Woodward-Clyde
Engineering & sciences applied to the earth & its environment

July 22, 1998

Mr. Steve Boswell
Vicksburg Chemical Company
P.O. Box 821003
Vicksburg, Mississippi 3912-1003

Re: SWMUs 1 and 17
Corrective Action Observation
Confirmatory Sampling and Analysis
W-C File No. 96B315

Dear Steve:

This is written as documentary record of the confirmation sampling that was performed by me on March 4, 1998 and the analytical results. It is written for submittal to the U.S. Environmental Protection Agency (U.S. EPA) and Mississippi Department of Environmental Quality (MSDEQ) for their review and decision making. If resampling and analysis are required, we are prepared to quickly do so. The following topics are covered in this letter:

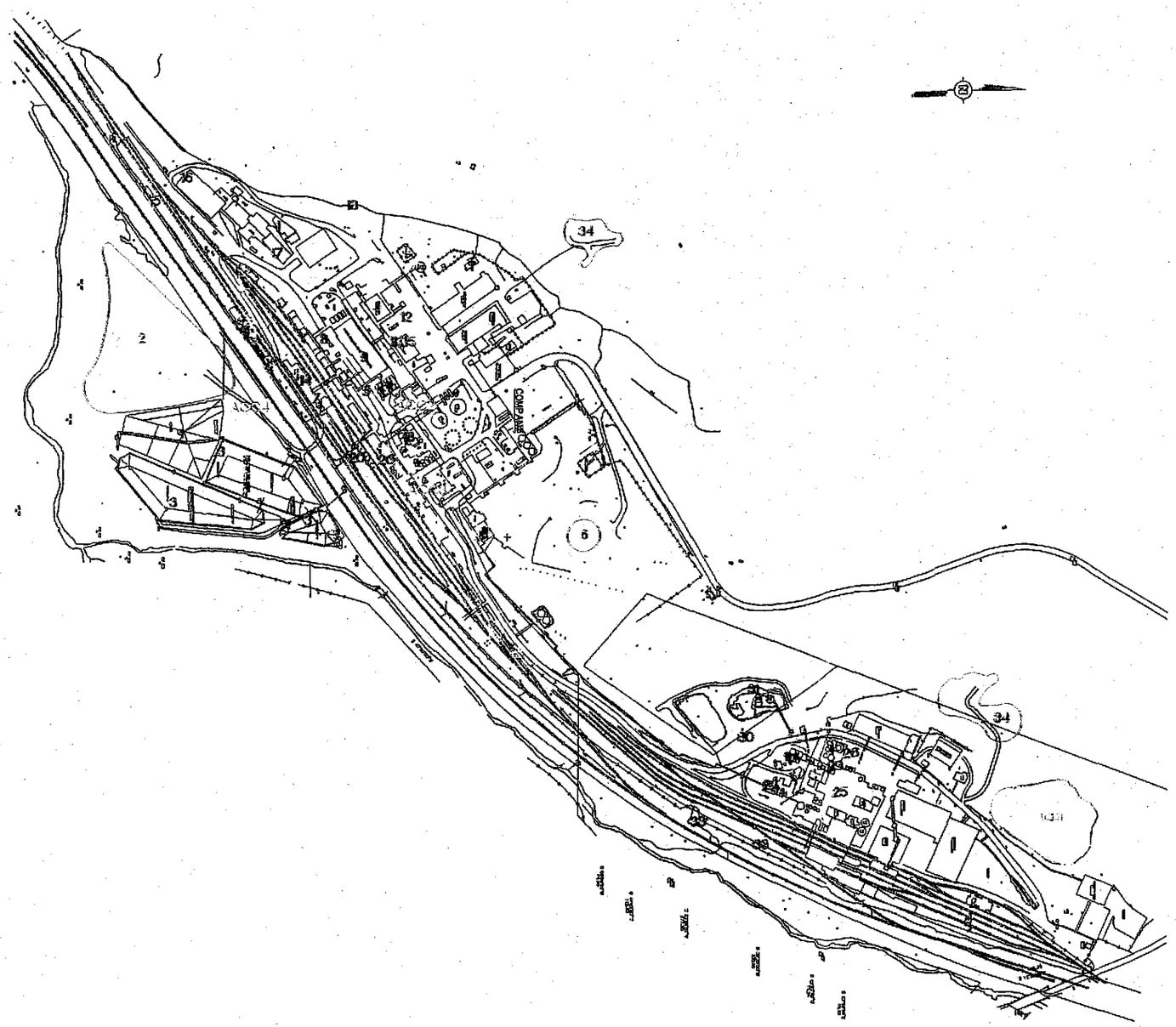
- History of the corrective action program SWMU 1 and 17
- Summary of RFI Report
- Summary of Corrective Measures Implementation Plan
- Documentation of the sampling effort
- Analytical results
- Conclusion

HISTORY

Vicksburg Chemical Company (VCC) retained Woodward-Clyde International-Americas (Woodward-Clyde) to perform activities associated with a RCRA corrective action program. The corrective action program is in response to a Consent Decree effective July 1, 1991. The Consent Decree requires that a RCRA Facility Investigation (RFI) be conducted at the Vicksburg, Mississippi manufacturing facility.

The purpose of the RFI is to determine the nature and extent of releases of hazardous wastes and/or constituents from regulated units. solid waste management units (SWMUs), and other areas of concern (AOCs) at the facility and to gather all necessary data to support any corrective action required.

Woodward-Clyde International-Americas • (formerly Woodward-Clyde Consultants)
2822 O'Neal Lane • Baton Rouge, Louisiana 70816
(504) 751-1873 • Fax (504) 753-3616



SWMU NUMBER	SOUTH PLANT
1	CONTAINER (DRUM) STORAGE AREA
2	INACTIVE LANDFILL
3	SURFACE IMPOUNDMENT (SOUTH PLANT)
4	ACTIVATED CARBON TREATMENT UNITS
5	SOUTH PLANT DRAINAGE SYSTEMS
6	WASTEWATER STORAGE (HILL) TANKS
7	FORMER DINOSEB PRODUCTION AREA
8	DINOSEB LOADING/UNLOADING AREA
9	DINOSEB DRUMMING AREA
11	FORMER MSMA PRODUCTION AREA
12	FORMER MSMA SALT UNLOADING AREA
13	SOUTH PLANT DRAINAGE DITCHES
14	FORMER TOXAPHENE PRODUCTION AREA
15	FORMER METHYL PARATHION PRODUCTION AREA
16	FORMER ATRAZINE PRODUCTION AREA
17	RETURNED PRODUCT STORAGE AREA
18	FORMER BLUE TANK AREA
20	RAILROAD CAR UNLOADING STATION

	NORTH PLANT
22	NORTH PLANT NEUTRALIZATION SYSTEM
23	EQUALIZATION/NEUTRALIZATION POND (NORTH PLANT)
25	NORTH PLANT WASTEWATER PIPES
26	C-10 SCRUBBER
29	OIL COLLECTION UNIT
30	NORTH PLANT WASTE OIL ACCUMULATION AREA
31	NO. 6 FUEL OIL AREA
33	NORTH PLANT DRAINAGE DITCHES

	BOTH PLANTS
34	SURPLUS EQUIPMENT STORAGE (JUNKYARD)

AOC NUMBER	AOC NAME
1	FISH POND (NORTH PLANT)
2	DRUM STORAGE AREA
3	NEUTRALIZATION TANKS (SOUTH PLANT)
4	CHEMICAL CRYPT (SEPTIC TANKS)

SCALE
200 0 200 400 FEET

NO.	REVISION	DATE	INITIAL

SWMU 16,1,&17 RFI REPORT; CMS; CMIP

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

CEDAR CHEMICAL CORPORATION
VICKSBURG CHEMICAL DIVISION
VICKSBURG, MISSISSIPPI

SCALE:	MADE BY: GT	DATE: 4/6/92	FILE NO.
1" = 200'	CHECKED BY: RDK	DATE: 2 22 95	96B315

LOCATION OF SOLID WASTE MANAGEMENT UNITS

FIGURE 1

Location: Baton Rouge File name: S:\28007C99.DWG Last edited: 02/21/95 @ 11:13

The RFI constitutes the second phase of the RCRA corrective action program. The program's initial phase consists of the RCRA Facility Assessment (RFA) which is conducted by the EPA and precedes the RFI. The RFI itself is divided into several separate tasks which includes the Preliminary Report (Report of Current Conditions, submitted previously by VCC then resubmitted as the Amended and Restated Preliminary Report and subsequently approved by the U.S.EPA), the RFI Work Plan (submitted in June 1996), the Facility Investigation, and the Investigative Analysis and Reports (RFI Report). In addition to these phases, a Groundwater Assessment Work Plan (submitted in June 1996), a Closure Plan for SWMU 1 and SWMU 17 (submitted and subsequently approved by the U.S. EPA) and Annual Groundwater Assessment Reports are required by the Consent Decree.

An RFI Report, Corrective Measures Study, (CMS), RCRA Corrective Measures Implementation Plan and Application for Corrective Action Management Unit (CAMU) were published for SWMUs 16, 1 and 17 and initially submitted to the U.S. EPA and the MSDEQ in June 1997. The CAMU application, which is pertinent to the plant-wide corrective action program, has been approved.

The SWMUs are identified by name as follows:

- SWMU 16, Former Atrazine Production Area (including warehouse);
- SWMU 1, Container (Drum) Storage Area; and
- SWMU 17, Returned Product Storage Area.

The location of the SMWUs are presented on Figure 1.

The RFI Work Plan for SWMUs 16, 1 and 17 included or incorporated by reference the following plans presented in the RFI Work Plan (the site-wide plan submitted in June 1996):

- Data Collection Quality Assurance Plan
- Data Management Plan
- Health and Safety Plan

The work plan included or incorporated by reference the plans presented in the Closure Plan for SWMU 1 and SWMU 17 (the Closure Plan was approved by the U.S. EPA).

The work plan and subsequent work were expedited because of VCC's plans to construct a new manufacturing facility in the South Plant and utilize some of the area to be investigated for storage, transportation and manufacturing.

The work plan was executed in two phases, and a report of the activity with all of the analytical results was issued in June 1997. On the basis of the data, a corrective action program was planned and that plan reported as a Corrective Measures Implementation Plan (CMIP) issued in June 1997. A summary of the RFI Report and CMIP are presented in the next sections of this letter.

VCC implemented corrective action activity with regard to SWMU 1 and SWMU 17. The activity implemented was more extensive than that outlined in the CMIP; the total concrete surface areas of SWMUs 1 and 17 were ground down and then concrete grindings were stored for treatment and/or disposal.

Confimatory samples for the areas requiring corrective action (represented by sample points A, I, 2 and 18 on Figure 2) were planned for early in the year 1998.

Confirmatory sampling did in fact take place on March 4, 1998. Corrective action had only taken place with regard to SWMU 1 and SWMU 17; therefore, the only sampling done was that associated with points 18 and I. The sampling was performed by me. It was done on the same day that a review meeting was held at VCC on alternative corrective activity with regard to the MSMA area (SWMUs 12, 11 and 15). The details and documentation of the sampling effort are described in a separate section.

The procedures set out in the Consent Decree specify that the U.S. EPA and MSDEQ must be notified seven days in advance. Due to the last minute scheduling of the trip the advance notification did not occur. Because of the nature of events VCC decided to regard the sampling as "unofficial". A complication has arisen in that VCC has proceeded with new plant construction on SWMU 1 and SWMU 17 and the "official" sampling has not taken place. The "official" sampling can take place at any time; however, I believe it worthwhile to ask the MSDEQ and U.S. EPA if they will accept the sampling already done and this letter as the documentation of that event.

SUMMARY OF THE RFI REPORT (FROM RFI REPORT - SWMUs 16, 1 AND 17 JUNE 1997)

The specific sample locations for SWMU 1, SWMU 17, and SWMU 16 are depicted on Figure 2. For each sample point there were two or three samples taken:

- A core of the concrete (if the sample point is a former production or storage area).

- A composite sample of the first 0 to 12 inches of soil beneath the concrete referred to as the shallow sample.
- A sample of soil generally 12 to 24 inches beneath the concrete referred to as the deep sample.

The total number of samples submitted for analysis was as follows:

SWMU Number	Sample Description	Sample Points	Number of Samples	Analyte List
16 Atrazine Warehouse	Concrete and Soil	5 concrete and soil	15	C
	Soil	1 soil	2	B
16 Atrazine Production Area	Concrete and Soil	6	18	C
	Soil	11	22	B
1, 17 Container Storage and Off-Spec Storage	Concrete and Soil	10 concrete and soil	30	A
	Soil	2 soil	4	A

LEGEND:

A Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene, Toluene
B TCL, TAL, Atrazine, Cyanazine, Dinoseb
C Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene

Upon receiving results of analyses, a Phase II extension of sampling and analysis was executed based on the following criteria for resampling:

- Above action levels - established in Closure Plan for SWMU 1 and SWMU 17 (submitted and subsequently approved by the U.S. EPA).

dinoseb	80 ppm
arsenic	20 ppm
toxaphene	2.6 ppm
atrazine	400 ppm
toluene	16,000 ppm

- If concentration of analytes noted above in sample of 2-foot interval exceeds concentration in sample of 1-foot interval, sample continuously in 4-foot intervals to groundwater. In addition, sample groundwater for analysis of the particular analyte.

- Determine by sampling the background concentration of arsenic.

The total number of samples submitted for analysis in the Phase II effort was as follows:

SWMU Number	Sample Description	Sample Points	Number of Samples	Analyte List
16 Atrazine Warehouse	Soil and Groundwater	2	7	Toxaphene
		1	4	Toxaphene and Arsenic
16 Atrazine Production Area	Soil and Groundwater	1	4	Toxaphene
1, 17 Container Storage and Off-Spec Storage	Concrete	1	1	Dinoseb and Arsenic
Background	Soil	6	6	Arsenic

The Phase II contaminated area sampling points have been identified on Figure 2 by sample numbers.

The background samples were obtained in the following locations:

- Three of the background samples for arsenic were obtained in a level field immediately west of the parking lot serving the main administration building in the North Plant.
- Three of the background samples were obtained from the Vicksburg Chemicals Employee Park located between the plant site and the Mississippi River to the west.

Out of the sampling effort and study the following conclusions were made:

- Regulatory clean closure of SWMU 1 and SWMU 17 can be obtained. A minor hit of 538 ppb arsenic in groundwater occurred in location 2, underneath SWMU 16 (Atrazine Warehouse). Groundwater samples need to be obtained adjacent to the SWMU 15 (Former MSMA Production Area) during Phase I of the site RFI and the GWA.
- A CMS and CMIP is necessary regarding soil and concrete areas surrounding points A, I, 2 and 18.

SUMMARY OF CORRECTIVE MEASURES IMPLEMENTATION PLAN (CMIP) (FROM CMIP - SWMUs 16, 1 AND 17 - JUNE 1997)

The CMS and CMIP were written and submitted concurrently with the RFI Report in June 1997. Additionally, an application for a CAMU was written and submitted in June 1997 to set forth procedures by which onsite treatment and residual disposition could occur. The CAMU application was approved.

The required activity specified in the CMIP was to permanently deal with corrective measures by incorporating elements of the following for each remediation area, as necessary and appropriate:

- Busting out certain sections of concrete, reducing the size of the concrete to gravel size and treating onsite by biodegradation/composting.
- Excavating certain sections of soil and treating onsite by biodegradation/composting.
- Grinding the surface of certain sections of concrete and treating onsite by biodegradation/composting.
- Resurfacing and sealing existing concrete where appropriate.
- Disposing of treated and/or untreated soil and/or concrete either offsite or onsite. The onsite option would be a non-RCRA solid waste disposal option.

The areas requiring corrective action are areas initially limited to 10 feet by 10 feet surrounding sampling points A, I, 2 and 18. Refer to Figure 2 to locate the areas. A description of the corrective action follows:

Sample Point	Analyte of Concern	Action Required
A	Toxaphene	excavate 10-foot x 10-foot x 4-foot section of soil
I	Toxaphene	excavate 10-foot x 10-foot x 1-foot section of soil
2	Arsenic	excavate or grind 10-foot x 10-foot section of concrete excluding portions of the nearby ramp
18	Dinoseb	excavate or grind 10-foot x 10-foot section of concrete

During the corrective action, sampling and screening analysis will take place onsite. After the corrective action has been executed, there will be verification sampling prior to backfilling or pouring concrete.

Corrective action did take place with regard to sample points "I" and 18 within SWMUs 1 and 17. Therefore, the confirmatory sampling took place only for SWMUs 1 and 17.

DOCUMENTATION OF THE SAMPLING EFFORT

The documentation of the sampling effort is provided in Attachment 1. The contents of Attachment 1 are:

- A copy of E-mail messages to the analytical laboratory
  - A January 23, 1998 request for sample containers for confirmation sampling at SWMUs 1, 1 and 17.
  - A February 9, 1998 note on confirmation sampling at SWMUs 16, 1 and 17. (Phase II sampling at SWMUs 12, 11 and 15 did take place but the confirmation sampling at SWMUs 16, 1 and 17 did not occur since corrective action grinding activities were taking place.)
- A copy of an E-mail message to VCC on March 2, 1998 discussing the confirmatory sampling.
- A chain of custody record.

The sampling was uneventful. The sampling at point 18 consisted of obtaining chips of concrete obtained with a chisel and hammer. Three samples were obtained, to the north, west and east of point 18.

The sampling at point "I" consisted of obtaining scopes of soil with a trowel. Three samples were obtained, to the south, west and east of point "I".

A sample point 3 is noted on the chain of custody. That sample point is in the MSMA area and not relevant to SWMUs 1 or 17.

Photographing documentation of the corrective action and the confirmatory sampling is provided as Attachment 2.

ANALYTICAL RESULTS

The samples were analyzed only for the parameters that exceeded the action levels. The results are as follows:

SWMU Number	Sample Point	Analyte of Concern	Sample Results
1	18-N	Dinoseb	ND
1	18-W	Dinoseb	ND
1	18-E	Dinoseb	ND
17	I-S	Toxaphene	ND

SWMU Number	Sample Point	Analyte of Concern	Sample Results
17	I-W	Toxaphene	ND
17	I-E	Toxaphene	ND

A copy of the results as received from the laboratory is provided as Attachment 3.

CONCLUSIONS

It can be concluded that the clean closure objectives of the Closure Plan for SWMUs 1 and 17 have been met.

Due to various events, mainly the long passage time, the documentation of the corrective action and confirmatory sample may or may not be sufficient for the MSDEQ and U.S. EPA. I suggest that they be given a copy of this letter and a request for their guidance.

Very truly yours,

Richard D. Karkkainen
Vice President and Principal

Attachments

RDK:tlc

W:\VICKSBUR\96B315\CON-SAMP-LTR.DOC

NOTES:

- SAMPLE ID = LOCATION–TYPE–PARAMETERS

LOCATON:

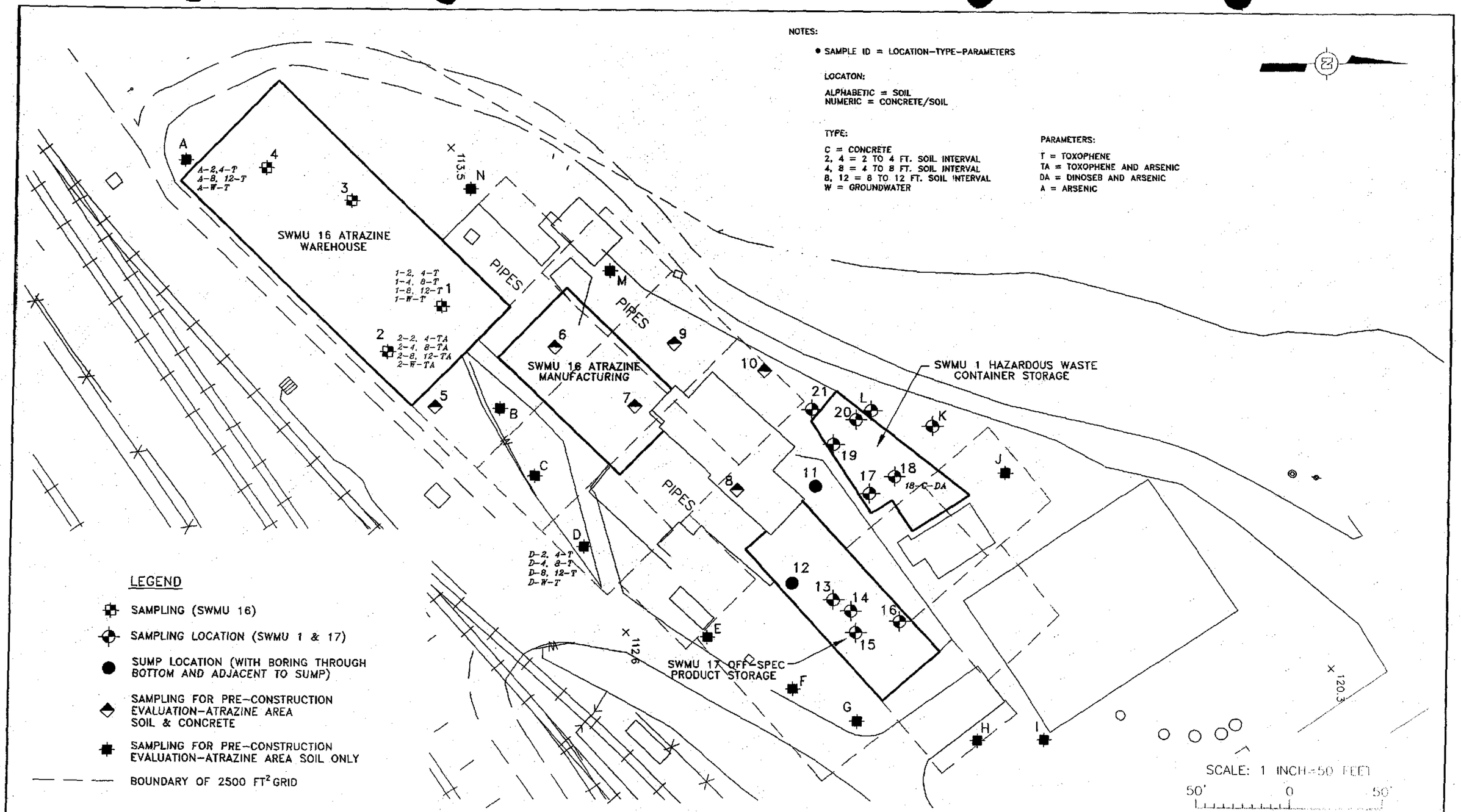
ALPHABETIC = SOIL
NUMERIC = CONCRETE/SOIL

TYPE:

C = CONCRETE
2, 4 = 2 TO 4 FT. SOIL INTERVAL
4, 8 = 4 TO 8 FT. SOIL INTERVAL
8, 12 = 8 TO 12 FT. SOIL INTERVAL
W = GROUNDWATER

PARAMETERS:

T = TOXOPHENE
TA = TOXOPHENE AND ARSENIC
DA = DINOSEB AND ARSENIC
A = ARSENIC



REV	DESCRIPTION OF REVISION	BY	DATE
△			
△			
△			
△			
△			
△	ADD PHASE II SAMPLE ID	RDK	5/97

VICKSBURG CHEMICAL
VICKSBURG, MISSISSIPPI

Woodward-Clyde Consultants
Engineering & sciences applied to the earth & its environment
2822 O'Neal Lane
Baton Rouge, Louisiana 70816

SCALE: AS SHOWN
DESIGNED:
DRAWN: PCG
CHECKED:
PROJ. MGR.:
DATE: 5/27/97

SWMU 16, 1, AND 17

SAMPLE AREA LOCATIONS
(BASE MAP–AS MARKED IN THE FIELD)
AND PHASE II SAMPLE ID

K:\[illegible]R\92B007\92B007T Wed May 28 09:13:27 1997

ATTACHMENT 1

Author: RDKARKKO at WC-BATON_ROUGE
Date: 2/2/98 4:29 PM
Priority: Normal
TO: KBurnsPace@aol.com at INTERNET
Subject: C M @ SWMUs 16,1&17 Plus Phase II @ SWMUs 12,11&15

---------- Message Contents ----------

Kathy:

The confirmation sampling for SWMUs 16,1&17 will take place the week of 2-9-98.

Also Phase II sampling will take place for SWMUs 12,11&15. Just a bit of the data is in, but at the least we will need an additional 58 soil samples for arsenic and 13 groundwater samples for arsenic.

I am looking forward to the rest of the data.

Dick K
2-2-98

---------- Forward Header ----------

Subject: Corrective Measures @ SWMUs 16, 1 & 17
Author: RDKARKKO at WC-BATON_ROUGE
Date: 1/23/98 11:22 AM

Kathy:
Vicksburg Chemical will proceed with Corrective Measures as soon as it can be scheduled within the next two weeks. There will be minor excavation of four areas (represented by points A, I, 2 & 18). While that is happening, I will run up to Vicksburg and obtain confirmation samples and take some photographs. I will need a cooler and bottles for the following:

MATRIX:	NUMBER OF SAMPLES:	ANALYTE:
Soil	8	toxaphene
Concrete chips	4	arsenic
Concrete chips	3	dinoseb

I believe that all of the Corrective Action and documentation can take place within one or two days. Please have the containers shipped to Vicksburg. I will alert you to when the laboratory can anticipate the samples as soon as I know.

Dick K
1-23-98

Author: RDKARKKO at WC-BATON_ROUGE
Date: 3/2/98 10:01 AM
Priority: Normal
TO: sboswell@vicksburg.com at INTERNET
Subject: Closure-SWMUs 1&17; SWMU 16

---------- Message Contents ----------

Steve:

I reviewed the SWMU 1 & 17 Closure Plan, which the EPA has approved and the SWMUs 1, 17 & 16 Corrective Measures Implementation Plan (CMIP), which the EPA has not finished reviewing.

SWMUs 1 & 17:
The only contaminated points were:
. 18 - concrete contaminated with Dinoseb
. I - soil contaminated with toxaphene to one foot

We can clean those areas, resample, and, if the areas are clean, file a closure report. If the EPA agrees, this would free up any money you have tied up in a Trust fund for SWMU 1 & 17.

SWMU 16:
The only contaminated points were:
. A - soil contaminated with toxaphene to four feet
. 2 - concrete contaminated with arsenic

I do not know if you are prepared to clean those areas. If you are I could resample and photograph the activity and write a closure report. Unlike the SWMUs 1 & 17, there has been no EPA formal sign off on anything.

