented in Table B-2.

The action levels for lead is based on the site-specific Risk Assessment and the chromium level is based on the Region 9 preliminary remediation goals for industrial use sites. The action levels are set at 1536 ppm (lead) and 450 ppm (chromium).

Based on the initial sampling results (Table B-2), it was necessary to perform over-excavation as shown in Figure A-2. All areas of over-excavation were performed at the direction of and concurrence with the two governing regulatory agencies (USEPA and TDEC). A total of ten confirmation samples were then collected in the over-excavation areas as shown on Figure A-2.

Samples collected after the initial over-excavation indicated one small area on the south end of the excavation that required additional soil removal. This second over-excavation is shown Figure A-3. A confirmation sample was collected from this area (result is presented in Table B-2). The USEPA dnd TDEC determined that no further excavation was necessary to achieve the remedial action objectives at Building 949.

3.2 Dust and Air Pollution Control

The generation of fugitive dust emissions was closely monitored during the entire project using Mini-Ram dust monitors. The dust monitors were set with one monitor upwind and one downwind of the excavation site. Monitoring results are discussed in Section 4.0. Based on field monitoring, there was no detectable dust generation.

3.3 Site Backfill and Restoration

Following completion of excavation, the area was backfilled with crushed rock and re-graded to the area's original surface elevations.

4.0 SITE SPECIFIC HEALTH AND SAFETY SUMMARY

4.1 Training

The Jacobs/Sverdrup Site Safety and Health Officer (SSHO) verified all personnel had received the appropriate Hazardous Waste Operations training (OSHA 40CFR1910.120) before allowing entry to the site. Additionally, documentation that site workers were participating in a medical monitoring program, were approved to wear a respirator and had records of passing a fit test for the respirator in their possession were also verified before beginning site work. The training requirements were enforced for all personnel that would be entering the exclusion zone during site activities. A file containing copies of the site workers training documents was maintained at the job site.

4.2 Safety Documentation

The SSHO completed a Safe Plan of Action (SPA) form that outlined the hazard assessment for each task that was to be performed that day. The SPA is an analysis of the health and safety risks associated with a specific task and outlines possible mitigation procedures. All employees attended a safety tailgate meeting before beginning work each day to receive a briefing concerning the hazards and associated SPA. Copies of the SPA's are maintained in the project files and are available for inspection upon request.

Daily job site safety inspections were also conducted by the SSHO to document the work activities as they were in progress. Safety violations, if observed during the inspection, were immediately brought to the attention of the individual and supervisor to correct the infraction. The infraction was discussed the following day at the tailgate meeting to remind all workers of the appropriate work procedures and safe work practices. The daily job site inspection forms are maintained in the project files and are available for inspection upon request. There were no safety incidents or violations during the field work task of this project.

A log was completed that provides the name and number of hours each employee that worked onsite each day. Copies of these daily logs are also included in the project files.

4.3 Air Monitoring

Air monitoring for particulates (dust) was implemented during the soil excavation/loading portions of the site work. This was accomplished by situating one air monitor upwind and one air monitor downwind of the work area. These instruments (MIE personalDataRAM) were calibrated before use each day and results of the calibration were recorded on an air monitor calibration form. The data stored in these instruments were downloaded on a personal computer before demobilizing from the site. All data obtained from these monitors indicated that no fugitive dust emissions occurred. This data is shall be maintained in the project files.

4.4 Site Control

The excavations were safeguarded by surrounding the area with perimeter fencing and warning tape. These barriers were maintained until confirmation sample results were received indicating that backfill operations could begin.

5.0 TRANSPORTATION AND DISPOSAL OF GENERATED MATERIALS

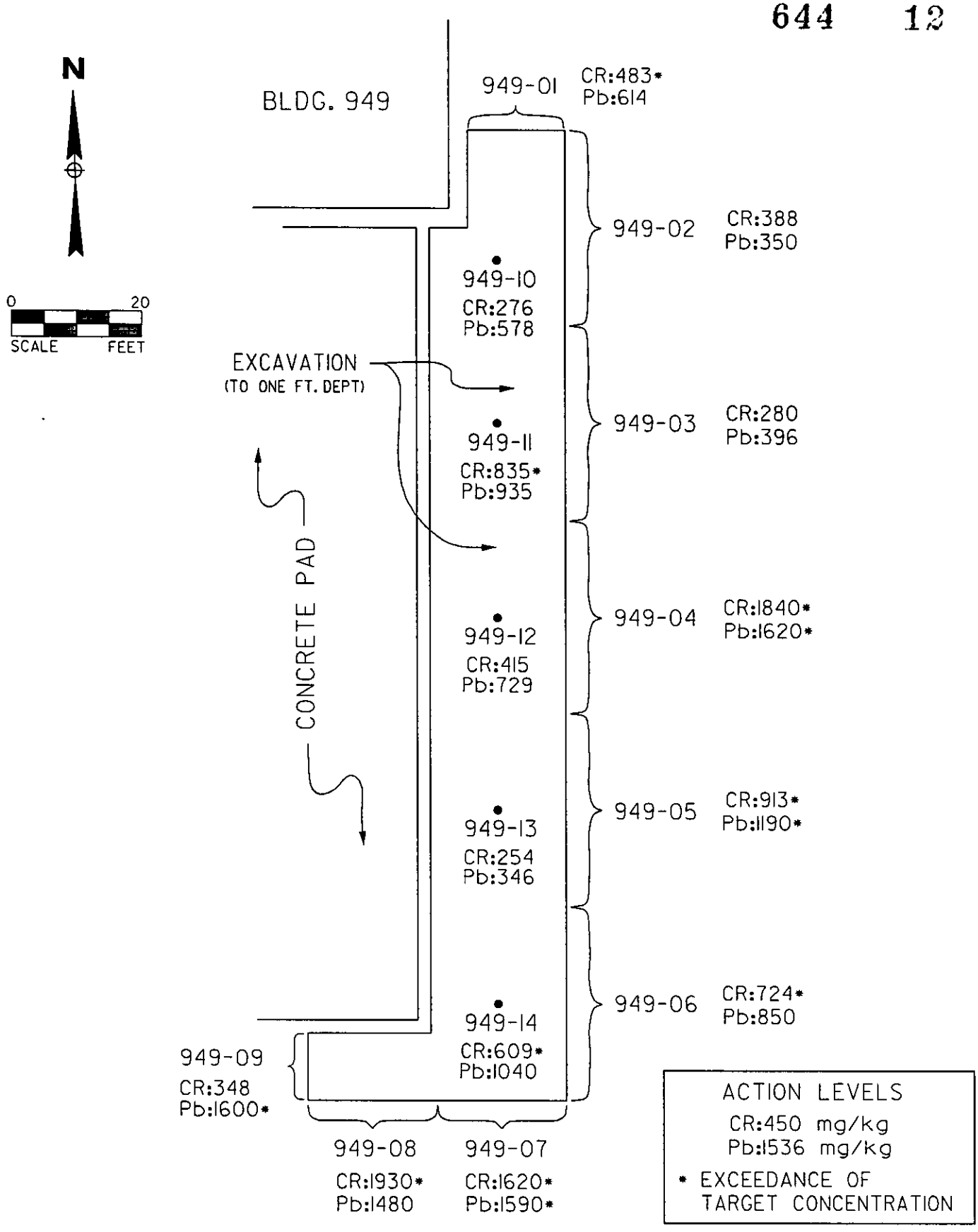
A pre-screening sample of soil from the excavation area was used to test for disposal parameters. Results of this sampling are given in Table B-1. The initial sample indicated that the soil was classified as TCLP (chromium) hazardous waste. Waste disposal specialist Safety-Kleen was contracted for disposal services.

Excavated soil was placed in 20 cubic yard roll-off boxes and stored on-site pending acceptance by the Safety-Kleen hazardous material treatment, storage and disposal facility located in Waynoka, Oklahoma (EPA ID No. OKD 065438376; OK permit No. 3547005). Transportation of the soil from Memphis to the Lone Mountain Facility occurred on three separate dates; September 19th, September 25th and October 10th. A total of 17-20 CY roll-off boxes were shipped by rail (10) and by truck (7). A summary of shipment quantities and dates along with copies of manifests and certificates of disposal are contained in Appendix E. A total quantity of 342 cubic yards (300.12 tons) of material were removed from the site and taken to the Lone Mountain Facility in Oklahoma for disposal.

Protective clothing and other debris/waste generated during project were disposed of along with soil as hazardous waste.

APPENDIX A

FIGURES

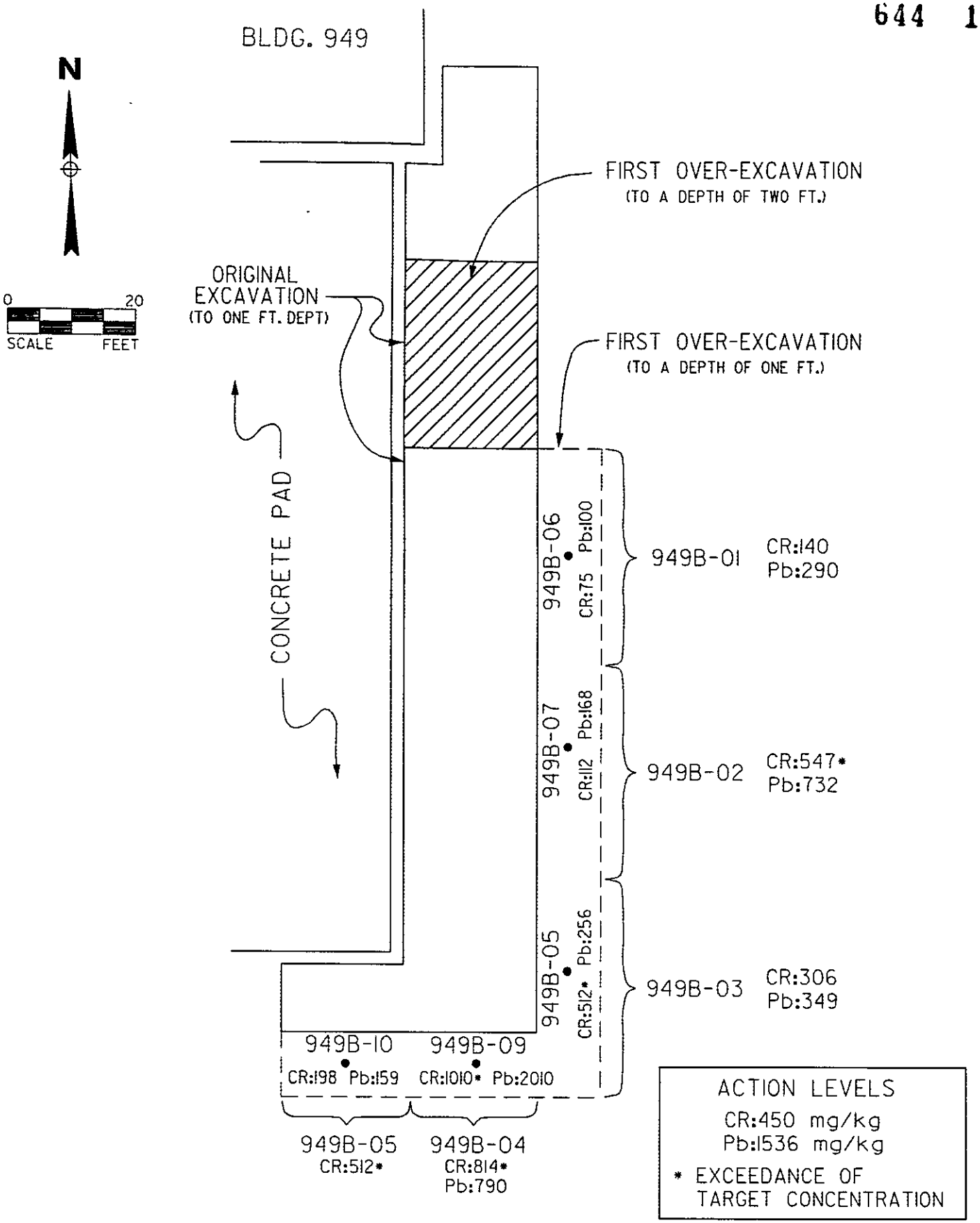


JE JACOBS

Sverdrup Civil, Inc
3354 Perimeter Hill Drive, Suite 310
Nashville Tennessee 37211-4192

ORIGINAL EXCAVATION AREA

FIGURE #A-1



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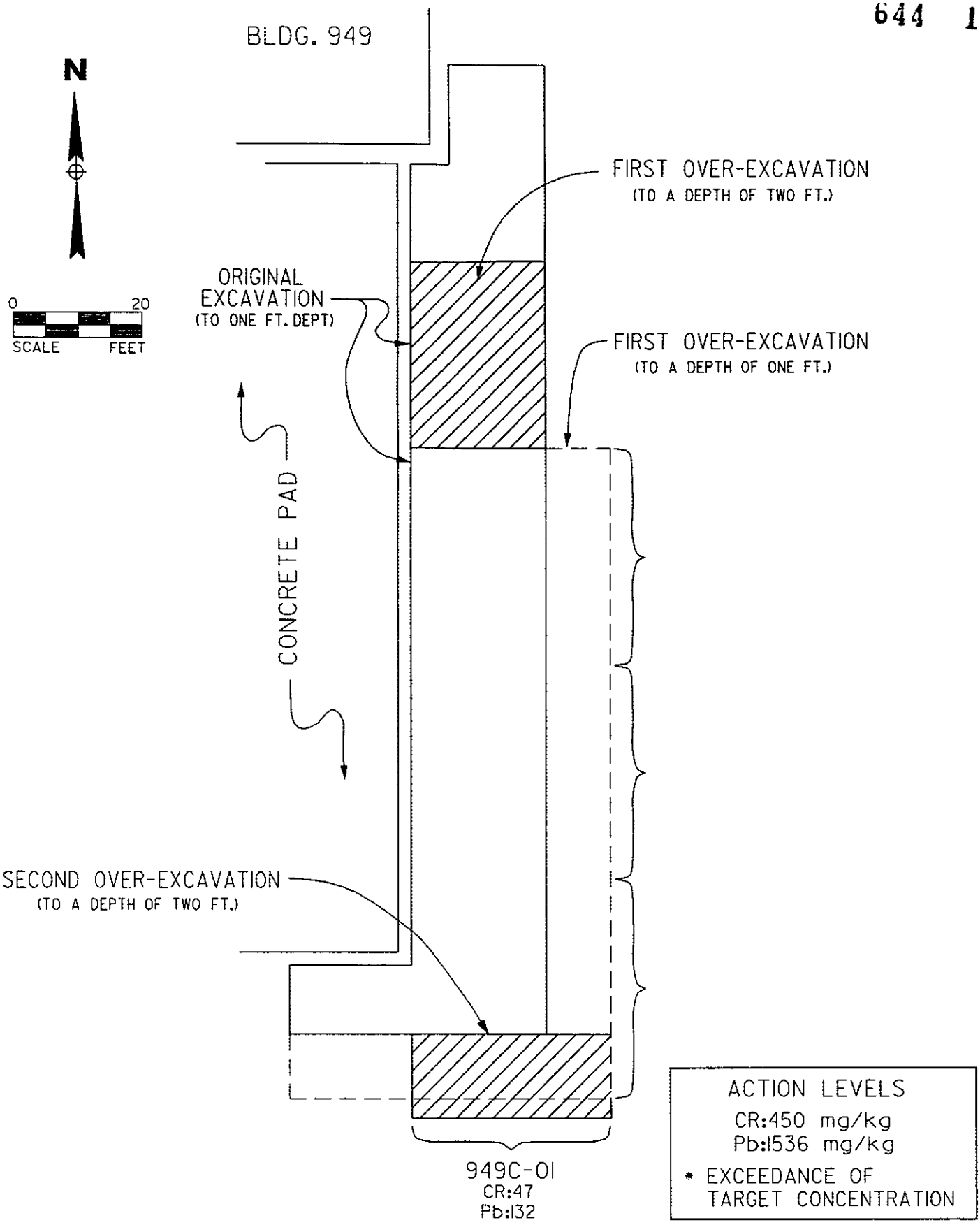
Sverdrup Civil, Inc
3351 Perimeter Hill Drive, Suite 310
Nashville, Tennessee 37211-4152

First Ovet Excavation Area

FIGURE #A-2



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Nashville, Tennessee, 37211-4192

SECOND AND FINAL
OVER-EXCAVATION AREA

FIGURE #A-3

APPENDIX B

TABLES

Table B-1

SOIL SCREENING SAMPLE RESULTS

	SOIL SCREENING FOR DISPOSAL (TCLP RCRA METALS, VOCs, SVOCs)		
Sample Number	**949-1**	**949-2**	**949-3**
Date	**8/6/01**	**8/6/01**	**8/6/01**
Units	**mg/L**	**mg/L**	**mg/L**
PARAMETER			
Silver	ND	ND	ND
Arsenic	ND	ND	ND
Barium	0.555	0 779	0.461
Cadmium	ND	ND	ND
Chromium	**12.2***	**5.47***	0.828
Mercury	ND	ND	ND
Lead	ND	ND	ND
Selenium	ND	ND	ND
VOCs	ND	ND	ND
SVOCs	ND	ND	ND

*Samples exceed regulatory limit for disposal as non-hazardous material

Table B-2

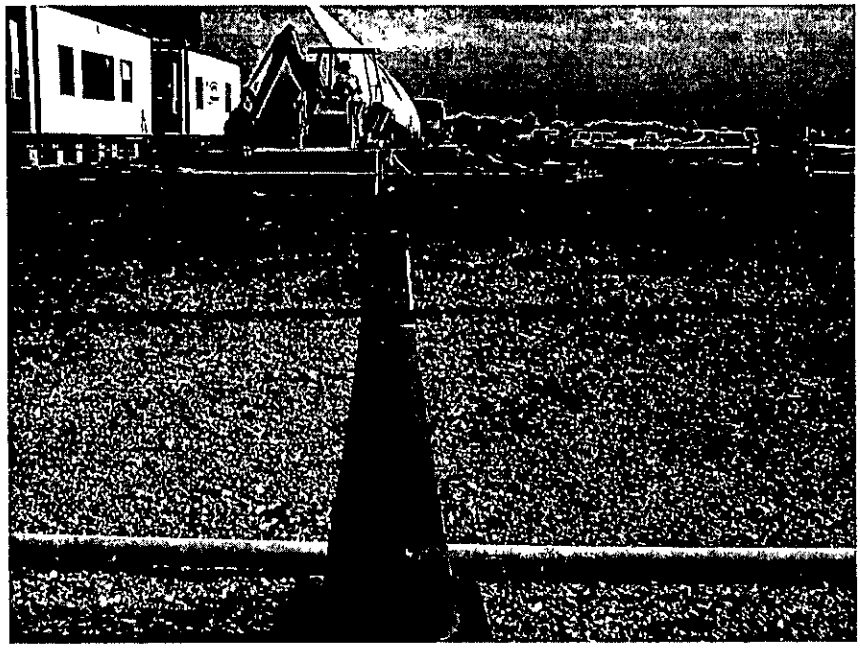
Confirmation Sampling Results

Initial Excavation			Parameter	
			Chromium	Lead
Sample Number	Date	Units		
949-01	8/30/02	mg/kg	**483**	614
949-02	8/30/02	mg/kg	388	350
949-20 (Dup. Of 02)	8/30/02	mg/kg	366	367
949-03	8/30/02	mg/kg	280	396
949-04	8/30/02	mg/kg	**1840**	**1620**
949-05	8/30/02	mg/kg	**913**	1190
949-06	8/30/02	mg/kg	**724**	850
949-07	8/30/02	mg/kg	**1620**	**1590**
949-08	8/30/02	mg/kg	**1930**	1480
949-09	8/30/02	mg/kg	348	**1600**
949-10	8/30/02	mg/kg	276	578
949-11	8/30/02	mg/kg	**835**	935
949-21 (Dup of 11)	8/30/02	mg/kg	**623**	980
949-12	8/30/02	mg/kg	415	729
949-13	8/30/02	mg/kg	254	346
949-14	8/30/02	mg/kg	**609**	1040
First Over-Excavation				
949B-1	9/24/01	mg/kg	140	290
949B-2	9/24/01	mg/kg	**547**	732
949B-3	9/24/01	mg/kg	306	349
949B-4	9/24/01	mg/kg	**814**	790
949B-5	9/24/01	mg/kg	**512**	256
949B-6	9/24/01	mg/kg	75.5	99.6
949B-7	9/24/01	mg/kg	112	168
949B-8	9/24/01	mg/kg	109	105
949B-9	9/24/01	mg/kg	**1010**	**2010**
949B-10	9/24/01	mg/kg	198	159
Final Over-Excavation				
949C-1	9/25/01	mg/kg	47.3	132

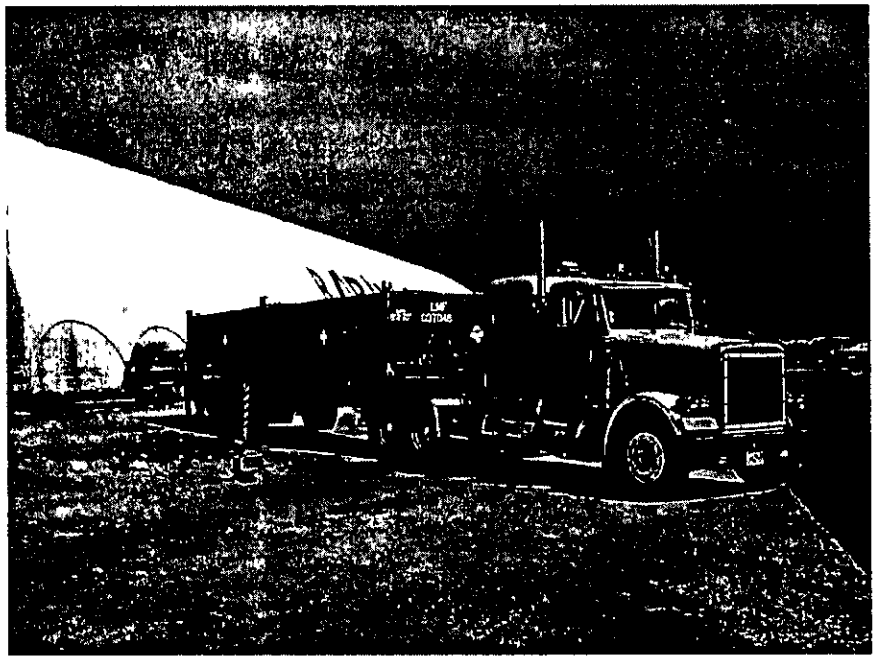
* Results in bold exceed action levels of
450 mg/kg (chromium) and 1536 mg/kg (lead)

APPENDIX C

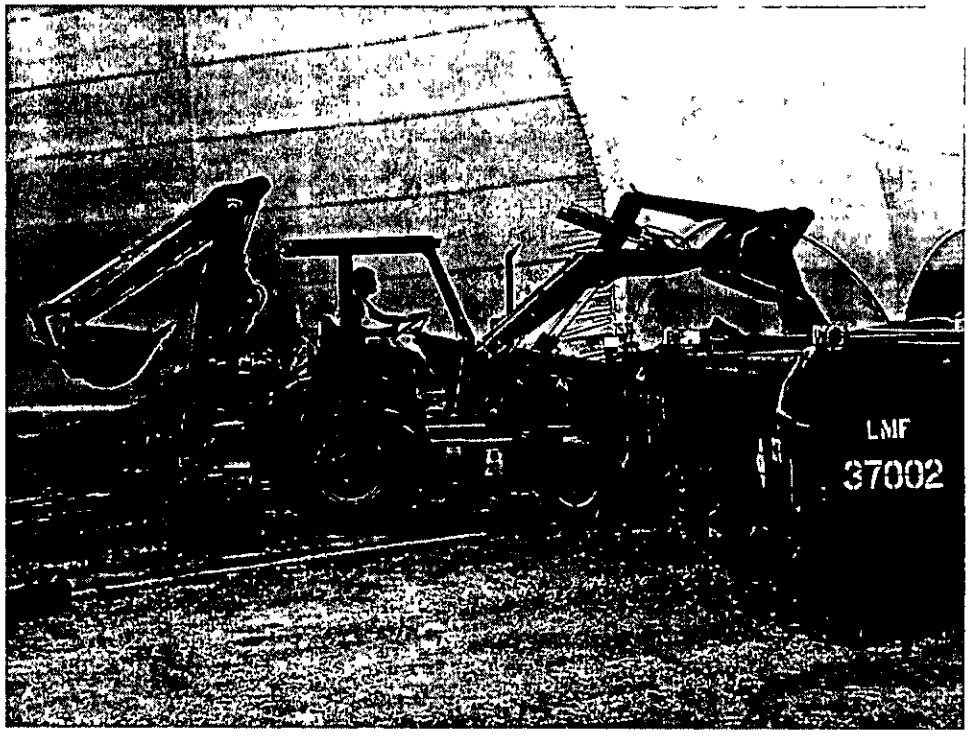
PHOTOGRAPHS



Building 949 Excavation Area
With Dust Monitor. Looking north.



Safety Kleen Rolloff Box at North
End of Excavation.



Placing Excavated Soil in Rolloff

Spreading Backfill Material

APPENDIX D

ANALYTICAL REPORTS

WASTE CHARACTERIZATION REPORT

644 23

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road • Memphis, TN 38111 • (901) 327-2750 • FAX (901) 327-6334
Founded 1972

August 10, 2001

Mr. Kraig Smith
Sverdrup/Jacobs Eng.
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Ref: Analytical Testing
ETC Order # 0108162
Project Description Memphis Depot, Dunn Field

Project Number C5X51107

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and/or 40 CFR part 136.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact our office if you have any questions.

Sincerely,

Nathan A. Pera, IV
Chief Executive Officer

rt
Attachment

SVE_MHDDMTA

Certifications

Tennessee	*#TN02027*	*Mississippi*		*USDA #S-46279*
Arkansas	*#40730*	*Oklahoma*	*#9311*	
Kentucky	*#90047*	*Virginia*	*#00106*	
North Carolina	*#415*	*Washington*	*#C248*	
South Carolina	*#84002002*	*US Army Corps of Engineers*		

Environmental Testing & Consulting, Inc.

Data Qualifiers for Organic Reporting

Within the attached report, some analytical data may be reported as "Qualified Data" as indicated by a "Data Qualifier" next to the result. This table summarizes the possible "Data Qualifiers" that may be associated with this report These qualifiers do not apply for TIC reports.

Q	Surrogate Recovery Outside QC Limits
J	Estimated Value. Presence of the compound was confirmed but less than the reported detection limit.
E	Concentration exceeds the established method calibration range but is within the working range of the instrument.
B	Analyte detected in the associated Method Blank.
U	Reported result was unconfirmed Refer to Case Narrative.
C	Result reported from GC/MS confirmation analysis.
M	Result reported represents a minimum value. Refer to Case Narrative
NC	Result reported from Primary Column. Result did not confirm.
*	QC Data (percent recovery/RPD for a particular analyte was outside QC Limits)

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

ANALYTICAL SUMMARY/CROSS REFERENCE TABLE 644 25

Client Name **Sverdrup/Jacobs Eng.** ETC Order #0108162

Site ID **Memphis Depot, Dunn Field** **C5X51107**

ETC Sample ID	Field ID	Matrix	Method	Method Description
010816201	949-1	SOIL	1311	TCLP Extraction
010816201	949-1	SOIL	6010B	Silver - TCLP
010816201	949-1	SOIL	6010B	Arsenic - TCLP
010816201	949-1	SOIL	6010B	Barium - TCLP
010816201	949-1	SOIL	6010B	Cadmium - TCLP
010816201	949-1	SOIL	6010B	Chromium - TCLP
010816201	949-1	SOIL	7470A	Mercury - TCLP
010816201	949-1	SOIL	6010B	Lead - TCLP
010816201	949-1	SOIL	6010B	Selenium - TCLP
010816201	949-1	SOIL	8270C	TCLP Semivolatiles
010816201	949-1	SOIL	1311	TCLP Extraction Organics
010816201	949-1	SOIL	1311	TCLP Extraction ZHE
010816201	949-1	SOIL	8260B	TCLP Volatile Organics
010816202	949-2	SOIL	1311	TCLP Extraction
010816202	949-2	SOIL	6010B	Silver - TCLP
010816202	949-2	SOIL	6010B	Arsenic - TCLP
010816202	949-2	SOIL	6010B	Barium - TCLP
010816202	949-2	SOIL	6010B	Cadmium - TCLP
010816202	949-2	SOIL	6010B	Chromium - TCLP
010816202	949-2	SOIL	7470A	Mercury - TCLP
010816202	949-2	SOIL	6010B	Lead - TCLP
010816202	949-2	SOIL	6010B	Selenium - TCLP
010816202	949-2	SOIL	8270C	TCLP Semivolatiles
010816202	949-2	SOIL	1311	TCLP Extraction Organics
010816202	949-2	SOIL	1311	TCLP Extraction ZHE
010816202	949-2	SOIL	8260B	TCLP Volatile Organics
010816203	949-3	SOIL	1311	TCLP Extraction
010816203	949-3	SOIL	6010B	Silver - TCLP
010816203	949-3	SOIL	6010B	Arsenic - TCLP
010816203	949-3	SOIL	6010B	Barium - TCLP
010816203	949-3	SOIL	6010B	Cadmium - TCLP
010816203	949-3	SOIL	6010B	Chromium - TCLP
010816203	949-3	SOIL	7470A	Mercury - TCLP
010816203	949-3	SOIL	6010B	Lead - TCLP
010816203	949-3	SOIL	6010B	Selenium - TCLP
010816203	949-3	SOIL	8270C	TCLP Semivolatiles
010816203	949-3	SOIL	1311	TCLP Extraction Organics
010816203	949-3	SOIL	1311	TCLP Extraction ZHE
010816203	949-3	SOIL	8260B	TCLP Volatile Organics

Environmental Testing & Consulting, Inc.

Login
Chain-of-Custody

CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc
2924 Walnut Grove Rd.
Memphis, TN 38111
(901)327-2750 FAX (901)327-6334

ETC Work Order : 010816

Company Name	Phone # 615 331 9232	Fax Results	X
JACOBS/SVERDRUP	Fax # 615 833 8328	RUSH 5 DAY	
Project/Site: Memphis Depot	FID #	Ice	
Project #: C5X51107	PO #		
Project Manager/Contact	Matrix: 1 Wastewater, 2 Aqueous, 3 Soil/Sediment, 4 Sludge, 5 Oil/Solvent, 6 Other		

Analysis Requested (Note special detection limits or methods)

# of cont	Sample ID/ Number	Depth	Sample Date	Sample Time	Matrix	Type Grab/Comp		TCLP Metals	TCLP VOCs	TCLP SVOCs	Comments
1	949-1	0-1'	8/6/01	1130	SOIL	COMP		X	X	X	
1	949-2	0-1'	8/6/01	1150	SOIL	COMP		X	X	X	
1	949-3	0-1'	8/6/01	1215	SOIL	COMP		X	X	X	

Sampled By: KRAIG SMITH | Method of Shipment: HAND DELIVER | Blank/Cooler Temp | Remarks: NEED 5-DAY TURNAROUND - FAX RESULTS ASAP

	DATE	TIME		DATE	TIME	Sample Delivery Group ID
RELINQUISHED BY (sign)	8/6/01	1325	RECEIVED BY (sign)			
RELINQUISHED BY (sign)			RECEIVED BY (sign)			
RELINQUISHED BY (sign)			RECEIVED BY LAB (print/sign)	8-6-01	13:25	

Distribution: Original and Yellow accompany samples to the laboratory. Pink copy for Field Crew
Original copy returned with results Yellow copy for ETC, Inc. files

F:\QAQC\SLOP\COC0895.XLS

644 27

Environmental Testing & Consulting, Inc.
Cooler Receipt Form

Date Received__8/6/01_____
Date/Time Checked In_8/6/01-13:25__
Carrier/Bill# ___Hand-Delivered_____

LIMS#_0108-162_____
Project__Memphis Depot_
_____
By__Rebekah Barger__

1.	Custody Seals?/Location-NA	**No**
2.	Samples are non-radioactive?	**Yes**
3.	Chain of Custody in plastic?	**Yes**
4.	Temperature at receipt (ok = 4 ± 2 °C)<4oC	**OK**
5.	Ice & Packing-Bubble Wrap, Ice	**Yes**
6.	Chain of Custody filled out properly?	**Yes**
7.	All containers in separate bags?	**Yes**
8.	Sample containers intact?	**Yes**
9.	Label(s) complete and in good condition?	**Yes**
10.	Label(s) agree with Chain of Custody?	**Yes**
11.	Correct containers used?	**Yes**
12.	Sufficient sample?	**Yes**
13.	VOA vials bubble-free (H_2O) or no head space (soil)?	**Yes**
14.	Preservation OK? TM pH____; TRPH pH____; TOC pH____; TOX pH____; CN pH____; N/P pH____; Other pH____	**Yes**

Comments _____

*Validated Date and Time of Sample Receipt (VDTSR)

Environmental Testing & Consulting, Inc.

Sample Reports

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 30

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID : **0108162-01**
Field ID : **949-1**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
TCLP Extraction	Leachate				08/07/01	TL	1311
Metals Digestion Batch	V27-AQ-50				08/09/01	NR	3015A
Mercury Digestion Batch	V27-AQ-59				08/10/01	NR	7470
Silver - TCLP	ND	mg/L	0.010	08/09/01	08/09/01	JF	6010B
Arsenic - TCLP	ND	mg/L	0.100	08/09/01	08/09/01	JF	6010B
Barium - TCLP	0.555	mg/L	0.025	08/09/01	08/09/01	JF	6010B
Cadmium - TCLP	ND	mg/L	0.010	08/09/01	08/09/01	JF	6010B
Chromium - TCLP	12 2	mg/L	0.010	08/09/01	08/09/01	JF	6010B
Mercury - TCLP	ND	mg/L	0.001	08/10/01	08/10/01	NR	7470A
Lead - TCLP	ND	mg/L	0.100	08/09/01	08/09/01	JF	6010B
Selenium - TCLP	ND	mg/L	0.100	08/09/01	08/09/01	JF	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 31

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID : **0108162-02**
Field ID **949-2**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
TCLP Extraction	Leachate				08/07/01	TL	1311
Metals Digestion Batch	V27-AQ-50				08/09/01	NR	3015A
Mercury Digestion Batch	V27-AQ-59				08/10/01	NR	7470
Silver - TCLP	ND	mg/L	0.010	08/09/01	08/09/01	JF	6010B
Arsenic - TCLP	ND	mg/L	0.100	08/09/01	08/09/01	JF	6010B
Barium - TCLP	0.779	mg/L	0.025	08/09/01	08/09/01	JF	6010B
Cadmium - TCLP	ND	mg/L	0.010	08/09/01	08/09/01	JF	6010B
Chromium - TCLP	5.47	mg/L	0.010	08/09/01	08/09/01	JF	6010B
Mercury - TCLP	ND	mg/L	0.001	08/10/01	08/10/01	NR	7470A
Lead - TCLP	ND	mg/L	0.100	08/09/01	08/09/01	JF	6010B
Selenium - TCLP	ND	mg/L	0 100	08/09/01	08/09/01	JF	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 32

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID : **0108162-03**
Field ID : **949-3**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
TCLP Extraction	Leachate				08/07/01	TL	1311
Metals Digestion Batch	V27-AQ-50				08/09/01	NR	3015A
Mercury Digestion Batch	V27-AQ-59				08/10/01	NR	7470
Silver - TCLP	ND	mg/L	0 010	08/09/01	08/09/01	JF	6010B
Arsenic - TCLP	ND	mg/L	0 100	08/09/01	08/09/01	JF	6010B
Barium - TCLP	0 461	mg/L	0 025	08/09/01	08/09/01	JF	6010B
Cadmium - TCLP	ND	mg/L	0 010	08/09/01	08/09/01	JF	6010B
Chromium - TCLP	0 828	mg/L	0 010	08/09/01	08/09/01	JF	6010B
Mercury - TCLP	ND	mg/L	0 001	08/10/01	08/10/01	NR	7470A
Lead - TCLP	ND	mg/L	0.100	08/09/01	08/09/01	JF	6010B
Selenium - TCLP	ND	mg/L	0 100	08/09/01	08/09/01	JF	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 33

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

FID # **FIELD/III/NONE/****

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID **0108162-01**
Field ID : **949-1**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE EXTRACTED	BY	METHOD
TCLP Extraction ZHE	Leachate				08/07/01	TL	1311
TCLP Volatile Organics				08/08/01		LS	8260B
							5030B
QC Batch	**V208081**						
Dilution Factor	**10**						
Benzene	ND	mg/L	0.010				
Carbon Tetrachloride	ND	mg/L	0.010				
Chlorobenzene	ND	mg/L	0.010				
Chloroform	ND	mg/L	0.010				
1,4-Dichlorobenzene	ND	mg/L	0 010				
1,2-Dichloroethane	ND	mg/L	0 010				
1,1-Dichloroethene	ND	mg/L	0.010				
2-Butanone (MEK)	ND	mg/L	1 00				
Tetrachloroethene	ND	mg/L	0.010				
[illegible]ichloroethene	ND	mg/L	0.010				
[illegible]hyl Chloride	ND	mg/L	0.010				

Surrogate Standard	% Recovery	QC Limits	
S1 - Dibromofluoromethane	90	74	123
S2 - Toluene-d8	94	86	112
S3 - 4-Bromofluorobenzene	101	81	115
S4 - 1,2-Dichloroethane-d4	86	80	120

Data Validator

ND - Not Detected

Q - Recovery Outside QC Limits

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 34

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

FID # **FIELD/III/NONE/****

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID **0108162-02**
Field ID : **949-2**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE EXTRACTED	BY	METHOD
TCLP Extraction ZHE	Leachate				08/07/01	TL	1311
TCLP Volatile Organics				08/08/01		LS	8260B 5030B
QC Batch	**V208081**						
Dilution Factor	**10**						
Benzene	ND	mg/L	0.010				
Carbon Tetrachloride	ND	mg/L	0.010				
Chlorobenzene	ND	mg/L	0.010				
Chloroform	ND	mg/L	0.010				
1,4-Dichlorobenzene	ND	mg/L	0.010				
1,2-Dichloroethane	ND	mg/L	0.010				
1,1-Dichloroethene	ND	mg/L	0.010				
2-Butanone (MEK)	ND	mg/L	1 00				
Tetrachloroethene	ND	mg/L	0 010				
[illegible]ichloroethene	ND	mg/L	0 010				
[illegible]hyl Chloride	ND	mg/L	0.010				

Surrogate Standard	% Recovery	QC Limits	
S1 - Dibromofluoromethane	91	74	123
S2 - Toluene-d8	94	86	112
S3 - 4-Bromofluorobenzene	101	81	115
S4 - 1,2-Dichloroethane-d4	89	80	120

Data Validator

ND - Not Detected

Q - Recovery Outside QC Limits

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

Client Name: **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID: **Memphis Depot, Dunn Field**

FID #: **FIELD/III/NONE/****

Date Arrived: **08/06/01**
ETC Order Number: **0108162**

ETC Lab ID: **0108162-03**
Field ID : **949-3**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE EXTRACTED	BY	METHOD
TCLP Extraction ZHE	Leachate				08/07/01	TL	1311
TCLP Volatile Organics				08/08/01		LS	8260B 5030B
QC Batch	**V208081**						
Dilution Factor	**10**						
Benzene	ND	mg/L	0.010				
Carbon Tetrachloride	ND	mg/L	0.010				
Chlorobenzene	ND	mg/L	0.010				
Chloroform	ND	mg/L	0.010				
1,4-Dichlorobenzene	ND	mg/L	0.010				
1,2-Dichloroethane	ND	mg/L	0.010				
1,1-Dichloroethene	ND	mg/L	0.010				
2-Butanone (MEK)	ND	mg/L	1.00				
Tetrachloroethene	ND	mg/L	0.010				
[redacted]chloroethene	ND	mg/L	0.010				
[redacted]yl Chloride	ND	mg/L	0.010				