For both closure reports I need a MS professional engineer to certify the effort. I had planned to use Russ Killebrew (he is familiar with the site from 1992) but his wife is dying from cancer. Therefore, I plan on using Bob SeGall. (I will need to allow Bob some budget to review the Closure Plan, RFI Report and CMIP.) Bob is our chief landfill designer so, if there is any on-site territory you want to consider for a landfill site for arsenic wastes or other residues, I could bring Bob to Vicksburg at some time to offer an opinion on the suitability.

I will be prepared to stay over on Wednesday night, if there is reason to do so.

Dick K
3-2-98

Pace Analytical

[illegible]8639

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: VICKSBURG CHEMICAL	Report To: RICK KARKAINEN
Address: RIFLE RANGE ROAD, VICKSBURG MS	Bill To: STEVE BOSWELL
	P.O. # / Billing Reference
Phone: 504-756-1401	Project Name / No. 967315

Turn around Time
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ 3-5 Days
- ☐ 1 Week 2 Weeks
- ☒ Normal 14 Days

Pace Client No.
Pace Project Manager
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): RICHARD D. KARKKAINEN
Sampler Signature: [signature]
Date Sampled: 3/4/98

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$	ANALYSES REQUEST: TOXAPHENE	DINOSEB	REMARKS
1	I-S	2:00	Soil		1	X						X		
2	I-W	2:10	"		1	X						X		
3	I-E	2:20	"		1	X						X		
4	18-N	2:40	"		1	X							X	
5	18-W	2:50	"		1	X							X	
6	18-E	3:00	"		1	X							X	
7	3	3:30	Soil		1	X							X	
8	3	"	"		1	X						X		

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT/DATE	RETURNED/DATE	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
				[signature]	3/4/98	4:00			

Additional Comments

SAMPLE CONDITION

Temp: ____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH ____

SEE REVERSE SIDE FOR INSTRUCTIONS

ce Analytical

388[illegible]8

CHAIN-OF-CUSTODY RECORD
Analytical Request

Vicksburg Chemical
Rte. Range Road
Vicksburg MS
504-756-1401

Report To: Rimmo Karkkainen
Bill To: Steve Buswell
P.O. # / Billing Reference
Project Name / No. 960315

Turn around Time
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 3-5 Days
- [ ] 1 Week ✓ 2 Weeks
- [x] Normal 14 Days

Pace Client No.
Pace Project Manager
Pace Project No.
*Requested Due Date:

By (PRINT): Rimmo D. Karkkainen
Signature: Rimmo D. Karkkainen
Date Sampled: 3/4/98

SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$	ANALYSES REQUEST: Arsenic Cyanide	REMARKS
3	3:30	Soil		1	X						X	

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
					Rimmo Karkkainen	3/4/98	400			

Additional Comments

SAMPLE CONDITION

Temp: ____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH ____

SEE REVERSE SIDE FOR INSTRUCTIONS

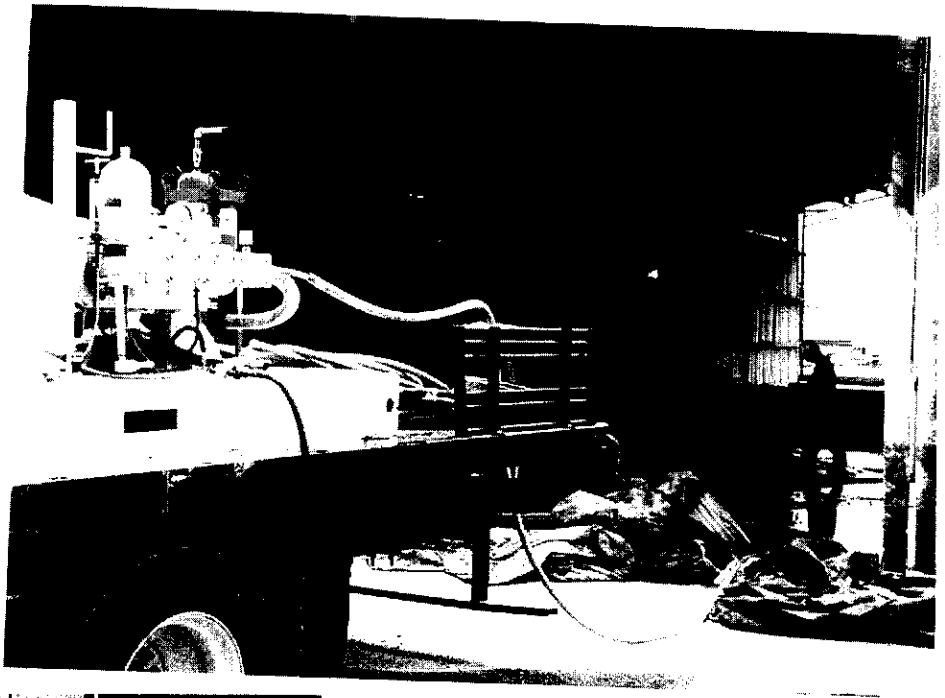
ATTACHMENT 2

LOOKING SOUTH

INTO FRONT OF SWMU 17

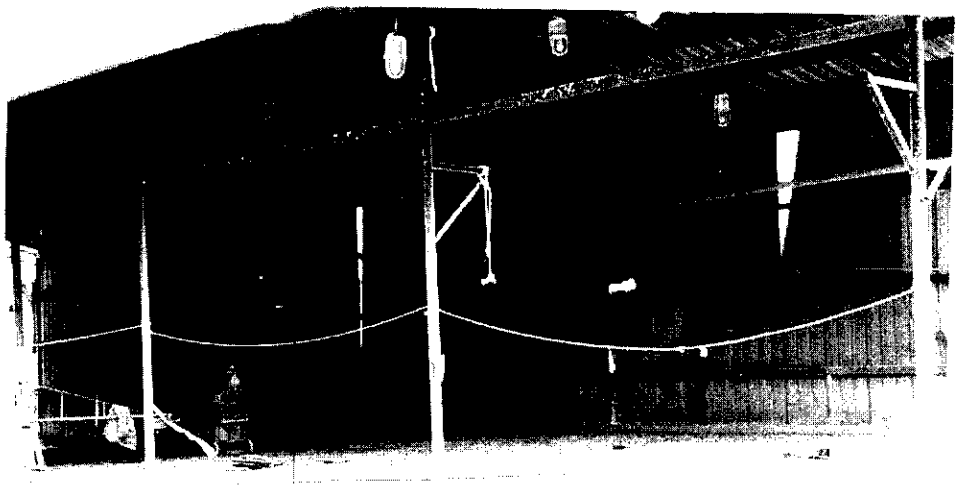
LOOKING SOUTH

INTO FRONT OF SWMU 17

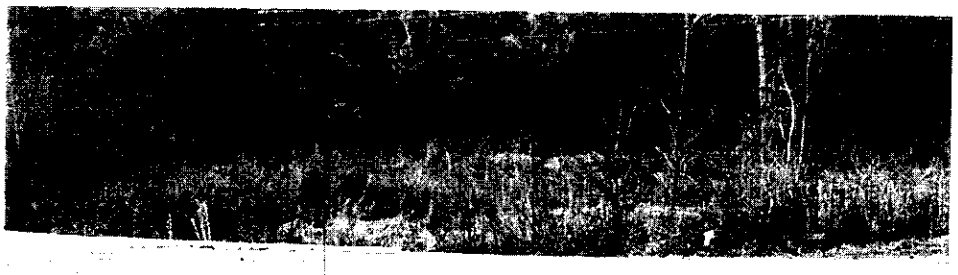


CLOSE UP OF GRINDER

CORRECTIVE ACTION AT SWMU 17

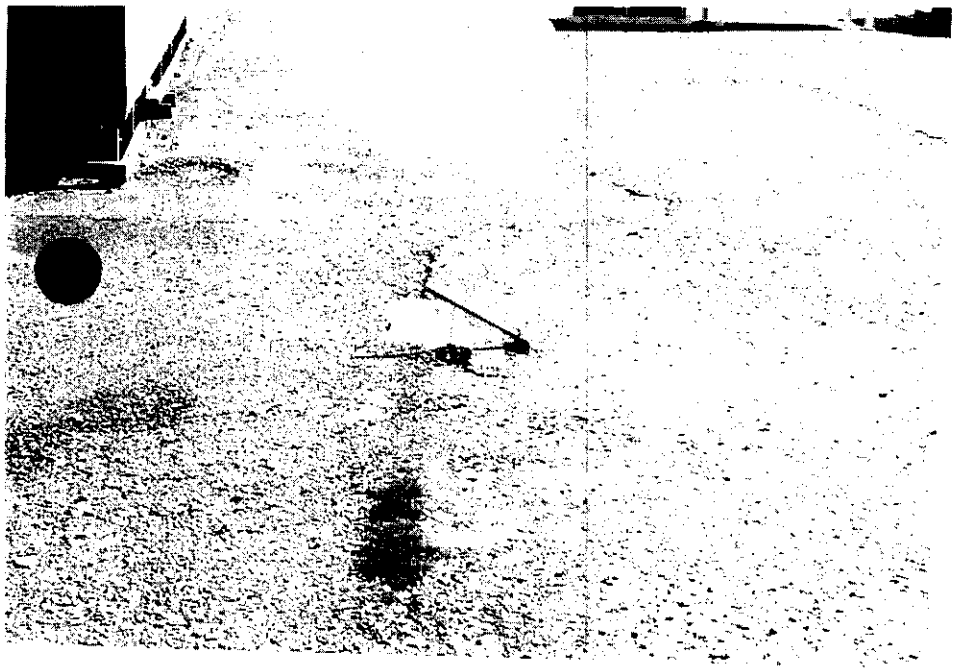


LOOKING EAST AT SOUTH ONE-HALF OF SWMU 17



LOOKING WEST ACROSS SWMU 1

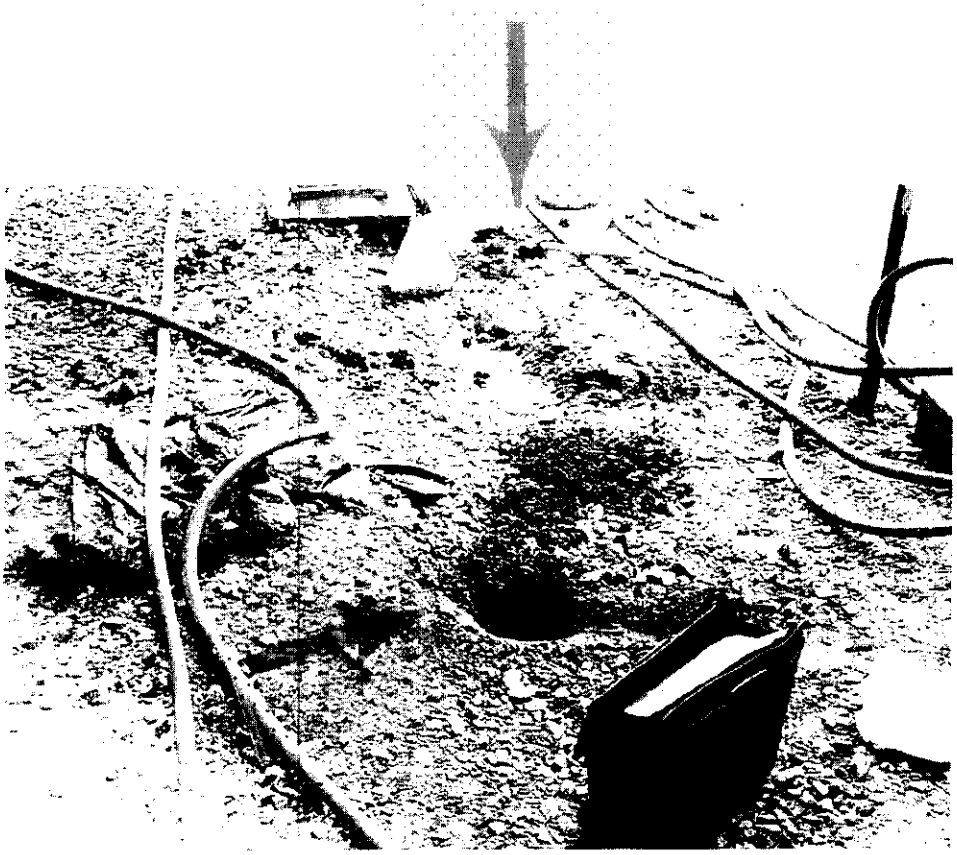
VISUAL RESULTS OF CORRECTIVE ACTION AT SWMU 1 AND SWMU 17



LOOKING NORTH AT SAMPLE 18-E

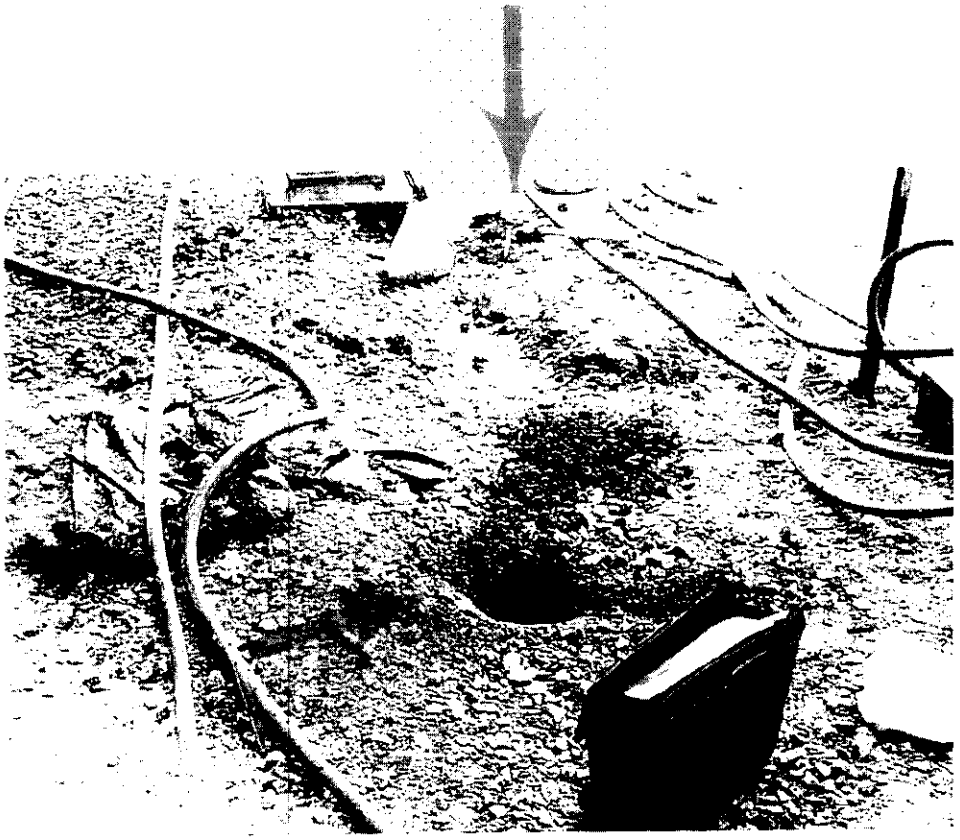
LOOKING NORTH AT 18-N

LOOKING WEST AT SAMPLE 18-W



LOOKING SOUTHWEST AT SAMPLES 18-I AND 18-W

ATTACHMENT 3



LOOKING SOUTHWEST AT SAMPLES I-W AND I-E

CLIENT SAMPLE ID	LAB SAM	MATRIX	COLLECT	PARAMETER NAME
I-S	LFG-001	Soil	3/4/98	Toxaphene
I-W	LFG-002	Soil	3/4/98	Toxaphene
I-E	LFG-003	Soil	3/4/98	Toxaphene
18-N	LFG-004	Other	3/4/98	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)
18-W	LFG-005	Other	3/4/98	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)
18-E	LFG-006	Other	3/4/98	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)
3	LFG-007	Soil	3/4/98	Toxaphene
3	LFG-007	Soil	3/4/98	Atrazine
3	LFG-007	Soil	3/4/98	Cyanazine
3	LFG-007	Soil	3/4/98	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)

SAMPLE RESULT	REPORTING LIMIT	UNITS	METHOD	DILUTION	ANALYZE	PREPARED	
ND	1790	ug/kg	Low Soil S	5	3/31/98	3/11/98	
ND	1790	ug/kg	Low Soil S	5	3/31/98	3/11/98	
ND	1750	ug/kg	Low Soil S	10	3/31/98	3/11/98	
ND	333	ug/kg	Low Soil S	1	3/27/98	3/11/98	
ND	333	ug/kg	Low Soil S	1	3/27/98	3/11/98	
ND	333	ug/kg	Low Soil S	1	3/27/98	3/11/98	
ND	8770	ug/kg	Low Soil S	50	3/31/98	3/11/98	
ND	36.6	ug/kg	Low Soil S	1	3/17/98		
ND	36.6	ug/kg	Low Soil S	1	3/17/98		
ND	1830	ug/kg	Low Soil S	5	3/27/98	3/11/98	

RCRA CORRECTIVE MEASURES IMPLEMENTATION PLAN
SWMU 16 - FORMER ATRAZINE PRODUCTION AREA
SWMU 1 - CONTAINER (DRUM) STORAGE AREA
SWMU 17 - RETURNED PRODUCT STORAGE AREA

VICKSBURG CHEMICAL COMPANY
VICKSBURG, MISSISSIPPI

Prepared for
Vicksburg Chemical Company
Vicksburg, Mississippi

Cedar Chemical Corporation
Memphis, Tennessee

June 1997

WCC File 96B315-005

Woodward-Clyde

Woodward-Clyde Consultants
2822 O'Neal Lane
Baton Rouge, Louisiana 70816

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LIST OF ACRONYMS

Acronym	Meaning
CCC	Cedar Chemical Corporation
VCC	Vicksburg Chemical Company
RFI	RCRA Facility Investigation
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
SWMU	Solid Waste Management Unit
GWA	Groundwater Assessment
AOC	Area of Concern
PECMT	Preinvestigation - Evaluation of Corrective Measures Technologies
EPA	United States Environmental Protection Agency
MSDEQ	Mississippi Department of Environmental Quality
CMS	Corrective Measures Study
SWMU 1	Hazardous Waste Container Storage Area
SWMU 17	Off-specification Product Storage Area
SWMU 2	Inactive Landfill will include AOC 4

LIST OF ACRONYMS

Acronym	Meaning
SWMU 7	Former Dinoseb Production Area
SWMU 14	Former Toxaphene Production Area
SWMU 4	Activated Carbon Treatment Unit
SWMU 5	South Plant Drainage System
SWMU 8	Dinoseb Loading/Unloading Area
SWMU 9	Dinoseb Drumming Area
SWMU 11	Former MSMA Production Area
SWMU 12	Former MSMA Unloading Area
SWMU 13	South Plant Drainage Ditches
SWMU 15	Former Methyl Parathion Production Area
SWMU 16	Former Atrazine Production Area
SWMU 17	Returned Product Storage Area
SWMU 18	Former Blue Tank
SWMU 20	Railroad Car Loading/Unloading Station
SWMU 22	North Plant Neutralization System Concrete Sump
SWMU 25	North Plant Subsurface Wastewater Pipes
SWMU 29	Floor under North Plan Oil Collection Unit
SWMU 30	North Plant Waste Accumulation Area
SWMU 31	North Plant No. 6 Fuel Oil Area
bgs	below ground surface
TCL	Target Compound List
TAL	Target Analyte List

1.0 INTRODUCTION

1.1 PURPOSE AND ORGANIZATION OF REPORT

Vicksburg Chemical Company (VCC) retained Woodward-Clyde Consultants (WCC) to perform activities associated with a RCRA corrective action program. The corrective action program is in response to a Consent Decree. The Consent Decree requires that a RCRA Facility Investigation (RFI) be conducted at the Vicksburg, Mississippi manufacturing facility.

The purpose of the RFI is to determine the nature and extent of releases of hazardous wastes and/or constituents from regulated units, solid waste management units (SWMUs), and other areas of concern (AOCs) at the facility and to gather all necessary data to support a Corrective Measures Study.

The RFI constitutes the second phase of the RCRA corrective action program. The program's initial phase consists of the RCRA Facility Assessment (RFA) which is conducted by EPA and precedes the RFI. The RFI itself is divided into five separate tasks which includes the Preliminary Report (submitted as a separate document and resubmitted as the Amended and Restated Preliminary Report and subsequently approved by the U.S. EPA), the RFI Work Plan (submitted in June 1996), the Facility Investigation, and the Investigative Analysis and Reports. In addition to these phases, a Groundwater Assessment Work Plan (submitted in June 1996), a Closure Plan for SWMU 1 and SWMU 17 (submitted and subsequently approved by the U.S. EPA) and Annual Groundwater Assessment Reports are required by the Consent Decree.

This document is the Corrective Measures Implementation Plan (CMIP). It is based on the Expedited RFI Report and the Corrective Measures Study (CMS). This RFI report describes the activities and the results of analyses of samples obtained during the execution of the RFI Expedited Work Plan (January 1997). The CMS identified, screened and developed alternatives for removal, containment, treatment, and/or other remediation of contamination based on the objectives established for the corrective action. A corrective measures alternative was recommended. The work plan, reports and plan are limited to the following areas:

- SWMU 16, Former Atrazine Production Area (including warehouse);
- SWMU 1, Container (Drum) Storage Area; and
- SWMU 17, Returned Product Storage Area.

The location of the SWMUs are presented on Figure 1.

This work plan included or incorporated by reference the following plans presented in the RFI Work Plan (submitted in June 1996):

- Data Collection Quality Assurance Plan
- Data Management Plan
- Health and Safety Plan

The work plan included or incorporated by reference the plans presented in the Closure Plan for SWMU 1 and SWMU 17. The RFI Report, which presented the results of the investigation, also incorporated the results pertaining to SWMU 16 presented in the October 1994 RCRA Facility Investigation Report (SWMU 9, Former Dinoseb Drumming and Storage Area and SWMU 16, Former Production Storage Area).

This RFI included information contained in the Amended and Supplemental Preliminary Report (Report of Current Conditions). The work plan, reports and plan were expedited because of VCC's plans to consider construction of a new manufacturing facility in the South Plant and potentially utilize some of the area to be investigated for storage, transportation and manufacturing.

The RCRA Facility Investigation obtained information to characterize the nature and extent of releases of hazardous waste or constituents, if any. The CMS developed and evaluate the corrective action alternatives and recommended the corrective measure or measures to be taken at the facility.

Pursuant to the RCRA Corrective Action Plan (OSWER Directive 9902-3-2A), a CMIP may be submitted rather than the Conceptual Design, Intermediate Plans and Specifications, and Construction Work Plan. This CMIP consists of describing the following tasks:

- CMI Program Plan
- Corrective Measure Conceptual Design
- Corrective Measures Construction

1.2 SITE DESCRIPTION

VCC is located in Warren County, Mississippi along the Mississippi River immediately on the south area of Vicksburg within the city limits. About 70 acres border on the Mississippi River, however, none of the plant production facilities are located along the river. The address is:

Vicksburg Chemical Company
Post Office Box 821003
Rifle Range Road
Vicksburg, Mississippi 39182-1007

The facility is a manufacturer of chemicals. The 650 acre plant site is divided into two separate and distinct operations known as the North Plant and the South Plant. Active operations are conducted or have been conducted on about 130 acres.

In operation since 1961, the North Plant produces potassium nitrate, liquid chlorine, and liquid nitrogen tetroxide. The raw materials for the North Plant include potassium chloride and nitric acid. The potassium nitrate is sold in varying grades as a chemical fertilizer and for industrial uses. The chlorine is sold for various industrial uses. Most nitrogen tetroxide is sold to the government as an oxidizer for rocket fuels.

The South Plant, in operation since 1953, formerly manufactured chlorinated pesticides, nitrogen based herbicides, and other agricultural chemicals. The only active operations at the South Plant are a nitric acid unit constructed in 1986 and a potassium carbonate (Kcarb) plant constructed in 1995. The manufactured nitric acid is used primarily in the North Plant as a raw material. The potassium carbonate is a commercial product. During various periods prior to 1987, the South Plant produced dinitro butyl phenol (dinoseb or DNBP), monosodium methane arsonate (MSMA), diethyl hexyl phosphoric acid (DEHPA), 1-hydroxy-ethylidene-1,1-diphosphonic acid (UNIHIB), toxaphene, methyl parathion, cyanazine (bladex), and atrazine.

Toxaphene and methyl parathion are insecticides, while atrazine, dinoseb, and MSMA are herbicides. Raw materials or solvent for these operating processes included chlorine, camphene, ortho secondary butyl phenol (OSBP), sodium arsenite, sodium hydroxide, methyl chloride, sulfuric acid, sodium paranitrophenolate, phosphorus trichloride, cyanuric chloride, tributylamine, carbon tetrachloride, epichlorohydrin, ortho-cresol, methanol, triethanolamine, xylene, isopropylamine, mono-ethylamine, toluene, poly glycol, diethanolamine and acetone.

Originally, the two plants were completely separate, owned and operated by two different companies. The South Plant was originally constructed by Spencer Chemical in 1953 to produce agricultural chemicals: ammonia, nitric acid, urea, and ammonium nitrate. After purchasing the facility in 1964, Gulf Chemical added a formaldehyde unit in 1966. American Metal Climax Corporation (Amax) constructed the North Plant in 1961 to produce chloride-free potassium nitrate for selected crops.

Vicksburg Chemical Company was formed in early 1972 and purchased both the Gulf Oil and Amax Chemical facilities except the formaldehyde plant on July 12, 1972. Production, under the new management, began in October of the same year. Vicksburg Chemical then operated the nitric acid, potassium nitrate, and nitrate solutions plants about 2 ½ years. By September, 1974 five more facilities were built for atrazine, methyl parathion, dinoseb, toxaphene, and UDMH (Unsymmetrical Dimethyl Hydrazine) production. The UDMH facility was shut down permanently a short time after construction.

In 1978, Vicksburg Chemical Company was merged into Vertac, Inc. Effective September 1, 1979 Vertac, Inc. was merged into Vertac Chemical Corporation (Vertac). In February, 1986 Cedar Chemical Corporation acquired the Vicksburg Chemical plant from Vertac Chemical Corporation pursuant to a reorganization agreement among Vertac's shareholders and Fermenta A.B. of Sweden. Nine West Corporation, (a wholly owned subsidiary of Trans Resources, Inc.) acquired Cedar Chemical Corporation from Fermenta A.B. in January, 1988. Effective January 1, 1992 Cedar Chemical Corporation incorporated its Vicksburg, Mississippi facility as Vicksburg Chemical Company, a wholly owned subsidiary of Cedar Chemical Corporation.

A formaldehyde unit owned and operated by Borden Chemical is located inside the boundary of the South Plant. It was previously owned by Gulf and, later, Perkins Company and is referred

to in this manner occasionally. The small portion of the South Plant site occupied by the Borden operation is not separated from the rest of the plant. There is no fence or other barrier.

The majority of the SWMUs and AOCs identified in the Consent Decree are located in the South Plant. Production operations at the South Plant have been discontinued except for a modern nitric acid plant and newly constructed potassium carbonate plant.

The subject of the CMIP are SWMU 1, SWMU 17 and SWMU 16; a brief summary of the production history is noted below:

SWMU Number	Unit Name	Physical Description	Former Function
1	Container (Drum) Storage Area	80 foot by 80 foot concrete pad with containment curbs.	Less than 90 day storage area.
17	Returned Product Storage Area	The unit is located on a concrete slab floor with a tin roof. The unit is adjacent to the Container (Drum) Storage Area (SWMU 1).	Temporary storage for returned and off-spec product.
16	Former Atrazine Production Area	The unit consists of trenches, sumps, production vessels, and tanks.	Chemical processing area which produced and stored atrazine. Warehouse is currently used to store Kcarb.

The sample points for SWMUs 16, 1, and 17 are located on Figures 2, 3 and 4. Figure 3 depicts all the sample points and the Sample ID for soil locations (locations not overtopped by concrete). Figure 4 depicts all the sample points and the Sample ID for concrete/soil locations. The locations and Sample IDs of matrix and matrix spike duplicate samples for QA/QC are also noted on Figures 3 and 4. Figure 2 depicts all the sample points and the Sample ID for the Phase II sampling.

Note that, in essence, the soil samples (alphabetic ID location) were analyzed for the Target Compound List and Target Analyte List plus atrazine, cyanazine, arsenic, dinoseb, and toxaphene). The concrete/soil samples were analyzed for atrazine, cyanazine, arsenic, dinoseb and toxaphene.

For each sample point there were two or three samples taken:

- A core of the concrete (if the sample point was a former production or storage area).
- A composite sample of the first 0 to 12 inches of soil beneath the concrete referred to as the shallow sample.
- A sample of soil generally 12 to 24 inches beneath the concrete referred to as the deep sample.

The total number of samples submitted for analysis was as follows:

SWMU Number	Sample Description	Sample Points	Number of Samples	Analyte List
16 Atrazine Warehouse	Concrete and Soil	5 concrete and soil	15	C
	Soil	1 soil	2	B
16 Atrazine Production Area	Concrete and Soil	6	18	C
	Soil	11	22	B
1, 17 Container Storage and Off-Spec Storage	Concrete and Soil	10 concrete and soil	30	A
	Soil	2 soil	4	A

LEGEND:

A	Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene, Toluene
B	TCL, TAL, Atrazine, Cyanazine, Dinoseb
C	Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene
D	TCL, Dioxin, TAL, Atrazine, Cyanazine, Dinoseb
E	BTEX, TPH
F	BTEX, TPH, Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene
G	Arsenic

Upon receiving results of analyses, a Phase II extension of sampling and analysis was executed based on the following criteria for resampling:

- Above action levels - established in Closure Plan for SWMU 1 and SWMU 17 (submitted and subsequently approved by the U.S. EPA),

except for arsenic which was modified because of high concentrations of arsenic in the background

dinoseb	80,000
arsenic	20,000
toxaphene	2,600
atrazine	400,000
toluene	16,000,000

- If concentration of analytes noted above in sample of 2-foot interval exceeds concentration in sample of 1-foot interval, sample continuously in 4-foot intervals to groundwater. In addition, sample groundwater for analysis of the particular analyte.

- Determine by sampling the background concentration of arsenic.

The total number of samples submitted for analysis in the Phase II effort is as follows:

SWMU Number	Sample Description	Sample Points	Number of Samples	Analytes
16 Atrazine Warehouse	Soil and Groundwater	2	7	Toxaphene
		1	4	Toxaphene and Arsenic
16 Atrazine Production Area	Soil and Groundwater	1	4	Toxaphene
1, 17 Container Storage and Off-Spec Storage	Concrete	1	1	Dinoseb and Arsenic
Background	Soil	6	6	Arsenic

The Phase II contaminated area sampling points and sample IDs are located on Figure 2. Three of the background samples for arsenic were obtained in a level field immediately west of the parking lot serving the main administration building in the North Plant. Three of the background samples were obtained from the Vicksburg Chemicals Employee Park located between the plant site and the Mississippi River to the west.

The logs of the various geoprobe borings are presented in Attachment 1 of the RFI Report. The summary results of sampling from that report are as follows:

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
A-1-B	ND	ND	11,800	ND	332	ND	ND
A-2-B	22.7	ND	5,660	ND	2,830	ND	ND
B-1-B	ND	ND	11,100	ND	ND	ND	ND
B-2-B	ND	ND	10,300	ND	ND	ND	ND
C-1-B	ND	ND	5,120	ND	ND	ND	ND
C-2-B	ND	ND	8,470	ND	ND	ND	ND
D-1-B	8,850	ND	12,500	ND	195	ND	ND
D-2-B	8,380	ND	5,140	ND	583	ND	ND
E-1-B	82.2	32.4	8,480	ND	ND	ND	ND
E-2-B	ND	ND	9,410	ND	ND	ND	ND
F-1-B	ND	ND	8,820	ND	ND	ND	ND
F-2-B	ND	ND	8,580	ND	ND	ND	ND
G-1-B	ND	ND	7,730	ND	ND	ND	ND
G-2-B	ND	ND	8,460	ND	ND	ND	ND
H-1-B	ND	ND	3,140	ND	732	ND	ND
H-2-B	ND	ND	7,300	ND	ND	ND	ND
I-1-B	ND	898	27,000	ND	31,700	ND	ND
I-2-B	ND	ND	7,860	ND	343	ND	ND
J-1-B	ND	ND	3,890	ND	372	ND	ND
J-2-B	ND	ND	4,720	ND	ND	ND	ND
K-1-A	ND	ND	10,500	ND	ND	NR	NR
K-2-A	ND	ND	11,300	ND	ND	NR	NR
L-1-A	ND	265	14,500	ND	ND	NR	NR
L-2-A	ND	263	8,550	ND	ND	NR	NR
M-1-B	74.2	ND	8,440	ND	ND	ND	ND
M-2-B	ND	ND	7,530	ND	ND	ND	ND
N-1-B	819	ND	6,320	ND	ND	ND	ND
N-2-B	ND	ND	6,090	ND	ND	ND	ND
1-C-C	835	ND	2,650	ND	ND	NR	NR
1-1-C	726	22.7	5,710	ND	ND	NR	NR
1-2-C	272	ND	7,890	ND	1,680	NR	NR
2-C-C	1,150	ND	36,000	ND	554	NR	NR
2-1-C	94.8	ND	7,270	644	1,680	NR	NR
2-2-C	29.3	ND	7,220	ND	4,050	NR	NR
3-C-C	2,210	ND	3,220	ND	980	NR	NR
3-1-C	ND	ND	5,020	ND	3,970	NR	NR
3-2-C	ND	ND	5,050	ND	ND	NR	NR
4-C-C	180	ND	9,560	ND	ND	NR	NR
4-1-C	10,100	ND	7,070	ND	ND	NR	NR

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
4-2-C	327	ND	6,520	ND	ND	NR	NR
5-C-C	ND	ND	3,890	ND	ND	NR	NR
5-1-C	3,200	ND	8,940	ND	ND	NR	NR
5-2-C	69.4	ND	4,980	ND	ND	NR	NR
6-C-C	ND	ND	3,830	ND	ND	NR	NR
6-1-C	ND	ND	3,410	ND	ND	NR	NR
6-2-C	ND	ND	4,990	ND	ND	NR	NR
7-C-C	ND	ND	3,910	ND	ND	NR	NR
7-1-C	ND	ND	4,280	ND	ND	NR	NR
7-2-C	ND	ND	4,670	ND	ND	NR	NR
8-C-C	2,110	ND	6,940	ND	ND	NR	NR
8-1-C	ND	ND	4,070	ND	ND	NR	NR
8-2-C	ND	ND	5,680	ND	ND	NR	NR
9-C-C	ND	ND	2,710	ND	ND	NR	NR
9-1-C	ND	ND	2,380	ND	ND	NR	NR
9-2-C	ND	ND	3,200	ND	ND	NR	NR
10-C-C	30.4	ND	10,100	ND	ND	NR	NR
10-1-C	18.0	ND	2,100	ND	ND	NR	NR
11-C-C	52,800	ND	7,140	ND	ND	NR	NR
11-1-C	5,510	ND	3,290	ND	ND	NR	NR
11-2-C	3,850	ND	3,450	ND	ND	NR	NR
12-C-A	132	ND	3,340	ND	ND	ND	ND
12-1-A	21.6	20.9	4,690	ND	ND	ND	ND
12-2-A	ND	ND	13,300	ND	ND	ND	ND
13-C-A	ND	ND	6,270	ND	ND	ND	ND
13-1-A	249	ND	8,980	ND	ND	ND	ND
13-2-A	50.1	ND	8,130	ND	ND	ND	ND
14-C-A	5,920	ND	5,590	6,660	479	278	ND
14-1-A	6,820	ND	5,360	14,300	ND	ND	ND
14-2-A	212	ND	8,000	ND	ND	118	ND
15-C-A	ND	ND	4,670	ND	ND	54.3	ND
15-1-A	ND	ND	7,760	ND	ND	ND	ND
15-2-A	ND	ND	12,900	446	ND	ND	ND
16-C-A	145	ND	13,700	ND	545	ND	ND
16-1-A	21.4	ND	8,000	ND	ND	ND	ND
16-2-A	ND	ND	6,760	ND	ND	ND	ND
17-C-A	17.8	ND	3,660	ND	237	ND	ND
17-1-A	1,030	ND	4,390	ND	ND	ND	ND
17-2-A	726	ND	1,750	ND	ND	ND	ND
18-C-A	20.2	85.8	27,000	97,500	ND	ND	ND
18-1-A	7,320	ND	4,510	ND	ND	ND	ND
18-2-A	191	ND	9,660	ND	ND	ND	ND
19-C-A	19.7	ND	18,800	15,700	636	ND	ND
19-1-A	405	ND	4,400	ND	ND	ND	ND

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
19-2-A	203	ND	4,160	ND	ND	ND	ND
20-C-A	ND	ND	8,330	ND	506	ND	ND
20-1-A	189	ND	3,760	ND	ND	ND	ND
20-2-A	36.0	ND	4,090	ND	ND	ND	ND
21-C-A	ND	ND	2,050	ND	ND	ND	ND
21-1-A	40	ND	3,600	ND	ND	ND	ND
21-2-A	ND	ND	2,590	ND	ND	ND	ND

NOTES:

(1) Sample ID = Location-Type-Parameters

Location:	Type:	Parameters:
Alphabetic = Soil	C = Concrete	A = Atrazine, Cyanazine, Arsenic, Dinoseb,
Numeric = Concrete/Soil	1 = 0 to 12-inch Soil	Toxaphene, Toluene
	2 = 12 to 24-inch Soil	B = TCL, TAL, Atrazine, Cyanazine, Dinoseb
		C = Atrazine, Cyanazine, Arsenic, Dinoseb,

(2) ND = Nondetect
NR = Not required and not requested for analysis

The results of Phase II sampling are summarized as follows:

Sample No.[1]	Arsenic[2]	Dinoseb[2]	Toxaphene[2]
A-2, 4-T	NR	NR	4,510
A-4, 8-T	NR	NR	ND
A-8, 12-T	NR	NR	ND
A-W-T	NR	NR	ND
D-2, 4-T	NR	NR	ND
D-4, 8-T	NR	NR	ND
D-8, 12-T	NR	NR	ND
D-W-T	NR	NR	ND
1-2, 4-T	NR	NR	ND
1-4, 8-T	NR	NR	ND
1-8, 12-T	NR	NR	ND
1-W-T	NR	NR	ND
2-2, 4-TA	9,210	NR	1,530
2-4, 8-TA	8,050	NR	ND
2-8, 12-TA	10,200	NR	ND
2-W-TA	538	NR	ND

Sample No.[1]	Arsenic[2]	Dinoseb[2]	Toxaphene[2]
18-C-DA	7,840	ND	NR
B1-0, 2-A	9,380	NR	NR
B2-0, 2-A	7,470	NR	NR
B3-0, 2-A	7,270	NR	NR
B4-0, 2-A	10,800	NR	NR
B5-0, 2-A	11,700	NR	NR
B5-0, 2-A	11,800	NR	NR

NOTES:

[1] Sample ID = Location - Type - Parameters

Location:	Type:	Parameters:
Alphabetic = Soil	c = concrete	T = Toxaphene
Numeric = Concrete/Soil	2, 4 = 2 to 4 foot soil interval	TA = Toxaphene and Arsenic
	4, 8 = 4 to 8 foot soil interval	DA = Dinoseb and Arsenic
	8, 12 = 8 to 12 foot soil interval	A = Arsenic
	W = groundwater	

[2] ND = Nondetect
NR = Not required and not requested for analysis

2.1 CORRECTIVE ACTION OBJECTIVES

Corrective action objectives are goals for protecting human health and the environment that apply to a specific medium. Objectives for protecting human receptors generally specify both a contaminant criteria and an exposure route because protectiveness may be achieved by either reducing exposure or reducing the contaminant levels.

The clean closure standards are based upon closure of both container storage areas with no contamination remaining in place above the health based action levels. This plan is intended to result in a "clean" closure which will eliminate the need for post-closure maintenance and care of the storage areas. The levels of clean-up will be used for the soils underneath the concrete as well as the concrete. The following are the health based closure standards for soils and concrete, assuming that the exposure pathway is ingestion, and the receptors are workers at the site. This assumption will require a restriction on future land use at the site. (See OSWER Directive No. 9355.7-04, Land Use in the CERCLA Remedy Selection Process, May 25, 1995).

Constituent	Concentration[1] (mg/kg)
Dinoseb	80
Arsenic	20,000[2]
Toxaphene	2.6
Atrazine	400
Toluene	16,000

NOTES:
(1) A discussion of the calculation is found in Closure Plan - SWMU 1 and SWMU 17 (February 1995).
(2) Modified because of high concentrations of arsenic in the background samples.

Offsite groundwater migration is also a medium through which human or environmental receptors could potentially be exposed to contaminants from the site. Contaminated vadose zone soils are of concern as a potential contributor of contaminants to the groundwater. Consequently, corrective action objectives are established for vadose zone soils.

Clean closure standards for soil leachate require that concentrations in TCLP extract of the soil shall not exceed MCLs. Where MCLs have not been established, concentrations in the TCLP extract of the soil shall not exceed health based levels calculated, using a consumption rate of 2 liters of leachate per day.

2.2 APPROACH

The approach is to permanently deal with correction measures now by:

- Busting out certain sections of concrete, reducing the size of the concrete to gravel size, and treating onsite by biodegradation/composting
- Excavating certain sections of soil and treating onsite by biodegradation/composting
- Grinding the surface of certain sections of concrete and treating onsite by biodegradation/composting
- Resurfacing and sealing existing concrete where appropriate
- Disposing of treated and/or untreated soil and/or concrete either offsite or onsite. The onsite option would be a non-RCRA solid waste disposal option.

The corrective measures are discussed in Section 3.0 "Corrective Measures Conceptual Design".

2.3 PROJECT MANAGEMENT PLAN

The Project Management Plan consists of the following elements:

- Project task definition
- Specific personnel positions within the project organizational structure

2.3.1 Project Task Definition

For the expedited corrective measures, VCC has retained the services of Woodward-Clyde Consultants (WCC) as an independent engineering firm to develop the CMIP. WCC will provide construction management services and inspection to implement the CMIP. VCC will provide internal implementation supplemented by construction contractors (contractors will be contracted directly with VCC).

2.3.1.1 EPA and LDEQ Project Coordinator

The EPA and LDEQ project coordinators or designees will observe corrective measures activities to the extent deemed necessary to confirm that the requirements of the CMIP.

2.3.1.2 Project Director

The Project Director is Mr. Steve Boswell, Director of Environmental Affairs for VCC. He is in charge of administration of the work and the completion of the project. Personnel with VCC and equipment owned by VCC may be utilized for various aspects of the construction. Personnel have received the appropriate OSHA training and all work would be guided by the provisions of the CMIP. Outside construction contractors will report to Mr. Boswell. WCC will act as VCC's agent for that assistance provided for in the implementation of the CMIP.

2.3.1.3 WCC Corrective Measures Task Manager

The WCC Task Manager will develop the plans and oversee remediation work implementing the CMIP on behalf of VCC. The WCC CMIP Task Manager is Mr. Richard D. Karkkainen. He is also the WCC Project Manager to handle day to day coordination and administration.

2.3.1.4 Quality Assurance Observations and Measurements

WCC will provide construction quality assurance for this project. QA duties will be under the supervision of Mr. Bob SeGall or Mr. Russell Killebrew or Ms. Cheryl Warren, professional Engineers registered in the State of Mississippi.

2.3.1.5 VCC's Health and Safety Officer

A Health and Safety (H&S) Officer will be responsible for the administration and implementation of site health and safety. However, the H&S Officer will have the overall responsibility for safety and health and will:

- Ensure that an employee medical surveillance program which meets the requirements of 29 CFR 1910.120 is instituted and maintained.

- Be responsible for the initial pre-construction indoctrination of all on-site personnel with regard to the H&S Plan and other safety requirements to be observed during the construction, including but not limited to:

  - potential hazards
  - personal hygiene principles
  - personal protective equipment
  - respiratory protection equipment usage and fit testing
  - emergency response including site evacuation, dealing with fire and medical situations

Construction contractors are responsible for preparing and following their own Health and Safety Plan which meets the requirements of 29 CFR 1910.120. They may adopt by reference plans prepared by others but must assume responsibility for the health and safety of their own personnel.

2.4 WCC'S HEALTH AND SAFETY PLAN

The Health and Safety Plan establishes guidelines and requirements for the safety of field personnel during the conduct of the field activities associated with the referenced project. The activities addressed by this plan are those described in Section 3.0, the Corrective Measures Conceptual Plan. All employees of WCC involved in this project are required to

abide by the provisions of this plan. They are required to read this plan and sign the attached Compliance Agreement. The Health and Safety Plan is attached as Attachment A.

The health and safety guidelines and requirements are based on a review of available information and an evaluation of potential hazards. This plan outlines the health and safety procedures and equipment required for activities at this site to minimize the potential for exposures of field personnel. This plan may be modified by the project manager, the corporate health and safety officer, and the Baton Rouge health and safety officer in response to additional information obtained regarding the potential hazards to field personnel.

2.5 COMMUNITY RELATIONS PLAN

The Community Relations Plan (CRP) for VCC has been prepared. The CRP presented herein describes the mechanism for the dissemination of information to the public regarding RCRA corrective action activities and results. The CRP describes community relations objectives and techniques for implementing the community relations program. The community relations program will provide the public an opportunity to participate in the decision-making process regarding remedial actions at the site and inform the public of current and future site activities.

This CRP is a working document that serves as a guide for communicating with the affected community. Activities and schedules may be altered according to future circumstances. The CRP is attached as Attachment B.

3.0 CORRECTIVE MEASURES CONCEPTUAL DESIGN

3.1 REQUIRED ACTIVITY

The approach is to permanently deal with corrective measures now by incorporating elements of the following for each remediation area, as necessary and appropriate:

- busting out certain sections of concrete, reducing the size of the concrete to gravel size and treating onsite by biodegradation/composting
- excavating certain sections of soil and treating onsite by biodegradation/composting
- grinding the surface of certain sections of concrete and treating onsite by biodegradation/composting
- resurfacing and sealing existing concrete where appropriate
- disposing of treated and/or untreated soil and/or concrete either offsite or onsite. The onsite option would be a non-RCRA solid waste disposal option.

The areas requiring corrective action are areas limited to 10 feet by 10 feet surrounding sampling points A, I, 2 and 18. Refer to Figures 2, 3 or 4 to locate the areas. A description of the corrective action follows:

Sample Point	Analyte of Concern	Action Required
A	toxaphene	excavate 10-foot x 10-foot x 4-foot section of soil
I	toxaphene	excavate 10-foot x 10-foot x 1-foot section of soil
2	arsenic	excavate 10-foot x 10-foot section of concrete excluding portions of the nearby ramp
18	dinoseb	excavate 10-foot x 10-foot section of concrete

During the corrective action, sampling and screening analysis will take place onsite. After the corrective action has been executed, there will be verification sampling prior to backfilling or pouring concrete. The verification sampling is discussed in Section 4.2.6 "Quality Control Verification Testing".

The Phase I and Phase II sampling and analysis effort established the vertical extent of contamination. The horizontal extent is determined by the verification sampling. Therefore, if the result of a verification sample does not meet the Corrective Action Objectives (Section 2.1) then additional excavation will be implemented in the direction of that sample. An additional verification sample will be obtained for analysis after the reexcavation is completed.

3.2 THE TREATMENT PROCESS

The treatment involved is biological degradation through landfarming or composting onsite. Since this corrective measure is expedited, VCC will proceed with the biodegradation in a Temporary Unit (TU). VCC has submitted, concurrently with the CMIP, an application for a Corrective Action Management Unit (CAMU) which incorporates the existing TU. The TU would continue operating under a CAMU designation.

Landfarming, which involves biological degradation, may be a viable alternative in the study of alternatives because of the large amount of land in the south plant and the time available to achieve degradation. Another option is to biologically degrade organic compounds to below clean up levels in a liquids solids contactor. A liquid solids contractor is an aerobic reactor the uses high speed mixers. The objective is not 100 percent degradation of organics but rather degradation of objectionable leachable compounds to safe action levels. The residuals would then be treated and/or stabilized by conventional methods to appropriate levels.

Composting. EPA's Region 10 has evaluated composting as an ex situ solid phase biological treatment technology to degrade nitroaromatic and nitramine compounds in soils. Treatability studies as two National Priority List sites - the Umatilla Army Depot Activity site in Hermiston, Oregon and the U.S. Naval Submarine Base site in Bangor, Washington - demonstrate that composting is a treatment alternative to incineration for remediating these compounds.

Composting mixes natural organic amendments, such as manure, wood chips, alfalfa, vegetable processing wastes and cotton gin wastes with 30 to 70 percent contaminated soil and adds water to 50 percent of moisture holding capacity. The process utilizes active aerobic thermophilic microorganisms and requires no inoculation. Composting operates under mesophilic (30 to 35

degrees Centigrade (C)) and thermophilic (50 to 55 degrees C) conditions, with thermophilic conditions being optimum.

Composting residues will support the growth of vegetation after treatment, unlike incineration ash or soils treated by solidification/stabilization. The final volume increase in soil is approximately 50 to 100 percent, similar to stabilization/solidification technologies. Composting is suitable for soils and sludges. Composting does not appear to be particularly sensitive to soil type.

The composting is the preferred method. Some pilot effort has been required to optimize the composting method. VCC has conducted a pilot effort in a Temporary Unit. The details of the Temporary Unit and the plans to conduct the pilot effort are described in "Request for Temporary Unit", May 1995.

The concentration of dinoseb in soil treated in the TU rapidly decreases with time. VCC has had similar positive results with dinoseb in concrete, if the concrete is ground up. For these reasons the TU will be incorporated and made a part of a CAMU. The TU will be utilized as the temporary storage and treatment portion of the CAMU.

3.3 DISPOSAL OF THE RESIDUALS

The residuals from the treatment in the TU or residuals from excavation that do not require treatment but may be temporarily stored in the TU or other storage area will ultimately be disposed onsite in a non-RCRA landfill.

The non-RCRA landfill will be located within the CAMU boundaries. The CAMU boundaries are located in the "Application For Corrective Action Management Unit" submitted to the U.S. EPA and MSDEQ concurrently with the CMIP.

4.0
CORRECTIVE MEASURES CONSTRUCTION

4.1 INTRODUCTION

Previous sections or paragraphs of the CMIP have included the following topics:

- Site description including areas and volumes encompassed by the CMIP - Section 1.2
- Corrective Action Objectives and Approach to What is to be Accomplished by the CMIP - Sections 2.1. and 2.2
- Project Management Plan which describes the construction management approach - Section 2.3
- Corrective Measures Conceptual Design which describes the required construction sequence of events - Section 3.1. and the treatment processes to be utilized for some of the material - Section 3.2

Section 4.0 consists of the remaining elements of the CMIP:

- Construction Quality Assurance/Quality Control Programs
- Project Schedule

4.2 CONSTRUCTION QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

4.2.1 Scope of Plan

This Construction Quality Assurance (CQA) Plan parallels the guidelines outlined in the EPA Technical Guidance Document "Construction Quality Assurance for Hazardous Waste Land Disposal Facilities". The plan defines a system of construction quality management to verify, with a justifiable degree of certainty, that the construction activity encompassed by the CMIP will meet or exceed the corrective action objectives.

Construction Quality Management comprises both a planned system of inspection and testing activities that are necessary to monitor and control the quality of a construction project and a planned system of construction management services that these activities are being properly performed and documented.

4.2.2 Plan Elements

The CQA Plan is comprised of the following elements:

- Responsibility and authority
- CQA personnel qualifications
- Inspection activities
- Sampling requirements
- Certification documentation

These elements are described in detail in the following sections.

4.2.3 Responsible Parties and Lines of Authority

The management of construction quality is the responsibility of the facility Operator, VCC, and involves the use of scientific and engineering principles and practices to verify, with a justifiable degree of certainty, that the constructed facility meets or exceeds the Corrective Action Objectives. VCC will engage various contractors and material suppliers as required to provide services during construction of the work. The responsibility and lines of authority and communications are described below.

4.2.3.1 Operator

VCC is the Operator of the facility and is responsible for insuring compliance with the terms, conditions, rules and all other applicable regulatory and jurisdictional requirements. The Operator has the authority to select and dismiss parties charged with design, CQA and construction activities.

The Project Director is the official representative of VCC and is in charge of administration of the work and the completion of the project.