Surrogate Standard	% Recovery	QC Limits	
S1 - Dibromofluoromethane	92	74	123
S2 - Toluene-d8	94	86	112
S3 - 4-Bromofluorobenzene	102	81	115
S4 - 1,2-Dichloroethane-d4	89	80	120

Data Validator

ND - Not Detected

Q - Recovery Outside QC Limits

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 36

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

FID # **FIELD/III/NONE/****

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID **0108162-01**
Field ID **949-1**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE EXTRACTED	BY	METHOD
TCLP Extraction Organics	Leachate				08/07/01	TL	1311
TCLP Semivolatiles				08/08/01		MK	8270C
					08/08/01		3510C
QC Batch	**P06162**						
Dilution Factor	**1**						
1,4-Dichlorobenzene	ND	mg/L	0.020				
2,4-Dinitrotoluene	ND	mg/L	0.020				
Hexachlorobenzene	ND	mg/L	0.020				
Hexachlorobutadiene	ND	mg/L	0.020				
Hexachloroethane	ND	mg/L	0.020				
2-Methylphenol	ND	mg/L	0 500				
3-Methylphenol	ND	mg/L	0.500				
4-Methylphenol	ND	mg/L	0.500				
Nitrobenzene	ND	mg/L	0 020				
[redacted]ntachlorophenol	ND	mg/L	0.040				
[redacted]ridine	ND	mg/L	0 020				
2,4,5-Trichlorophenol	ND	mg/L	0 020				
2,4,6-Trichlorophenol	ND	mg/L	0.020				

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	91	29	110
S2 - 2-Fluorobiphenyl	95	38	107
S3 - 4-Terphenyl-d14	108	33	122
S4 - Phenol-d6	20	7	58
S5 - 2,4,6-Tribromophenol	56	16	138
S6 - 2-Fluorophenol	27	8	88

Data Validator

ND - Not Detected

Q - Recovery Outside QC Limits

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 37

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

FID # **FIELD/III/NONE/****

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID **0108162-02**
Field ID : **949-2**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE EXTRACTED	BY	METHOD
TCLP Extraction Organics	Leachate				08/07/01	TL	1311
TCLP Semivolatiles				08/09/01		MK	8270C
					08/08/01		3510C
QC Batch	**P06162**						
Dilution Factor	**1**						
1,4-Dichlorobenzene	ND	mg/L	0.020				
2,4-Dinitrotoluene	ND	mg/L	0.020				
Hexachlorobenzene	ND	mg/L	0.020				
Hexachlorobutadiene	ND	mg/L	0.020				
Hexachloroethane	ND	mg/L	0.020				
2-Methylphenol	ND	mg/L	0.500				
3-Methylphenol	ND	mg/L	0.500				
4-Methylphenol	ND	mg/L	0.500				
Nitrobenzene	ND	mg/L	0.020				
[illegible]ntachlorophenol	ND	mg/L	0.040				
[illegible]ridine	ND	mg/L	0.020				
2,4,5-Trichlorophenol	ND	mg/L	0 020				
2,4,6-Trichlorophenol	ND	mg/L	0.020				

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	72	29	110
S2 - 2-Fluorobiphenyl	76	38	107
S3 - 4-Terphenyl-d14	86	33	122
S4 - Phenol-d6	16	7	58
S5 - 2,4,6-Tribromophenol	44	16	138
S6 - 2-Fluorophenol	22	8	88

Q

Data Validator

ND - Not Detected

Q - Recovery Outside QC Limits

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 38

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot, Dunn Field**

FID # **FIELD/III/NONE/****

Date Arrived **08/06/01**
ETC Order Number **0108162**

ETC Lab ID **0108162-03**
Field ID : **949-3**

Matrix : **SOIL**
Sample Date : **08/06/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE EXTRACTED	BY	METHOD
TCLP Extraction Organics	Leachate				08/07/01	TL	1311
TCLP Semivolatiles				08/09/01		MK	8270C
					08/08/01		3510C
QC Batch	**P06162**						
Dilution Factor	**1**						
1,4-Dichlorobenzene	ND	mg/L	0 020				
2,4-Dinitrotoluene	ND	mg/L	0 020				
Hexachlorobenzene	ND	mg/L	0 020				
Hexachlorobutadiene	ND	mg/L	0 020				
Hexachloroethane	ND	mg/L	0 020				
2-Methylphenol	ND	mg/L	0.500				
3-Methylphenol	ND	mg/L	0.500				
4-Methylphenol	ND	mg/L	0.500				
Nitrobenzene	ND	mg/L	0.020				
Pentachlorophenol	ND	mg/L	0.040				
Pyridine	ND	mg/L	0.020				
2,4,5-Trichlorophenol	ND	mg/L	0 020				
2,4,6-Trichlorophenol	ND	mg/L	0.020				

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	69	29	110
S2 - 2-Fluorobiphenyl	72	38	107
S3 - 4-Terphenyl-d14	81	33	122
S4 - Phenol-d6	16	7	58
S5 - 2,4,6-Tribromophenol	42	16	138
S6 - 2-Fluorophenol	23	8	88

Data Validator

ND - Not Detected

Q - Recovery Outside QC Limits

Environmental Testing & Consulting, Inc.

Quality Control Reports
Level III
Metals (ICP/GFAA/CV)

ENVIRONMENTAL TESTING AND CONSULTING, INC.
CASE NARRATIVE
METALS – TCLP

Client Name Jacobs Engineering
Project Name Memphis Depot

ETC Order # 0108-162

HOLDING TIMES

QC Batch(s) for this order	ICP Metals	V27-AQ-50
	Mercury	V8-AQ-59
TCLP Extraction	All soils extracted within 180 days (28 days for Mercury)	
Sample Preparation	All TCLP leachates prepared and analyzed within 180 days (28 days for Mercury)	

METHOD

Leachate:	SW-846 1311
Preparation:	SW-846 3015/7470A
Analysis.	SW-846 6010B/7470A

CALIBRATION

Initial Calibration	All criteria met
Continuing Calibration	All criteria met.

SAMPLE ANALYSIS

Instrumentation	Thermo Jarrell Ash Enviro-I ICP
	CETAC M-6000A Mercury Analyzer
Dilutions Required	No dilutions required.

QUALITY CONTROL

0108-162.MQCBLANK

Method Blank

V27-AQ-50BLK ICP Metals
V8-AQ-59BLK Mercury
No analytes detected in the Method Blank

0108-162.MQCLCS

Laboratory Control Sample(s)

V27-AQ-50LCS ICP Metals
V8-AQ-59LCS Mercury
All acceptance criteria met.

0108-162.MQCMSMSD

Matrix Spike / Matrix Spike Dup - ICP Metals

0108-162-01	RPD	All analytes within QC limits
949-1	Spike Recovery	All analytes within QC limits *

*Recovery for Chromium was flagged as outside QC Limits in the MSD MS recovery was within QC Limits. Refer to Laboratory Control Sample(s) for system verification

Matrix Spike / Matrix Spike Dup - Hg

0108-162-01	RPD	All analytes within QC limits
949-1	Spike Recovery	All analytes within QC limits

Refer to Laboratory Control Sample(s) for system verification

Project Manager

FORM 3A
TCLP/SPLP METHOD BLANK
METALS

Lab Name: Environmental Testing and Consulting, Inc

		QC Batch
Laboratory ID ICP/GFAA Metals	V27-AQ-50 BLK	V27-AQ-50
Laboratory ID Mercury	V8-AQ-59 BLK	V8-AQ-59
Date Sample Prepared	8/9/01	ICP/GFAA Metals
	8/10/01	Mercury

Metals	Concentration mg/L	Detection Limit mg/L	Date Analyzed	Method
Silver	ND	0.010	8/9/01	6010B
Arsenic	ND	0.100	8/9/01	6010B
Barium	ND	0.025	8/9/01	6010B
Cadmium	ND	0.010	8/9/01	6010B
Chromium	ND	0.010	8/9/01	6010B
Lead	ND	0.100	8/9/01	6010B
Selenium	ND	0.100	8/9/01	6010B
Mercury	ND	0.001	8/10/01	7470A

ND - Not Detected

Reviewed by

0108-162.mqc BLANK

FORM 7
TCLP/SPLP LABORATORY CONTROL SAMPLE
METALS

Lab Name: Environmental Testing and Consulting, Inc

			QC Batch
Laboratory Control ID	ICP/GFAA Metals	V27-AQ-50 LCS	V27-AQ-50
	Mercury	V8-AQ-59 LCS	V8-AQ-59
Date Prepared	ICP/GFAA Metals	8/9/01	
	Mercury	8/10/01	

Metals	Spike Added mg/L	Found mg/L	% R	#	QC Limits	
Silver	0 250	0.283	113		80	120
Arsenic	1.25	1.43	114		80	120
Barium	2.50	2.97	119		80	120
Cadmium	0.250	0.270	108		80	120
Chromium	0 500	0 584	117		80	120
Lead	1.25	1.38	110		80	120
Selenium	1.25	1.36	109		80	120
Mercury	0 0050	0.0052	104		85	115

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by _____

0108-162.mqc LCS

FORM 6
TCLP/SPLP MATRIX SPIKE / MATRIX SPIKE DUPLICATE
METALS

Lab Name: Environmental Testing and Consulting, Inc

		QC Batch
Laboratory ID MS ICP/GFAA Metals	0108-162-01	V27-AQ-50
Laboratory ID MS Mercury	0108-162-01	V8-AQ-59

Date Sample Prepared	8/9/01	ICP/GFAA Metals
	8/10/01	Mercury

Metals	SPIKE Added mg/L	SAMPLE Conc mg/L	MS Conc mg/L	RPD <20% #	MS % Rec #	QC Limits	
Silver	0.250	ND	0.314	1	126	50	150
Arsenic	1.25	ND	1.49	2	119	50	150
Barium	2.50	0.555	3.57	2	121	50	150
Cadmium	0.250	ND	0.265	2	106	50	150
Chromium	0.500	12.2	12 8	2	120	50	150
Lead	1.25	ND	1.38	2	110	50	150
Selenium	1.25	ND	1.59	2	127	50	150
Mercury	0.0050	ND	0.0054	4	108	50	150

ND - Not Detected
Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by _____

FORM 6
TCLP/SPLP MATRIX SPIKE / MATRIX SPIKE DUPLICATE
METALS

Lab Name: Environmental Testing and Consulting, Inc

		QC Batch
Laboratory ID MS ICP/GFAA Metals	0108-162-01	V27-AQ-50
Laboratory ID MS Mercury	0108-162-01	V8-AQ-59

Date Sample Prepared	8/9/01	ICP/GFAA Metals
	8/10/01	Mercury

Metals	SPIKE Added mg/L	SAMPLE Conc mg/L	MSD Conc mg/L		MSD % Rec	#	QC Limits	
Silver	0.250	ND	0.316		126		50	150
Arsenic	1.25	ND	1.52		122		50	150
Barium	2.50	0.555	3.63		123		50	150
Cadmium	0.250	ND	0.270		108		50	150
Chromium	0.500	12.2	13.0		160	*	50	150
Lead	1.25	ND	1.41		113		50	150
Selenium	1.25	ND	1.63		130		50	150
Mercury	0 0050	ND	0.0052		104		50	150

ND - Not Detected
Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by _____

Environmental Testing & Consulting, Inc.

Quality Control Reports
Level III
GC/MS Volatiles

ENVIRONMENTAL TESTING AND CONSULTING, INC.
CASE NARRATIVE
GC/MS VOLATILE COMPOUNDS – TCLP

Client Name Jacobs Engineering
Project Name Memphis Depot

ETC Order # 0108-162

HOLDING TIMES

TCLP Extraction All samples extracted within 14 days.
Sample Analysis All VOC extracts analyzed within 14days.

METHOD

Preparation. SW-846 1311
Analysis. SW-846 8260B

QUALITY CONTROL

QC Batch	Form 4 Summary
V208081	V2080811LB

System Monitoring Compounds FORM 2
Surrogate recoveries within QC limits.

Method Blank FORM 4
V2080811LB
Target analytes were not detected in the method blank

Laboratory Control Sample FORM 3
V2080811LCS
All acceptance criteria met, except as listed below:
Tetrachloroethene was flagged for marginally low recovery in the LCS. This analyte was not identified in the associated project samples. The data was not affected

Matrix Spike / Matrix Spike Dup FORM 3
Batch V208081

0108-162-03T	RPD	All analytes within QC limits
949-3	Spike Recovery	All analytes within QC limits.

Refer to Laboratory Control Sample(s) for system verification.

CALIBRATION

BFB Daily 12-Hour Tune	All criteria met. FORM 5
Initial Calibration	All criteria met FORM 6
Calibration Verification	All criteria met. FORM 7

Volatile Internal Standard Area and RT FORM 8
Daily Check Standard(s) Internal Standard Areas and Retention Times within QC limits.

SAMPLE ANALYSIS

Instrumentation	HP 5890 Series II GC, 5971MSD
Dilutions Required	No dilutions required

Project Manager

FORM 2
WATER VOA-GCMS SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ETC,INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

	CLIENT SAMPLE NO.	SMC1 (DFM) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER (DCE) #	TOT OUT
01	V2080811LCS	93	93	96	86	0
02	V2080811LB	88	93	100	85	0
03	0108-162-1T	90	94	101	86	0
04	0108-162-2T	91	94	101	89	0
05	0108-162-3T	92	94	102	89	0
06	0108-162-3TM	95	93	96	90	0
07	0108-162-3TM	95	94	96	90	0
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (DFM)	= Dibromofluoromethane	(84-115)
SMC2 (TOL)	= Toluene-d8	(69-133)
SMC3 (BFB)	= Bromofluorobenzene	(80-111)
OTHER(DCE)	= 1,2-Dichloroethane-d4	(58-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 4
VOA-GCMS METHOD BLANK SUMMARY

644 48 CLIENT SAMPLE NO.

V2080811LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Lab File ID: 0302003T Lab Prep Batch: V208081

Date Analyzed: 08/08/01 Time Analyzed: 1417

GC Column: ID: 2 (mm) Heated Purge: (Y/N) Y

Instrument ID: VOC2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	V2080811LCS	V208081	0201002TLCS	1245
02	0108-162-1T	V208081	0501005	1521
03	0108-162-2T	V208081	0701007	1625
04	0108-162-3T	V208081	0901009	1728
05	0108-162-3TM	V208081	1901019	2242
06	0108-162-3TM	V208081	2001020	2313
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COMMENTS:

FORM 1 644 49 CLIENT SAMPLE NO.
VOA-GCMS ORGANICS ANALYSIS DATA SHEET

V2080811LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix: (soil/water) WATER Lab Prep Batch: V208081

Sample wt/vol: 10.00 (g/mL) ML Lab File ID: 0302003T

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/01

GC Column: ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	1.00	U
78-93-3	2-Butanone	20.00	U
56-23-5	Carbon Tetrachloride	1.00	U
108-90-7	Chlorobenzene	1.00	U
67-66-3	Chloroform	1.00	U
106-46-7	1,4-Dichlorobenzene	1.00	U
107-06-2	1,2-Dichloroethane	1.00	U
75-35-4	1,1-Dichloroethene	1.00	U
127-18-4	Tetrachloroethene	1.00	U
79-01-6	Trichloroethene	1.00	U
75-01-4	Vinyl Chloride	1.00	U

FORM 1 644 50 CLIENT SAMPLE NO.
VOA-GCMS ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

V2080811LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 10.00 (g/mL) ML Lab File ID: 0302003T

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 08/08/01

GC Column: ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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FORM 3
WATER VOA-GCMS LAB CONTROL SAMPLE

Lab Name: ETC, INC. Lab Prep Batch: V208081

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix Spike - Sample No.: V2080811LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Benzene	100.0		98.95	99	72-124
2-Butanone	100.0		109.2	109	55-151
Carbon Tetrachloride	100.0		98.51	98	64-123
Chlorobenzene	100.0		86.04	86	77-112
Chloroform	100.0		94.36	94	70-115
1,4-Dichlorobenzene	100.0		82.32	82	78-116
1,2-Dichloroethane	100.0		97.69	98	62-124
1,1-Dichloroethene	100.0		105.9	106	69-121
Tetrachloroethene	100.0		73.69	74*	77-115
Trichloroethene	100.0		89.52	90	75-113
Vinyl Chloride	100.0		90.53	90	65-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 1 out of 11 outside limits

COMMENTS: _____

FORM 3
WATER VOA-GCMS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ETC,INC. Lab Prep Batch: V208081

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix Spike - Sample No.: 0108-162-3T

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Benzene	100.0	0.000	111.6	112	72-124
2-Butanone	100.0	0.000	107.3	107	55-151
Carbon Tetrachloride	100.0	0.000	108.3	108	64-123
Chlorobenzene	100.0	0.000	91.32	91	77-112
Chloroform	100.0	0.000	105.9	106	70-115
1,4-Dichlorobenzene	100.0	0.000	85.29	85	78-116
1,2-Dichloroethane	100.0	0.000	110.0	110	62-124
1,1-Dichloroethene	100.0	0.000	106.8	107	69-121
Tetrachloroethene	100.0	0.000	77.29	77	77-115
Trichloroethene	100.0	0.000	93.61	94	75-113
Vinyl Chloride	100.0	0.000	115.0	115	65-134

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Benzene	100.0	108.9	109	3	20	72-124
2-Butanone	100.0	110.4	110	3	20	55-151
Carbon Tetrachloride	100.0	106.1	106	2	20	64-123
Chlorobenzene	100.0	90.40	90	1	20	77-112
Chloroform	100.0	104.0	104	2	20	70-115
1,4-Dichlorobenzene	100.0	82.82	83	2	20	78-116
1,2-Dichloroethane	100.0	109.1	109	1	20	62-124
1,1-Dichloroethene	100.0	105.5	106	1	20	69-121
Tetrachloroethene	100.0	76.80	77	0	20	77-115
Trichloroethene	100.0	92.88	93	1	20	75-113
Vinyl Chloride	100.0	116.7	117	2	20	65-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

Environmental Testing & Consulting, Inc.

Quality Control Reports
Level III
GC/MS Semi-Volatiles

ENVIRONMENTAL TESTING AND CONSULTING, INC.
CASE NARRATIVE
GC/MS SEMI-VOLATILE COMPOUNDS - TCLP

Client Name Jacobs Engineering
Project Name Memphis Depot

ETC Order # 0108-162

HOLDING TIMES

TCLP Extraction	All samples extracted within 14 days
Sample Extraction	All TCLP leachate/filtrates extracted within 7 days.
Sample Analysis	All Non-VOC extracts analyzed within 40 days.

METHOD

Preparation	SW-846 1311/3510C
Analysis:	SW-846 8270C

QUALITY CONTROL

QC Batch	Form 4 Summary
P06162	P06162LB

System Monitoring Compounds FORM 2
Surrogate recoveries within QC limits

Method Blank FORM 4
080601F1LB – Fluid 1 Blank
P06162LB
Target analytes were not detected in the method blanks.

Laboratory Control Sample FORM 3
P06162LCS/LCSD
All target analyte acceptance criteria met, except as listed below
RPD for Pyridine was flagged as outside QC Limits due to lower recovery in the LCSD. LCS/LCSD recoveries were within QC Limits. The data was not affected

Matrix Spike / Matrix Spike Dup FORM 3
Batch P06162

0108-162-01	RPD	All analytes within QC limits.
949-1	Spike Recovery	All analytes within QC limits

Refer to Laboratory Control Sample(s) for system verification.

CALIBRATION

DFTPP Daily 12-Hour Tune	All criteria met FORM 5
Initial Calibration	All criteria met FORM 6
Calibration Verification	All criteria met. FORM 7

Semi-Volatile Internal Standard Area and RT FORM 8
Calibration Verification standard(s) Internal Standard Areas and Retention Times within QC limits.

SAMPLE ANALYSIS

Instrumentation	HP 5890 Series II GC, 5971MSD
Dilutions Required	No dilutions required

Project Manager

FORM 2
WATER BNA-GCMS SURROGATE RECOVERY

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

	CLIENT SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (TBP)#	S6 (2FP)#	S7 #	S8 #	TOT OUT
01	P06162LB	94	100	121	21	63	32			0
02	080601F1LB	68	71	93	16	46	23			0
03	0108-162-1	91	95	108	20	56	27			0
04	0108-162-1MS	100	103	121	23	66	33			0
05	0108-162-1MS	97	101	111	21	62	30			0
06	P06162LCS	71	76	82	16	40	23			0
07	P06162LCSD	69	74	78	15	40	22			0
08	0108-162-2	72	76	86	16	44	22			0
09	0108-162-3	69	72	81	16	42	23			0
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(29-110)
S2 (FBP)	= 2-Fluorobiphenyl	(38-107)
S3 (TPH)	= Terphenyl-d14	(33-122)
S4 (PHL)	= Phenol-d6	(7- 58)
S5 (TBP)	= 2,4,6-Tribromophenol	(16-138)
S6 (2FP)	= 2-Fluorophenol	(8- 88)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 4 644 56 CLIENT SAMPLE NO.

BNA-GCMS METHOD BLANK SUMMARY

080601F1LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Lab File ID: 0801008 Lab Prep Batch: P06162

Instrument ID: BNA2 Date Extracted:

Matrix: (soil/water) WATER Date Analyzed: 08/08/01

Level: (low/med) LOW Time Analyzed: 1806

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	TIME ANALYZED	LAB FILE ID	DATE ANALYZED
01	0108-162-1	2023	1201012	08/08/01
02	0108-162-1MS	2057	1301013	08/08/01
03	0108-162-1MS	2131	1401014	08/08/01
04	P06162LCS	0922	0301003	08/09/01
05	P06162LCSD	0956	0401004	08/09/01
06	0108-162-2	1032	0501001	08/09/01
07	0108-162-3	1106	0601002	08/09/01
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COMMENTS:

FORM 1 644 57 CLIENT SAMPLE NO.
BNA-GCMS ORGANICS ANALYSIS DATA SHEET

080601F1LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix: (soil/water) WATER Lab Prep Batch: P06162

Sample wt/vol: 250.0 (g/mL) ML Lab File ID: 0801008

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:

Concentrated Extract Volume: 1(mL) Date Analyzed: 08/08/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	20.00	U
121-14-2	2,4-Dinitrotoluene	20.00	U
118-74-1	Hexachlorobenzene	20.00	U
87-68-3	Hexachlorobutadiene	20.00	U
67-72-1	Hexachloroethane	20.00	U
95-48-7	2-Methylphenol	20.00	U
108-39-4	3&4-Methylphenol	20.00	U
98-95-3	Nitrobenzene	20.00	U
87-86-5	Pentachlorophenol	40.00	U
110-86-1	Pyridine	20.00	U
95-95-4	2,4,5-Trichlorophenol	20.00	U
88-06-2	2,4,6-Trichlorophenol	20.00	U

FORM 4 644 53 CLIENT SAMPLE NO.

BNA-GCMS METHOD BLANK SUMMARY

P06162LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Lab File ID: 0501005 Lab Prep Batch: P06162

Instrument ID: BNA2 Date Extracted:

Matrix: (soil/water) WATER Date Analyzed: 08/08/01

Level: (low/med) LOW Time Analyzed: 1624

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	TIME ANALYZED	LAB FILE ID	DATE ANALYZED
01	0108-162-1	2023	1201012	08/08/01
02	0108-162-1MS	2057	1301013	08/08/01
03	0108-162-1MS	2131	1401014	08/08/01
04	P06162LCS	0922	0301003	08/09/01
05	P06162LCSD	0956	0401004	08/09/01
06	0108-162-2	1032	0501001	08/09/01
07	0108-162-3	1106	0601002	08/09/01
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COMMENTS:

FORM 1 644 59 CLIENT SAMPLE NO.
BNA-GCMS ORGANICS ANALYSIS DATA SHEET

P06162LB

Lab Name: ETC, INC. Contract:

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix: (soil/water) WATER Lab Prep Batch: P06162

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0501005

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:

Concentrated Extract Volume: 1(mL) Date Analyzed: 08/08/01

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	5.00	U
121-14-2	2,4-Dinitrotoluene	5.00	U
118-74-1	Hexachlorobenzene	5.00	U
87-68-3	Hexachlorobutadiene	5.00	U
67-72-1	Hexachloroethane	5.00	U
95-48-7	2-Methylphenol	5.00	U
108-39-4	3&4-Methylphenol	5.00	U
98-95-3	Nitrobenzene	5.00	U
87-86-5	Pentachlorophenol	10.00	U
110-86-1	Pyridine	5.00	U
95-95-4	2,4,5-Trichlorophenol	5.00	U
88-06-2	2,4,6-Trichlorophenol	5.00	U

FORM 3
WATER BNA-GCMS LAB CONTROL SAMPLE

Lab Name: ETC, INC. Lab Prep Batch: P06162

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix Spike - Sample No.: P06162LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	50.00		31.33	63	31- 97
2,4-Dinitrotoluene	50.00		37.93	76	34-130
Hexachlorobenzene	50.00		36.61	73	65-133
Hexachlorobutadiene	50.00		34.08	68	50-112
Hexachloroethane	50.00		30.24	60	37-100
2-Methylphenol	50.00		30.50	61	40-117
3&4-Methylphenol	50.00		29.29	58	46- 99
Nitrobenzene	50.00		34.75	70	57-120
Pentachlorophenol	50.00		35.36	71	22-171
Pyridine	50.00		23.41	47	10- 82
2,4,5-Trichlorophenol	50.00		39.45	79	31-147
2,4,6-Trichlorophenol	50.00		37.70	75	30-163

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	50.00	31.71	63	0	20	31- 97
2,4-Dinitrotoluene	50.00	35.68	71	7	20	34-130
Hexachlorobenzene	50.00	34.96	70	4	20	65-133
Hexachlorobutadiene	50.00	34.52	69	1	20	50-112
Hexachloroethane	50.00	31.97	64	6	20	37-100
2-Methylphenol	50.00	28.86	58	5	20	40-117
3&4-Methylphenol	50.00	27.28	54	7	20	46- 99
Nitrobenzene	50.00	34.20	68	3	20	57-120
Pentachlorophenol	50.00	34.16	68	4	20	22-171
Pyridine	50.00	17.72	35	29*	20	10- 82
2,4,5-Trichlorophenol	50.00	36.66	73	8	20	31-147
2,4,6-Trichlorophenol	50.00	37.49	75	0	20	30-163

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 1 out of 12 outside limits
Spike Recovery: 0 out of 24 outside limits

COMMENTS: _____

FORM 3
WATER BNA-GCMS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ETC, INC. Lab Prep Batch: P06162

Lab Code: Case No.: SAS No.: SDG No.: 0108-162

Matrix Spike - Sample No.: 0108-162-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	400.0	0.000	348.4	87	31- 97
2,4-Dinitrotoluene	400.0	0.000	422.8	106	34-130
Hexachlorobenzene	400.0	0.000	466.5	117	65-133
Hexachlorobutadiene	400.0	0.000	372.3	93	50-112
Hexachloroethane	400.0	0.000	312.5	78	37-100
2-Methylphenol	640.0	0.000	351.0	55	40-117
3&4-Methylphenol	640.0	0.000	629.1	98	46- 99
Nitrobenzene	400.0	0.000	387.6	97	57-120
Pentachlorophenol	640.0	0.000	431.0	67	22-171
Pyridine	400.0	0.000	269.0	67	10- 82
2,4,5-Trichlorophenol	640.0	0.000	420.1	66	31-147
2,4,6-Trichlorophenol	640.0	0.000	437.3	68	30-163

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	400.0	346.1	86	1	20	31- 97
2,4-Dinitrotoluene	400.0	398.1	100	6	20	34-130
Hexachlorobenzene	400.0	455.6	114	2	20	65-133
Hexachlorobutadiene	400.0	374.8	94	1	20	50-112
Hexachloroethane	400.0	326.3	82	5	20	37-100
2-Methylphenol	640.0	320.8	50	10	20	40-117
3&4-Methylphenol	640.0	575.7	90	8	20	46- 99
Nitrobenzene	400.0	388.6	97	0	20	57-120
Pentachlorophenol	640.0	416.1	65	3	20	22-171
Pyridine	400.0	224.6	56	18	20	10- 82
2,4,5-Trichlorophenol	640.0	395.6	62	6	20	31-147
2,4,6-Trichlorophenol	640.0	426.0	66	3	20	30-163

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 12 outside limits
Spike Recovery: 0 out of 24 outside limits

COMMENTS: _____

CONFIRMATION ANALYSIS REPORT

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road • Memphis, TN 38111 • (901) 327-2750 • FAX (901) 327-6334

Founded 1972

September 6, 2001

SVERDRUP
SEP 18 2001
RECEIVED

Mr. Kraig Smith
Sverdrup/Jacobs Eng.
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Ref: Analytical Testing
ETC Order # 0108822
Project Description Memphis Depot

Project Number CSX51107

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and/or 40 CFR part 136.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact our office if you have any questions.

Sincerely,

Randall H. Thomas
Vice-President/General Manager

rt
Attachment

SVE_MHDDMT

Certifications

Tennessee	*#TN02027*	*Mississippi*		*USDA #S-46279*
Arkansas	*#40730*	*Oklahoma*	*#9311*	
Kentucky	*#90047*	*Virginia*	*#00106*	
North Carolina	*#415*	*Washington*	*#C248*	
South Carolina	*#84002002*	*US Army Corps of Engineers*		

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

ANALYTICAL SUMMARY/CROSS REFERENCE TABLE 644 64

[redacted]ent Name Sverdrup/Jacobs Eng. ETC Order #0108822
Site ID Memphis Depot CSX51107

ETC Sample ID	Field ID	Matrix	Method	Method Description
010882201	949-01	SOIL	6010B	Chromium
010882201	949-01	SOIL	6010B	Lead
010882202	949-02	SOIL	6010B	Chromium
010882202	949-02	SOIL	6010B	Lead
010882203	949-03	SOIL	6010B	Chromium
010882203	949-03	SOIL	6010B	Lead
010882204	949-04	SOIL	6010B	Chromium
010882204	949-04	SOIL	6010B	Lead
010882205	949-05	SOIL	6010B	Chromium
010882205	949-05	SOIL	6010B	Lead
010882206	949-06	SOIL	6010B	Chromium
010882206	949-06	SOIL	6010B	Lead
010882207	949-07	SOIL	6010B	Chromium
010882207	949-07	SOIL	6010B	Lead
[redacted]882208	949-08	SOIL	6010B	Chromium
[redacted]882208	949-08	SOIL	6010B	Lead
010882209	949-09	SOIL	6010B	Chromium
010882209	949-09	SOIL	6010B	Lead
010882210	949-10	SOIL	6010B	Chromium
010882210	949-10	SOIL	6010B	Lead
010882211	949-11	SOIL	6010B	Chromium
010882211	949-11	SOIL	6010B	Lead
010882212	949-12	SOIL	6010B	Chromium
010882212	949-12	SOIL	6010B	Lead
010882213	949-13	SOIL	6010B	Chromium
010882213	949-13	SOIL	6010B	Lead
010882214	949-14	SOIL	6010B	Chromium
010882214	949-14	SOIL	6010B	Lead
010882215	949-20	SOIL	6010B	Chromium
010882215	949-20	SOIL	6010B	Lead
010882216	949-21	SOIL	6010B	Chromium
010882216	949-21	SOIL	6010B	Lead

9/4/01

Environmental Testing & Consulting, Inc.

Login
Chain-of-Custody

CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc.
2924 Walnut Grove Rd.
Memphis, TN 38111
901)327-2750 FAX (901)327-6334

ETC Work Order : 010882

Company Name: JACOBS	Phone # 615 331 9732	Fax Results	✓
	Fax # : 615 833 8328	RUSH	✓
Project/Site: Memphis Depot	FID # :	Ice	
	PO # :		
Project #: C5X51107	Matrix: 1 Wastewater, 2 Aqueous, 3 Soil/Sediment, 4 Sludge, 5 Oil/Solvent, 6 Other		
Project Manager/Contact: Kraig Smith			

see notes

Analysis Requested (Note special detection limits or methods)

# of cont.	Sample ID/ Number	Depth	Sample Date	Sample Time	Matrix	Type Grab/Comp	Total Lead	Total Chromium	Comments
1	949-01	0-1'	8/30/01	0955	Soil	Comp	X	X	
	949-02			1010			X	X	
	949-03			1030			X	X	
	949-04			1035			X	X	
	949-05			1050			X	X	
	949-06			1100			X	X	
	949-07			1110			X	X	
	949-08			1125			X	X	
	949-09			1135			X	X	
	949-10			1145			X	X	
	949-11			1200			X	X	

Sampled By: Kraig Smith

Method of Shipment: Hand Deliver

Blank/Cooler Temp:

Remarks: 5-Day Turnaround

	DATE	TIME		DATE	TIME	Sample Delivery Group ID
RELINQUISHED BY (sign): Kraig Smith	8/30/01	1:15pm	RECEIVED BY (sign):			5-DAY TurnAround
RELINQUISHED BY (sign):	DATE	TIME	RECEIVED BY (sign):	DATE	TIME	
RELINQUISHED BY (sign):	DATE	TIME	RECEIVED BY LAB (print/sign):	DATE: 8/30/01	TIME: 1315	

Distribution : Original and Yellow accompany samples to the laboratory. Pink copy for Field Crew.
Original copy returned with results. Yellow copy for ETC, Inc. files

F:\QAQC\SLOP\COC0995.XLS

644 66

CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc.
2924 Walnut Grove Rd.
Memphis, TN 38111
901)327-2750 FAX (901)327-6334

ETC Work Order : 010,800

Company Name: JACOBS
Project/Site: Memphis Depot
Project #: C5X511.07
Project Manager/Contact: KRAIG SMITH

Phone # : 615 331 9232 — Fax Results: X
Fax # : 615 833 8328 — RUSH: X — 48 hr
FID # : — Ice:
PO # . :

Matrix
1 Wastewater 4 Sludge
2 Aqueous 5 Oil/Solvent
3 Soil/Sediment 6 Other

Analysis Requested
(Note special detection limits or methods)

# of cont.	Sample ID/ Number	Depth	Sample Date	Sample Time	Matrix	Type Grab/Comp	Total Lead	Total Chromium	Comments
1	949 - 12	0-1'	8/30/01	1210	Soil	Comp	X	X	
	949 - 13			1215			X	X	
	949 - 14			1225			X	X	
	949 - 20			1012			X	X	
	949 - 21			1202			X	X	

Sampled By: Kraig Smith
Method of Shipment: Hand Deliver
Blank/Cooler Temp:
Remarks: 5-Day Turnaround

RELINQUISHED BY (sign) Kraig Smith	DATE 8/30/01	TIME 1:15 pm	RECEIVED BY (sign)	DATE	TIME	Sample Delivery Group ID
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME	
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY LAB (print/sign)	DATE 8/30/01	TIME 1315	

644 67

Distribution : Original and Yellow accompany samples to the laboratory. Pink copy for Field Crew.
Original copy returned with results. Yellow copy for ETC, Inc files.

F:\QAQC\SLOP\COC0896.XLS

Environmental Testing & Consulting, Inc.
Cooler Receipt Form

Date Received 8/30/01
Date/Time Checked In 8/30/01-13:15
Carrier/Bill# Hand-Delivered

LIMS# 0108-822
Project Memphis Depot
By Rebekah Barger

1.	Custody Seals?/Location-	No
2.	Samples are non-radioactive?	Yes
3.	Chain of Custody in plastic?	Yes
4.	Temperature at receipt (ok = 4 ± 2 °C) NA	OK
5.	Ice & Packing- Bubble wrap	Yes
6.	Chain of Custody filled out properly?	Yes
7.	All containers in separate bags?	Yes
8.	Sample containers intact?	Yes
9.	Label(s) complete and in good condition?	Yes
10.	Label(s) agree with Chain of Custody?	Yes
11.	Correct containers used?	Yes
12.	Sufficient sample?	Yes
13.	VOA vials bubble-free (H_2O) or no head space (soil)?	Yes
14.	Preservation OK? TM pH____; TRPH pH____; TOC pH____; TOX pH____; CN pH____; N/P pH____; Other pH____	Yes

Comments _____

*Validated Date and Time of Sample Receipt (VDTSR)

Environmental Testing & Consulting, Inc.

Sample Reports

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 70

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-01**
Field ID : **949-01**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	483	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	614	mg/Kg	0 400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 71

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-02**
Field ID : **949-02**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	388	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	350	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 72

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-03**
Field ID : **949-03**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	280	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	396	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 73

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-04**
Field ID : **949-04**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	1,840	mg/Kg	0 500	09/05/01	09/04/01	SH	6010B
Lead	1,620	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 74

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-05**
Field ID : **949-05**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	913	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	1,190	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 75

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-06**
Field ID : **949-06**

Matrix · **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	724	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	850	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 76

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-07**
Field ID : **949-07**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	1,620	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	1,590	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 77

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-08**
Field ID : **949-08**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	1,930	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	1,480	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 78

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID . **0108822-09**
Field ID : **949-09**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	348	mg/Kg	0 500	09/05/01	09/04/01	SH	6010B
Lead	1,600	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 79

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-10**
Field ID : **949-10**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	276	mg/Kg	0 500	09/05/01	09/04/01	SH	6010B
Lead	578	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 80

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-11**
Field ID : **949-11**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	835	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	935	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 81

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-12**
Field ID : **949-12**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	415	mg/Kg	0 500	09/05/01	09/04/01	SH	6010B
Lead	729	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 82

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-13**
Field ID : **949-13**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	254	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	346	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 83

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-14**
Field ID : **949-14**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	609	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	1,040	mg/Kg	0.400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 84

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-15**
Field ID : **949-20**

Matrix . **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	366	mg/Kg	0.500	09/05/01	09/04/01	SH	6010B
Lead	367	mg/Kg	0 400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 85

Client Name [redacted]
Sverdrup/Jacobs Eng.
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot**

Date Arrived **08/30/01**
ETC Order Number **0108822**

ETC Lab ID : **0108822-16**
Field ID : **949-21**

Matrix : **SOIL**
Sample Date : **08/30/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V14-SO-57				09/04/01	SH	3051
Chromium	623	mg/Kg	0 500	09/05/01	09/04/01	SH	6010B
Lead	980	mg/Kg	0 400	09/05/01	09/04/01	SH	6010B

Data Validator

ND - Not Detected

Environmental Testing & Consulting, Inc.

Quality Control Reports
Level III
Metals (ICP/GFAA/CV)

ENVIRONMENTAL TESTING AND CONSULTING, INC.
CASE NARRATIVE
METALS – SOIL

Client Name Sverdrup/Jacobs Eng
Project Name Memphis Depot

ETC Order # 0108-822

HOLDING TIMES

QC Batch(s) for this order ICP Metals V14-SO-57

Sample Preparation/Analysis All samples digested/ analyzed within holding time

METHOD

Preparation: SW-846 3051
Analysis. SW-846 6010B

CALIBRATION

Initial Calibration All criteria met
Continuing Calibration All criteria met.

SAMPLE ANALYSIS

Instrumentation Thermo Jarrell Ash Enviro-I ICP
Dilutions Required Samples were diluted as listed on the Dilution Table.
% Solids Adjustment Sample results were adjusted for % solids.

QUALITY CONTROL

0108-822.MQCBLANK
Method Blank
V14-SO-57BLK ICP Metals
No target analytes detected in the Method Blank

0108-822.MQCLCS
Laboratory Control Sample(s)
V14-SO-57LCS ICP Metals
All acceptance criteria met.

0108-822.MQCMSMSD
Matrix Spike / Matrix Spike Dup - ICP Metals

0108-822-16	RPD	All analytes within QC limits
949-21	Spike Recovery	All analytes within QC limits *

*Recoveries for Chromium and Lead were flagged as outside QC limits due to the levels of these analytes present relative to the spike amount Dilution tests were performed for verification Refer to Form 9 Serial Dilutions All acceptance criteria met Refer to Laboratory Control Sample(s) for system verification.