4.2.3.2 Independent Engineering Firm

WCC will be retained by VCC to provide quality assurance services, and certification. Personnel described below will all be employees of the independent engineering firm:

- The Project Manager is the official representative of VCC will report to the VCC Project Director. He will function as an agent of VCC to manage schedule and budget.

- The CQA Certifying Engineer will report to the Project Manager and the VCC Project Director. He will be responsible for the implementation of the CQA plan during construction. He will work closely with the Project Manager during construction activities. He will oversee all activities related to the Quality Assurance Program and act as a liaison between the Project Manager and CQA Officer. The CQA Certifying Engineer shall be experienced in construction, materials testing and quality assurance procedures and shall be a Professional Engineer registered in Mississippi.

- The CQA Officer will have day to day responsibility for quality assurance monitoring, inspection, and testing and will report to the CQA Certifying Engineer and the Project Manager. The CQA Officer shall have an engineering or other acceptable technical degree or other adequate formal training and sufficient practical, technical and administrative experience to execute and record inspection, testing and monitoring activities with experience in construction oversight and hazardous waste management projects. Specific responsibilities of the CQA Officer includes:

- Being physically on-site to observe the critical work actually performed during construction work before accepting work
- Reviewing and updating drawings and specifications for clarity and completeness
- Scheduling inspection, monitoring and testing activities
- Providing reports on monitoring and testing activities
- Verifying that the CQA Plan is being implemented
- Observing and documenting all work as it pertains to the CQA Plan
- Conducting and documenting all field testing required by the quality assurance program
- Performing independent on-site inspections of the work in progress

4.2.3.3 Contractors

The Contractors are responsible for the successful completion of their contractual duties and requirements as pertains to their portion of the work, and for the supervision and overall coordination and scheduling of their portion of the work. The contractors are also responsible for construction quality control during all phases of the contracted work.

4.2.4 Project Meetings

Periodic meetings are held during the course of the project to provide a mechanism for quality assurance information transfer and resolution of uncertainties or deficient work. Types of meetings include:

- Preconstruction meeting
- Progress meetings
- Resolution and work deficiency meetings

This project is of such short duration that one meeting will be held.

A Preconstruction Meeting may be held at the site and shall be attended by all the responsible parties. The purpose of the Preconstruction Meeting is to:

- Review the responsibilities of each organization
- Review lines of authority and communication for each organization
- Discuss the established protocol for observations and tests
- Discuss the established protocol for handling construction deficiencies, repairs and retesting
- Review methods for documenting and reporting inspection data
- Review methods for distributing inspection data
- Review work area security and safety protocol
- Discuss any appropriate modifications of the CQA Plan to verify that site specific considerations are addressed
- Discuss procedures for the protection of materials and for the prevention of damage from inclement weather or other adverse effects
- Conduct a site walk-around to verify that the plans and specifications are understood and to review material and equipment storage locations

Progress Meetings are typically held at least weekly at the work area. This project will be completed within one week. As a minimum, the meeting should be attended by the CQA Officer and Contractor(s) representatives, as appropriate. The purpose of the meetings is to:

- Review previous activities and accomplishments
- Review future work locations and activities
- Identify the Contractor's personnel and equipment assignments
- Discuss any potential construction problems

Monitoring and inspection activities and test results will be reviewed in a way to allow the opportunity to provide an assessment of the quality assurance activities.

Resolution and Work Deficiency Meetings shall be held as needed to include the following:

- Define and discuss the uncertainty, problem or deficiency

- Review alternate solutions
- Implement a plan to resolve the uncertainty, problem or deficiency

Documentation of all meetings will be accomplished by minutes taken by the CQA attendee.

4.2.5 Quality Assurance Inspection Activities and Sampling/Testing Requirements

Quality Assurance inspection and sampling/testing activities will be the responsibility of the CQA Officer. The activities are described in detail in the following sections of this document.

The work described in these sections will be conducted as part of the certification program. It does not preclude any additional quality control work that may be performed by the contractors at their expense and for their own information. Any results of such additional quality control work performed by the contractors shall be reported to the CQA Officer by submittal of copies of the test results.

The CQA Officer shall provide independent documentation that the work performed is in accordance with the project corrective measures objective. The quality controls shall be adequate to cover construction operations and will be keyed to the proposed construction sequence. The controls shall include at least three phases of inspection for all definitive features of work as follows:

- Preparatory inspection shall be performed prior to beginning any work or any definable feature of work. It shall include a review of contract requirements, verification that all materials and/or equipment have been tested, submitted, and approved, examination of the work area to verify preliminary work is complete and a physical examination of equipment and/or materials to be used.

- Initial inspection shall be performed as soon as a representative portion of the particular feature of work has been completed. It shall include an examination of the quality of workmanship, a review of control testing

for compliance with contract documents, and any use of defective or damaged materials, omissions, and dimensional requirements as applicable.

- Final inspections shall be conducted and test deficiencies corrected.

At the completion of all work or any increment thereof established by a completion time stated in the specification, the CQA Officer shall conduct a completion inspection of the work and develop a "punch list" of items which do not conform to the approved plans and specifications. Such a list shall be included in the CQA documentation, as required below and shall include the estimated date by which the deficiencies will be corrected. The CQA Officer shall make a second completion inspection to ascertain that all deficiencies have been corrected.

4.2.6 Quality Control Verification Testing

The corrective measures activity that is required is discussed in Section 3.1. During the corrective action, sampling and screening analysis will take place onsite. Verification sampling and analysis is to take place in order to provide assurance that the Corrective Action Objectives summarized in Section 2.1 are met. The verification sampling and analysis is summarized below:

Sample Point	Action Taken	Verification Sampling and Analysis
A	excavate 10-foot x 10-foot x 4-foot section of soil	Obtain four samples (one sample representing a composite of the 0 to 4 feet interval of each of the sidewalls) and analyze for toxaphene.
I	excavate 10-foot x 10-foot x 1-foot section of soil	Obtain four samples (one sample representing a composite of the 0 to 4 feet interval of each of the sidewalls) and analyze for toxaphene.
2	excavate 10-foot x 10-foot section of concrete excluding portions of the nearby ramp	Obtain four samples (one sample representing a composite of the depth of the concrete floor of each of the sidewalls. Samples to be obtained by manually chipping or otherwise breaking off portions of concrete) and analyze for arsenic.

Sample Point	Action Taken	Verification Sampling and Analysis
18	excavate 10-foot x 10-foot section of concrete	Obtain three samples (one sample representing a composite of the depth of the concrete floor of three of the sidewalls. Absence of contamination to the south of sample point 18 was established in the Phase II effort with Sample No. 18-C-DA. Samples to be obtained by manually shipping or otherwise breaking off portions of concrete.) and analyze for dinoseb and arsenic.

The vertical extent of contamination was determined in either the Phase I or Phase II sampling and analysis effort. The above noted verification sampling is for horizontal extent of contamination. Therefore, if the result of a verification sample does not meet the Corrective Action Objectives (Section 2.1) then additional excavation will be implemented in the direction of that sample. An additional verification sample will be obtained for analysis after the reexcavation is completed.

4.2.7 *Documentation/Certification*

The CQA Officer will document all activities associated with the capping and maintain current records of quality control operations, activities, and tests performed including the work of suppliers and subcontractors. These records shall be on an acceptable form and indicate factors affecting the project, acknowledgment of deficiencies noted along with the corrective actions taken on current and previous deficiencies. In addition, these records shall include factual evidence that required activities or tests have been performed, including but not limited to the following:

- Type and number of control activities and tests involved
- Results of control activities or tests
- Nature of defects, causes for rejection
- Proposed remedial action
- Corrective actions taken

All the above noted will be included in a document which shall include, as a minimum, daily reports of construction activities, a final summary technical report on the construction project, and the closure certification.

4.2.7.1 Construction Records

All daily records shall include a record of observations, test data sheets, identification reports of problems encountered during construction and reports of corrective measures taken.

4.2.7.2 Certification

The CQA Officer will prepare a certification document addressing each item identified above for each phase of construction. Certification will include review of information on the area under construction, analysis of the Contractor's compliance with the plans and specifications and physical sampling and testing. The certification document will also include:

- Scale drawings depicting the location of the construction
- Statements pertaining to the extent of construction, i.e., depths, plan dimensions, evaluations and thickness, including cross sectional drawings

The summary technical report (CQA Report) will provide an evaluation of the construction project. The report will certify the results of the various field tests and laboratory permeability tests performed and assess whether or not the constructed project is in compliance with the plans and specifications. The report will be signed by the CQA Certifying Engineer. The CQA Certifying Engineer shall be a Professional Engineer who is registered in the State of Mississippi. Copies of the reports will be submitted to VCC.

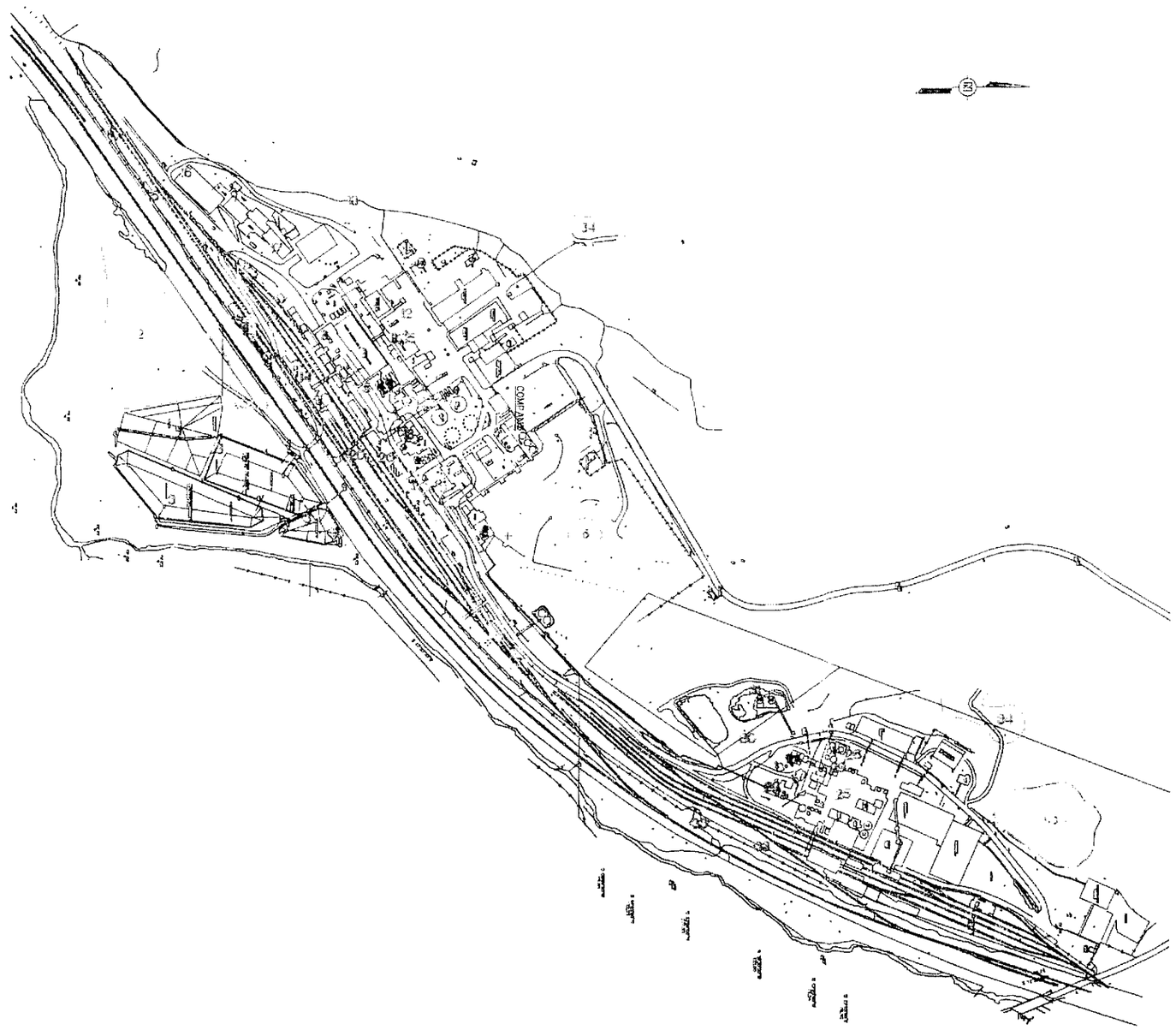
4.3 PROJECT SCHEDULE

The schedule for the project is as follows:

- February 4, 1997 - Establish and mark sample points and clear space for sampling.
- February 11, 12, 13 and 14, 1997 - Mobilize, sample and send samples for analyses.
- April 3-4, 1997 - Receive results of Phase I analysis and begin Expedited RFI Report.
- April 30, May 1 and 2, 1997 - Mobilize for Phase II, sample and send samples for analyses.
- May 23-28, 1997 - Receive results of Phase II analysis and finalize Expedited RFI Report for review by VCC.
- May 28-30, 1997 - Complete Expedited Corrective Measure Study for review by VCC.
- June 4-11, 1997 - Complete Expedited Corrective Measures Implementation Report (CMIP) application for Corrective Action Management Unit (CAMU) for review by VCC.
- June 11-13, 1997 - VCC complete review. Publish copies of three reports and one application for submittal to the U.S. EPA and MSDEQ.
- August, 1997 - Obtain requisite regulatory concurrence including designation of a CAMU.
- August, 1997 - VCC begin and complete corrective action.
- September, 1997 - VCC submit CQA report to U.S. EPA and MSDEQ.

TABLES

FIGURES



SWMU NUMBER	SOUTH PLANT
1	CONTAINER (DRUM) STORAGE AREA
2	INACTIVE LANDFILL
3	SURFACE IMPOUNDMENT (SOUTH PLANT)
4	ACTIVATED CARBON TREATMENT UNITS
5	SOUTH PLANT DRAINAGE SYSTEMS
6	WASTEWATER STORAGE (HILL) TANKS
7	FORMER DINOSEB PRODUCTION AREA
8	DINOSEB LOADING/UNLOADING AREA
9	DINOSEB DRUMMING AREA
11	FORMER MSMA PRODUCTION AREA
12	FORMER MSMA SALT UNLOADING AREA
13	SOUTH PLANT DRAINAGE DITCHES
14	FORMER TOXAPHENE PRODUCTION AREA
15	FORMER METHYL PARATHION PRODUCTION AREA
16	FORMER ATRAZINE PRODUCTION AREA
17	RETURNED PRODUCT STORAGE AREA
18	FORMER BLUE TANK AREA
20	RAILROAD CAR UNLOADING STATION

	NORTH PLANT
22	NORTH PLANT NEUTRALIZATION SYSTEM
23	EQUALIZATION/NEUTRALIZATION POND (NORTH PLANT)
25	NORTH PLANT WASTEWATER PIPES
26	C-10 SCRUBBER
29	OIL COLLECTION UNIT
30	NORTH PLANT WASTE OIL ACCUMULATION AREA
31	NO. 6 FUEL OIL AREA
33	NORTH PLANT DRAINAGE DITCHES

	BOTH PLANTS
34	SURPLUS EQUIPMENT STORAGE (JUNKYARD)

AOC NUMBER	AOC NAME
1	FISH POND (NORTH PLANT)
2	DRUM STORAGE AREA
3	NEUTRALIZATION TANKS (SOUTH PLANT)
4	CHEMICAL CRYPT (SEPTIC TANKS)

SCALE
200 0 200 400 FEET

NO.	REVISION	DATE	INITIAL

SWMU 16,1,& 17 RFI REPORT; CMS; CMIP

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

CEDAR CHEMICAL CORPORATION
VICKSBURG CHEMICAL DIVISION
VICKSBURG, MISSISSIPPI

SCALE:	MADE BY: GT	DATE: 4/6/92	FILE NO.
1" = 200'	CHECKED BY: [illegible]	DATE: [illegible]	96B315

LOCATION OF SOLID WASTE MANAGEMENT UNITS

FIGURE 1

Location: Baton Rouge File name: S:\2B007C99.DWG Last edited: 02/21/95 @ 11:13

NOTES:

- SAMPLE ID = LOCATION-TYPE-PARAMETERS

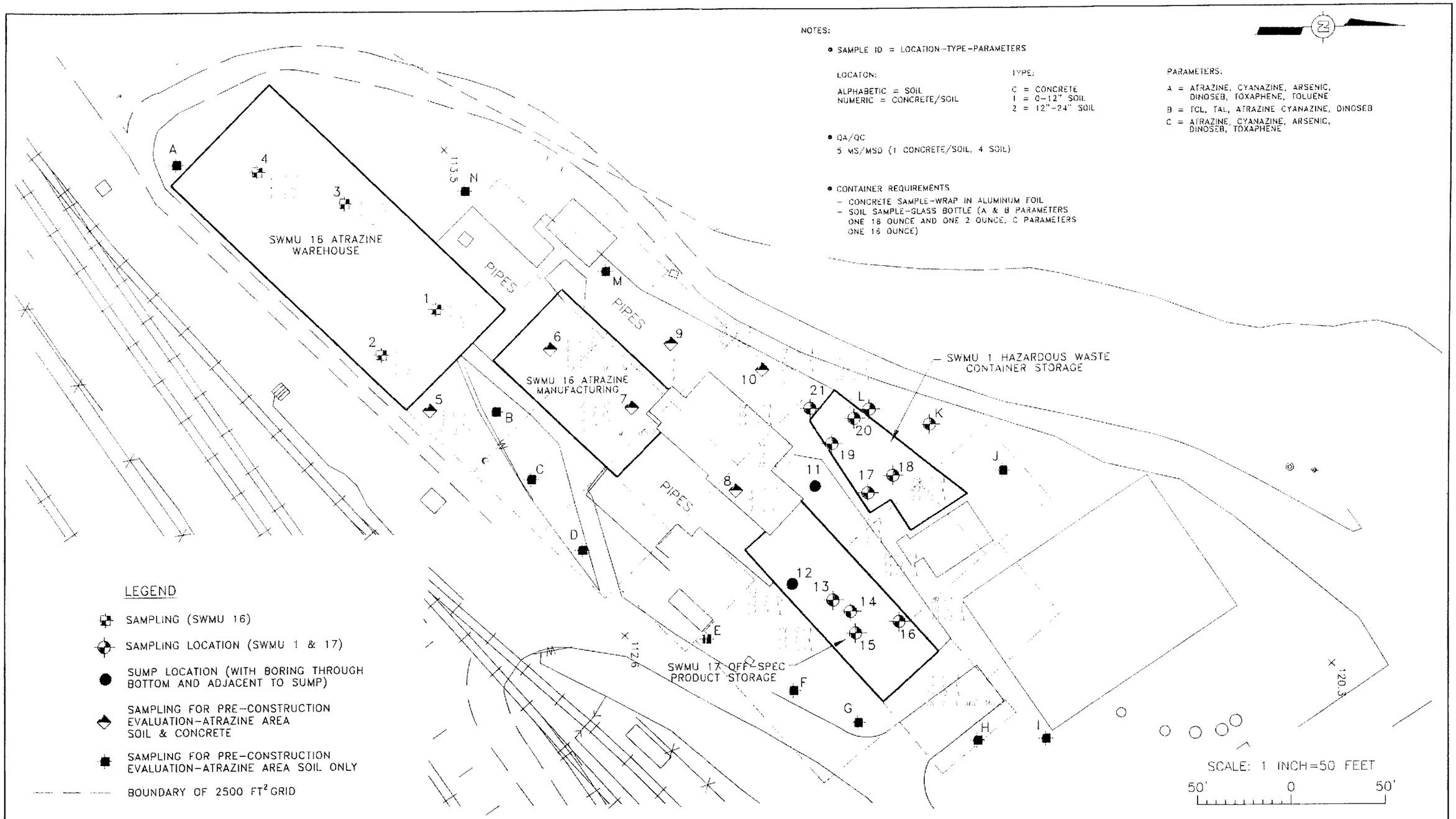
LOCATON:
ALPHABETIC = SOIL
NUMERIC = CONCRETE/SOIL

TYPE:
C = CONCRETE
1 = 0-12" SOIL
2 = 12"-24" SOIL

PARAMETERS:
A = ATRAZINE, CYANAZINE, ARSENIC, DINOSEB, TOXAPHENE, TOLUENE
B = TCL, TAL, ATRAZINE CYANAZINE, DINOSEB
C = ATRAZINE, CYANAZINE, ARSENIC, DINOSEB, TOXAPHENE

- QA/QC
5 MS/MSD (1 CONCRETE/SOIL, 4 SOIL)

- CONTAINER REQUIREMENTS
  - CONCRETE SAMPLE-WRAP IN ALUMINUM FOIL
  - SOIL SAMPLE-GLASS BOTTLE (A & B PARAMETERS ONE 16 OUNCE AND ONE 2 OUNCE, C PARAMETERS ONE 16 OUNCE)



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VICKSBURG CHEMICAL
VICKSBURG, MISSISSIPPI

Woodward-Clyde Consultants
Engineering & sciences applied to the earth & its environment
2822 O'Neal Lane
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SCALE: AS SHOWN
DESIGNED
DRAWN: PCG
CHECKED
PEER REVIEWED
DATE: 1/15/97

SWMU 16, 1, AND 17

SAMPLE AREA LOCATIONS AND SAMPLE ID FOR CONCRETE/SOIL LOCATIONS

REVISION △
PROJECT 96B315-003
DRAWING 4

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ATTACHMENT A

HEALTH AND SAFETY PLAN

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1.0
HEALTH AND SAFETY PLAN

Client:	Vickburg Chemical Corporation
Project:	RFI Field Investigation, Groundwater Assessment, and Interim Measures
Project Manager:	Richard D. Karkkainen
Project Number:	92B007C
Date of Plan:	Revised October 22, 1993
Estimated Dates of Work:	North Pond, October 25, 1993 through November 5, 1993, Additional Pending EPA and MSDEQ
Expiration Date:	Pending EPA and MSDEQ

1.1 HEALTH AND SAFETY PLAN APPROVALS

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10/22/93
Date

Tanya Pawley
Health and Safety Officer
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(318) 439-2683

10/22/93

Charles Self, C. I. H.
Corporate Health and Safety Officer
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10/22/93
Date

2.0 INTRODUCTION

This Health and Safety Plan establishes guidelines and requirements for the safety of field personnel during the conduct of the field activities associated with the referenced project. The specific activities addressed by this plan are defined in Section 3.0. All employees of Woodward-Clyde Consultants (WCC) involved in this project are required to abide by the provisions of this plan. They are required to read this plan and sign the attached Compliance Agreement.

The health and safety guidelines and requirements presented are based on a review of available information and an evaluation of potential hazards. This plan outlines the health and safety procedures and equipment required for activities at this site to minimize the potential for exposures of field personnel. This plan may be modified by the project manager, the corporate health and safety officer, and the Baton Rouge health and safety officer in response to additional information obtained regarding the potential hazards to field investigative personnel. This plan has been prepared for the exclusive use of WCC Personnel and WCC subcontractors. WCC liability is extended to WCC Personnel and WCC Subcontractors only.

2.1 KEY PERSONNEL

Project management will be handled out of the Baton Rouge Operating Unit of WCC. The following is a description of job responsibilities and authorities:

Project Manager: Richard D. Karkkainen

For this project, the Project Manager has the following responsibilities:

- To see that the project is performed in a manner consistent with the WCC Health and Safety Program.

- To have an approved Health and Safety Plan prepared and properly implemented for this project.

- To provide the Business Unit Health and Safety Officer with project information related to health and safety matters and development of the Health and Safety Plan.

- To implement the Health and Safety Plan.

- To insure compliance with the Health and Safety Plan by WCC and contractor personnel.

- To coordinate with the Business Unit Health and Safety Officer on health and safety matters.

The Project Manager has the authority to take the following actions:

- To determine matters relating to schedule, cost, and personnel assignments on hazardous waste management projects.

- To temporarily suspend field activities, if the health and safety of personnel are endangered, pending further consideration by the Business Unit Health and Safety Officer.

- To temporarily suspend an individual from field activities for infractions of Health and Safety Plan, pending further consideration by the Business Unit Health and Safety Officer.

Health and Safety Officer: Tanya Pawley

The Health and Safety Officer has the following responsibilities:

- To interface with the Project Manager as may be required in matters of health and safety.

- To approve a Health and Safety Plan for the project.
- To appoint or approve a Site Safety Officer to assist in implementing the Health and Safety Plan.
- To monitor compliance with the approved Health and Safety Plan.
- To assist the Project Manager in seeing that proper health and safety equipment is available for the project.
- To approve personnel to work on this site with regard to medical examinations and health and safety training.

The Health and Safety Officer has the authority to take the following actions:

- To suspend work or otherwise limit exposures to personnel, if a Health and Safety Plan appears to be unsuitable or inadequate.
- To direct personnel to change work practices, if they are deemed to be hazardous to health and safety of personnel.
- To remove personnel from the project, if their actions or condition endangers their health and safety or the health and safety of co-workers.

WCC Site Safety Officer: Yong Goh

The Site Safety Officer (SSO) has the following responsibilities:

- To direct health and safety activities on-site.
- To report safety-related incidents or accidents to the Project Manager and Business Unit Health and Safety Officer.

- To assist the Project Manager in all aspects of implementing the Health and Safety Plan.

- To maintain health and safety equipment on-site, as specified in Health and Safety Plan.

- To perform health and safety activities on-site, as specified in the Health and Safety Plan, and report results to the Project Manager and the Business Unit Health and Safety Officer.

The SSO has the authority to take the following actions:

- To temporarily suspend field activities, if the health and safety of personnel are endangered, pending further consideration by the Business Unit Health and Safety Officer.

- To temporarily suspend an individual from field activities for infractions of the Health and Safety Plan, pending further consideration by the Business Unit Health and Safety Officer.

WCC Corporate Health and Safety Officer: Charles Self

The WCC CHSO has the following responsibilities:

- Direct the implementation of the Health and Safety Program of the operating group and provide recommendations for improvement of the program.

- Coordinate health and safety activities of the operating units in the operating group.

- Determine need for project Health and Safety Plans.

- Review and approve Health and Safety Plans.

- Monitor implementation of Health and Safety Plans.
- Investigation reports of incidents or accidents and report accidents or incidents to the CHSA and EVPP.
- Assist CHSA with employee health and safety training in the operating group.
- Determine whether an accidental exposure or injury merits a change in the affected individual's work assignments and whether changes in work practices are required.
- Coordinate business units with regard to health and safety equipment needs.