Dilution Test	Dilution result must agree within 10% of original result when sample is diluted by a factor of 5.
Post Digestion Spike	Recovery must be +/-25% of expected value for ICP

Project Manager

FORM 3A
SOLID METHOD BLANK
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory ID ICP/GFAA Metals V14-SO-57 BLK QC Batch V14-SO-57

Date Sample Prepared 09/04/01 ICP/GFAA Metals

Metals	Concentration mg/Kg	Detection Limit mg/Kg	Date Analyzed	Method
Chromium	ND	5.00	09/05/01	6010B
Lead	ND	0.400	09/05/01	6010B

ND - Not Detected

Reviewed by

0108-822.mqc BLANK

FORM 7
SOLID LABORATORY CONTROL SAMPLE
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory Control ID — ICP/GFAA Metals V14-SO-57 LCS — QC Batch V14-SO-57

Date Prepared — ICP/GFAA Metals 09/04/01

Metals	Spike Added mg/Kg	Found mg/Kg	% R	#	QC Limits	
Chromium	40.0	41.2	103		80	120
Lead	8.00	8.97	112		80	120

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by _____

FORM 6
SOLID MATRIX SPIKE / MATRIX SPIKE DUPLICATE
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory ID MS ICP/GFAA Metals 0108-822-16 QC Batch V14-SO-57

Date Sample Prepared 9/4/01 ICP/GFAA Metals

Metals	SPIKE Added mg/Kg	SAMPLE Conc mg/Kg	MS Conc mg/Kg	RPD <20% #	MS % Rec #	QC Limits	
Chromium	41.2	623	651	9	68 *	75	125
Lead	8.25	980	797	6	-2218 *	75	125

Metals	SPIKE Added mg/Kg	SAMPLE Conc mg/Kg	MSD Conc mg/Kg		MSD % Rec #	QC Limits	
Chromium	39.7	623	713		227 *	75	125
Lead	7.93	980	751		-2888 *	75	125

ND - Not Detected
Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by_____

FORM 9
SERIAL DILUTIONS
METALS

Lab Name: Enviornmental Testing and Consulting, Inc.

QC Batch ICP/GFAA Metals V14-SO-57

Date Prepared 09/04/01 ICP/GFAA Metals

Analyte	Initial Sample Result	Serial Dilution Result	Serial Dilution	% Difference
Chromium	623	581	1:5	7
Lead	980	890	1:5	9

ND - Not Detected
% Difference should be within 10% of the undiluted/lowest dilution result.

Reviewed by

Serial Dil 0108-822.mqc

SOLID
DILUTIONS
METALS

Lab Name: Enviornmental Testing and Consulting, Inc.

QC Batch ICP/GFAA Metals V14-SO-57

Date Sample Prepared 09/04/01 ICP/GFAA Metals

Analyte	Dilution	Code	Sample ID
Chromium	1:5	C	0108-822-04
Chromium	1:5	C	0108-822-07
Chromium	1:5	C	0108-822-08

Dilutions were performed on several samples to bring the Target Analyte(s) within calibration range (C) or to remove spectral interference (I) as indicated.

Reviewed by: _____

DIL 0108-822.mqc

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road • Memphis, TN 38111 • (901) 327-2750 • FAX (901) 327-6334
Founded 1972

September 25, 2001

SVERDRUP
OCT - 3 2001
RECEIVED

Mr. Kraig Smith
Sverdrup/Jacobs Eng.
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Ref: Analytical Testing
ETC Order # 0109576
Project Description Memphis Depot Bldg 949

Project Number C5X51107

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and/or 40 CFR part 136.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact our office if you have any questions.

Sincerely,

Randall H. Thomas
Vice-President/General Manager

rt
Attachment

SVE_MHDDMTA

Certifications

Tennessee	*#TN02027*	*Mississippi*		USDA	*#S-46279*
Arkansas	*#40730*	*Oklahoma*	*#9311*		
Kentucky	*#90047*	*Virginia*	*#00106*		
North Carolina	*#415*	*Washington*	*#C248*		
South Carolina	*#84002002*	*US Army Corps of Engineers*			

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

ANALYTICAL SUMMARY/CROSS REFERENCE TABLE

644 94

Client Name **Sverdrup/Jacobs Eng.** ETC Order #**0109576**

Site ID **Memphis Depot Bldg 949** **C5X51107**

ETC Sample ID	Field ID	Matrix	Method	Method Description
010957601	949B-1	SOIL	6010B	Chromium
010957601	949B-1	SOIL	6010B	Lead
010957602	949B-2	SOIL	6010B	Chromium
010957602	949B-2	SOIL	6010B	Lead
010957603	949B-3	SOIL	6010B	Chromium
010957603	949B-3	SOIL	6010B	Lead
010957604	949B-4	SOIL	6010B	Chromium
010957604	949B-4	SOIL	6010B	Lead
010957605	949B-5	SOIL	6010B	Chromium
010957605	949B-5	SOIL	6010B	Lead
010957606	949B-6	SOIL	6010B	Chromium
010957606	949B-6	SOIL	6010B	Lead
010957607	949B-7	SOIL	6010B	Chromium
010957607	949B-7	SOIL	6010B	Lead
7608	949B-8	SOIL	6010B	Chromium
7608	949B-8	SOIL	6010B	Lead
010957609	949B-9	SOIL	6010B	Chromium
010957609	949B-9	SOIL	6010B	Lead
010957610	949B-10	SOIL	6010B	Chromium
010957610	949B-10	SOIL	6010B	Lead

Environmental Testing & Consulting, Inc.

Login
Chain-of-Custody

CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc.
2924 Walnut Grove Rd.
Memphis, TN 38111
(901)327-2750 FAX (901)327-6334

ETC Work Order : 0109576

Company Name	Phone # : 615 395 6437	Fax Results	X
JACOBS	Fax # : 615 833 8328	RUSH	
Project/Site	FID # :	Ice	
Memphis Depot Bldg 949	PO # :		
Project #	Matrix		
C5X51107	1 Wastewater 4 Sludge		
Project Manager/Contact	2 Aqueous 5 Oil/Solvent		
KRAIG SMITH	3 Soil/Sediment 6 Other		

# of cont.	Sample ID/ Number	Depth	Sample Date	Sample Time	Matrix	Type Grab/Comp	Tot Pb	Tot Chrom	Comments
1	949B-1	1'	9/24/01	1015	Soil	comp	X	X	
1	949B-2	1'		1025			X	X	
1	949B-3	1'		1035			X	X	
1	949B-4	1'		1045			X	X	
1	949B-5	1'		1055			X	X	
1	949B-6	1'		1010			X	X	
1	949B-7	1'		1030			X	X	
1	949B-8	1'		1040			X	X	
1	949B-9	1'		1050			X	X	
1	949B-10	1'		1100			X	X	

Analysis Requested
(Note special detection limits or methods)

Sampled By	Method of Shipment	Blank/Cooler Temp	Remarks
KRAIG SMITH	Hand Deliver		Need 24-HR Turnaround. Call on completion. KRAIG SMITH At 615 395 6437

	DATE	TIME		DATE	TIME	
RELINQUISHED BY (sign)	9-24-01	1140	RECEIVED BY (sign)			Sample Delivery Group ID
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME	
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY LAB (print/sign)	9/24/01	1140	

Distribution : Original and Yellow accompany samples to the laboratory. Pink copy for Field Crew.
Original copy returned with results Yellow copy for ETC, Inc. files.

F:\QAQC\SLOP\COC0896.XLS

644 96

Environmental Testing & Consulting, Inc.
Cooler Receipt Form

Date Received 9/24/01
Date/Time Checked In 9/24/01-11:40
Carrier/Bill# Hand-Delivered

LIMS# 0109-576
Project Memphis Depot
Bldg 949
By Rebekah Barger

1.	Custody Seals?/Location-	No
2.	Samples are non-radioactive?	Yes
3.	Chain of Custody in plastic?	Yes
4.	Temperature at receipt (ok = 4 ± 2 °C) NA	OK
5.	Ice & Packing- Bag	Yes
6.	Chain of Custody filled out properly?	Yes
7.	All containers in separate bags?	No
8.	Sample containers intact?	Yes
9.	Label(s) complete and in good condition?	Yes
10.	Label(s) agree with Chain of Custody?	Yes
11.	Correct containers used?	Yes
12.	Sufficient sample?	Yes
13.	VOA vials bubble-free (H_2O) or no head space (soil)?	Yes
14.	Preservation OK? TM pH____; TRPH pH____; TOC pH____; TOX pH____; CN pH____; N/P pH____; Other pH____	Yes

Comments _____

*Validated Date and Time of Sample Receipt (VDTSR)

Environmental Testing & Consulting, Inc.

Sample Reports

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 99

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-01**
Field ID : **949B-1**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	140	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	290	mg/Kg	0 400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 100

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-02**
Field ID : **949B-2**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	547	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	732	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 101

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-03**
Field ID : **949B-3**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	306	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	349	mg/Kg	0 400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 102

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-04**
Field ID : **949B-4**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	814	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	790	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 103

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-05**
Field ID : **949B-5**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	512	mg/Kg	0 500	09/24/01	09/24/01	SH	6010B
Lead	256	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 104

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-06**
Field ID : **949B-6**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	75.5	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	99.6	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 105

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-07**
Field ID : **949B-7**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	112	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	168	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 106

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-08**
Field ID : **949B-8**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	109	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	105	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 107

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-09**
Field ID : **949B-9**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	1,010	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	2,010	mg/Kg	0 400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 108

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/24/01**
ETC Order Number **0109576**

ETC Lab ID : **0109576-10**
Field ID : **949B-10**

Matrix : **SOIL**
Sample Date : **09/24/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	DATE PREPARED	BY	METHOD
Metals Digestion Batch	V15-SO-01				09/24/01	NR	3051
Chromium	198	mg/Kg	0.500	09/24/01	09/24/01	SH	6010B
Lead	159	mg/Kg	0.400	09/24/01	09/24/01	SH	6010B

Data Validator

ND - Not Detected

Environmental Testing & Consulting, Inc.

Quality Control Reports
Level III
Metals (ICP/GFAA/CV)

ENVIRONMENTAL TESTING AND CONSULTING, INC.
CASE NARRATIVE
METALS – SOIL

Client Name Sverdrup/Jacobs Engineering
Project Name Memphis Defense Depot Bldg 949

ETC Order # 0109-576

HOLDING TIMES

QC Batch(s) for this order ICP Metals V15-SO-01

Sample Preparation/Analysis All samples digested/ analyzed within holding time.

METHOD

Preparation. SW-846 3051
Analysis: SW-846 6010B

CALIBRATION

Initial Calibration All criteria met
Continuing Calibration All criteria met.

SAMPLE ANALYSIS

Instrumentation Thermo Jarrell Ash Enviro-I ICP
Dilutions Required Samples were diluted as listed on the Dilution Table.
% Solids Adjustment Sample results were adjusted for % solids.

QUALITY CONTROL

0109-576.MQCBLANK
Method Blank
V15-SO-01BLK ICP Metals

No target analytes detected in the Method Blank

0109-576.MQCLCS
Laboratory Control Sample(s)
V15-SO-01LCS ICP Metals
All acceptance criteria met.

0109-576.MQCMSMSD
Matrix Spike / Matrix Spike Dup - ICP Metals

0109-576-10	RPD	All analytes within QC limits
949B-10	Spike Recovery	All analytes within QC limits *

Chromium was flagged for low recovery in the MS MSD recovery was within QC limits. Refer to Laboratory Control Sample(s) for system verification

Project Manager

FORM 3A
SOLID METHOD BLANK
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory ID ICP/GFAA Metals V15-SO-01 BLK QC Batch V15-SO-01

Date Sample Prepared 9/24/01 ICP/GFAA Metals

Metals	Concentration mg/Kg	Detection Limit mg/Kg	Date Analyzed	Method
Chromium	ND	0.500	9/24/01	6010B
Lead	ND	0.400	9/24/01	6010B

ND - Not Detected

Reviewed by

0109-576.mqc BLANK

FORM 7
SOLID LABORATORY CONTROL SAMPLE
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory Control ID — ICP/GFAA Metals V15-SO-01 LCS — QC Batch V15-SO-01

Date Prepared — ICP/GFAA Metals 9/24/01

Metals	Spike Added mg/Kg	Found mg/Kg	% R	#	QC Limits	
Chromium	40.0	35.9	90		80	120
Lead	100	92.6	93		80	120

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by _____

0109-576.mqc LCS

FORM 6
SOLID MATRIX SPIKE / MATRIX SPIKE DUPLICATE
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory ID MS ICP/GFAA Metals 0109-576-10 QC Batch V15-SO-01

Date Sample Prepared 9/24/01 ICP/GFAA Metals

Metals	SPIKE Added mg/Kg	SAMPLE Conc mg/Kg	MS Conc mg/Kg	RPD <20% #	MS % Rec #	QC Limits	
Chromium	42.6	198	205	17	16 *	75	125
Lead	106	159	241	1	77	75	125

Metals	SPIKE Added mg/Kg	SAMPLE Conc mg/Kg	MSD Conc mg/Kg		MSD % Rec #	QC Limits	
Chromium	41.7	198	243		108	75	125
Lead	104	159	244		82	75	125

ND - Not Detected
Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by

SOLID
DILUTIONS
METALS

Lab Name: Enviornmental Testing and Consulting, Inc.

QC Batch ICP/GFAA Metals V15-SO-01

Date Sample Prepared 9/24/01 ICP/GFAA Metals

Analyte	Dilution	Code	Sample ID
Lead	1:10	C	0109-576-01
Lead	1:10	C	0109-576-02
Lead	1:10	C	0109-576-03
Lead	1:10	C	0109-576-04
Lead	1:10	C	0109-576-05
Lead	1:10	C	0109-576-07
Lead	1:10	C	0109-576-09
Lead	1:10	C	0109-576-10

Dilutions were performed on several samples to bring the Target Analyte(s) within calibration range (C) or to remove spectral interference (I) as indicated.

Reviewed by: _____

DIL 0109-576.mqc

ENVIRONMENTAL TESTING & CONSULTING, INC.
2924 Walnut Grove Road • Memphis, TN 38111 • (901) 327-2750 • FAX (901) 327-6334
Founded 1972

September 27, 2001

SVERDRUP
OCT - 3 2001
RECEIVED

Mr. Kraig Smith
Sverdrup/Jacobs Eng.
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Ref: Analytical Testing
ETC Order # 0109614
Project Description Memphis Depot Bldg 949

Project Number C5X51107

The above referenced project has been analyzed per your instructions. The analyses were performed in our laboratory in accordance with Standard Methods, The Solid Waste Manual SW-846, EPA Methods for Chemical Analysis of Water and Wastes and/or 40 CFR part 136.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, instrumentation maintenance and calibration were performed in accordance with guidelines established by the USEPA.

The results are shown on the attached analysis sheet(s).

Please do not hesitate to contact our office if you have any questions.

Sincerely,

Randall H. Thomas
Vice-President/General Manager

rt
Attachment

SVE_MHDDMTA

Certifications

Tennessee	*#TN02027*	*Mississippi*		*USDA #S-46279*
Arkansas	*#40730*	*Oklahoma*	*#9311*	
Kentucky	*#90047*	*Virginia*	*#00106*	
North Carolina	*#415*	*Washington*	*#C248*	
South Carolina	*#84002002*	*US Army Corps of Engineers*		

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

ANALYTICAL SUMMARY/CROSS REFERENCE TABLE

644 116

Client Name **Sverdrup/Jacobs Eng.** ETC Order #**0109614**

Site ID **Memphis Depot Bldg 949** **C5X51107**

ETC Sample ID	Field ID	Matrix	Method	Method Description
010961401	949C-1	SOIL	6010B	Chromium
010961401	949C-1	SOIL	6010B	Lead

Environmental Testing & Consulting, Inc.

Login
Chain-of-Custody

CHAIN OF CUSTODY RECORD

000003

Environmental Testing & Consulting, Inc.
2924 Walnut Grove Rd.
Memphis, TN 38111
901)327-2750 FAX (901)327-6334

ETC Work Order : 0109-614

Company Name	Phone # : 615 305 6437	Fax Results	X
JACOBS	Fax # : 615 833 8328	RUSH	X
Project/Site	FID # :	Ice	
Memphis Depot	PO #		
Project #	Matrix		
C5251107	1 Wastewater 4 Sludge		
Project Manager/Contact	2 Aqueous 5 Oil/Solvent		
KRAIG SMITH	3 Soil/Sediment 6 Other		

24 HR

Analysis Requested
(Note special detection limits or methods)

# of cont.	Sample ID/ Number	Depth	Sample Date	Sample Time	Matrix	Type Grab/Comp		Tot. Pb	Tot. Cr									Comments
1	949C-1	1'	9-25	1500	Soil	Comp		X	X									

Sampled By	Method of Shipment	Blank/Cooler Temp	Remarks
KRAIG SMITH	Hand Deliver		24 HR Turnaround. Call 615 305 6837 AS Soon as result available

RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME	Sample Delivery Group ID
Kraig Smith	9/25/01	15:25				
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME	
RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY LAB (print/sign)	DATE	TIME	
			Randy Thomas	9/25/01	1525	

644 118

Distribution Original and Yellow accompany samples to the laboratory. Pink copy for Field
Original copy returned with results Yellow copy for ETC, Inc files

F:\QAQC\SLOP\COC0995.XLS

Environmental Testing & Consulting, Inc.
Cooler Receipt Form

Date Received__9/25/01_____
Date/Time Checked In_9/25/01-15:25_
Carrier/Bill# __Hand-Delivered_____

LIMS#_0109-614_____
Project_Memphis Depot__
_____
By__Randy Thomas____

1.	Custody Seals?/Location-	**No**
2.	Samples are non-radioactive?	**Yes**
3.	Chain of Custody in plastic?	**Yes**
4.	Temperature at receipt (ok = 4 ± 2 °C)<4oC	**OK**
5.	Ice & Packing- Bags	**Yes**
6.	Chain of Custody filled out properly?	**Yes**
7.	All containers in separate bags?	**Yes**
8.	Sample containers intact?	**Yes**
9.	Label(s) complete and in good condition?	**Yes**
10.	Label(s) agree with Chain of Custody?	**Yes**
11.	Correct containers used?	**Yes**
12.	Sufficient sample?	**Yes**
13.	VOA vials bubble-free (H_2O) or no head space (soil)?	**Yes**
14.	Preservation OK? TM pH____, TRPH pH____; TOC pH____; TOX pH____; CN pH____; N/P pH____; Other pH____	**Yes**

Comments _____

*Validated Date and Time of Sample Receipt (VDTSR)

Environmental Testing & Consulting, Inc.

Sample Reports

ENVIRONMENTAL TESTING & CONSULTING, INC.

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

644 121

Client Name **Sverdrup/Jacobs Eng.**
Memphis Depot, Dunn Field
3354 Perimeter Hill Drive,
Suite 310
Nashville, TN 37211

Site ID **Memphis Depot Bldg 949**

Date Arrived **09/25/01**
ETC Order Number **0109614**

ETC Lab ID : **0109614-01**
Field ID : **949C-1**

Matrix : **SOIL**
Sample Date : **09/25/01**

TEST	RESULT	UNITS	DETECTION LIMIT	DATE ANALYZED	TIME ANALYZED	BY	METHOD
Metals Digestion Batch	V15-SO-03						3051
Chromium	47.3	mg/Kg	0.500	09/26/01	1354	SH	6010B
Lead	132	mg/Kg	0 400	09/26/01	1354	SH	6010B

Data Validator

ND - Not Detected

Environmental Testing & Consulting, Inc.

Quality Control Reports
Level III
Metals (ICP/GFAA/CV)

ENVIRONMENTAL TESTING AND CONSULTING, INC.
CASE NARRATIVE
METALS – SOIL

Client Name Sverdrup/Jacobs Engineering
Project Name Memphis Defense Depot Bldg 949

ETC Order # 0109-614

HOLDING TIMES

QC Batch(s) for this order ICP Metals V15-SO-03

Sample Preparation/Analysis All samples digested/ analyzed within holding time.

METHOD

Preparation: SW-846 3051
Analysis. SW-846 6010B

CALIBRATION

Initial Calibration All criteria met.
Continuing Calibration All criteria met.