The WCC CHSO has the authority to take the following actions:

- Approve or disapprove Health and Safety Plans.
- Direct operating unit HSO to prepare project Health and Safety Plans.
- Access project files.
- Direct changes in personnel work practices to improve health and safety of employeees involved in hazardous waste management projects.
- Remove individuals from projects, if their conduct jeopardized their health and safety or that of co-workers.
- Suspend work on any project that jeopardizes the health and safety of personnel involved.

2.2 SITE LOCATION

Vicksburg Chemical Corporation (VCC) is located less than a mile south of Interstate 20 bordering the City of Vicksburg, Mississippi. To the north and west of the site is light residential properties. To the East of the site is light industrial properties including the Vicksburg water treatment facility and an asphalt mixing and gravel drying operation. To the South of the site is light residential to rural properties.

2.3 SITE DESCRIPTION

VCC is located off Highway 61 on Rifle Range Road. The facility is comprised of a North Plant and a South Plant and occupies approximately 640 acres. Currently, the only active areas of the plant include the nitric acid and potassium nitrate plants. All other portion of the plant are no longer in operation. Resources such as a potable water supply, electricity, and telephone service are available at the plant office located at the facility entrance on Rifle Range Road. Chemical on-site relative to the aforementioned active plants include anhydrous ammonia, nitric acid, potassium chloride, chlorine, and occasional nitrogen tetroxide, and nitrogen dioxide. Chemical on-site related to past production activities include atrazine, dinoseb, methyl parathion, monosodium methane arsenate (MSMA), and toxaphene. Other chemicals that have been detected on-site include carbon tetrachloride, chloroform, 1,1-dichloroethylene, ethylbenzene, methylene chloride, toluene, and xylene.

The work sites concerning this plan are associated with the South and North Plants (Figure 1) and include several Solid Waste Management Units (SWMUs) and Other Areas of Concern (OACs).

2.4 SITE HISTORY

In the past, VCC produced various types of pesticides and herbicides such as dinoseb, toxaphene, atrazine, and monosodium methane arsenate. All of these chemicals have been detected in the soil and water by VCC and the state of Mississippi. Concentrations range from less than extractable products on hazardous wastes to an average of about 5 part per million (ppm). Chlorinated solvents have been detected in

sludge sediments in the ppm range for carbon tetrachloride, methylene chloride, chloroform, and 1,1,-dichloroethylene. The source of the chlorinated solvents is unknown as well as the source of xylene toluene, and ethylbenzene, which have been detected in the range of 2-15 ppm.

3.0
PURPOSE AND SCOPE OF PROPOSED WORK

WCC will perform work as required in a Consent Decree effective April 17, 1992. This Consent Decree requires Interim Measures activities, a Groundwater Assessment Program, and a RCRA Facility Investigation be conducted at the facility. These three workplans require geophysical borings, monitor well sampling and installation, subsurface soil sampling, and surface soil sampling. Some construction in conjunction with sump closure may be included in the Interim Measures activities.

4.0 HAZARD ASSESSMENT

The following hazards have been identified and will be protected against:

- Heat stress.
- Biological hazardous.
- Physical hazards.
- Skin contact with organic contaminants.

4.1 BIOLOGICAL HAZARDS

If clearing has not been conducted or if biological hazards develop during work activities, practical guidelines for prevention of exposure to pests should be implemented.

4.2 HEAT STRESS HAZARDS

If heat stress becomes a concern, the heat stress casualty prevention plan, presented in Appendix A shall be implemented.

4.3 PHYSICAL HAZARDS

Personnel should be cognizant of the fact that when protective equipment such as respirators, gloves, and protective clothing are worn, visibility and manual dexterity are impaired. In addition, personnel should be alert to physical hazards such as slipping/tripping/falling potentially associated with dismantled process equipment and piping remnants/ladders/stairways in various stages of disrepair, and uneven ground surface due to foundation fragments distributed throughout the site. Drilling personnel should abide by standard safety guidelines applicable to drilling operation presented in Appendix B.

4.4 CHEMICAL HAZARDS

Due to past production activities at the facility, pesticides, herbicides, chlorinated solvents, and volatile organic solvents have been detected on-site during site characterization efforts conducted by VCC and the state of Mississippi. The constituents detected included dinoseb, toxaphene, atrazine, carbon tetrachloride, methylene chloride, chloroform, 1,1-dichloroethylene, xylene, toluene, and ethylbenzene at concentration report in the parts per million range. Of the constituents detected on-site, carbon tetrachloride, methylene chloride, and chloroform are classified by OSHA and/or ACGIH as known or suspected human carcinogens.

The constituents detected on-site are present in low concentrations. However, exposure to these chemicals may potentially occur through inhalation, ingestion, and/or direct contact. Chemical exposure via multiple exposure pathways is cumulative, therefore it is important to recognize potential exposure situations and to take precautions to minimize exposure to chemical hazards by all routes.

The following potential exposure routes and associated health hazards have been identified:

Inhalation: Chemical hazards associated with inhalation exposures may include irritation of the mucous membranes and respiratory tract or with more sever exposures, may include systemic effects. Table 1 presents recommended exposure limits for potential airborne constituents.

Ingestion. Ingestion of chemical will be controlled on-site by prohibiting eating, smoking, or drinking in the Exclusion Zone and by requiring all field personnel to conduct decontamination procedures prior to leaving the Exclusion Zone.

Direct Contact: Skin and eye contact with chemical hazards may potentially result in irritation, rashes, or burns. If a person should exhibit symptoms of eye or skin irritation, he/she should report to the SSO for immediate medical attention.

Potential hazards may be minimized by utilizing appropriate personal equipment designed to protect the body against contact with known or anticipated chemical hazards. Personal protective equipment is classified by the EPA by the level of protection afforded and is divided into four categories designated as Level A, B, C, and D with Level A providing the most extensive level of protection.

The levels of protection required for the field activities specified by the work scope are presented in Section 5.1

Chemical information sheets for each constituent known to be present at the site are presented in Appendix C. These sheets provide important information concerning physical/chemical properties, chemical/reactive hazards, exposure potentials, health hazards and symptoms of exposures, and appropriate treatment following exposure.

Table 1
Exposure Limits for Potential Airborne Contaminants

Constituent	ACGIH TWA	OSHA PEL-TWA	STEL	IDLH
+Toxaphene	0.5 mg/m^3	0.5 mg/m^3	1 mg/m^3	200 mg/m^3
Atrazine	5 mg/m^3	5 mg/m^3	--	--
+Carbon Tetrachloride	5 ppm	2 ppm	--	Ca
Methylene Chloride	50 ppm	500 ppm	--	Ca
Chloroform	10 ppm	2 ppm	--	Ca
Xylene	100 ppm	100 ppm	150 ppm	1000 ppm
Toluene	100 ppm	100 ppm	150 ppm	2000 ppm
Ethylbenzene	100 ppm	100 ppm	125 ppm	2000 ppm
Lime Kiln Dust	10 mg/m^3	10 mg/m^3	--	--
Ammonia	25 ppm	50 ppm	35 ppm	500 ppm

+ Potential Skin Irritant
Ca Potential Human Carcinogen (Cancer Causing);
-- No IDLH level established.

5.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

5.1 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) required to prevent contact with known or anticipated chemical hazards has been divided into four categories by the USEPA, Levels A, B, C and D, according to the degree of protection afforded. The following personnel protective equipment will be provided to personnel involved in site characterization work at the site.

Mobilization - Level D Protection

- Boots, steel toe and shank
- Hard hat
- safety glasses with side shields

Modified Level D Protection

- Coveralls, chemical resistant; tyvek (polycoated tyvek if splash hazard exists)
- Gloves (outer), chemical resistant, Polyvinyl Alcohol (PVAL)
- Gloves (inner), chemical-resistant, latex
- Boots, chemical-resistant (or bootie covers), steel toe and shank
- Safety glasses with side shields
- Hard hat (with faceshield if splash hazard exists)

Modified Level C Protection

- To include Modified Level D; PPE mentioned above
- Full-face air purifying respirators with organic vapor/pestiide/HEPA combination filter cartridges.

Tyvek coveralls will be discarded after each use or when they become worn or punctured. Suit materials are resistant to all known or anticipated chemicals at the site. If the disposable protective suits appear to be deteriorating under chemical action, the Site Safety Officer should be notified.

In addition to the personal protective equipment listed above, general safety equipment available for use will include a first aid kit, portable eye wash and fire extinguisher.

5.2 WORK ZONES

During activities conducted in Modified Level D PPE, management of this project shall be conducted in such a manner which will restrict access to the job site by unauthorized personnel. If Level D action levels established in Table 2 are exceeded resulting in an upgrade to Level C PPE, work zones as described in the following paragraphs shall be implemented.

To minimize the movement of contaminants from the site to uncontaminated areas, three work zones will be set up during activities conducted under Level C PPE. The three work zones will include the following:

Zone 1:	Exclusion Zone
Zone 2:	Contamination Reduction Zone
Zone 3:	Support Zone

The exclusion zone is the zone where contamination does or could occur. Observations by the site safety officer will determine the extent of the zones. All persons entering this zone must wear at a minimum the level of protection set forth in Section 5.1 (Level C PPE).

Between the exclusion zone and support zone is the personnel contamination reduction zone (CRZ) which provides a transition zone between the contaminated and clean areas of the site. This zone will be located directly outside of the exclusion zone and will be defined as 10-foot zone directly outside the exclusion zone.

The support zone will be an uncontaminated area from which operations will be directed. It is essential that contamination from the site be kept out of this area. Included in this area will be a storage area for decontaminated clothing, additional personal protective equipment, etc.

One additional work zone will be set up for decontaminating equipment.

5.3 DECONTAMINATION PROCEDURES

VCC will have a minimum of one personnel decontamination station, strategically located or in the contamination reduction zone (CRZ) if applicable. The decontamination station will have at least the following items:

- An adequate-sized plastic sheet for flooring
- Boot wash equipment
  - Water/alconox solution container
  - Rinse water container
  - Long-handled plastic brush
- Waste container (disposable PPE, tape, etc.)
- Hand wash equipment
  - Water/alconox solution container
  - Rinse water container
  - Paper towels

5.3.1 Equipment Decontamination

Decontamination of sample collection equipment will be accomplished by the following procedure:

- Washing in a detergent solution (Alconox)
- Triple rinsing with clean deionized water
- Rinsing with methanol
- Triple rinsing with clean deionized water

Decontamination of equipment shall be conducted in Modified Level D PPE as listed in Section 5.1. While utilizing methanol for deconning equipment, personnel shall position themselves upwind of decontamination operations to minimize inhalation exposures to methanol vapors. If this is not feasible, respiratory protection as listed under level C PPE is Section 5.1 shall be worn during methanol use.

5.3.2 Personnel Decontamination

Decontamination of personnel will be performed at a designated location at the perimeter of the work area. Decontamination will consists primarily of soap and water washings and water rinse of exterior protective gear to remove contaminants, followed by doffing of the gear.

Coveralls should be removed by turning the clothing inside out. A general sequence of doffing procedures is outlined below. The extent of washing required, or modifications to the sequence, may be specified as appropriate.

Personnel will be decontaminated by the following procedure:

- Wash and rinse outer protective coverall
- Wash work gloves and boots
- Remove outer protective clothing
- Rinse respirator if worn
- Wash hands and face

Contaminated disposable PPE and all decontamination fluids shall be containerized on-site for subsequent disposal by the direction of VCC.

5.4 MEDICAL EXAMINATION

Before commencing any of the field or laboratory activities defined in Section 3.0, all WCC personnel and all WCC subcontractors must take an annual WCC-approved medical examination as part of WCC's medical surveillance program.

5.5 SAFETY TRAINING DOCUMENTATION

Prior to commencing any of the field activities defined in Section 3.0, all WCC personnel working on-site will supply certificate or equivalent, attesting to completing 40 hours of training as required by OSHA, in 29 CFR 1910.120, to the SSO. Site supervisors will be required to supply documentation indicating that an additional 8 hours of training has been completed. Escorted visitors may be allowed in a defined area without 40 hours training at the discretion of the WCC SSO and the WCC site coordinator.

Documentation concerning respirator fit testing, in accordance with OSHA, 29 CFR 1910.134 shall be required of any WCC employee wearing a respirator.

5.6 COMPLIANCE AGREEMENT

The Project Manager and the Baton Rouge Health and Safety Officer shall hold meetings with all WCC field personnel before work commences. During the meeting, all personnel shall be provided with a copy of this safety plan; the plan shall be reviewed and discussed and questions answered. Signed Compliance Agreement Forms shall be collected by the Project Manager and filed by the Baton Rouge Health and Safety Officer. Individuals refusing to sign the form will not be allowed to work on the site.

5.7 PROJECT MANAGER NOTIFICATION

All field personnel must inform the Project Manager or his designated representative before entering the site. The "buddy system" will be employed during all project work. This means that at least two members of the field crew must be on-site whenever work is performed. Personnel must be in visual contact with each other or carry two-way radios at all times.

5.8 PROJECT SAFETY LOG

A project safety log will be used to record the names, entry and exit dates and times of all WCC and subcontractor personnel and of project site visitors; accidents, injuries, and illnesses; incidence of safety infractions by field personnel; air quality and personal exposure monitoring data; and other information related to safety matters. All accidents, illnesses or other incidence shall be reported immediately to the WCC Project Manager, and the WCC Baton Rouge Health and Safety Officer and subsequently documented for filing on the HS-502 Incident Report Form.

5.9 PROHIBITIONS

- Smoking, eating, drinking, chewing gum or tobacco, storing food or food containers shall not be permitted on the work site. Good personal hygiene should be practiced by field personnel to avoid ingestion of contaminants or spread of contaminated materials.

- Ignition of flammable liquids within, on, or through improvised heating devises or space heaters.

- Approach or entry into areas or spaces where toxic of explosive concentrations of gases or dust may exist without proper equipment available to enable safety entry.

- Conduct of on-site operations without off-site back up personnel.

5.10 SITE SAFETY MEETINGS

During all site characterization activities, daily safety meetings will be held by the site safety officer to review and plan the specific health and safety aspects of scheduled work for that day.

6.0
LABORATORY CONSIDERATIONS

The laboratory director must be informed of any contaminant level in the samples that would require special handling procedures to prevent risk to the health and safety of laboratory personnel.

7.0 PERSONAL PROTECTIVE EQUIPMENT

This section outlines the general usage guidelines for personal protective equipment.

7.1 HEAD PROTECTION

Hard hats must be worn by all personnel working on-site.

7.2 EYE PROTECTION

Safety glasses with side shields or goggles must be worn by all personnel performing activities where potential for eye or face exposure exists due to splash, dust, or vapor, etc. An eyewash station will be set up by the site safety officer prior to commencing field activities and should be placed so that it could be used quickly in an emergency.

7.3 SKIN PROTECTION

Due to the potential for skin absorption and carcinogenic properties chemical resistant gloves and coveralls shall be worn by all personnel during subsurface and sample handling activities. These will be disposed of in a designated sealable drum after each use of when they become worn or punctured.

7.4 FOOTWEAR

Chemical-resistant boots with steel toes and shanks will be worn by field personnel engaged in the field activities at the site. Chemical-resistant booties can be substituted for chemical resistant boots, although work boots to be covered must always maintain steel toes and shanks.

7.5 RESPIRATORY PROTECTION

For respiratory protection against possible volatile organics, full-face air purifying respirators (APR) will be required if Level D air monitoring action levels are exceeded. Specific cartridges to be utilized with the APRs will be combination organic vapor/ammonia filter cartridges. All personnel must be properly fit-tested for the specific brand and size respirator to be used. Documentation of fit testing is to be provided to WCC SSO prior to commencement of work. A respirator which has not been successfully fit-tested cannot be used by an individual on the project. To ensure a proper fit, no facial hair will be allowed that will interfere with mask operation. The site safety officer will determine if facial hair represents such an interference. Air purifying respirators will only be used if the following conditions are met:

- The oxygen content of the air is greater than 19.5 percent.
- Concentration of air contaminants are known and monitored.
- The contaminants of concern all have good warning properties (i.e., odor threshold below PEL value).
- The protection factor is adequate and PELs are not exceeded.
- If concentrations of air contaminants exceed IDLH value, personnel must immediately evacuate.
- Cartridges are changed daily or whenever breakthrough occurs, which ever occurs first.
- Each person has been fit-tested for the specific brand and size of respirator used.
- The respirator is MSHA- and/or NIOSH-approved.

8.0
AIR QUALITY MONITORING

The primary goal of on-site air quality monitoring will be compliance with the specified contaminant action levels. The secondary goal will be documentation of personal exposures as required by OSHA 1920.120.

8.1 AIR QUALITY SURVEY

During modified Level D field activities at the site, an air quality survey will be performed utilizing an HNu-photoionization detector (PID) equipped with an 11.7 ev probe, or equivalent instrument to characterize volatile organics and ammonia concentrations on-site. Standard operating procedures for this instrument are attached as Appendix E. During Level C filed activities, additional sampling utilizing colorimetric tubes specific for detecting chloroform, methylene chloride, and carbon tetrachloride will be used along with the HNu for total organic vapors. At least two sampling events utilizing each of these tubes will be conducted in the breathing zone of personnel closest to the subsurface activities at the site. Table 2 lists air monitoring action levels for Level D and C work.

TABLE 2
AIR MONITORING ACTION LEVELS FOR LEVEL C AND D WORK

Contaminant	*Instrument**	Reading	Action Taken
Volatile Organic	HNu or equivalent	<5 ppm	Continued Work in Modified D Level
		5 - 25 ppm	Upgrade to Level C and Expand Work Zones; Commence additional colorimetric tube sampling
		>25 ppm	Evacuate Area

* Sustained reading above background (for 15 minutes continuous) which shall not be exceeded within worker breathing zones or exclusion zones.

9.0
EMERGENCIES/ACCIDENTS

A site map and direction to Vicksburg Hospital are included in Figure 1. Illnesses, injuries, and accidents occurring on-site must be attended to immediately in the following manner:

- Remove the injured or exposed person(s) from immediate danger.
- Render FIRST AID if necessary. Decontaminate affected personnel, if necessary.
- Call ambulance for transport to local. This procedure should be followed even if there is no apparent serious injury. Emergency numbers are listed on the following section.
- Evacuate other personnel on-site to a safe place until the engineer (assisted by the Site Safety Officer) determines that it is safe for work to resume.
- Report the accident to the Health and Safety Officer immediately.
- Develop procedures, in accordance with the Health and Safety Officer, Site Safety Officer, and Project Manager to prevent a recurrence.

In the event that an emergency site evacuation should be necessary for any reason, the Site Safety Officer will render an alarm using a horn and all personnel shall leave the site. The assembly point will be designated in the filed. Personnel will not return to the site until an all-clear has been received from the Site Safety Officer

9.1 EMERGENCY NUMBERS

For any on-site Emergency dial 911.

Emergency Service	Telephone
Fire Department	636-1121
Ambulance	911
Sheriff	636-1761
Vicksburg Police Department	636-2511
National Response Center (NRC)	1-800-424-8802
Poison Control Center	1-800-535-0525
Vicksburg Medical Center	636-2611
Mercy Regional Medical Center	631-2250

10.0 PERSONNEL ASSIGNMENTS

WCC personnel and subcontractors authorized to work on this project and enter the site are:

Project Manager:	Richard D. Karkkainen
Baton Rouge Health and Safety Officer:	Charles Self
Site Safety Officer:	Yong Goh
Field Personnel:	Mike Olson
Subcontractor:	Soil Testing Engineers, Inc.

10.1 PROJECT SAFETY PERSONNEL

Personnel responsible for implementing this Safety Plan are the Project Manager and Site Safety Officer. Their specific responsibilities and authorities for all accountable WCC personnel are listed in this plan as well as Table 2-1 of the WCC Health and Safety manual dated November 1990.

11.0
SAFETY PLAN COMPLIANCE AGREEMENT

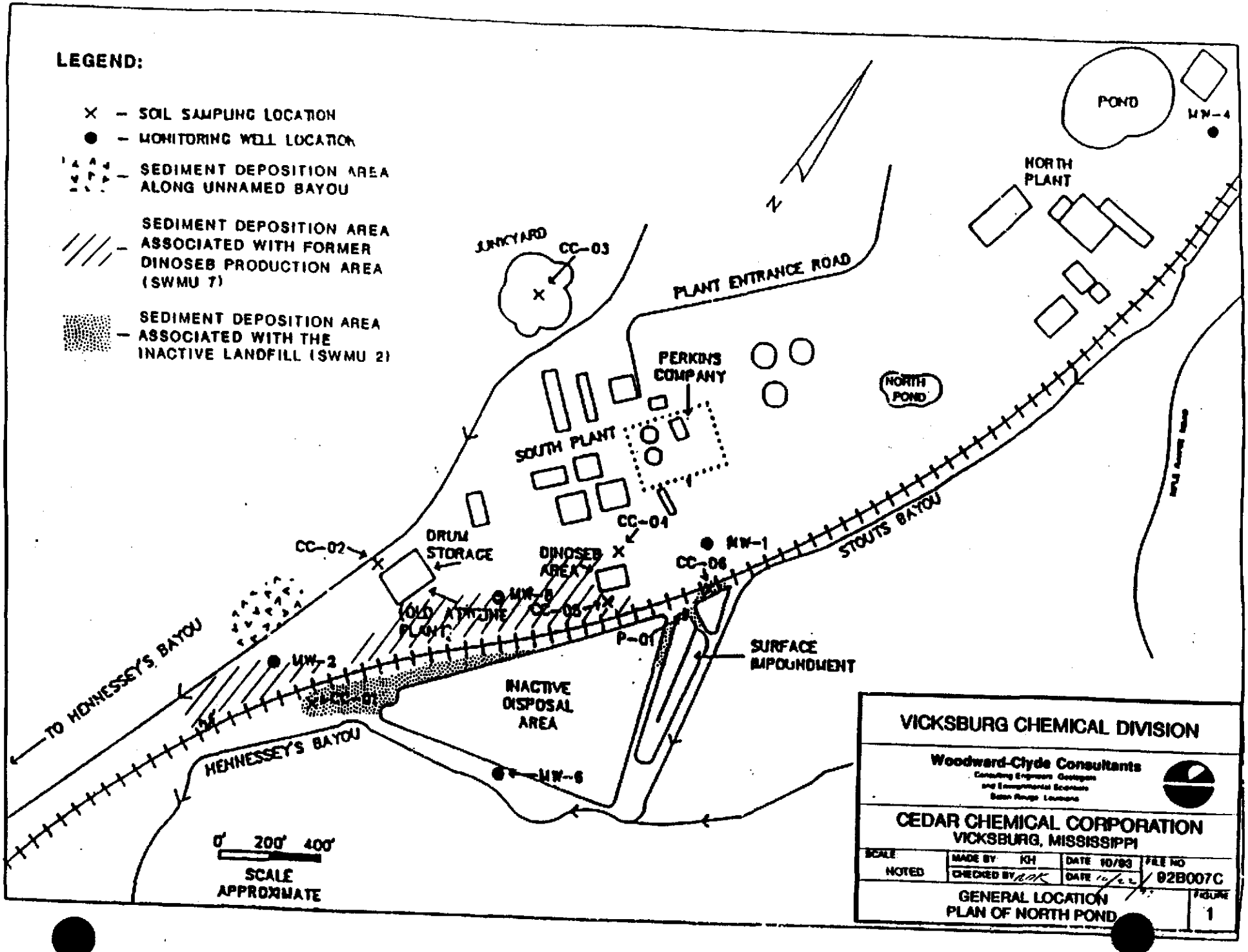
I, _____(print name), have received a copy of the Safety Plan for the Interim Measures, Groundwater Assessment, and RFI Field Investigation Workplans for VCC, Vicksburg, Mississippi (WCC Project No. 90B451C). I have read the plan, understand it, and agree to comply with all of its provisions. I understand that I could be prohibited from working on the project for violating any of the safety requirements specified in the plan.

Signed:

_____ _____

Signature Date

Firm:_____


LEGEND:
X – SOIL SAMPLING LOCATION
● – MONITORING WELL LOCATION
– SEDIMENT DEPOSITION AREA ALONG UNNAMED BAYOU
– SEDIMENT DEPOSITION AREA ASSOCIATED WITH FORMER DINOSEB PRODUCTION AREA (SWMU 7)
– SEDIMENT DEPOSITION AREA ASSOCIATED WITH THE INACTIVE LANDFILL (SWMU 2)
POND
MW-4
NORTH PLANT
JUNKYARD
CC-03
PLANT ENTRANCE ROAD
PERKIN'S COMPANY
NORTH POND
SOUTH PLANT
CC-04
DRUM STORAGE
DINOSEB AREA
MW-1
CC-06
STOUTS BAYOU
CC-02
MW-5
CC-05
OLD ATRAZINE PLANT
P-01
SURFACE IMPOUNDMENT
MW-2
CC-01
INACTIVE DISPOSAL AREA
TO HENNESSEY'S BAYOU
HENNESSEY'S BAYOU
MW-6
0' 200' 400'
SCALE APPROXIMATE
VICKSBURG CHEMICAL DIVISION
Woodward-Clyde Consultants
CEDAR CHEMICAL CORPORATION
VICKSBURG, MISSISSIPPI
SCALE NOTED
MADE BY KH
DATE 10/93
FILE NO 92B007C
CHECKED BY
DATE
GENERAL LOCATION PLAN OF NORTH POND
FIGURE 1

APPENDIX A

HEAT STRESS CASUALTY PREVENTION PLAN

APPENDIX A

HEAT STRESS CASUALTY PREVENTION PLAN

Due to the increase in ambient air temperatures and the affects of protective outer wear decreasing body ventilation, there exists an increase in the potential for injury, specifically, heat casualties. Site personnel will be instructed in identification of a heat stress victim, the first-aid treatment procedures for the victim and the preventing of heat stress casualties.

A. IDENTIFICATION AND TREATMENT

1) Heat Exhaustion

a) Symptoms: Usually begins with muscular weakness, dizziness, nausea, and staggering gait. Vomiting is frequent. The bowels may move involuntarily. The victim is very pale, his skin is clammy skin, and he may perspire profusely. The pulse is weak and fast, his breathing is shallow. He may faint unless he lies down. This may pass, but sometimes it remains and death could occur.

b) First Aid: Immediately remove the victim to the Personnel Decontamination Reduction Zone in a shady or cool area with good air circulation. Remove all protective outer wear. Call a physician. Treat the victim for shock. (Make him lie down, raise his feet 6 to 12 inches and loosen all clothing.) Transport victim to a medical facility as soon as possible.