SAMPLE ANALYSIS

Instrumentation Thermo Jarrell Ash Enviro-I ICP
Dilutions Required Samples were diluted as listed on the Dilution Table.
% Solids Adjustment Sample results were adjusted for % solids

QUALITY CONTROL

0109-614.MQCBLANK
Method Blank
V15-SO-03BLK ICP Metals

No target analytes detected in the Method Blank except as listed below.
Lead was detected in V15-SO-03BLK at 0.378J ug/Kg. Sample concentration less than 5 times the method blank value (1.89 ug/Kg) should be attributed to Lab contamination This analyte was detected in all associated samples at concentrations greater than 5 times the method blank value

0109-614.MQCLCS
Laboratory Control Sample(s)
V15-SO-03LCS ICP Metals
All acceptance criteria met.

0109-614.MQCMSMSD
Matrix Spike / Matrix Spike Dup - ICP Metals

0109-614-01	RPD	All analytes within QC limits.
949C-1	Spike Recovery	All analytes within QC limits.*

Recoveries for Lead were flagged as outside QC limits in the MS/MSD due to the level of this analyte present relative to the spike amount A Serial Dilution was performed for verification Refer to Form 9 Serial Dilutions All acceptance criteria met. Refer to Laboratory Control Sample(s) for system verification

Dilution Test Dilution result must agree within 10% of original result when sample is diluted by a factor of 5

Project Manager

FORM 3A
SOLID METHOD BLANK
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory ID ICP/GFAA Metals V15-SO-03 BLK QC Batch V15-SO-03

Date Sample Prepared 9/26/01 ICP/GFAA Metals

Metals	Concentration mg/Kg	Detection Limit mg/Kg	Date Analyzed	Method
Chromium	ND	0.500	9/27/01	6010B
Lead	0.378J	0.400	9/27/01	6010B

ND - Not Detected

Reviewed by

0109-614.mqc BLANK

FORM 7
SOLID LABORATORY CONTROL SAMPLE
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory Control ID — ICP/GFAA Metals V15-SO-03 LCS — QC Batch V15-SO-03

Date Prepared — ICP/GFAA Metals 9/26/01

Metals	Spike Added mg/Kg	Found mg/Kg	% R	#	QC Limits	
Chromium	40.0	40.8	102		80	120
Lead	8.00	8.41	105		80	120

Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by _____

FORM 6
SOLID MATRIX SPIKE / MATRIX SPIKE DUPLICATE
METALS

Lab Name: Environmental Testing and Consulting, Inc

Laboratory ID MS ICP/GFAA Metals 0109-614-01 QC Batch V15-SO-03

Date Sample Prepared 9/26/01 ICP/GFAA Metals

Metals	SPIKE Added mg/Kg	SAMPLE Conc mg/Kg	MS Conc mg/Kg	RPD <20% #	MS % Rec #	QC Limits	
Chromium	44.9	47.3	83.7	7	81	75	125
Lead	8.99	132	93.5	7	-428 *	75	125

Metals	SPIKE Added mg/Kg	SAMPLE Conc mg/Kg	MSD Conc mg/Kg		MSD % Rec #	QC Limits	
Chromium	42.4	47.3	89.5		100	75	125
Lead	8.48	132	100		-377 *	75	125

ND - Not Detected
Column to be used to flag recovery values with an asterisk
* Values outside of QC limits

Reviewed by

FORM 9
SERIAL DILUTIONS
METALS

Lab Name: Enviornmental Testing and Consulting, Inc.

QC Batch ICP/GFAA Metals V15-SO-03

Date Prepared 9/26/01 ICP/GFAA Metals

Analyte	Initial Sample Result	Serial Dilution Result	Serial Dilution	% Difference
Lead	1:5 132	136	1:25	3

ND - Not Detected
% Difference should be within 10% of the undiluted/lowest dilution result.

Reviewed by

Serial Dil 0109-614.mqc

SOLID
DILUTIONS
METALS

Lab Name. Enviornmental Testing and Consulting, Inc.

QC Batch ICP/GFAA Metals V15-SO-03

Date Sample Prepared 9/26/01 ICP/GFAA Metals

Analyte	Dilution	Code	Sample ID
Lead	1:5	C	0109-614-01

Dilutions were performed on several samples to bring the Target Analyte(s) within calibration range (C) or to remove spectral interference (I) as indicated.

Reviewed by: _____

APPENDIX E

WASTE DISPOSAL RECORDS

Waste Disposal Summary

		Quantity		
Manifest Number	**Date**	**Cu. Yds**	**Pounds**	**Tons**
MD-100	9/19/01	20	36,020	18.01
MD-200	9/19/01	20	37,820	18.91
MD-300	9/19/01	20	36,040	18.02
MD-400	9/19/01	20	36,680	18.34
MD-500	9/19/01	20	29,520	14 76
MD-600	9/19/01	20	37,000	18 50
MD-700	9/19/01	20	35,880	17 94
MD-800	9/19/01	20	32,380	16.19
MD-900	9/19/01	20	33,480	16 74
MD-100	9/25/01	20	36,000	18.00
MD-110	9/25/01	20	36,800	18 40
MD-120	9/25/01	20	36,980	18.49
MD-130	9/25/01	20	36,100	18 05
MD-140	9/25/01	20	34,320	17.16
MD-160	9/25/01	20	32,820	16 41
MD-170	9/25/01	20	32,640	16.32
MD-180	9/26/01	20	35,760	17.88
MD-101	10/9/01	2	4,000	2.00
	Total	342	600,240	300.12

45039 644 131

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-100 | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law

GENERATOR

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number:

B. State Generator's ID:

5 Transporter 1 Company Name: MP Environmental Serv | 6 US EPA ID Number: CAT080624247 | C. State Transporter's ID | D. Transporter's Phone: 800-458-3836

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788 | E. State Transporter's ID | F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN (LONE MOUNTAIN) INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376 | G. State Facility's ID | H. Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	CY	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above
Additional RCRA Waste Codes: a. b. c. d.
SW 36020

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers: a. LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Box # 30618

16 GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified packed marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature: Kraig Smith | Date: Month 9 Day 19 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Enix M. Willson | Signature: Enix M. Willson | Date: Month 09 Day 19 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Randi Coleman BNSF RR | Signature: Randi Coleman | Date: Month 09 Day 19 Year 01

FACILITY

19 Discrepancy Indication Space
01-5089

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19
Printed/Typed Name: Ber Deane Peck | Signature: Ber Deane Peck | Date: Month 10 Day 17 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average 30 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

644 132

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UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN4210020570 Manifest Document No.: 1100
22 Page: 2

Information in the shaded areas is not required by Federal law.

23 Generator's Name: Memphis Depot, Memphis, TN

L. State Manifest Document Number
M. State Generator's ID

24. Transporter 3 Company Name: MP Environmental
25. US EPA ID Number: CAT000624247
N. State Transporter's ID
O. Transporter's Phone: 888-637-3036

26 Transporter ____ Company Name
27 US EPA ID Number
P. State Transporter's ID
Q. Transporter's Phone

28 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29. Containers No	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d						
e						
f						
g						
h						
i						

S Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

GENERATOR

33. Transporter ____ Acknowledgement of Receipt of Materials
Printed/Typed Name: Lonnie Blow
Signature: Lonnie Blow
Date Month Day Year: 10/17/01

34. Transporter ____ Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date Month Day Year

TRANSPORTER

35 Discrepancy Indication Space

FACILITY

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

PRINTED WITH SOY INK

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD100 - 1/A** Quantity: **36,020 pounds**

Date: **10/24/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 133

45040

644 134

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Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-200 | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law.

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental Serv. | 6 US EPA ID Number: CAT000624247

C. State Transporter's ID

D. Transporter's Phone: 800-458-3036

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788

E. State Transporter's ID

F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H Facility's Phone: (580) 697-3500

	HM	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	RQ	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	001	CM	20	Y	D007 D008
b							
c							
d							

J Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. b. c. d.

SW 37820

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LM01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782

#37046

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Date (Month Day Year)
KRAIG SMITH GENERATOR'S AUTHORIZED AGENT	Kraig Smith	9 19 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Eric M. Willson	Eric M. Willson	09 19 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Randi Coleman	Randi L Coleman	9 19 01

FACILITY

19 Discrepancy Indication Space

Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name	Signature	Date (Month Day Year)
Brandy Lucas	Brandy Lucas	10 11 01

01-495 A

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262-267

644 135

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Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No: TN4210020570 | Manifest Document No: MA200

22 Page: 2

Information in the shaded areas is not required by Federal law

23. Generator's Name: Memphis Depot, Memphis, TN.

L. State Manifest Document Number:

M. State Generator's ID:

24. Transporter 1 Company Name: MPE

25 US EPA ID Number: CAT000624247

N State Transporter's ID:

O. Transporter's Phone: 888-632-8809

26. Transporter 2 Company Name:

27. US EPA ID Number:

P. State Transporter's ID:

Q Transporter's Phone:

	28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No	29 Containers Type	30 Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.							
b.							
c							
d							
e							
f.							
g							
h							
i.							

GENERATOR

S Additional Descriptions for Materials Listed Above

T Handling Codes for Wastes Listed Above

32 Special Handling Instructions and Additional Information

TRANSPORTER

33 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Ronnie Clay

Signature: Ronnie Clay

Date: Month 10 Day 11 Year 01

34 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

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ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD200 - 1/A** Quantity: **37,820 pounds**

Date: **10/15/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McBain

Doug McBain, Facility Manager

45041 644 137

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Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-300 | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A State Manifest Document Number

B State Generator's ID

5 Transporter 1 Company Name: M P Environmental Serv | 6 US EPA ID Number: CAT000624247 | C. State Transporter's ID | D. Transporter's Phone: 800-458-3036

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788 | E State Transporter's ID | F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	CY	D007 D008
b							
c							
d							

J Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes
a.
b.
c.
d.

Sw36040

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
30283
#30283

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATORS AUTHORIZED AGENT | Signature | Date: Month 9 Day 19 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: William M. Beatty | Signature | Date: Month 9 Day 19 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Randi Coleman BNSFRR | Signature | Date: Month 9 Day 19 Year 01

FACILITY

19 Discrepancy Indication Space
01-5124

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name: Bev Deane Peck | Signature | Date: Month 10 Day 18 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering data, and completing and reviewing the form. Send comments regarding this burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20

644 138

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Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No	Manifest Document No.	22 Page	Information in the shaded areas is not required by Federal law
TN4210020570	41310	2	

23 Generator's Name: Memphis Depot
Memphis, TN.

L State Manifest Document Number:

M. State Generator's ID:

24. Transporter 3 Company Name: MP Environmental

25 US EPA ID Number: CAT000424247

N. State Transporter's ID:

O Transporter's Phone: 888-637-3036

26 Transporter ____ Company Name:

27 US EPA ID Number:

P. State Transporter's ID:

Q Transporter's Phone:

	28 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No.	29 Containers Type	30 Total Quantity	31. Unit Wt/Vol	R. Waste No.
a							
b							
c.							
d.							
e							
f.							
g							
h							
i							

S. Additional Descriptions for Materials Listed Above

T Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

TRANSPORTER

33 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair

Signature: Lonnie Blair

Date: Month 10 Day 18 Year 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

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ORIGINAL – RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD300 - 1/A** Quantity: **36,040 pounds**

Date: **10/25/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

45042

644 140

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570

Manifest Document No: MD-400

2 Page 1 of 2

Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address

MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A State Manifest Document Number

B State Generator's ID

5 Transporter 1 Company Name: MP Environmental Serv

6 US EPA ID Number: CAT000624247

C State Transporter's ID

D Transporter's Phone: 800-458-3811

7 Transporter 2 Company Name: Burlington Northern Railroad

8 US EPA ID Number: MND048341788

E State Transporter's ID

F Transporter's Phone

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G State Facility's ID

H Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	X HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	001	CM	20	Y	D007 D008
b						
c						
d						

J Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. b. c. d.

SW36680

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782

37061

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

GENERATOR

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature | Date: Month 9 Day 19 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: William M. Beatty | Signature | Date: Month 9 Day 19 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Randi Coleman BNSF RR | Signature | Date: Month 9 Day 19 Year 01

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

01-5447A

Printed/Typed Name: BerDeane Peck | Signature | Date: Month 10 Day 8 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated for generators, to average 30 minutes for manifesting, and 15 minutes for biennial reporting, and 10 minutes for recordkeeping, including time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Management and Budget, Paperwork Reduction Project (2050-0039), Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262

644 141

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN4211002105 | Manifest Document No: 70 A D 4 0 1 0

22 Page: 2 | Information in the shaded areas is not required by Federal law

23 Generator's Name: Memphis Depot, Memphis TN.

L. State Manifest Document Number

M State Generator's ID

24 Transporter 3 Company Name: MPE

25 US EPA ID Number: CAT080026247

N State Transporter's ID

O Transporter's Phone: 818-637-8209

26 Transporter ____ Company Name

27 US EPA ID Number

P. State Transporter's ID

Q Transporter's Phone

	28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No	29 Containers Type	30 Total Quantity	31 Unit Wt/Vol	R. Waste No.
a							
b							
c.							
d							
e							
f.							
g							
h							
i							

S Additional Descriptions for Materials Listed Above

T Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

GENERATOR

TRANSPORTER

33 Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair | Signature: Lonnie Blair | Date: Month 08 Day 20 Year 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700 22A (Rev 10 92) Previous editions are obsolete

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD400 - 1/A** Quantity: **36,680 pounds**

Date: **10/25/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McBain

Doug McBain, Facility Manager

644 143

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-500 | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2163 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental Serv | 6 US EPA ID Number: CAT000624247 | C. State Transporter's ID

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788 | D. Transporter's Phone 800-458-3036 | E. State Transporter's ID

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376 | F. Transporter's Phone 913-681-4110 | G. State Facility's ID

H. Facility's Phone (580) 697-3500

11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I Waste No
a. RQ HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)		001	CM	20	Y	D007 D008
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes: a. b. c. d.

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers: a. LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Sec 29520
30424

16 GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature | Date: Month 9 Day 19 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Joe Cyburn | Signature | Date: Month 09 Day 19 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Randi Coleman BNSF RR | Signature | Date: Month 09 Day 19 Year 01

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19
Printed/Typed Name: Brandy Lucas | Signature | Date: Month 10 Day 01 Year 01

01-49434

SAFETY-KLEEN CORP

EPA Form 8700-22 (Rev 6-88) previous editions obsolete

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

223, U S Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503

644 144

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Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN4210020570 | Manifest Document No.: A0500

22 Page: 2 | Information in the shaded areas is not required by Federal law

23 Generator's Name: Memphis Depot
Memphis, TN

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name: MOE

25. US EPA ID Number: CAT000624247

N. State Transporter's ID

O Transporter's Phone: 888-637-8009

26. Transporter ____ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29. Containers No	Type	30. Total Quantity	31 Unit Wt/Vol	R. Waste No.
a						
b.						
c.						
d.						
e						
f						
g.						
h						
i						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

TRANSPORTER

33 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair | Signature: Lonnie Blair | Date: Month 10 Day 11 Year 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

PRINTED WITH SOY INK

ORIGINAL – RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD500 - 1/A** Quantity: **29,520 pounds**

Date: **10/16/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

45044

644 146

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No. T N 4 2 1 0 0 2 0 5 7 0

Manifest Document No MD-600

2 Page 1 of 2

Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Enviromental Serv.

6 US EPA ID Number: CAT000624247

C State Transporter's ID

D. Transporter's Phone 800-458-3036

7 Transporter 2 Company Name: Burlington Northern Railroad

8 US EPA ID Number: MND048341788

E. State Transporter's ID

F. Transporter's Phone 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1E OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G State Facility's ID

H Facility's Phone (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	G	D007 D008
b							
c							
d							

J Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes
a.
b.
c.
d.

SW37000

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782

#30210

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified packed marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT
Signature: Kraig Smith
Date: Month 9 Day 19 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Joe Clyburn
Signature: Joe Clyburn
Date: Month 09 Day 19 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Randi Coleman BNSF
Signature: Randi L Coleman
Date: Month 9 Day 19 Year 01

FACILITY

19 Discrepancy Indication Space
01-5139

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19
Printed/Typed Name: Bev Deane Peck
Signature: Bev Deane Peck
Date: Month 10 Day 18 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20

Public reporting burden for this collection of information is estimated to average 60 minutes for generators, 15 minutes for transporters, and 15 minutes for owners/operators of facilities for recordkeeping, storage and disposition activities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20

644 147

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN4210020570 | Manifest Document No: M016100

22 Page: 2 | Information in the shaded areas is not required by Federal law

23 Generator's Name: Memphis Depot
Memphis TN.

L. State Manifest Document Number:

M. State Generator's ID:

24 Transporter 3 Company Name: MPEnvironmental

25 US EPA ID Number: CAT000624247

N. State Transporter's ID:

O Transporter's Phone: 888-657-3036 RR

26 Transporter ____ Company Name:

27 US EPA ID Number:

P State Transporter's ID:

Q Transporter's Phone:

	28 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No	29 Containers Type	30. Total Quantity	31 Unit Wt/Vol	R Waste No.
a							
b							
c.							
d							
e							
f.							
g							
h							
i							

GENERATOR

S Additional Descriptions for Materials Listed Above

T Handling Codes for Wastes Listed Above

32 Special Handling Instructions and Additional Information

TRANSPORTER

33 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Kenneth Baker

Signature: Kenneth Baker

Date: Month 10 Day 18 Year 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700 22A (Rev 10-92) Previous editions are obsolete

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD600 - 1/A** Quantity: **37,000 pounds**

Date: **10/25/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 148

500 - 44885 644 149

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-700 | 2 Page 1 of | Information in the shaded areas is not required by Federal law

GENERATOR

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental Serv | 6 US EPA ID Number: CAT000624247

C. State Transporter's ID

D. Transporter's Phone: 800-459-3036

7 Transporter 2 Company Name | 8 US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I Waste No.
a. HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	CY	D007 D008
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. SW35880 b. c. d.
Approval Numbers a. LH01-0464 b. c. d.

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
OKLAHOMA DISPOSAL PLAN # 10782
#37043

16 **GENERATOR'S CERTIFICATION.** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Date (Month Day Year)
KRAIG SMITH GENERATOR'S AUTHORIZED AGENT	Kraig Smith	9 18 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Erix M. Willson	Erix M. Willson	09 19 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACIL

19 Discrepancy Indication Space
01-4544

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name	Signature	Date (Month Day Year)
Ben Deane Peck	Ben Deane Peck	09 20 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, US Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Management and Budget, Washington, DC 20503.

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD700 - 1/A** Quantity: **35,880 pounds**

Date: **09/27/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 150

Please print or type (Form designed for use on elite (12-pitch) typewriter) 644 151

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: T N 4 2 1 0 0 2 0 5 7 0 | Manifest Document No: mo-800 | 2 Page 1 of | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114
4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number
B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental Serv | 6 US EPA ID Number: CAT000624247
C. State Transporter's ID
D Transporter's Phone: 800-458-3036

7 Transporter 2 Company Name | 8 US EPA ID Number
E State Transporter's ID
F Transporter's Phone

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622
10 US EPA ID Number: O K D 0 6 5 4 3 8 3 7 6
G. State Facility's ID
H. Facility's Phone: (580) 697-3500

11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a. RQ HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)		0 0 1	C M	2.0	G	D 0 0 7 D 0 0 8
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a.
b.
c.
d.
SW32380

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LK01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
37002

16 GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name	Signature	Date (Month Day Year)
GENERATORS AUTHORIZED AGENT KRAIG SMITH	Kraig Smith	9 18 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
William M. Beatty	William M. Beatty	9 19 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19 Discrepancy Indication Space
01-4543

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name	Signature	Date (Month Day Year)
Ber Deane Peck	Ber Deane Peck	09 20 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U S Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD800 - 1/A** Quantity: **32,380 pounds**

Date: **09/27/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 152

644 153

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: [illegible]900

2 Page 1 of 1 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2163 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: TN P Environmental Serv | 6 US EPA ID Number: CAT000624247

C State Transporter's ID

D Transporter's Phone: 800-458-5036

7 Transporter 2 Company Name | 8 US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G State Facility's ID

H. Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	CY	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes: a. b. c. d.
SW 33480

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers: a. LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
#35280

16 GENERATOR'S CERTIFICATION I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name	Signature	Date (Month Day Year)
KRAIG SMITH AUTHORIZED AGENT FOR GENERATOR	Kraig Smith	9 19 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Joe Clyburn	Joe Clyburn	09 19 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19 Discrepancy Indication Space
01-4548

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name	Signature	Date (Month Day Year)
Ben Deane Peck	Ben Deane Peck	09 20 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD900 - 1/A** Quantity: **33,480 pounds**

Date: **09/27/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

45158

644 155

Please print or type (Form designed for use on elite (12 pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: T N 4 2 1 0 0 2 0 5 7 0

Manifest Document No: MD-1000 [illegible]

Page 1 of 2

Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: M P Environmental

6 US EPA ID Number: CAT000624247

C. State Transporter's ID

D. Transporter's Phone: 800-458-7036

7 Transporter 2 Company Name: Burlington Northern Railroad

8 US EPA ID Number: MND048341788

E. State Transporter's ID

F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
SE & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: O K D 0 6 5 4 3 8 3 7 6

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I Waste No.
a. HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	R Q	001	CM	20	Y	D007 D008
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. SW 36000 b. c. d.

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Box # 30582

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature: Kraig Smith | Date: Month 9 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Enix M. Willson | Signature: Enix M. Willson | Date: Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Randi Coleman | Signature: Randi Coleman | Date: Month 9 Day 25 Year 01

FACILITY

19 Discrepancy Indication Space

01-5104

Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name: Ben Deane Peck | Signature: Ben Deane Peck | Date: Month 10 Day 17 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20

644 156

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No	Manifest Document No.
TN4210020570	4011100
22 Page 2	Information in the shaded areas is not required by Federal law
23 Generator's Name: Memphis Depot, Memphis, TN	L. State Manifest Document Number
	M. State Generator's ID
24. Transporter 3 Company Name: MPE	25. US EPA ID Number: CATO00624247
	N. State Transporter's ID
26 Transporter ____ Company Name	27. US EPA ID Number
	O. Transporter's Phone: 555-637-8009
	P. State Transporter's ID
	Q. Transporter's Phone

	28 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29. Containers No.	Type	30 Total Quantity	31. Unit Wt/Vol	R. Waste No.
a							
b.							
c.							
d							
e.							
f.							
g							
h							
I.							

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

GENERATOR

TRANSPORTER

33 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Lonnie Black	Lonnie Black	10 1 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

35 Discrepancy Indication Space

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD100A - 1/A** Quantity: **36,000 pounds**

Date: **10/24/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 157

45157 644 158

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-1102 (cw) | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law

GENERATOR

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2163 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental | 6 US EPA ID Number: CAT000624247

C. State Transporter's ID

D Transporter's Phone: 800-458-3076

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788

E. State Transporter's ID

F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	Y	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above
Additional a.
EPA Waste b.
Codes c.
d.
SW36800

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Box #30098

16 **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature | Date: Month 9 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Eric M. Willson | Signature | Date: Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Randi Coleman | Signature | Date: Month 9 Day 25 Year 01

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19
01-495HA
Printed/Typed Name: Brandy Lucas | Signature | Date: Month 10 Day 11 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262.20

Public reporting burden for this collection of information is estimated to average 60 minutes per response, including time for reviewing instructions, searching existing data sources, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

644 159

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No: TN4210020570 | Manifest Document No: MO1110

22 Page: 2 | Information in the shaded areas is not required by Federal law.

23 Generator's Name: Memphis Depot, Memphis TN.

L. State Manifest Document Number

M. State Generator's ID

24 Transporter 3 Company Name: MOE

25 US EPA ID Number: CAT000624247

N. State Transporter's ID

O. Transporter's Phone: 888-631-8009

26. Transporter ____ Company Name

27 US EPA ID Number

P. State Transporter's ID

Q Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No	29 Containers Type	30 Total Quantity	31 Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e						
f.						
g.						
h						
i						

S Additional Descriptions for Materials Listed Above

T Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair | Signature: Lonnie Blair | Date: Month 10 Day 11 Year 01

34. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

01-4959

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

ORIGINAL — RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD110 - 1/A** Quantity: **36,800 pounds**

Date: **10/15/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McBain

Doug McBain, Facility Manager

644 160

45156

644 161

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570

Manifest Document No: MD-1105 End

Page 1 of 2

Information in the shaded areas is not required by Federal law

GENERATOR

3 Generator's Name and Mailing Address

MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: M-P Environmental

6 US EPA ID Number: ICAT000624247

C. State Transporter's ID

D. Transporter's Phone: 800-458-3036

7 Transporter 2 Company Name: Burlington Northern Railroad

8 US EPA ID Number: MND048341788

E. State Transporter's ID

F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address

SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a. HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	CY	D007 D008
b.						
c.						
d.						

J Additional Descriptions for Materials Listed Above

Additional EPA Waste Codes a. b. c. d.

SW 3698D

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information

Approval Numbers a. LH01-0464 b. c. d.

OKLAHOMA DISPOSAL PLAN # 10782

Box # 30599

16 **GENERATOR'S CERTIFICATION** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTH. AGENT | Signature | Date: Month 9 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Eric M. Wilson | Signature | Date: Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Randi Coleman | Signature | Date: Month 9 Day 25 Year 01

FACILITY

19 Discrepancy Indication Space

01-5097

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name: Ben Deane Peck | Signature | Date: Month 10 Day 17 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U S Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Management and Budget, Washington, DC 20503

644 162

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN4210020570 | Manifest Document No.: MD120

22 Page: 2 | Information in the shaded areas is not required by Federal law.

23. Generator's Name: Memphis Depot, Memphis, TN.

L. State Manifest Document Number

M. State Generator's ID

24. Transporter ____ Company Name: MPE | 25. US EPA ID Number: CAT000624247

N. State Transporter's ID

O. Transporter's Phone: 888-637-9867

26 Transporter ____ Company Name | 27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

	28 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29. Containers No	Type	30 Total Quantity	31. Unit Wt/Vol	R. Waste No.
a							
b							
c.							
d							
e.							
f							
g							
h							
i							

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

TRANSPORTER

33. Transporter ____ Acknowledgement of Receipt of Matenals

Printed/Typed Name: Lonnie Blair | Signature: Lonnie Blair | Date: Month 10 Day 17 Year 01

34 Transporter ____ Acknowledgement of Receipt of Matenals

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

PRINTED WITH

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD120 - 1/A** Quantity: **36,980 pounds**

Date: **10/24/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 163

45155 644 164

Please print or type (Form designed for use on elite (12-pitch) typewriter) 130 Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: 130 | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114
4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number
B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental | 6 US EPA ID Number: CATOOO624247
C. State Transporter's ID
D. Transporter's Phone: 800-458-3036

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788
E. State Transporter's ID
F. Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622
10 US EPA ID Number: OKD065438376
G. State Facility's ID
H. Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number) HM	12 Containers No	Type	13 Total Quantity	14 Unit Wt/Vol	I Waste No.
a	RQ HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	001	CM	20	CY	D007 D008
b.						
c						
d						

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. b. c. d.
SW 36100

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Box # 35171

16 GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature: Kraig Smith | Date Month 09 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Erix M. Willson | Signature: Erix M. Willson | Date Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Randi Coleman | Signature: Randi L Coleman | Date Month 09 Day 25 Year 01

FACILITY

19 Discrepancy Indication Space
01-5015

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19
Printed/Typed Name: Bordeane Peck | Signature: By Deane Peck | Date Month 10 Day 25 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP
90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U S Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

644 165

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No: TN421002057 | Manifest Document No: 0 1 2 3 0

22 Page: 2

Information in the shaded areas is not required by Federal law

23. Generator's Name: Memphis Depot, Memphis, TN.

L. State Manifest Document Number

M. State Generator's ID

24 Transporter 3 Company Name: MP Environmental

25 US EPA ID Number: CAT000062424 7

N State Transporter's ID

O. Transporter's Phone: 888-637-8059

26 Transporter ____ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No	29 Containers Type	30 Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f						
g.						
h.						
i.						

S Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handing Instructions and Additional Information

TRANSPORTER

33 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair | Signature: Lonnie Blair | Date: Month 10 Day 15 Year 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD130 - 1/A** Quantity: **36,100 pounds**

Date: **10/23/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 166

SWD #45073 644 167

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-140

2 Page 1 of | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental | 6 US EPA ID Number: CAT000624247

C. State Transporter's ID

D Transporter's Phone: 800-458-3036

7 Transporter 2 Company Name | 8 US EPA ID Number

E State Transporter's ID

F. Transporter's Phone

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G State Facility's ID

H Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	Y	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above
Additional a.
EPA Waste b.
Codes c.
d.

K Handling Codes for Wastes Listed Above
SW 34320

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Box #3013S

16 GENERATOR'S CERTIFICATION I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATORS AUTHORIZED AGENT | Signature: Kraig Smith | Date: Month 9 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Erix M. Wilson | Signature: Erix M. Wilson | Date: Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name: Brandy Lucas | Signature: Brandy Lucas | 01-41698F | Month 09 Day 26 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

GENERATOR

Reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD140 - 1/A** Quantity: **34,320 pounds**

Date: **10/03/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

4507

644 169

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-160 | 2 Page 1 of 2 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental | 6 US EPA ID Number: CAT000624247

C. State Transporter's ID

D Transporter's Phone: 800-888-3036

7 Transporter 2 Company Name: Burlington Northern Railroad | 8 US EPA ID Number: MND048341788

E. State Transporter's ID

F Transporter's Phone: 913-661-4110

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	Y	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. b. c. d.
SW 32820

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782
Box 30122

16 GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH GENERATOR'S AUTHORIZED AGENT | Signature | Date: Month 9 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Enix M. Willson | Signature | Date: Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Randy Clemens | Signature | Date: Month 9 Day 25 Year 01

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

01-4967A

Printed/Typed Name: Brandy Lucas | Signature | Date: Month 10 Day 11 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262

reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, US Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC

644 170

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN421002620 | Manifest Document No: 5704101610

22 Page: 2

Information in the shaded areas is not required by Federal law

23. Generator's Name: Memphis Depot
Memphis, TN.

L. State Manifest Document Number

M. State Generator's ID

24 Transporter 3 Company Name: MDE

25 US EPA ID Number: CAT000624247

N State Transporter's ID

O Transporter's Phone: 888-637-8009

26. Transporter ____ Company Name

27 US EPA ID Number

P State Transporter's ID

Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No	29 Containers Type	30 Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g						
h						
i						

S Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32 Special Handing Instructions and Additional Information

TRANSPORTER

33 Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair

Signature: Lonnie Blair

Date: Month 10 Day 11 Year 01

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

01-4967

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

PRINTED WITH SOY INK

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD160 - 1/A** Quantity: **32,820 pounds**

Date: **10/16/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 171

45160

644 172

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570

Manifest Document No: MD-170

2 Page 1 of 2

Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address

MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: MP Environmental

6 US EPA ID Number: CAT000624247

C State Transporter's ID

D. Transporter's Phone 800-458-3036

7 Transporter 2 Company Name: Burlington Northern Railroad

8 US EPA ID Number: MNDO48341785

E. State Transporter's ID

F. Transporter's Phone 913-661-4110

9 Designated Facility Name and Site Address

SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone (580) 697-3500

	11 US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No.
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	RQ	001	CM	20	CY	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above

Additional EPA Waste Codes a. b. c. d.

SW 32640

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information

Approval Numbers a.LH01-0464 b. c. d.

OKLAHOMA DISPOSAL PLAN # 10782

Box # 35060

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

GENERATOR

Printed/Typed Name: KRAIG SMITH (GENERATOR'S AUTHORIZED AGENT)

Signature

Date: Month 9 Day 25 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Enix M. Wilson

Signature

Date: Month 09 Day 25 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Randi Coleman

Signature

Date: Month 9 Day 25 Year 01

FACILITY

19 Discrepancy Indication Space

01-5131

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name: Bev Deane Peck

Signature

Date: Month 10 Day 8 Year 01

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

INSTRUCTIONS FOR COMPLETION OF THIS FORM, REFER CODE OF FEDERAL REGULATIONS, 40, PART 262 20

Public reporting burden for this collection of information is estimated to average 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding this burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U S Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Management and Regulatory Affairs, Office of Management and Budget, Washington, DC 20

644 173

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No. 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MA1710

22 Page: 2 | Information in the shaded areas is not required by Federal law

23 Generator's Name: Memphis Depot, Memphis, TN.

L. State Manifest Document Number:

M. State Generator's ID:

24 Transporter 3 Company Name: MPEnvironmental

25 US EPA ID Number: CAT000624247

N. State Transporter's ID:

O. Transporter's Phone: 888-637-3036 OE

26. Transporter ____ Company Name:

27 US EPA ID Number:

P. State Transporter's ID:

Q. Transporter's Phone:

28. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	29 Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a						
b						
c.						
d.						
e.						
f.						
g						
h						
i						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32 Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name: Lonnie Blair | Signature: Lonnie Blair | Date: Month 10 Day 20 Year 00

34 Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22A (Rev 10-92) Previous editions are obsolete

PRINTED WITH SOY INK

ORIGINAL - RETURN TO GENERATOR

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD170 - 1/A** Quantity: **32,640 pounds**

Date: **10/24/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McLain

Doug McLain, Facility Manager

644 175

Please print or type (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No: TN4210020570 | Manifest Document No: MD-180 | 2 Page 1 of 1 | Information in the shaded areas is not required by Federal law

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2183 AIRWAYS BLVD, MEMPHIS, TN 38114

4 Generator's Phone (615) 331-9232 X 229

A. State Manifest Document Number

B. State Generator's ID

5 Transporter 1 Company Name: NLP Environmental | 6 US EPA ID Number: CAT000624247 | C. State Transporter's ID | D. Transporter's Phone: (998) 637-8009

7. Transporter 2 Company Name | 8 US EPA ID Number | E. State Transporter's ID | F. Transporter's Phone

9 Designated Facility Name and Site Address
SAFETY-KLEEN(LONE MOUNTAIN)INC
5E & 1N OF JCT 412 & 281
WAYNOKA, OK 73860-9622

10 US EPA ID Number: OKD065438376

G. State Facility's ID

H. Facility's Phone: (580) 697-3500

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt/Vol	I. Waste No
a	HAZARDOUS WASTE SOLID, N.O.S., 9, NA3077, III, RQ(D007,D008)	X RQ	001	CM	(20) EST 35,000	CY P	D007 D008
b							
c							
d							

J. Additional Descriptions for Materials Listed Above
Additional EPA Waste Codes a. b. c. d.
SW35760

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers a.LH01-0464 b. c. d.
OKLAHOMA DISPOSAL PLAN # 10782

16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name: KRAIG SMITH (GENERATOR'S AUTHORIZED AGENT) | Signature | Date: Month 9 Day 26 Year 01

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: A.T. ARMSTRONG | Signature | Date: Month 09 Day 26 Year 01

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19
Printed/Typed Name: BRANDY LUCAS | Signature | Date: Month 09 Day 27 Year 01

01-4706A

EPA Form 8700-22 (Rev 9-88) previous editions obsolete

SAFETY-KLEEN CORP

90290 (Rev 11/98) 6

ORIGINAL - RETURN TO GENERATOR

Public reporting burden for this collection of information is estimated to average 30 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

INSTRUCTIONS FOR COMPLETION OF THIS FORM REFER CODE OF FEDERAL REGULATIONS 40 PART 262

Safety-Kleen (Lone and Grassy Mountain), Inc.

CERTIFICATE OF DISPOSAL

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility, an Oklahoma corporation duly permitted and operating under the approval of the Oklahoma State Department of Environmental Quality does hereby certify that the hazardous or non-hazardous waste of

Generator: **MEMPHIS DEPOT CARETAKER** EPA ID#: **TN4210020570**

Manifest #: **MEMME-MD180 - 1/A** Quantity: **35,760 pounds**

Date: **10/02/01**

has been disposed of at the Lone Mountain Facility, located in Major County, Oklahoma and that such treatment, neutralization and disposal has been accomplished in accordance with all applicable rules and regulations of the State of Oklahoma and the U.S. EPA.

Safety-Kleen (Lone and Grassy Mountain), Inc., Lone Mountain Facility
EPA ID# OKD065438376

Doug McBain

Doug McBain, Facility Manager

644 176

644 177

Form Approved OMB No 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. TN4210025709 Manifest Document No

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3 Generator's Name and Mailing Address
MEMPHIS DEPOT CARETAKER
2163 AIRWAYS BLVD, MEMPHIS, TN 38114

A. State Manifest Document Number

B. State Generator's ID

4 Generator's Phone (615) 221-7232 X227

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
SAFETY-KLEEN (OKLAHOMA), INC.

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	X	HAZARDOUS WASTE SOLID NOS, 9, NA3077, III, RQ (D007, D008)	001	CF	(2000) 1	LB CY	D007 D008
b.							
c.							
d							

J. Additional Descriptions for Materials Listed Above
A. CBM95-001

K. Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information
Approval Numbers
OKLAHOMA DISPOSAL PLAN # 10787

16. GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment, OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford

Printed/Typed Name	Signature	Month Day Year
GENERATOR'S AUTHORIZED AGENT KRAIG SMITH	Kraig Smith	1 0 1 6 9 7

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19 Discrepancy Indication Space

20. Facility Owner or Operator Certification of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month Day Year

PRINTED ON RECYCLED PAPER USING SOYBEAN INK PRINTED WITH SOY INK

EPA Form 8700-22 (Rev 9-88) Previous editions are obsolete

GENERATOR COPY

THIS WASTE DOES NOT CONTAIN ANY EXPLOSIVES OR RADIOACTIVE MATERIALS.

644 178

BULK QC REPORT

RQ _____

Line Item _____

	YR	MO	DAY			CODE	NUMBER	CHEMIST			
Container Number	01	10	02	08	08	M95	101-102	WD	Profile Number	M95-001	TK / DS
DOT Shipping Name	HAZ WASTE, SOLID, N.O.S.								Disposal Site		
UN/NA Number	NA 3077			Hazard Class		9, PG III			Approval Code		
EPA Codes	D007, D008								Reactive Weight		

Drum	Color	pH	%Liquid	%Sol	%Sludge	%Full	Layers	Pumpable	Type/Size	Appearance
1				✓		✓		N/A	1 CUBIC YARD BOX	
2				✓		✓		↓	1 CUBIC YARD BOX	
			Soil cont. with LEAD, CHROMIUM							

ORIGINAL - FINAL T S D • GREEN - TRANS/CERT • YELLOW - DISPOSER

593-7557 (10/99)

644 179

LDR NOTIFICATION FORM

Generator Name MEMPHIS DEPOT Manifest No. MD101

Pursuant to 40 CFR §268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268 Land Disposal Restrictions (LDR).

A. GENERAL WASTE NOTIFICATION

Form Line No.	SK Profile No.	EPA Waste Codes & LDR Subcategories (if any) *List codes or use Attachment 1*	NWW	WW	Waste Constituent Notification *Check the "None" box or List Legend Constituent # or use Attachment 2*
1	GBM95-001	D007 D008 ☐ Check if Attachment 1 has been used	☒	☐	☐ None ☐ Check if Attachment 2 has been used
2		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
3		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
4		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
5		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used
6		☐ Check if Attachment 1 has been used	☐	☐	☐ None ☐ Check if Attachment 2 has been used

B. HAZARDOUS DEBRIS NOTIFICATION

☐ This hazardous debris, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.45.
The waste contains the following contaminants subject to treatment (check all that apply):
☐ Toxicity characteristic debris ☐ Debris contaminated with listed waste ☐ Cyanide reactive debris

C. CONTAMINATED SOIL NOTIFICATION & CERTIFICATION

☐ This contaminated soil, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.49(c).
Complete the following: "I certify under penalty of law that I personally have examined this contaminated soil & it [☐ does/ ☐ does not] contain listed hazardous waste & [☐ does / ☐ does not] exhibit a characteristic of hazardous waste & [☐ is subject to / ☐ complies with] soil treatment standards as provided by §268.49(c) or the universal treatment standards". *Note Constituents subject to treatment are any constituents listed in 40 CFR §268.48 Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium & zinc, & are present at concentrations greater than ten times the universal treatment standard.*

D. LAB PACK (INCINERATION) NOTIFICATION & CERTIFICATION

☐ This lab pack, as identified above on Line No(s). _____ is subject to the alternative treatment standards of 40 CFR §268.42(c).
"I certify under penalty of law that I personally have examined & am familiar with the waste & that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR Part 268 & that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR §268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment".