2) Heat Stroke

a) Symptoms: This is the most serious of heat casualties due to the fact that the body excessively overheats. Body temperatures often are between 107 degrees to 110 degrees Fahrenheit. First there is often pain in the head, dizziness, nausea, oppression, and the skin is dry, red and hot. Unconsciousness follows quickly and death is imminent if exposure continues. The attack will usually occur suddenly.

b) First Aid: Immediately evacuate the victim to a cool and shady area in the Personnel Decontamination Reduction Zone. Remove all protective outer wear and all personal clothing. Lay him on his back with his head and shoulders slightly elevated. It is imperative that the body temperature be lowered immediately. This can be accomplished by applying cold wet towels, ice bags, etc., to the head. Sponge off bare skin with cool water or place him in a tub of cool water. The main objective is to cool him without chilling him. Give no stimulants. Transport the victim to a medical facility as soon as possible.

B. PREVENTION OF HEAT STRESS

1) One of the major causes of heat casualties is the depletion of body fluids. On the site there will plenty of fluids available. Personnel should replace water and salts loss from sweating. Salts can be replaced by either 0.1 percent solution, more heavily salted foods, or commercial mixes such as Gatorade. The commercial mixes are advised for personnel on low sodium diets.

2) A work schedule should be established so that the majority of the work day will be during the morning hours of the day before ambient air temperature levels reach their highs.

3) A work/rest guideline will be implemented for personnel required to wear Level B or Level C protection. This guideline is as follows:

Ambient Temperatures	Maximum Working Time
Above 90°F	1/2 hour
80°-90°F	1 hour
70°-80°F	2 hours
60°-70°F	3 hours
50°-60°F	4 hours
40°-50°F	5 hours
30°-40°F	6 hours
Below 30°F	8 hours

A sufficient period will be allowed for personnel to "cool down". This may require shifts of workers during operations.

C. HEAT STRESS MONITORING

For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism. Monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70 degrees Fahrenheit or above. Frequency of monitoring should increase as the ambient temperature increases or if slow recovery rates are indicated. When temperatures exceed 80 degrees Fahrenheit, workers must be monitored for heat stress after every work period.

- Heart rate should be measured at the radial pulse for 30 seconds as early as possible in the resting period. The heart rate at the beginning of the rest period should not exceed 110 beats per minute. If the heart rate is higher, the next work period should be shortened by 10 minutes (or 33 percent), while the length of the rest period stays the same. If the pulse rate is 100 beats per minute at the beginning of the next rest period, the following work cycle should be shortened by 33 percent.

- Body temperature should be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature at the beginning of the rest period should not exceed 99 degrees Fahrenheit. If it does, the next work period should be shortened by 10 minutes (or 33 percent), while the length of the rest period stays the same. However, if the oral temperature exceeds 99.7 degrees Fahrenheit at the beginning of the next period, the following work cycle should be further shortened by 33 percent. Oral temperature should be measured again at the end of the rest period to make sure that it has dropped below 99 degrees Fahrenheit.

- Body water loss due to sweating should be measured by weighing the worker in the morning and in the evening. The clothing worn should be similar at both weighings; preferably, the worker should be weighed nude. The scale should be accurate to plus or minus one-quarter pound. Body water loss should not exceed 1.5 percent of the total body weight. If it does, workers should be instructed to increase their daily intake of fluids by the weight lost.

Ideally, body fluids should be maintained at a constant level during the work day. This requires replacement of salt lost in sweat as well.

Good hygiene standards must be maintained by frequent changes of clothing and daily showering. Clothing should be permitted to dry during rest periods. Persons who notice skin problems should immediately consult medical personnel.

APPENDIX B

SAFETY GUIDELINES FOR DRILLING

APPENDIX B

SAFETY GUIDELINES FOR DRILLING

Drill rig maintenance and safety is the responsibility of the drill rig operator. However, safety requires the attention and cooperation of every worker and visitor to the job. The following is provided as a general guideline for safe drilling practices onsite.

OFF-ROAD MOVEMENT OF DRILL RIGS

The following safety guidelines relate to off-road movement:

- Before moving a drill rig, first walk the route of travel, inspecting for depressions, slumps, gullies, ruts and similar obstacles.
- Always check the brakes of a drill rig carrier before traveling, particularly on rough, uneven or hilly ground.
- Discharge all passengers before moving a drill rig on rough or hilly terrain.
- Engage the front axle (for 4x4, 6x6, etc., vehicles or carriers) when traveling off-highway on hilly terrain.
- Use caution when traveling side-hill. Conservatively evaluate side-hill capability of drill rigs because the arbitrary addition of drilling tools may raise the center of mass. When possible, travel directly uphill or downhill.
- Attempt to cross obstacles such as small logs and small erosion channels or ditches squarely, not at an angle.
- Use the assistance of someone on the ground as a guide when lateral or overhead clearance is narrow.

- After the drill rig has been moved to a new drilling site, set all brakes and/or locks. When grades are steep, block the wheels.

- Never travel off-road with the mast (derrick) of the drill rig in the raised or partially raised position.

- Tie-down loads on the drill rig and support trucks during transport.

OVERHEAD AND BURIED UTILITIES

The use of a drill rig near electrical power lines and other utilities requires that special precautions be taken by both supervisors and members of the exploration crew. Electricity can shock, it can burn and it can cause death.

Overhead and buried utilities should be located, noted and emphasized on all boring location plans and boring assignment sheets.

Before raising the drill rig mast (derrick) on a site in the vicinity of power lines, walk completely around the drill rig. Determine what the minimum distance from any point on the drill rig to the nearest power line will be when the mast is raised and/or being raised. Do not raise the mast or operate the drill rig if this distance is less than 20 feet.

Keep in mind that both hoist lines and overhead power lines can be moved toward each other by the wind.

CLEARING THE WORK AREA

Prior to drilling, adequate site cleaning and leveling should be performed to accommodate the drill rig and supplies and provide a safe working area. Drilling should not be commenced when tree limbs, unstable ground or site obstructions cause unsafe tool handling conditions.

NOTE: In coordination with the Drilling Crew, the Site Health and Safety Manager will review the precautions taken to insure that the drill rig is leveled and stabilized.

HOUSEKEEPING ON AND AROUND THE DRILL RIG

The first requirement for safe field operations is that the drilling crew safety supervisor understands and fulfills the responsibility for maintenance and "housekeeping" on and around the drill rig.

Suitable storage locations should be provided for all tools, materials and supplies so that they can be conveniently and safely handled without hitting or falling on a member of the drill crew or a visitor.

Avoid storing or transporting tools, materials or supplies within or on the mast (derrick) of the drill rig.

Pipe, drill rods, bits casing, augers and similar drilling tools should be orderly stacked on racks or sills to prevent spreading, rolling or sliding.

Penetration or other driving hammers should be placed at a safe location on the ground or be secured to prevent movement when not in use.

Work areas, platforms, walkways, scaffolding and other accessways should be kept free of materials, obstructions and substances such as ice, excess grease or oil that could cause a surface to become slick or otherwise hazardous.

Keep all controls, control linkages, warning and operation lights and lenses free of oil, grease and/or ice.

Do not store gasoline in any portable container other than a non-sparking, red container with a flame arrester in the fill spout and having the word "gasoline" easily visible.

SAFE USE OF HAND TOOLS

There are almost an infinite number of hand tools that can be used on or around a drill rig. "Use the tool for its intended purpose" is the most important rule. The following are a few specific and some general suggestions which apply to safe use of several hand tools that are often used on and around drill rigs.

- When a tool becomes damaged, either repair it before using it again or get rid of it.
- When using a hammer, any kind of hammer for any purpose, wear safety glasses and require all others near you to wear safety glasses.
- When using a chisel, any kind of chisel, for any purpose, wear safety glasses and require all others around you to wear safety glasses.
- Keep all tools cleaned and orderly stored when not in use.
- Replace hook and heel jaws when they become visibly worn.
- When breaking tool joints on the ground or on a drilling platform, position your hands so that your fingers will not be smashed between the wrench handle and the ground or the platform, should the wrench slip or the joint suddenly let go.

SAFE USE OF WIRE LINE HOISTS, WIRE ROPE AND HOISTING HARDWARE

The use of wire line hoists, wire rope, and hoisting hardware should be as stipulated by the American Iron and Steel Institute's Wire Rope Users Manual.

All wire ropes and fittings should be visually inspected during use and thoroughly inspected at least once a week for abrasion, broken wires, wear, reduction in rope diameter, reduction in wire diameter, fatigue, corrosion, damage from heat, improper weaving, jamming, crushing, bird caging, kinking, core protrusion, and damage to lifting

hardware and any other feature that would lead to failure. Wire ropes should be replaced when inspection indicates excessive damage according to the wire rope users manual.

If a ball-bearing-type hoisting swivel is used to hoist drill rods, swivel bearings should be inspected and lubricated daily to assure that the swivel freely rotates under load.

If a rod slipping device is used to hoist drill rods, do not drill through or rotate drill rods through the slipping device, do not hoist more than 1 foot (0.3m) of the drill rod column above the top of the mast (derrick), do not hoist a rod column with loose tool joints and do not make up, tighten or loosen tool joints while the rod column is being supported by a slipping device. If drill rods should slip back into the borehole, do not attempt to break the fall of the rods with your hands.

Most sheaves on drill rigs are stationary with a single-part line. The number of parts of line should never be increased without first consulting with the manufacturer of the drill rig. Wire ropes must be properly matched with each sheave.

The following procedures and precautions must be understood and implemented for safe use of wire ropes and rigging hardware.

Use tool-handling hoists only for vertical lifting of tools (except when angle-hole drilling). Do not use tool-handling hoists to pull on objects away from the drill rig; however, drills may be moved using the main hoist as the wire rope is spooled through proper sheaves according to the manufacturer's recommendations.

When stuck tools or similar loads cannot be raised with a hoist, disconnect the hoist line and connect the stuck tools directly to the feed mechanism of the drill. Do not use hydraulic leveling jacks for added pull to the hoist line or the feed mechanism of the drill.

When attempting to free a mired vehicle or drill rig carrier, only use a winch on the front or rear of the vehicle or drill rig carrier and stay as far away as possible from the wire rope. Do not attempt to use tool hoists to free a mired vehicle or drill rig carrier.

To minimize shock loading of a wire rope, always apply loads smoothly and steadily.

Some additional safety guidelines that should be followed are:

- Protect wire rope from sharp corners or edges.
- Replace faulty guides and rollers.
- Replace worn sheaves or worn sheave bearings.
- Replace damaged safety latches on safety hooks before use.
- Know the safe working load of the equipment and tackle being used. Never exceed this limit.
- Periodically inspect and test clutches and brakes of hoists.
- Know and do not exceed the rated capacity of hooks, rings, links, swivels, shackles and other lifting aids.
- Always wear gloves when handling wire ropes.
- Do not guide wire ropes on hoist drums with your hands.
- After installation of a new wire rope, lift a light load to allow the wire rope to adjust.
- Never carry out any hoisting operations when the weather conditions are such that hazards to personnel, the public or property are created.
- Never leave a load suspended when the hoist is unattended.

- Keep your hands away from hoists, wire rope, hoisting hooks, sheaves and pinch points as slack is being taken up and when the load is being hoisted.

- Never hoist a load over members of the crew.

SAFE USE OF AUGERS

The following general procedures should be used when advancing a boring with continuous-flight or hollow-stem augers:

- Prepare to start an auger boring with the drill rig level, the clutch or hydraulic rotation control disengaged, the transmission in low gear and the engine running at low RPM.

- The operator and tool handler should establish a system of responsibility for the various activities required for auger drilling, such as connecting and disconnecting auger sections and inserting and removing the auger fork. The operator must assure that the tool handler is well away from the auger column and that the auger fork is removed before starting rotation.

- Use only the manufacturer's recommended method of securing the auger to the power coupling. Do not touch the coupling or the auger with your hands, a wrench or any other tools during rotation.

- Whenever possible, use tool hoists to handle auger sections.

- Never place hands or fingers under the bottom of an auger section when hoisting the auger over the top of the auger section in the ground or other hard surfaces such as the drill rig platform.

- Never allow feet to get under the auger section that is being hoisted.

- When rotating augers, stay clear of the rotating auger and other rotating components of the drill rig. Never reach behind or around a rotating auger for any reason whatever.

- Never use your hands or feet to move cuttings away from the auger.

- When cleaning augers, be sure the drill rig is in neutral and the augers are stopped from rotating.

SAFETY DURING ROTARY AND CORE DRILLING

Rotary drilling tools should be safety-checked before use. In particular, check for the following:

- See that water swivels and hoisting plugs are lubricated and checked for frozen bearings before use.

- Check rod chuck jaws periodically and replace them when necessary.

- Check the capacities of hoists and sheaves against the anticipated weight on the drill rod string plus other expected hoisting loads. Inspect all cables daily.

These other special precautions should be taken for safe rotary or core drilling:

- Drill rods should not be braked during lowering into the hole with drill rod chuck jaws.

- Drill rods should not be held or lowered into the hole with pipe wrenches.

- If a string of drill rods are accidently or inadvertently released into the hole, do not attempt to grab the falling rods with your hands or a wrench.

- In the event of a plugged bit or other circulation blockage, the high pressure in the piping and hose between the pump and the obstruction should be relieved or bled down before breaking the first tool joint.

- When drill rods are hoisted from the hole, they should be cleaned for safe handling with a rubber or other suitable rod wiper. Do not use your hands to clean drilling fluids from drill rods.

- If work must progress over a portable drilling fluid (mud) pit, do not attempt to stand on narrow sides or cross members. The mud pit should be equipped with a rough surface and fitted cover panels of adequate strength to hold drill rig personnel.

- Drill rods should not be lifted and leaned unsecured against the mast. Either provide some method of securing the upper ends of the drill rod sections for safe vertical storage or lay the rods down.

- Inspect all hydraulic lines periodically and replace as needed.

START-UP

All drill rig personnel and visitors should be instructed to "stand-clear" of the drill rig immediately prior to and during starting of an engine.

Make sure all gear boxes are in neutral, all hoist levers are disengaged, all hydraulic levers are in the correct, non-actuating positions, and the cathead rope is not on the cathead before starting a drill rig engine.

SAFETY DURING DRILLING OPERATIONS

Safety requires the attention and cooperation of every worker and site visitor.

Do not drive the drill rig from hole to hole with the mast (derrick) in the raised position.

Before raising the mast (derrick) look up to check for overhead obstructions.

Before raising the mast (derrick), all drill rig personnel and visitors (with exception of the operator) should be cleared from the area immediately to the rear and the sides of the mast. All drill rig personnel and visitors should be informed that the mast is being raised prior to raising it.

Before the mast (derrick) of a drill rig is raised and drilling is commenced, the drill rig must be first leveled and stabilized with leveling jacks and/or solid cribbing. The drill rig should be releveled if it settles after initial set up. Lower the mast (derrick) only when leveling jacks are down and do not raise the leveling jack pads until the mast (derrick) is lowered completely.

Before starting drilling operations, secure and/or lock the mast (derrick) if required according to the drill manufacturer's recommendations.

The operator of a drill rig should only operate a drill rig from the position of the controls. The operator should shut down the drill engine before leaving the vicinity of the drill.

Do not consume alcoholic beverages or other depressants or chemical stimulants prior to starting work on a drill rig or while on the job.

Watch for slippery ground when mounting dismounting from the platform.

All unattended boreholes must be adequately covered or otherwise protected to prevent drill rig personnel, site visitors or animals from stepping or falling into the hole. All open boreholes should be covered, protected, or backfilled adequately and according to local or state regulations on completion of the drilling project.

"Horsing around" within the vicinity of the drill rig and tool and supply storage areas should never be allowed, even when the drill rig is shut down.

Be careful when lifting heavy objects.

Before lifting a relatively heavy object, approach the object by bending at the knees, keeping your back vertical and unarched while obtaining a firm footing. Grasp the object firmly with both hands and stand slowly and squarely while keeping your back vertical and unarched. In other words, perform the lifting with the muscles in your legs, not with the muscles in your lower back.

Drilling operations should be terminated during an electrical storm.

APPENDIX C

CHEMICAL INFORMATION SHEETS

AMMONIA

- Hazardous substance (EPA)

Description: NH_3, ammonia is a colorless, strongly alkaline, and extremely soluble gas with a characteristic pungent odor.

Code Numbers: CAS 7664-41-7 RTECS BO0875000 UN 1005

DOT Designation: Nonflammable gas.

Synonyms: Anhydrous ammonia.

Potential Exposures: Ammonia is used as a nitrogen source for many nitrogen-containing compounds. It is used in the production of ammonium sulfate and ammonium nitrate for fertilizers and in the manufacture of nitric acid, soda, synthetic urea, synthetic fibers, dyes, and plastics. It is also utilized as a refrigerant and in the petroleum refining and chemical industries. It is used in the production of many drugs (A-41) and pesticides (A-32).

Other sources of occupational exposure include the silvering of mirrors, glue-making, tanning of leather, and around nitriding furnaces. Ammonia is produced as a by-product in coal distillation and by the action of steam on calcium cyanamide, and from the decomposition of nitrogenous materials.

Incompatibilities: Strong oxidizers, calcium, hypochlorite bleaches, gold, mercury, silver, halogens.

Permissible Exposure Limits in Air: The Federal standard for ammonia is an 8-hour time-weighted average of 50 ppm (35 mg/m^3). NIOSH has recommended 50 ppm expressed as a ceiling and determined by a 5-minute sampling period. ACGIH as of 1983/84 has set TWA values of 25 ppm (18 mg/m^3). The tentative STEL value is 35 ppm (27 mg/m^3). The IDLH level is 500 ppm.

Determination in Air: Collection by midget impinger and colorimetric analysis using Nessler's reagent (A-10). Ammonia may also be determined using long-duration detector tubes (A-11).

Permissible Concentration in Water: EPA in 1976 (A-3) proposed a limit of 0.02 mg/ℓ (as unionized ammonia) for the protection of freshwater aquatic life. As of 1980, EPA (2) first proposed adding ammonia to the list of priority toxic pollutants and developing criteria for it, but then withdrew the proposal. NAS/NRC proposed (A-2) a limit of 0.5 mg/ℓ for drinking water.

Routes of Entry: Inhalation of gas, ingestion, skin and eye contact.

Harmful Effects and Symptoms: *Local* — Contact with anhydrous liquid ammonia or with aqueous solutions is intensely irritating to the mucous membranes, eyes, and skin. Eye symptoms range from lacrimation, blepharospasm, and palpebral edema to a rise of intraocular pressure, and other signs resembling acute-angle closure glaucoma, corneal ulceration, and blindness. There may be corrosive burns of skin or blister formation. Ammonia gas is also irritating to the eyes and to moist skin.

Systemic — Mild to moderate exposure to the gas can produce headache, salivation, burning of throat, anosmia, perspiration, nausea, vomiting, and substernal pain. Irritation of ammonia gas in eyes and nose may be sufficiently intense to compel workers to leave the area. If escape is not possible, there may be severe irritation of the respiratory tract with the production of cough, glottal edema, bronchospasm, pulmonary edema, or respiratory arrest. Bronchitis or pneumonia may follow a severe exposure if patient survives. Urticaria is a rare allergic manifestation from inhalation of the gas.

Points of Attack: Lungs, respiratory system, eyes.

Medical Surveillance: Preemployment physical examinations for workers in ammonia exposure areas should be directed toward significant changes in the skin, eyes, and respiratory system. Persons with corneal disease, and glaucoma, or chronic respiratory diseases may suffer increased risk. Periodic examinations should include evaluation of skin, eyes, and respiratory system, and pulmonary function tests to compare with baselines established at preemployment examination.

First Aid: If this chemical gets into the eyes, irrigate immediately. If this chemical contacts the skin, flush with water immediately. If a person breathes in large amounts of this chemical, move the exposed person to fresh air at once and perform artificial respiration. When this chemical has been swallowed, get medical attention. Do not induce vomiting.

Personal Protective Methods: Where ammonia hazards exist in concentrations above the standard, respiratory, eye, and skin protection should be provided. Fullface gas masks with ammonia canister or supplied air respirators, both with full facepieces, afford good protection. In areas where exposure to liquid ammonia occurs, goggles or face shields, as well as protective clothing impervious to ammonia and including gloves, aprons, and boots should be required. Where ammonia gas or concentrated ammonia solution is splashed in eyes, immediate flooding of the eyes with large quantities of water for 15 minutes or longer is advised, followed at once by medical examination.

In heavy concentrations of ammonia gas, workers should be outfitted with complete self-contained protective suits impervious to ammonia, with supplied air source, and full headpiece and facepiece. Appropriate clothing should be worn to prevent any possible skin contact with liquids of >10% content or reasonable probability of contact with liquids of <10% content. Wear eye protection to prevent any possibility of eye contact with liquids of >10% NH_3 content. Employees should wash immediately when skin is wet or contaminated with liquids of >10% content. Remove nonimpervious clothing immediately if wet or contaminated with liquids containing >10% and promptly remove if liquid contains <10% NH_3. Provide emergency showers and eyewash if liquids containing >10% NH_3 are involved.

Respirator Selection:

100 ppm: CCRS/SA/SCBA
300 ppm: CCRSF
500 ppm: GMS/SAF/SCBAF
Escape: GMS/SCBA

Disposal Method Suggested: Dilute with water, neutralize with HCl and discharge to sewer (A-38). Recovery is an option to disposal which should be considered for paper manufacture, textile treating, fertilizer manufacture and chemical process wastes (A-57).

References

(1) National Institute for Occupational Safety and Health, *Criteria for a Recommended Standard: Occupational Exposure to Ammonia*, NIOSH Doc. No. 74-136, Washington, DC (1974).

(2) U.S. Environmental Protection Agency, "Toxic Pollutant List: Proposal to Add Ammonia," *Federal Register*, 45, No. 2, 803-806 (January 3, 1980) Rescinded by *Federal Register*, 45, No. 232, 79692-79693 (December 1, 1980).

(3) National Research Council, Committee on Medical and Biologic Effects of Environmental Pollutants, *Ammonia*, Baltimore, MD, University Park Press (1979).

(4) Sax, N.I., Ed., *Dangerous Properties of Industrial Materials Report*, 2, No. 1, 65-68, New York, Van Nostrand Reinhold Co. (1982).

(5) See Reference (A-61).

(6) Sax, N.I., Ed., *Dangerous Properties of Industrial Materials Report*, 3, No. 3, 49-53, New York, Van Nostrand Reinhold Co. (1983).

(7) See Reference (A-60).

(8) Parmeggiani, L., Ed., *Encyclopedia of Occupational Health & Safety*, Third Edition, Vol. 1, pp 148-150, Geneva, International Labour Office (1983).

ATRAZINE

ATZ

Common Synonyms
2-Chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine
Active Ingredient

Solid crystals White

Strips on wood,

AVOID CONTACT WITH SOLID AND DUST
PEOPLE AWAY
Wear gloves and self-contained breathing apparatus
Stop spread: use water spray to "knock down" dust
remove and refloat contaminated material
Notify local fishers and pollution control agencies

Fire

Not flammable
POISONOUS GASES MAY BE PRODUCED WHEN HEATED

Exposure

CALL FOR MEDICAL AID

DUST
POISONOUS IF INHALED
Irritating to eyes, nose and throat
Move victim to fresh air
If in eyes: hold eyelids open and flush with plenty of water
If breathing is difficult, give oxygen

SOLID
POISONOUS IF SWALLOWED
Irritating to skin and eyes
Remove contaminated clothing and shoes
Flush affected areas with plenty of water
IF IN EYES: hold eyelids open and flush with plenty of water
IF SWALLOWED and victim is CONSCIOUS: have victim drink water or milk only have victim induce vomiting
IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS: do nothing induce none vomit

Water Pollution

HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS
May be dangerous if it enters water intakes
Notify local health and wildlife officials
Notify operators of nearby water intakes.

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)
Have working-water conveniences
Should be removed
Chemical and physical treatment

2. LABEL

2.1 Category: none
2.2 Check not present

3. CHEMICAL DESIGNATIONS

3.1 CG Compatibility Class: To be determined
3.2 Formula: $C_8H_{14}ClN_5$
3.3 GIO/VR Designation: 6.1/1000
3.4 DOT ID No.: 1658
3.5 CAS Registry No.: 1912-24-9

4. OBSERVABLE CHARACTERISTICS

4.1 Physical State (at shipping): Solid
4.2 Color: white
4.3 Odor: Data not available

5. HEALTH HAZARDS

5.1 Personal Protective Equipment: Dust mask, goggles, rubber gloves
5.2 Symptoms Following Exposure: irritate nose and skin, if ingested, irritate mouth and stomach
5.3 Treatment of Exposure: EYES: flush with copious amounts of water for 15 min. SKIN: wash with large amounts of water. INGESTION: no antidote available. induce vomiting and give a saline laxative and adsorptive therapy
5.4 Threshold Limit Value: 5 mg/m³
5.5 Short Term Inhalation Limits: Data not available
5.6 Toxicity by Ingestion: Grade 2, rat rat LD_{50} = 3080 mg/kg
5.7 Late Toxicity: Data not available
5.8 Vapor (Gas) Irritant Characteristics: Vapors are overwhelming to eyes and throat
5.9 Liquid or Solid Irritant Characteristics: Causes smarting of the skin and hoarseness during on short exposure and may cause conjunctivitis during long exposure
5.10 Odor Threshold: Data not available
5.11 IDLH Value: Data not available

6. FIRE HAZARDS

6.1 Flash Point: Not flammable
6.2 Flammable Limits in Air: Not applicable
6.3 Fire Extinguishing Agents: Not applicable
6.4 Fire Extinguishing Agents Not to be Used: Not applicable
6.5 Special Hazards of Combustion: Probably evolving hydrogen chloride and toxic oxides of nitrogen may be formed
6.6 Behavior in Fire: Not applicable
6.7 Autoignition Temperature: Not applicable
6.8 Electrical Hazards: Not applicable
6.9 Burning Rate: Not applicable
6.10 Adiabatic Flame Temperature: Data not available
6.11 Stoichiometric Air to Fuel Ratio: Data not available
6.12 Flame Temperature: Data not available

7. CHEMICAL REACTIVITY

7.1 Reactivity With Water: No reaction
7.2 Reactivity with Common Materials: No reaction
7.3 Stability During Transport: Stable
7.4 Neutralizing Agents for Acids and Caustics: Not applicable
7.5 Polymerization: Not applicable
7.6 Inhibitor of Polymerization: Not applicable
7.7 Water Reactivity Hazard to Products: Data not available
7.8 Sensitivity Through: Data not available

8. WATER POLLUTION

8.1 Aquatic Toxicity: 12.0 mg/l (96 hr/median lethal/TL_{50}/fresh water)
8.2 Marine Toxicity: >3000 mg/kg LD_{50}
8.3 Biological Oxygen Demand (BOD): Data not available
8.4 Food Chain Concentration Potential: None

9. SHIPPING INFORMATION

9.1 Grades of Purity: Various grades, 70-90% Mixture with sodium chloride and sodium bicarbonate
9.2 Storage Temperature: Ambient
9.3 Inert Atmosphere: No requirement
9.4 Vendor: Ciba

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)
H

11. HAZARD CLASSIFICATIONS

11.1 Code of Federal Regulations: Not listed
11.2 DOT Hazard Rating for Bulk Water Transportation:

Category	Rating
Fire	0
Health	
Water Hazard	0
Liquid or Solid Hazard	2
Poisons	0
Vapor Poisons	
Human Toxicity	3
Aquatic Toxicity	3
Aquatic Effect	3
Reactivity	
Other Chemicals	1
Water	1
Self Reaction	0

11.3 OSHA Hazard Classification: Not listed

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 Physical State at 15°C and 1 atm: Solid
12.2 Molecular Weight: 215.7
12.3 Boiling Point at 1 atm: Decomposes
12.4 Freezing Point: 347°F = 175°C = 246°K
12.5 Critical Temperature: Not applicable
12.6 Critical Pressure: Not applicable
12.7 Specific Gravity: (solid) 1.2 at 20°C (water)
12.8 Liquid Surface Tension: Not applicable
12.9 Liquid Water Interfacial Tension: Not applicable
12.10 Vapor (Gas) Specific Gravity: Not applicable
12.11 Ratio of Specific Heats of Vapor (Gas): Not applicable
12.12 Latent Heat of Vaporization: Not applicable
12.13 Heat of Combustion: (solid) −6,000 Btu/lb = −6,320 cal/g = −26.5 × 10⁶ J/kg
12.14 Heat of Decomposition: Not applicable
12.15 Heat of Solution: Not applicable
12.16 Heat of Polymerization: Not applicable
12.20 Heat of Fusion: Data not available
12.25 Limiting Value: Data not available
12.27 Heat Vapor Pressure: Data not available

NOTES

Material Safety Data Sheet

from Genium's Reference Collection
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Schenectady, NY 12303-1836 USA
(518) 377-8855

GENIUM PUBLISHING CORP.

No. 22

CALCIUM OXIDE
(Revision C)
Issued: September 1978
Revised: April 1989

SECTION 1. MATERIAL IDENTIFICATION

Material: CALCIUM OXIDE

Description (Origin/Uses): Used in the manufacture of steel, aluminum, glass, and paper; also found in plaster, mortar, bricks, stucco, and in other building and construction materials.

Other Designations: Lime; Quicklime; Burnt Unslaked Lime; High-Calcium Lime; CaO; CAS No. 1305-78-8

Manufacturer: Contact your supplier or distributor. Consult the latest edition of *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

NFPA: 1 / 1 / 0 / -

HMIS
H 1
F 1
R 0
PPG*
*See sect. 8

R 1
I 2
S 3
K 0

SECTION 2. INGREDIENTS AND OCCUPATIONAL EXPOSURE LIMITS

Calcium Oxide, ca 100%

OSHA PEL
8-hr TWA: 5 mg/m³

ACGIH TLV, 1988-89
TLV-TWA: 2 mg/m³

Toxicity Data
Not Listed*

*Monitor NIOSH, *RTECS* (EW3100000), for future data.

SECTION 3. PHYSICAL DATA

Boiling Point: 5162 °F (2850 °C)
Melting Point: 4658 °F (2570 °C)
pH: >10 (Strongly Basic)

Molecular Weight: 56 g/mol
Solubility in Water (%): Reacts
Specific Gravity (H_2O = 1): 3.2 to 3.4

Appearance and Odor: A white or grayish white solid (it can appear yellowish or brownish if iron impurities are present; commercial calcium oxide is available in a wide variety of forms such as lumps, pellets, pebbles, and powders); odorless.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point: *	Autoignition Temperature: *	LEL: *	UEL: *

Extinguishing Media: *Calcium oxide will not burn. Use an extinguishing agent that will put out the surrounding fire. Water reacts dangerously with calcium oxide and is not recommended as an extinguishing agent for fires that involve it. If water must be used, prevent it from coming into direct contact with the calcium oxide. If such contact is unavoidable, apply the water in flooding amounts to safely absorb the heat that will be generated. **Unusual Fire or Explosion Hazards:** Do not allow water to get inside containers of calcium oxide; reaction with the water will cause the calcium oxide to swell, generate heat, and burst its container. The heat generated by this reaction may ignite nearby combustible materials. **Special Fire-fighting Procedures:** Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode.

SECTION 5. REACTIVITY DATA

Stability/Polymerization: Calcium oxide is stable in closed, airtight containers during routine work operations. Hazardous polymerization cannot occur. **Chemical Incompatibilities:** Calcium oxide can react dangerously with boric oxide and calcium chloride, boron trifluoride, chlorine trifluoride, fluorine, hydrofluoric acid, phosphorus pentoxide, and water. **Conditions to Avoid:** Control exposure to incompatible chemicals. Always establish the compatibility of calcium oxide with another material before using it in bulk operations by testing small quantities under appropriate conditions. Avoid exposing calcium oxide to air because it reacts with the ambient moisture and carbon dioxide. **Hazardous Products of Decomposition:** Oxides of calcium may be produced when calcium oxide reacts with other materials during fires.

SECTION 6. HEALTH HAZARD INFORMATION

Carcinogenicity: Calcium oxide is not listed as a carcinogen by the NTP, IARC, or OSHA.
Summary of Risks: Calcium oxide is a strongly alkaline material; its contact with the skin, eyes, or inhalation results in severe irritation. Dust containing 25 mg/m³ of this material causes strong nasal irritation; dust containing 9 to 10 mg/m³ does not. The presence of moisture on the skin or on the mucous membrane of the respiratory system increases the possibility of corrosive tissue damage (chemical burns). Dehydration and thermal effects (the heat generated from reaction with water) are contributing factors to the irritating properties of calcium oxide. **Medical Conditions Aggravated by Long-Term Exposure:** None reported. **Target Organs:** Skin, eyes, nose, and respiratory system. **Primary Entry:** Inhalation and contact with skin and eyes. **Acute Effects:** Irritation and burns to the skin, eyes, and nose; irritation and inflammation of the respiratory system; coughing; and sneezing. **Chronic Effects:** Ulceration and perforation of the nasal septum, pneumonia. May cause nails to become brittle and fissure (split). *(Cont'd.)*

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SECTION 6. HEALTH HAZARD INFORMATION, continued

FIRST AID

Eyes: Immediately flush eyes, including under the eyelids, gently but thoroughly with flooding amounts of running water for at least 15 minutes. An occupational ophthalmologist should monitor and treat the eye for calcium oxide burns. **Skin:** Do not rinse the affected area with water because severe skin damage is likely to occur if water is applied directly to the calcium oxide on the skin. Before wetting the calcium oxide, try to remove it from the skin with oil or grease; then apply water in a forcefully directed, powerful stream in flooding amounts that will mechanically and immediately remove the calcium oxide particles from the skin. **Inhalation:** Remove the exposed person to fresh air; restore and/or support his or her breathing as needed. Have qualified medical personnel administer oxygen as required. **Ingestion:** Unlikely. Get in plant, paramedic, or community medical help for all exposures. Seek prompt medical assistance for further treatment, observation, and support after first aid. **Note to Physician:** Severe exposure indicates hospitalization for 72 hours with careful monitoring for the delayed onset of pulmonary edema.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel, prevent accidental contact between the spilled calcium oxide and water, and avoid generating dust. Cleanup personnel need protection against its contact with skin or eyes as well as against inhalation of its dust (see sect. 8). Carefully pick up the solid, creating a minimum of dust, and collect it in metal containers with covers for disposal. Flush the trace residue in the spill area to a drain, using plenty of water.

Waste Disposal: Consider reclamation, recycling, or destruction rather than disposal in a landfill. Follow all applicable Federal, state, and local regulations. Large amounts of calcium oxide may require neutralization by acid before disposal. Flush any residue to a sewer after diluting it properly. Alternatively, the waste calcium oxide can be used for neutralizing plant acid waste.

OSHA Designations
Listed as an Air Contaminant (29 CFR 1910.1000 Subpart Z)
EPA Designations
Assigned the RCRA Hazardous Waste No. D003 (40 CFR 261.23)
Assigned the CERCLA Reportable Quantity (RQ): 100 lb (45.4kg) (40 CFR 302.5 [b])

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Follow OSHA eye- and face-protection regulations (29 CFR 1910.133).

Respirator: Consult Genium reference 88 for recommendations on selecting the proper respirator for use around calcium oxide. Follow OSHA respirator regulations (29 CFR 1910.134). For emergency or nonroutine operations (spills or cleaning reactor vessels and storage tanks), wear an SCBA. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres.

Other: Wear *dry* rubber gloves, boots, aprons, gauntlets, and coveralls.

Ventilation: Install and operate general and local ventilation systems powerful enough to maintain airborne concentrations of calcium oxide below the OSHA PEL standard cited in section 2.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work areas.

Contaminated Equipment: Contact lenses pose a special hazard; soft lenses may absorb irritants, and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from your shoes and equipment.

Other: Design all work operations in a way that does not generate dust and prevents water from being accidentally introduced into any part of a production system that contains calcium oxide.

Comments: Practice good personal hygiene; always wash thoroughly after using this material and before eating, drinking, smoking, using the toilet, or applying cosmetics. Keep it off your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store calcium oxide in sealed, dry, airtight containers in a cool, dry, well-ventilated area separate from incompatible chemicals (see sect. 5). Store it away from strong oxidizing agents, acids, organic materials, water, and combustibles.

Special Handling/Storage: Protect containers of calcium oxide from physical damage. Prevent water from contacting stored calcium oxide. To maintain the full effectiveness of this material, avoid extended contact with air.

Comments: Calcium oxide generates substantial heat when mixed with water. Prevent accidental mixing by following planned work procedures in all shipping, receiving, transferring, and production operations. When calcium oxide is deliberately mixed with water, undertake proper precautions to ensure that the resulting heat can be safely generated. *Always add calcium oxide to water; never add water to calcium oxide.*

Hazardous Materials Table (49 CFR 172.101)

DOT Shipping Name: Calcium Oxide
DOT Hazard Class: ORM-B
DOT ID No.: UN1910
DOT Label: None

References: 1, 26, 38, 84-94, 100, 116

Prepared by: PJ Igoe, BS; **Industrial Hygiene Review:** DJ Wilson, CIH; **Medical Review:** W Silverman, MD

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MATERIAL SAFETY DATA SHEET

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GENIUM PUBLISHING CORP.

NO. 410

CARBON TETRACHLORIDE

Revision A

Date December 1980

SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: CARBON TETRACHLORIDE

OTHER DESIGNATIONS: Tetrachlormethane, Perchlormethane, Methane Tetrachloride, CCl_4. GE Material D5B50, CAS #000 056 235

MANUFACTURER: Available from several suppliers, including:
Linden Chemicals & Plastics
PO Drawer J,
Moundsville, WV 26041 Phone: (314) 843-1310

SECTION II. INGREDIENTS AND HAZARDS

	%	HAZARD DATA
Carbon Tetrachloride *ACGIH (1980 Intended Changes List). OSHA 8-hr TWA is 10 ppm. NIOSH has proposed a 10-hr TWA of 2 ppm. ACGIH and NIOSH recommend labeling as a suspected human carcinogen. (skin) notation indicates absorption through the skin can contribute significantly to overall exposure.	ca 100	8-hr TWA 5 ppm (skin) or 30 mg/m³* Human, oral LDlo 43 mg/kg Human, inhalation LCLo 1000 ppm TCLo 20 ppm (CNS) Hamsters and mice have developed cancer on long term feeding.

SECTION III. PHYSICAL DATA

Boiling point at 1 atm, deg C	76.7	Specific gravity, 25/4 C	1.585
Vapor pressure @ 20 C, mm Hg	ca 91	Melting point, deg C	-23
Vapor density (Air=1)	5.3	Volatiles, %	ca 100
Solubility in water @ 20 C, wt %	0.08	Molecular weight	153.8

Appearance & Odor: A clear, colorless liquid with a characteristic sweetish odor. Odor recognition threshold (100% of test panel): 21.4 ppm in air when prepared from CS_2; 100 ppm in air when prepared from CH_4. Odor may not be objectionable at acutely toxic levels.

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits in Air	LOWER	UPPER

Extinguishing Media: It is nonflammable. Use that which is appropriate for the surrounding fire. Use water spray to cool fire-exposed containers.

When involved in a fire situation, this material will emit highly toxic and irritating fumes and gases. Metals, such as aluminum and magnesium, can react violently with carbon tetrachloride when hot or burning.

Firefighters must wear self-contained breathing apparatus and full protective gear to fight fires involving this material.

SECTION V. REACTIVITY DATA

This material is stable under normal conditions of handling and use. It does not polymerize.

Thermal-oxidative decomposition will produce toxic, corrosive fumes, including phosgene and hydrogen chloride.

Violent reactions or explosions can occur with incompatible materials, such as barium, lithium, sodium, and potassium metal, powdered aluminum, magnesium, dimethylformamide (above 65 C), fluorine, etc. (See NFPA, "Manual of Hazardous Chemical Reactions".)

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SECTION VI. HEALTH HAZARD INFORMATION

TLV 5 ppm (skin) (See Sect. II)

Carbon tetrachloride is highly toxic and irritating by inhalation and ingestion (mean lethal dose is 5-10 ml). It is toxic by skin absorption. Excessive exposure may result in CNS depression and/or gastrointestinal symptoms.* It is irritating to skin and eyes. Eye contact or systemic effects can produce visual disturbances (haze, blind spots, narrowing of visual field, etc.). Skin contacts can cause defatting & dermatitis.

Kidney & liver damage can occur from severe acute or chronic exposure. It is a suspected carcinogen in humans.

FIRST AID:

Eye Contact: Flush eyes with running water for 15 minutes, including under the eyelids. Get medical help if irritation persists or when visual disturbances occur.

Skin Contact: Remove contaminated clothing promptly. Wash exposed skin with soap and water. Get medical help for repeated or gross exposures.

Inhalation: Remove to fresh air. Restore and/or support breathing; have qualified person administer oxygen if needed. Get medical help.

Ingestion: Contact physician for gastric lavage. (If medical help and advice is not readily available, give water to drink and induce vomiting.)

*Also cardic arrhythmias.

SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Notify safety personnel when large spills occur. Evacuate area. Provided maximum exhaust ventilation. Clean-up personnel must use protection against contact and inhalation (see Sect.VIII). Contain spill; pick up liquid for disposal. Small spills and residues can be absorbed on paper, vermiculite, etc. and allowed to evaporate in a hood. Prevent release of CCl_4 to surface water or sewers. Spills or discharges in 24 hours of 5000 lb or more (proposed RQ* is 1000 lb) must be reported to U.S. Government.

DISPOSAL: Consider recovery and reuse, if feasible. Scrap may be burned in approved, high temperature incinerator with scrubber or it may be disposed of as hazardous waste (EPA number U211 or F001 as a spent degreasing solvent under RCRA). Follow Federal, State and Local regulations.

*Reportable Quantity.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Provide general and local exhaust ventilation to meet TLV. Exhaust hoods need 100 lfm min. face velocity. Ventilate sumps and low lying areas. Use air-supplied or self-contained respirators above TLV, with full face piece above 100 ppm.

PVA or neoprene gloves and protective clothing needed to prevent skin contact. Wear safety goggles and/or face shield for eye protection.

An eyewash station and chemical safety shower should be readily accessible.

Provide preplacement and twice a year medical exams. Workers with obesity, diabetes, alcoholism or pulmonary problems should have a physician's approval before working with CCl_4. Retain medical records for 30 years after termination of employment.

Provide training to those exposed to CCl_4 in the workplace. Monitor vapor levels in the workplace.

SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS

Store in closed containers in a cool, dry, well-ventilated, low fire-risk area. Protect containers against physical damage. Keep away from sources of heat, direct sunlight, and incompatible materials (see Sect. V). Prevent exposure of vapors to high temperature to prevent decomposition to toxic and corrosive gases and vapors. No smoking in areas where vapors may be present.

Prevent contact with the skin or eyes. Avoid exposure to vapors. Use good personal hygiene.

CCl_4 toxicity is markedly increased by the synergistic effects of alcohol. When possible, substitute a less hazardous solvent for CCl_4. DOT Classification - ORM-A

DATA SOURCE(S) CODE: 1-12,15,16,21-26,31,37,38,41

[illegible]

APPROVALS: MIS J. M. [illegible]
CRD

Industrial Hygiene and Safety [illegible] 12-9-80

MEDICAL REVIEW: 16 Dec. 1980

Material Safety Data Sheet

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GENIUM PUBLISHING CORP.

No. 53

CHLORINE
(Revision B)
Issued: July 1979
Revised: April 1988

SECTION 1. MATERIAL IDENTIFICATION

25

Material Name: CHLORINE

Description (Origin/Uses): Used mainly to manufacture chlorinated lime for bleaching fabrics; as a versatile reagent in organic chemistry; in water purification; and as a military poison gas (bertholite).

Other Designations: Bertholite; Molecular Chlorine; Cl_2; NIOSH *RTECS* No. FO2100000; CAS No. 7782-50-5

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

HMIS
H 3
F 0
R 1
PPG*
*See sect. 8

R 1
I 4
S 4
K 0

SECTION 2. INGREDIENTS AND HAZARDS

	%	EXPOSURE LIMITS
Chlorine, CAS No. 7782-50-5	ca 100	IDLH* Level: 30 ppm **OSHA PEL** Ceiling: 1 ppm, 3 mg/m³ TLV-STEL: 3 ppm, 9 mg/m³ **NIOSH REL** 15-Min Ceiling: 0.5 ppm, 1.45 mg/m³ **Toxicity Data**** Rat, Inhalation, LC_{50}: 293 ppm (1 Hr) Mouse, Inhalation, LC_{50}: 137 ppm (1 Hr)

*Immediately dangerous to life and health
**See NIOSH, *RTECS*, for additional data with references to irritative and mutagenic effects.

SECTION 3. PHYSICAL DATA

Boiling Point: ca -29°F (-34°C)
Vapor Pressure: >760 Torr (Normal Atmospheric Pressure)
Vapor Density (Air = 1): 1.4085 at 68°F (20°C)
Melting Point: ca -150°F (-101°C)
Molecular Weight: 71 Grams/Mole
Water Solubility: Slight

Appearance and Odor: A greenish yellow, noncombustible gas; pungent, suffocating, nauseating odor. Its odor-recognition threshold is reported to be ca 0.3 ppm.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air % by Volume	LOWER	UPPER
*	*		*	*

Extinguishing Media: *Chlorine will not burn, but it supports combustion of materials already involved in a fire. Use agents that will extinguish the surrounding fire. Use a water spray to cool fire-exposed tanks and to protect personnel attempting to stop a chlorine leak.
Unusual Fire or Explosion Hazards: Chlorine is a reactive/explosive gas. Fight fires involving it from the maximum possible distance; this gas greatly increases the flammability hazards of other combustibles that are present. **Warning:** Flammable gases, vapors, and mists form dangerously explosive mixtures with chlorine gas.
Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode. Fire fighters must use the maximum personal protective equipment available. If possible, have specially trained personnel remove intact cylinders of chlorine from the fire area and protect them with any available resource such as directed water spray.

SECTION 5. REACTIVITY DATA

Chlorine is stable in closed, pressurized containers at room temperature under normal storage and handling conditions. It does not undergo hazardous polymerization.
Chemical Incompatibilities: Chlorine reacts dangerously with acetylene, ammonia, hydrogen, ether, fuel gas, hydrocarbons, turpentine, finely divided metals, diborane, benzene, and acetaldehyde (see Genium ref. 84, pp. 49-28 and 491M-53 to 491M-56).
Conditions to Avoid: Do not allow open flame, unprotected heaters, lighted tobacco products, electric sparks, or excessive heat in work areas because chlorine gas can form explosive mixtures with other gases. Do not heat pressurized storage tanks or cylinders containing chlorine because they may explode. Do not allow chlorine to be directly exposed to incompatible chemicals (see above).
Hazardous Products of Decomposition: Toxic gases such as carbon monoxide, phosgene, and hydrogen chloride (Genium Industrial MSDSs 35, 66, 30) can be produced in fires involving chlorine and other combustibles.

SECTION 6. HEALTH HAZARD INFORMATION

Chlorine is not listed as a carcinogen by the NTP, IARC, or OSHA.

Summary of Risks, Warning: This material is a powerful respiratory irritant. The most important acute health effect of exposure is lung damage from hydrochloric acid (HCl) caused by the reaction of chlorine with the moisture in the upper respiratory tract (URT). Fatal pulmonary edema (lungs filled with fluid) may be delayed from 24 to 48 hours after exposure. Erosion of teeth, decreased lung capacity, and increased susceptibility to tuberculosis are chronic effects in workers who handle this gas. **Medical Conditions Aggravated by Long-Term Exposure:** Cardiac, pulmonary, or respiratory problems. Administer preplacement and periodic medical exams emphasizing the respiratory system to workers who regularly handle chlorine. **Target Organs:** Respiratory system. **Primary Entry:** Inhalation, skin contact. **Acute Effects:** Burning and severe irritation of the eyes, skin, and URT; wheezing, shortness of breath; nausea; vomiting; headache; dizziness; and (delayed) pulmonary edema. **Chronic Effects:** Reduced respiratory capacity may result from chronic low-level exposure to chlorine.

FIRST AID: Eyes. Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes. **Skin.** Skin contact with chlorine causes severe damage from frostbite (cryogenic injury) as well as chemical burns. Irrigate the area with water and treat the exposed person accordingly. **Inhalation.** Remove exposed person to fresh air; restore and/or support his or her breathing as needed. Recommended treatment includes administering pure oxygen gas (O_2) as soon as symptoms of exposure develop (Genium ref. 39, p. 1975). Observe exposed person for respiratory effects. **Ingestion.** This type of exposure to chlorine is highly unlikely because it is a gas.

GET MEDICAL HELP (IN PLANT, PARAMEDIC, COMMUNITY) FOR ALL EXPOSURES. Seek prompt medical assistance for further treatment, observation, and support after first aid.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Preplan and carefully explain proper emergency procedures to relevant personnel. Notify safety personnel, evacuate all non-essential personnel, provide maximum explosion-proof ventilation, and eliminate all sources of ignition immediately. Cleanup personnel must wear protection against contact with and inhalation of vapor (see sect. 8). Try to shut off the flow of chlorine gas. Use a water spray to protect personnel attempting to stop the leak.

Waste Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.

OSHA Designations

Air Contaminant (29 CFR 1910.1000 Subpart Z): Not Listed

EPA Designations (40 CFR 302.4)

RCRA Hazardous Waste: Listed without Number

CERCLA Hazardous Substance, Reportable Quantity: 10 lbs (4.54 kg)

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Follow the eye- and face-protection guidelines in 29 CFR 1910.133. **Respirator:** Use a NIOSH-approved respirator per the *NIOSH Pocket Guide to Chemical Hazards* for the maximum-use concentrations and/or the exposure limits cited in section 2. Follow the respirator guidelines in 29 CFR 1910.134. For emergency or nonroutine use (e.g., cleaning reactor vessels or storage tanks) wear an SCBA with a full facepiece operated in the pressure-demand or positive-pressure mode. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. **Other:** Wear impervious gloves; boots; aprons; and clean, impervious, body-covering clothing to prevent any possibility of skin contact. **Ventilation:** Install and operate general and local ventilation systems powerful enough to maintain airborne levels of chlorine gas strictly below the OSHA PEL standard cited in section 2. Make all ventilation systems of maximum explosion-proof design, e.g., nonsparking, electrically grounded and bonded, etc. **Safety Stations:** Make eyewash stations, washing facilities, and safety showers available in areas of use and handling. **Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants, and all lenses concentrate them. Do *not* wear contact lenses in any work area. **Other:** Use enclosed-containment processing operations; otherwise, the ventilation systems may not be able to keep airborne levels of chlorine below the legal ceiling limit of 1 ppm (3 mg/m³) set by OSHA. Automatic air-monitoring sensing equipment connected to an alarm system is recommended for continual-use operations. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Avoid prolonged skin contact with this material.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store chlorine in a cool, dry, well-ventilated area away from organics, sources of ignition, any flammable or explosive materials, cylinders containing oxygen, and incompatible chemicals (see sect. 5). Use outside or detached storage. Store cylinders upright and secure them tightly. **Special Handling/Storage:** *Chlorine is shipped/stored as a pressurized gas in cylinders or tank cars.* Protect them against physical damage and regularly inspect them for cracks, leaks, or faulty valves. Follow standard safety procedures for handling compressed, corrosive gases. Electrically ground and bond all containers used in shipping and transferral operations to prevent static sparks. Do not drag or slide cylinders containing chlorine; move them in a carefully supervised manner with a suitable hand truck. Do not smoke in use or storage areas. **Engineering Controls:** All engineering systems (ventilation, production, etc.) must be of maximum explosion-proof design. Use chlorine in closed engineering systems to prevent dispersion of this gas into general work areas. Monitor all piping systems, reactor vessels, and holding tanks for unwanted moisture contamination or buildup. Liquid chlorine levels should be less than 85% of a tank's or cylinder's capacity. **Comments:** Perform all operations with chlorine carefully to prevent accidental ignition of explosive mixtures. Prevent any contact with incompatible chemicals (see sect. 5). Keep the valve-protection cap in place until immediately before using chlorine. Insert a check valve or trap into the transferral line to prevent a dangerous backflow into the original container. Use a pressure-reducing regulator when connecting a storage vessel to a lower-pressure piping system. A trained chemist or safety specialist familiar with the physical and chemical properties of this gas should be present during all work operations.

Transportation Data (49 CFR 172.101-2)

DOT Shipping Name: Chlorine
DOT Class: Nonflammable Gas
References: 1, 2, 12, 73, 84-94, 100, 103.