E. EXTENSIONS & VARIANCES

☐ This waste, as identified above on Line No(s). _____ is not prohibited from land disposal & is subject to a deadline extension or variance, e.g., treatability variance, case-by-case extension. *Describe below any extension or variance that applies to this waste & include applicable dates:*

Generator's Authorized Signature | KRAIG SMITH AUTHORIZED AGENT FOR GENERATOR Name & Title (Printed or Typed) | 10/19/01 Date

DWALKER.LDR.NOTIFICATION (8/00)

GENERATOR

UNIVERSAL TREATMENT STANDARDS LEGEND

Legend #	Constituent	WW(Total)	NWW (Total)
246	Antimony	1.9 mg/l	1.15 mg/l TCLP
247	Arsenic	1.4 mg/l	5.0 mg/l TCLP
248	Barium	1.2 mg/l	21.0 mg/l TCLP
249	Beryllium	0.82 mg/l	1.22 mg/l TCLP
250	Cadmium	0.69 mg/l	0.11 mg/l TCLP
251	Chromium (Total)	2.77 mg/l	0.6 mg/l TCLP
252	Cyanides (Total)	1.2 mg/l	590 mg/kg
253	Cyanides (Amenable)	0.86 mg/l	30 mg/kg
254	Fluoride	35 mg/l	n.a.
255	Lead	0.69 mg/l	0.35 mg/l TCLP
256	Mercury - NWW from Retort	n.a.	0.20 mg/l TCLP
257	Mercury - All others	0.15 mg/l	0.025 mg/l TCLP
258	Nickel	3.98 mg/l	11.0 mg/l TCLP
259	Selenium	0.82 mg/l	5.7 mg/l TCLP
260	Silver	0.43 mg/l	0.14mg/l TCLP
261	Sulfide	14.0 mg/l	n.a.
262	Thallium	1.4 mg/l	0.2 mg/l TCLP
263	Vanadium	4.3 mg/l	1.6 mg/l TCLP
264	Zinc	2.61 mg/l	4.3 mg/l TCLP

Legend #	Constituent	WW(Total)	NWW (Total)
49	Acenaphthylene	0.059 mg/l	3.4 mg/kg
50	Acenaphthene	0.059 mg/l	3.4 mg/kg
51	Acetone	0.28 mg/l	160 mg/kg
52	Acetonitrile	5.6mg/l	38.0 mg/kg
53	Acetophenone	0.010 mg/l	9.7 mg/kg
54	2-Acetylaminofluorene	0.059mg/l	140 mg/kg
55	Acrolein	0.29 mg/l	n.a.
56	Acrylamide	19.0 mg/l	23.0 mg/kg
57	Acrylonitrile	0.24 mg/l	84.0 mg/kg
265	Aldicarb sulfone	0.056 mg/l	0.28 mg/kg
58	Aldrin	0.021 mg/l	0.066 mg/kg
59	4-Aminobiphenyl	0.13 mg/l	n.a.
60	Aniline	0.81 mg/l	14.0 mg/kg
61	Anthracene	0.059 mg/l	3.4 mg/kg
62	Aramite	0.36 mg/l	n.a.
266	Barban	0.056 mg/l	1.4 mg/kg
267	Bendiocarb	0.056 mg/l	1.4 mg/kg
268	Benomyl	0.056 mg/l	1.4 mg/kg
68	Benz(a)anthracene	0.059 mg/l	3.4 mg/kg
69	Benzal chloride	0.055 mg/l	6.0 mg/kg
67	Benzene	0.14mg/l	10.0 mg/kg
70	Benzo(b)fluoranthene	0.11 mg/l	6.8 mg/kg
71	Benzo(k) fluoranthene	0.11 mg/l	6.8 mg/kg
72	Benzo(g,h,i) perylene	0.0055 mg/l	1.8 mg/kg
73	Benzo(a)pyrene	0.061 mg/l	3.4 mg/kg
63	alpha-BHC	0.00014 mg/l	0.066 mg/kg
64	beta-BHC	0.00014 mg/l	0.066 mg/kg
65	delta-BHC	0.023 mg/l	0.066 mg/kg
66	gamma-BHC	0.0017 mg/l	0.066 mg/kg
74	Bromodichloromethane	0.35 mg/l	15.0 mg/kg
75	Bromomethane (Methyl bromide)	0.11 mg/l	15.0 mg/kg
76	4-Bromophenyl phenyl ether	0.055 mg/l	15.0 mg/kg
77	n-Butyl alcohol	5.6 mg/l	2.6 mg/kg
78	Butyl benzyl phthalate	0.017 mg/l	28.0 mg/kg
269	Butylate	0.042 mg/l	1.4 mg/kg
79	2-sec-Butyl-4,6- dinitrophenol (Dinoseb)	0.066 mg/l	2.5 mg/kg
270	Carbaryl	0.006 mg/l	0.14 mg/kg
271	Carbenzadim	0.056 mg/l	1.4 mg/kg
272	Carbofuran	0.006 mg/l	0.14 mg/kg
273	Carbofuran phenol	0.056 mg/l	1.4 mg/kg
80	Carbon disulfide	3.8 mg/l	4.8 mg/l TCLP
81	Carbon tetrachloride	0.057 mg/l	6.0 mg/kg
274	Carbosulfan	0.028 mg/l	1.4 mg/kg
82	Chlordane (alpha & gamma isomers)	0.0033 mg/l	0.26 mg/kg
83	p-Chloroaniline	0.46 mg/l	16.0 mg/kg
84	Chlorobenzene	0.057 mg/l	6.0 mg/kg
85	Chlorobenzilate	0.10 mg/l	n.a.
86	2-Chloro-1,3-butadiene	0.057 mg/l	0.28 mg/kg
87	Chlorodibromomethane	0.057 mg/l	15.0 mg/kg
88	Chloroethane	0.27 mg/l	6.0 mg/kg
89	bis(2- Chloroethoxy) methane	0.036 mg/l	7.2 mg/kg
90	bis(2-Chloroethyl)ether	0.033 mg/l	6.0 mg/kg
94	2-Chloroethyl vinyl ether	0.062 mg/l	n.a.
91	Chloroform	0.046 mg/l	6.0 mg/kg
92	bis(2-Chloroisopropyl)ether	0.055 mg/l	7.2 mg/kg
93	p-Chloro-m-cresol	0.018 mg/l	14.0 mg/kg
95	Chloromethane (Methyl chloride)	0.19 mg/l	30.0 mg/kg
96	2-Chloronaphthalene	0.055 mg/l	5.6 mg/kg
97	2-Chlorophenol	0.044 mg/l	5.7 mg/kg
98	3-Chloropropylene	0.036 mg/l	30.0 mg/kg
99	Chrysene	0.059 mg/l	3.4 mg/kg
100	o-Cresol	0.11 mg/l	5.6 mg/kg
101	m-Cresol	0.77 mg/l	5.6 mg/kg
102	p-Cresol	0.77 mg/l	5.6 mg/kg
275	m-Cumenyl methylcarbamate	0.056 mg/l	1.4 mg/kg
103	Cyclohexanone	0.36 mg/l	0.75 mg/l TCLP
108	o,p'-DDD	0.023 mg/l	0.087 mg/kg
109	p,p'-DDD	0.023 mg/l	0.087 mg/kg
110	o,p'-DDE	0.031 mg/l	0.087 mg/kg
111	p,p'-DDE	0.031 mg/l	0.087 mg/kg
112	o,p'-DDT	0.0039mg/l	0.087 mg/kg
113	p,p'-DDT	0.0039mg/l	0.087 mg/kg
114	Dibenz(a,h)anthracene	0.055 mg/l	8.2 mg/kg
115	Dibenz(a,e)pyrene	0.061 mg/l	n.a.
104	1,2-Dibromo-3-chloropropane	0.11 mg/l	15.0 mg/kg
105	1,2-Dibromoethane (Ethylene dibromide)	0.028 mg/l	15.0 mg/kg
106	Dibromomethane	0.11 mg/l	15.0 mg/kg
116	m-Dichlorobenzene	0.036 mg/l	6.0 mg/kg
117	o-Dichlorobenzene	0.088 mg/l	6.0 mg/kg
118	p-Dichlorobenzene	0.090 mg/l	6.0 mg/kg
119	Dichlorodifluoromethane	0.23 mg/l	7.2 mg/kg
120	1,1-Dichloroethane	0.059 mg/l	6.0 mg/kg
121	1,2-Dichloroethane	0.21 mg/l	6.0 mg/kg
122	1,1-Dichloroethylene	0.025 mg/l	6.0 mg/kg
123	trans-1,2-Dichloroethylene	0.054 mg/l	30.0 mg/kg
124	2,4-Dichlorophenol	0.044 mg/l	14.0 mg/kg
125	2,6-Dichlorophenol	0.044 mg/l	14.0 mg/kg
107	2,4-D (2,4-Dichlorophenoxy-acetic acid)	0.72 mg/l	10.0 mg/kg
126	1,2-Dichloropropane	0.85 mg/l	18.0 mg/kg
127	cis-1,3-Dichloropropylene	0.036 mg/l	18.0 mg/kg
128	trans-1,3-Dichloropropylene	0.036 mg/l	18.0mg/kg
129	Dieldrin	0.017 mg/l	0.13 mg/kg
130	Diethyl phthalate	0.20 mg/l	28.0 mg/kg
140	p-Dimethylaminoazobenzene	0.13 mg/l	n.a.
131	2,4-Dimethyl phenol	0.036 mg/l	14.0 mg/kg
132	Dimethyl phthalate	0.047 mg/l	28.0 mg/kg
133	Di-n-butyl phthalate	0.057 mg/l	28.0 mg/kg
134	1,4-Dinitrobenzene	0.32 mg/l	2.3 mg/kg
135	4,6-Dinitro-o-cresol	0.28 mg/l	160.0 mg/kg
136	2,4-Dinitrophenol	0.12 mg/l	160.0 mg/kg
137	2,4-Dinitrotoluene	0.32 mg/l	140.0 mg/kg
138	2,6-Dinitrotoluene	0.55 mg/l	28.0 mg/kg
139	Di-n-octyl phthalate	0.017 mg/l	28.0 mg/kg
141	Di-n-propylnitrosamine	0.40 mg/l	14.0 mg/kg
142	1,4-Dioxane	n.a.	170.0 mg/kg
143	Diphenylamine	0.92 mg/l	13.0 mg/kg
144	Diphenylnitrosamine	0.92 mg/l	13.0 mg/kg
145	1,2-Diphenylhydrazine	0.087 mg/l	n.a.
146	Disulfoton	0.017 mg/l	6.2 mg/kg
276	Dithiocarbamates (total)	0.028 mg/l	28.0 mg/kg
147	Endosulfan I	0.023 mg/l	0.066 mg/kg
148	Endosulfan II	0.029 mg/l	0.13 mg/kg
149	Endosulfan sulfate	0.029 mg/l	0.13 mg/kg
150	Endrin	0.0028 mg/l	0.13 mg/kg
151	Endrin aldehyde	0.025 mg/l	0.13 mg/kg
277	EPTC	0.042 mg/l	1.4 mg/kg
92	2-Ethoxyethanol*	**	CMBST
152	Ethyl acetate	0.34 mg/l	33.0 mg/kg
154	Ethyl benzene	0.057 mg/l	10.0 mg/kg
153	Ethyl cyanide (Propanenitrile)	0.24 mg/l	360.0 mg/kg
155	Ethyl ether	0.12 mg/l	160.0 mg/kg
157	Ethyl methacrylate	0.14 mg/l	160.0 mg/kg
158	Ethylene oxide	0.12 mg/l	n.a.
456	bis(2-Ethylhexyl) phthalate	0.28 mg/l	28.0 mg/kg
159	Famphur	0.017 mg/l	15.0 mg/kg
160	Fluoranthene	0.068 mg/l	3.4 mg/kg
161	Fluorene	0.059 mg/l	3.4 mg/kg
278	Formetanate hydrochloride	0.056 mg/l	1.4 mg/kg
162	Heptachlor	0.0012 mg/l	0.066 mg/kg
163	Heptachlor epoxide	0.016 mg/l	0.066 mg/kg
164	Hexachlorobenzene	0.055 mg/l	10.0 mg/kg
165	Hexachlorobutadiene	0.055 mg/l	5.6 mg/kg
166	Hexachlorocyclopentadiene	0.057 mg/l	2.4 mg/kg
169	Hexachloroethane	0.055 mg/l	30.0 mg/kg
170	Hexachloropropylene	0.035 mg/l	30.0 mg/kg
167	HxCDDs (All Hexachloro- dibenzo-p-dioxins)	0.000063 mg/l	0.001 mg/kg
168	HxCDFs (All Hexachloro- dibenzofurans)	0.000063 mg/l	0.001 mg/kg
171	Indeno (1,2,3-c,d) pyrene	0.0055 mg/l	3.4 mg/kg
172	Iodobethane	0.19 mg/l	65.0 mg/kg
173	Isobutyl alcohol	5.6 mg/l	170.0 mg/kg
174	Isodrin	0.021 mg/l	0.066 mg/kg
175	Isosafrole	0.081 mg/l	2.6 mg/kg
176	Kepone	0.0011mg/l	0.13 mg/kg
177	Methacrylonitrile	0.24 mg/l	84.0 mg/kg
178	Methanol	5.6 mg/l	0.75 mg/l TCLP
179	Methapyrilene	0.081 mg/l	1.5 mg/kg
279	Methiocarb	0.056 mg/l	1.4 mg/kg
280	Methomyl	0.028 mg/l	0.14 mg/kg
180	Methoxychlor	0.25 mg/l	0.18 mg/kg
184	Methyl ethyl ketone	0.28 mg/l	36.0 mg/kg
185	Methyl isobutyl ketone	0.14 mg/l	33.0 mg/kg
186	Methyl methacrylate	0.14 mg/l	160.0 mg/kg
187	Methyl methansulfonate	0.018 mg/l	n.a.
188	Methyl parathion	0.014 mg/l	4.6 mg/kg
181	3-Methylcholanthrene	0.0055 mg/l	15.0 mg/kg
182	4,4-Methylene bis(2-chloro-aniline)	0.50 mg/l	30.0 mg/kg
183	Methylene chloride	0.089 mg/l	30.0 mg/kg
281	Metolcarb	0.056 mg/l	1.4 mg/kg
282	Mexacarbate	0.056 mg/l	1.4 mg/kg
283	Molinate	0.042 mg/l	1.4 mg/kg
189	Naphthalene	0.059 mg/l	5.6 mg/kg
190	2-Naphthylamine	0.52 mg/l	n.a.
191	o-Nitroaniline	0.27 mg/l	14.0 mg/kg
192	p-Nitroaniline	0.028 mg/l	28.0 mg/kg
193	Nitrobenzene	0.068 mg/l	14.0 mg/kg
194	5-Nitro-o-toluidine	0.32 mg/l	28.0 mg/kg
195	o-Nitrophenol	0.028 mg/l	13.0 mg/kg
196	p-Nitrophenol	0.12 mg/l	29.0 mg/kg
33	2-Nitropropane*	***	CMBST
197	N-Nitrosodiethylamine	0.40 mg/l	28.0 mg/kg
198	N-Nitrosodimethylamine	0.40 mg/l	2.3 mg/kg
199	N-Nitroso-di-n-butylamine	0.40 mg/l	17.0 mg/kg
200	N-Nitrosomethylethylamine	0.40 mg/l	2.3 mg/kg
201	N-Nitrosomorpholine	0.40 mg/l	2.3 mg/kg
202	N-Nitrosopiperidine	0.013 mg/l	35.0 mg/kg
203	N-Nitrosopyrrolidine	0.013 mg/l	35.0 mg/kg
284	Oxamyl	0.056 mg/l	0.28 mg/kg
204	Parathion	0.014 mg/l	4.6 mg/kg
205	Total PCBs	0.10 mg/l	10.0 mg/kg
285	Pebulate	0.042 mg/l	1.4 mg/kg
206	Pentachlorobenzene	0.055 mg/l	10.0 mg/kg
207	PeCDDs (All Pentachloro- dibenzo-p-dioxins)	0.000063 mg/l	0.001 mg/kg
208	PeCDFs (All Pentachloro- dibenzofurans)	0.000035 mg/l	0.001 mg/kg
209	Pentachloroethane	0.055 mg/l	6.0 mg/kg
210	Pentachloronitrobenzene	0.055 mg/l	4.8 mg/kg
211	Pentachlorophenol	0.089 mg/l	7.4 mg/kg
212	Phenacetin	0.081 mg/l	16.0 mg/kg
213	Phenanthrene	0.059 mg/l	5.6 mg/kg
214	Phenol	0.039 mg/l	6.2 mg/kg
215	Phorate	0.021 mg/l	4.6 mg/kg
216	Phthalic acid	0.055 mg/l	28.0 mg/kg
217	Phthalic anhydride	0.055 mg/l	28.0 mg/kg
286	Physostigmine	0.056 mg/l	1.4 mg/kg
287	Physostigmine salicylate	0.056 mg/l	1.4 mg/kg
288	Promecarb	0.056 mg/l	1.4 mg/kg
218	Pronamide	0.093 mg/l	1.5 mg/kg
289	Propham	mg/l	mg/kg
290	Propoxur	0.056 mg/l	1.4 mg/kg
291	Prosulfocarb	0.056 mg/l	1.4 mg/kg
219	Pyrene	0.067 mg/l	8.2 mg/kg
220	Pyridine	0.014 mg/l	16.0 mg/kg
221	Safrole	0.081 mg/l	22.0 mg/kg
222	Silvex (2,4,5-TP)	0.72 mg/l	7.9 mg/kg
225	TCDDs (All Tetrachloro- dibenzo-p-dioxins)	0.000063 mg/l	0.001 mg/kg
226	TCDFs (All Tetrachloro- dibenzofurans)	0.000063 mg/l	0.001 mg/kg
224	1,2,4,5-Tetrachlorobenzene	0.055 mg/l	14.0 mg/kg
227	1,1,1,2-Tetrachloroethane	0.057 mg/l	6.0 mg/kg
228	1,1,2,2,-Tetrachloroethane	0.057 mg/l	6.0 mg/kg
229	Tetrachloroethylene	0.056 mg/l	6.0 mg/kg
230	2,3,4,6-Tetrachlorophenol	0.030 mg/l	7.4 mg/kg
292	Thiodicarb	0.019 mg/l	1.4 mg/kg
293	Thiophanate-methyl	0.056 mg/l	1.4 mg/kg
231	Toluene	0.080 mg/l	10.0 mg/kg
232	Toxaphene	0.0095 mg/l	2.6 mg/kg
294	Triallate	0.042 mg/l	1.4 mg/kg
233	Tribromomethane (Bromoform)	0.63 mg/l	15.0 mg/kg
234	1,2,4-Trichlorobenzene	0.055 mg/l	19.0 mg/kg
235	1,1,1-Trichloroethane	0.054 mg/l	6.0 mg/kg
236	1,1,2-Trichloroethane	0.054 mg/l	6.0 mg/kg
237	Trichloroethylene	0.054 mg/l	6.0 mg/kg
238	Trichloromonofluoromethane	0.020 mg/l	30.0 mg/kg
239	2,4,5-Trichlorophenol	0.18 mg/l	7.4 mg/kg
240	2,4,6-Trichlorophenol	0.035 mg/l	7.4 mg/kg
223	2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.72 mg/l	7.9 mg/kg
241	1,2,3-Trichloropropane	0.85 mg/l	30.0 mg/kg
242	1,1,2-Trichloro-1,2,2,- trifluoroethane	0.057 mg/l	30.0 mg/kg
296	Triethylamine	0.081 mg/l	1.5 mg/kg
243	tris-(2,3-Dibromopropyl) phosphate	0.11 mg/l	0.10 mg/kg
297	Vernolate	0.042 mg/l	1.4 mg/kg
244	Vinyl chloride	0.27 mg/l	6.0 mg/kg
245	Xylenes- mixed isomers	0.32 mg/l	30.0 mg/kg

* *F005 wastes containing no other F001-F005 solvents.* ** *WW Standard=BIODG; or CMBST* *** *WW Standard=(WETOX or CHOXD) fb CARBN; or CMBST*

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ADMINISTRATIVE RECORD

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