DOT Label: Nonflammable Gas *and* Poison
DOT ID No. UN1017

IMO Label: Poison Gas
IMO Class: 2.3

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Material Safety Data Sheet

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GENIUM PUBLISHING CORP.

No. 315

CHLOROFORM
(Revision D)
Issued: August 1979
Revised: April 1988

SECTION 1. MATERIAL IDENTIFICATION

Material Name: CHLOROFORM

Description (Origin/Uses): Used as a solvent for fats, oils, rubber, alkaloids, waxes, and resins; as a cleansing agent.

Other Designations: Trichloromethane; $CHCl_3$; NIOSH *RTECS* No. FS9100000; CAS No. 0067-66-3

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

HMIS
H 2
F 0
R 0
PPG*
*See sect. 8

R 1
I 3
S 2
K 0

SECTION 2. INGREDIENTS AND HAZARDS

	%	EXPOSURE LIMITS
Chloroform, CAS No. 0067-66-3	Ca 100	**OSHA PEL** Ceiling: 50 ppm, 240 mg/m³ **ACGIH TLV, 1987-88** TLV-TWA: 10 ppm, 50 mg/m³ **NIOSH REL** Ceiling: 2 ppm, 9.78 mg/m³ **Toxicity Data*** Human, Oral, LD_{Lo}: 140 mg/kg Rat, Oral, LD_{50}: 908 mg/kg

*See NIOSH, *RTECS*, for additional toxicity data with references to mutagenic, reproductive, tumorigenic, and irritative effects.

SECTION 3. PHYSICAL DATA

Boiling Point: 142°F (61°C)
Melting Point: -82.3°F (-63.5°C)
Vapor Pressure: 158.4 Torrs at 68°F (20°C)
Vapor Density (Air = 1): 4.13

Water Solubility (%): 0.822 ml of $CHCl_3$ per 100 ml of H_2O at 68°F (20°C)
% Volatile by Volume: 100
Molecular Weight: 119 Grams/Mole
Specific Gravity (H_2O = 1): 1.484 at 68°F (20°C)

Appearance and Odor: A heavy, colorless, clear, volatile liquid; characteristic, pleasant, ethereal, sweet odor (recognition threshold: 0.3 mg/m³); sweet taste.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air % by Volume	LOWER	UPPER
•	•		•	•

Extinguishing Media: *Chloroform does not burn. Use an agent that will put out the surrounding fire.

Unusual Fire or Explosion Hazards: None reported.

Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode.

SECTION 5. REACTIVITY DATA

Chloroform is stable if kept in closed containers and protected from air and sunlight. It does not undergo hazardous polymerization; however, even when stabilized with ethanol, this material develops acidity from prolonged exposure to air and light.

Chemical Incompatibilities: This material is incompatible with strong alkalies.

Conditions to Avoid: Avoid prolonged exposure to air and light and to strong alkalies.

Hazardous Products of Decomposition: Toxic and corrosive gases like hydrochloric acid (HCl), chlorine (Cl_2), carbon monoxide (CO), and oxides of chlorine (ClO_2) can be produced during fires.

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SECTION 6. HEALTH HAZARD INFORMATION

Chloroform is listed as a suspected human carcinogen by ACGIH.

Summary of Risks: Exposure to this material affects the central nervous system (anesthesia); heart (arrhythmia, ventricular tachycardia, bradycardia); liver (necrosis, hepatoma); kidney (necrosis); and it is an embryonic toxin. Fatalities are associated with cardiovascular depression and ventricular fibrillation.
Medical Conditions Aggravated by Long-Term Exposure: Ailments of the heart, liver, and kidneys may be worsened by exposure to chloroform. **Target Organs:** Liver, kidneys, heart, skin, eyes. **Primary Entry:** Skin contact, inhalation.
Acute Effects: Dizziness, mental dullness, nausea, headache, fatigue, and anesthesia. **Chronic Effects:** Possible cancer.
FIRST AID
Eyes: Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes.
Skin: Immediately wash the affected area with soap and water. **Inhalation:** Remove the exposed person to fresh air; restore and/or support his or her breathing as needed.
Ingestion: Never give anything by mouth to someone who is unconscious or convulsing. If the exposed person is responsive, give him or her several glasses of milk or water to drink and induce vomiting. Repeat if large quantities were ingested.
Comments: Workers who are regularly exposed to chloroform require preplacement and periodic medical exams emphasizing kidney, liver, skin, and central nervous system functions. Carefully evaluate each exposure that produces a noticeable effect to determine the extent to which factors like alcohol or drugs have affected it.

GET MEDICAL HELP (IN PLANT, PARAMEDIC, COMMUNITY) FOR ALL EXPOSURES. Seek prompt medical assistance for further treatment, observation, and support after first aid.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel of a chloroform spill or leak. Provide ventilation. Cleanup personnel need protection against contact with and inhalation of vapor (see sect. 8). Chloroform vapor is heavier than air and will collect in low-lying areas. Contain large spills and collect waste or absorb it with an inert material such as sand, earth, or vermiculite. Place waste liquid or absorbent into closable containers for disposal. Keep waste out of sewers, watersheds, and waterways.
Waste Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.
OSHA Designations
Air Contaminant (29 CFR 1910.1000 Subpart Z)
EPA Designations (40 CFR 302.4)
RCRA Hazardous Waste, No. U044
CERCLA Hazardous Substance, Reportable Quantity: 5000 lbs (2270 kg)

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Where splashing is possible, wear a full face shield as a supplementary protective measure. Follow the eye- and face-protection guidelines in 29 CFR 1910.133. **Respirator:** Wear a NIOSH-approved respirator per the *NIOSH Pocket Guide to Chemical Hazards* for the maximum-use concentrations and/or the exposure limits cited in section 2. Follow the respirator guidelines in 29 CFR 1910.134. For emergency or nonroutine use (e.g., cleaning reactor vessels or storage tanks), wear an SCBA with a full facepiece operated in the pressure-demand or positive-pressure mode. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. **Other:** To prevent contact with skin, wear impervious gloves, boots, aprons, gauntlets, etc., as required by the specific work environment. **Ventilation:** Install and operate general and local ventilation systems that are powerful enough to maintain airborne levels of chloroform below the OSHA PEL standard cited in section 2.
Safety Stations: Make eyewash stations, washing facilities, and safety showers available in use and handling areas. **Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from shoes and equipment. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Keep it off of your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Avoid inhalation of vapor!

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store chloroform in closed containers away from light and alkalies.

Special Handling/Storage: Protect containers from physical damage. Do not transfer chloroform through plastic or rubber hoses or pipes.

Transportation Data (49 CFR 172.101-2)
DOT Shipping Name: Chloroform
DOT Class: ORM-A
DOT Label: None
DOT ID No. UN1888
IMO Label: Poison
IMO Class: 6.1

References: 1, 2, 12, 73, 84-94, 100, 103.

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Prepared by PJ Igoe, BS

Industrial Hygiene Review: DJ Wilson, CIH

Medical Review: [illegible]

CEDAR CHEMICAL CORPORATION
MEMPHIS, TENNESSEE

MATERIAL SAFETY DATA SHEET
Equivalent to OSHA form 174

PRODUCT NAME: TECHNICAL DINOSEB DATE: 08/15/86 PAGE 1
EPA REG. NO.: 56077-3

SECTION I

Manufacturer's Name: Cedar Chemical Corporation
5100 Poplar Ave. 24th Floor
Memphis, TN 38137
Emergency Phone Number: 1-800-424-9300
Information Phone Number: 1-601-636-1231
Prepared by: M. S. Bernard

SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

INGREDIENT	OSHA PEL	ACGIH TLV	PERCENT
Dinoseb	n/d	0.3mg/m³	95.00
Dinoseb (2-sec-butyl-4,6-dinitrophenol) CAS = 88-85-7			
Impurities	n/d	n/d	5.00

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point(°F)	above 212	Specific Gravity	1.258
Vapor Pressure(mm Hg.)	below 1	Melting Point(°F)	90
Vapor Density(Air=1)	n/a	Evaporation Rate	n/d

Solubility in Water: 0.0052g/100ml
Appearance and Odor: Brown solid, organic acid odor

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point(Method Used): 350.6°F TCC
ammable Limits: LEL- n/d UEL- n/d
tinguishing Media:
Water Fog, Foam, Alcohol Foam, CO_2, and Dry Chemical

CONTINUED ON PAGE 2

Special Fire Fighting Procedures:
Self-contained air supply. Confine water used in fire fighting.

Unusual Fire and Explosion Hazards:
Noxious fumes may form. Material undergoes rapid exothermic decomposition at 190°C. Vapors may ignite.

SECTION V REACTIVITY DATA

Stability: Stable in normal use and storage.

Conditions to Avoid: Heating above 100°C. Product undergoes rapid exothermic decomposition at 190°C. Avoid ignition sources.

Incompatibility: Strong Bases and Strong Oxidizers

Hazardous Decomposition or Byproducts: Oxides of Nitrogen

Hazardous Polymerization: Will not occur. No known conditions to avoid.

SECTION VI HEALTH HAZARD DATA

Route(s) of Entry: Inhalation: Moderate Toxicity
Skin: Readily Absorbed
Ingestion: Highly Toxic

Health Hazards (Acute and Chronic):

Oral Ingestion: High Single Dose Oral Toxicity. LD_{50} for Rats 25 mg/kg. May be fatal if swallowed.

Eye Contact: May cause severe irritation and corneal injury. Corneal injury should heal in 1-2 weeks.

Skin Contact: May cause slight irritation or mild burn. Colors the skin yellow.

Skin Absorption: Readily absorbed through skin, high toxicity. LD_{50} rabbits 80mg/kg.

Inhalation: May be irritating. Cedar industrial guide for Dinoseb is 0.3 mg/m³.

Carcinogenicity: NTP: Negative
IARC Monographs: Negative
OSHA Regulated: Negative

Signs and Symptoms of Exposure:
Fatigue, sweating, thirst, and fever. Increased metabolic rate.

Medical Conditions Generally Aggravated by Exposure:
Liver and kidney problems may be aggravated by extreme exposure.

Emergency and First Aid Procedures:

Oral Ingestion:	Toxic by ingestion. Induce vomiting and seek medical help immediately.
Eye Contact:	Flush immediately with continuous irrigation with flowing water for at least thirty minutes. Seek medical consultation immediately.
Skin Contact:	Immediately flush skin with plenty of water for at least fifteen minutes while removing contaminated clothing. Consult physician. Wash clothing before reuse.
Inhalation:	Remove to fresh air if effects occur. Consult physician.

Note to Physician:
Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Consult ophthalmologist. May cause temporary injury.
Overexposure: Treat for symptoms. No specific antidote. Human effects not established.

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material Is Released or Spilled:
Use proper safety equipment. Absorb spill with absorbant inert material such as oil-dry. Dike area for large spills. Keep out of streams and water supplies.

Waste Disposal Method:
Dispose of in non-crop area away from water supplies or in an approved landfill in accordance with State, Federal, and local regulations.

Precautions to Be Taken in Handling and Storing:
Do not get on skin, on clothing, or in eyes. Keep out of reach of children.

Other Precautions:
Do not breathe spray mists. Keep away from heat or flame.

SECTION VIII CONTROL MEASURES

Respiratory Protection:
None normally needed. During spraying use organic vapor respirator.

Ventilation: Required to control level of dinoseb.

Protective Gloves: Impervious rubber gloves

Eye Protection: Chemical workers' goggles

Other Protective Clothing or Equipment: Rubber boots and apron and body-covering clothing.

Work/Hygenic Practices: Shower after handling.

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Material Safety Data Sheet

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(518) 377-8855

GENIUM PUBLISHING CORP.

No. 385

ETHYL BENZENE
(Revision A)
Issued: August 1978
Revised: November 1988

SECTION 1. MATERIAL IDENTIFICATION

27

Material Name: ETHYL BENZENE

Description (Origin/Uses): Used as a solvent and as an intermediate in the production of styrene monomer.

Other Designations: Phenylethane; Ethylbenzol; $C_2H_5C_6H_5$; CAS No. 0100-41-4

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

NFPA: 3 / 2 / 0 / -

HMIS			
H	2	R	1
F	3	I	3
R	0	S	2
PPG*		K	4

*See sect. 8

SECTION 2. INGREDIENTS AND HAZARDS

	%	EXPOSURE LIMITS
Ethyl Benzene, CAS No. 0100-41-4	Ca 100	**OSHA PELs** 8-Hr TWA: 100 ppm, 435 mg/m³ 15- Min STEL: 125 ppm, 545 mg/m³ **ACGIH TLVs, 1988-89** TLV-TWA: 100 ppm, 435 mg/m³ TLV-STEL: 125 ppm, 545 mg/m³ **Toxicity Data*** Human, Inhalation, TC_{Lo}: 100 ppm (8 Hrs) Rat, Oral, LD_{50}: 3500 mg/kg

*See NIOSH, *RTECS* (DA0700000), for additional data with references to reproductive, irritative, and mutagenic effects.

SECTION 3. PHYSICAL DATA

Boiling Point: 277°F (136°C)
Melting Point: -139°F (-95°C)
Vapor Pressure: 7.1 Torrs at 68°F (20°C)
Vapor Density (Air = 1): 3.7
% Volatile by Volume: Ca 100

Molecular Weight: 106 Grams/Mole
Solubility in Water (%): Slight
Specific Gravity (H_2O = 1): 0.86258 at 77°F (25°C)

Appearance and Odor: A clear, colorless, flammable liquid; characteristic aromatic hydrocarbon odor.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method: 64°F (18°C) CC	Autoignition Temperature: 810°F (432.22°C)	LEL: 1% v/v	UEL: 6.7% v/v

Extinguishing Media: Use foam, dry chemical, or carbon dioxide to put out ethyl benzene fires. A water spray may be ineffective in extinguishing the fire, because it can scatter and spread the burning liquid. Use water spray to cool fire-exposed containers of ethyl benzene, to disperse ethyl benzene vapor, and to protect personnel attempting to stop an ethyl benzene leak. **Unusual Fire or Explosion Hazards:** This liquid can readily form explosive vapor-air mixtures, especially when heated. Ethyl benzene vapor is heavier than air and may travel a considerable distance to a low-lying source of ignition and flash back to its origin. **Special Fire-fighting Procedures:** Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode.

SECTION 5. REACTIVITY DATA

Stability/Polymerization: Ethyl benzene is stable in closed containers during routine operations. Hazardous polymerization cannot occur. **Chemical Incompatibilities:** Hazardous chemical reactions can occur between ethyl benzene and strong oxidizing agents, acids, ammonia, and bases. **Conditions to Avoid:** Avoid any exposure to sources of ignition such as heat, sparks, open flame, and lighted tobacco products, etc., and to incompatible chemicals. Use caution when entering confined spaces, particularly low-lying areas where explosive concentrations of ethyl benzene vapor may be present. Provide good ventilation to such areas to prevent the concentration of this vapor. **Hazardous Products of Decomposition:** Thermal-oxidative degradation can include toxic gases such as carbon monoxide and/or aromatic hydrocarbon gases.

SECTION 6. HEALTH HAZARD INFORMATION

Carcinogenicity: Ethyl benzene is not listed as a carcinogen by the NTP, IARC, or OSHA.

Summary of Risks: Ethyl benzene vapor is severely irritating to the eyes and to the mucous membranes of the respiratory system. Sustained inhalation of excessive levels can cause depression of the central nervous system (CNS) characterized by dizziness, headache, narcosis, and coma. Skin contact with liquid ethyl benzene causes irritation; dermatitis and defatting can also develop. The acute oral toxicity of ethyl benzene is low; however, ingestion of it presents a serious aspiration hazard. Aspirating even a small amount into the lungs can result in extensive edema (lungs filled with fluid) and hemorrhaging of the lung tissue. No systemic effects are expected at the levels that produce pronounced, unignorable, disagreeable skin and eye irritation. The TLVs cited in section 2 are set to prevent this intolerable irritation. **Medical Conditions Aggravated by Long-Term Exposure:** None reported. **Target Organs:** Skin, eyes, respiratory system, and CNS. **Primary Entry:** Inhalation, skin contact **Acute Effects:** Irritation of the skin, eyes, and respiratory system. Also, cardiac-rhythm disturbance due to sensitization: acute bronchitis, bronchospasm, pulmonary and laryngeal edema; euphoria; headache; giddiness; dizziness; and incoordination, as well as possible depression; confusion; and coma. **Chronic Effects:** None reported. **First Aid:** Eyes. Immediately

SECTION 6. HEALTH HAZARD INFORMATION, cont.

flush eyes, including under the eyelids, gently but thoroughly with flooding amounts of running water for at least 15 minutes. Skin. Rinse the affected area with plenty of water, then wash it with soap and water. Inhalation. Remove the exposed person to fresh air; restore and/or support his or her breathing as needed. Have qualified medical personnel administer oxygen as required. Ingestion. Unlikely. Should this type of exposure occur, the aspiration hazard must be considered. Do not induce vomiting unless directed to do so by a physician. To prevent aspiration by spontaneous vomiting, keep the victim's head low (between his or her knees). Get medical help (in plant, paramedic, community) for all exposures. Seek prompt medical assistance for further treatment, observation, and support after first aid. Note to Physician: Professional judgment is required as to whether or not to induce vomiting because of the possibility of aspiration. A gastric lavage may be administered, followed by saline catharsis, if this procedure is appropriate to the specific incident. Monitor cardiac and pulmonary functions.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel, evacuate unnecessary personnel, eliminate all sources of ignition immediately, and provide adequate explosion-proof ventilation. Cleanup personnel need protection against skin or eye contact with this liquid as well as inhalation of its vapor (see sect. 8). Contain large spills and collect waste or absorb it with an inert material such as sand, earth, or vermiculite. Use nonsparking tools to place waste liquid or absorbent into closable containers for disposal. Keep waste out of sewers, watersheds, and waterways. Waste Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.

OSHA Designations

Listed as an Air Contaminant (29 CFR 1910.1000 Subpart Z).

EPA Designations (40 CFR 302.4)

CERCLA Hazardous Substance, Reportable Quantity: 1000 lbs (454 kg), per the Clean Water Act (CWA), §§ 311 (b) (4) and 307 (a).

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Where splashing is possible, wear a full face shield. Follow OSHA eye- and face-protection regulations (29 CFR 1910.133). Respirator: Wear a NIOSH-approved respirator per Genium reference 88 for the maximum-use concentrations and/or the exposure limits cited in section 2. Follow OSHA respirator regulations (29 CFR 1910.134). For emergency or nonroutine operations (spills or cleaning reactor vessels and storage tanks), wear an SCBA. Warning: Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. Other: Wear impervious gloves, boots, aprons, and gauntlets, etc., to prevent prolonged or repeated skin contact with this material. Ventilation: Install and operate general and local maximum, explosion-proof ventilation systems powerful enough to maintain airborne levels of this material below the OSHA PEL standard cited in section 2. Local exhaust ventilation is preferred because it prevents dispersion of the contaminant into the general work area by eliminating it at its source. Consult the latest edition of Genium reference 103 for detailed recommendations. Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work areas. Contaminated Equipment: Contact lenses pose a special hazard; soft lenses may absorb irritants, and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from shoes and equipment. Comments: Practice good personal hygiene; always wash thoroughly after using this material and before eating, drinking, smoking, using the toilet, or applying cosmetics. Keep it off your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Do not inhale ethyl benzene vapor.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store ethyl benzene in closed containers in a cool, dry, well-ventilated area away from sources of ignition and strong oxidizers. Protect containers from physical damage. Special Handling/Storage: Outside, isolated, detached, or remote storage is recommended for large quantities of ethyl benzene. Isolate bulk storage areas from acute fire hazards. Engineering Controls: Make sure all engineering systems (production, transportation) are of maximum explosion-proof design. To prevent static sparks, electrically ground and bond all containers, pipelines, etc., used in shipping, transferring, reacting, production, and sampling operations. Other: Use safety cans for transferring small amounts of ethyl benzene.

Transportation Data (49 CFR 172.101-2)

DOT Shipping Name: Ethyl Benzene
DOT Hazard Class: Flammable Liquid
ID No. UN1175
DOT Label: Flammable Liquid
DOT Packaging Exceptions: 49 CFR 173.118
DOT Packaging Requirements: 49 CFR 173.119

IMO Shipping Name: Ethylbenzene
IMO Hazard Class: 3.2
IMO Label: Flammable Liquid
IMDG Packaging Group: II

References: 1, 26, 38, 84-94, 100, 116, 117, 120, 122.

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Prepared by PJ Igoe, BS
Industrial Hygiene Review: DJ Wilson, CIH
Medical Review: W Silverman, MD

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METHANEARSONIC ACID, SODIUM SALT

MSA

Common Synonyms

Disodium methyl arsonate
Monosodium methyl arsonate
MSMA
DSMA
Disodium methyl arsonate
Monosodium methyl arsonate

Solid — Colorless solid, solution may be red or green

Solid may float or sink in water; dust and solution are with water

Stop discharge if possible
Avoid contact with heat and ignition
Isolate and remove damaged materials
Notify local health and pollution control agencies

Fire

Not flammable
POISONOUS GASES ARE PRODUCED WHEN HEATED
Wear goggles and self-contained breathing apparatus

Exposure

CALL FOR MEDICAL AID

SOLID OR SOLUTION
Irritating to skin and eyes
If swallowed, will cause nausea, vomiting, or loss of consciousness
Remove contaminated clothing and shoes
Flush affected areas with plenty of water
IF IN EYES, hold eyelids open and flush with plenty of water
IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk and have victim induce vomiting
IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing; victim keep victim warm

Water Pollution

Dangerous to aquatic life in high concentrations
May be dangerous if it enters water intakes
Notify local health and wildlife officials
Notify operators of nearby water intakes

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)
Stop discharge, if possible
Stay upwind
Ventilate area
Stop or reduce
Contain and prevent expansion

2. LABEL

2.1 Category: Poison
2.2 Class: 6

3. CHEMICAL DESIGNATIONS

3.1 CG Compatibility Class: Not listed
3.2 Formula: $CH_3AsO(OH)(ONa)$
$CH_3AsO(ONa)_2 \cdot 6H_2O$
3.3 IMO/UN Designation: 6.1/1557
3.4 DOT ID No.: 1557
3.5 CAS Registry No.: 2163-80-6

4. OBSERVABLE CHARACTERISTICS

4.1 Physical State (at shipping): Solid or water solution
4.2 Color: Colorless, solutions may contain red or green dyes
4.3 Odor: None

5. HEALTH HAZARDS

5.1 Personal Protective Equipment: Protective clothing to prevent contact with dust, chemical goggles
5.2 Symptoms Following Exposure: Substrate poisoning by chlorinated phenoxy acids, burning of throat and stomach, and irritated skin. Acute toxicity indicated by headache, vomiting, diarrhea, convulsions, paralysis. About 1 gram to 1 pound must be taken to cause these symptoms
5.3 Treatment of Exposure: INGESTION: induce vomiting, give water and natural gas a saline cathartic such as sodium sulfate. SKIN: wash with soap and water. EYES: wash with water; consult physician if irritation remains
5.4 Threshold Limit Value: Data not available
5.5 Short Term Inhalation Limits: Not available
5.6 Toxicity by Ingestion: Grade 2; LD_{50} = 0.5-5 g/kg (rat)
5.7 Late Toxicity: Data not available
5.8 Vapor (Gas) Irritant Characteristics: None
5.9 Liquid or Solid Irritant Characteristics: Aqueous solution may cause skin sensitivity
5.10 Odor Threshold: Not available
5.11 IDLH Value: Data not available

6. FIRE HAZARDS

6.1 Flash Point: Not combustible
6.2 Flammable Limits in Air: Not flammable
6.3 Fire Extinguishing Agents: Not applicable
6.4 Fire Extinguishing Agents Not to be Used: Not applicable
6.5 Special Hazards of Combustion Products: Toxic gases may be generated in fire.
6.6 Behavior in Fire: Not applicable
6.7 Ignition Temperature: Not applicable
6.8 Electrical Hazards: Not applicable
6.9 Burning Rate: Not applicable
6.10 Adiabatic Flame Temperature: Data not available
6.11 Stoichiometric Air to Fuel Ratio: Data not available
6.12 Flame Temperature: Data not available

7. CHEMICAL REACTIVITY

7.1 Reactivity with Water: None
7.2 Reactivity with Common Materials: None
7.3 Stability During Transport: Stable
7.4 Neutralizing Agents for Acids and Caustics: Not applicable
7.5 Polymerization: Not applicable
7.6 Inhibitor of Polymerization: Not applicable
7.7 Water Reactivity Hazards in Products: Data not available
7.8 Reactivity Groups: Data not available

8. WATER POLLUTION

8.1 Aquatic Toxicity: > 1000 ppm/48 hr/bluegill
8.2 Waterfowl Toxicity: Data not available
8.3 Biological Oxygen Demand (BOD): Data not available
8.4 Food Chain Concentration Potential: Data not available

9. SHIPPING INFORMATION

9.1 Grades of Purity: The solid dissolvable salt (DSMA) contains water crystallization. Salts are often shipped as solutions in water with concentrations up to about 30% acids
9.2 Storage Temperature: Ambient
9.3 Inert Atmosphere: No requirement
9.4 Ventilation: Open

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)
DS

11. HAZARD CLASSIFICATIONS

11.1 Code of Federal Regulations: Poison, B
11.2 NAS Hazard Rating for Bulk Water Transportation: Not rated
11.3 NFPA Hazard Classification: Not rated

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 Physical State at 15°C and 1 atm: Solid or water solution
12.2 Molecular Weight: 162 (DSMA); 292 (DSMA hexahydrate)
12.3 Boiling Point at 1 atm: Decomposes
12.4 Melting Point: (DSMA) 240°F = 117°C = 390°K; (DSMA) 137°F = 58°C = 332°K
12.5 Critical Temperature: Not applicable
12.6 Critical Pressure: Not applicable
12.7 Specific Gravity: (DSMA) 1.8 at 20°C (solid); (DSMA solution) 1.4-1.8 at 20°C (liquid)
12.8 Liquid Surface Tension: Not applicable
12.9 Liquid Water Interfacial Tension: Not applicable
12.10 Vapor (Gas) Specific Gravity: Not applicable
12.11 Ratio of Specific Heats of Vapor (Gas): Not applicable
12.12 Latent Heat of Vaporization: Not applicable
12.13 Heat of Combustion: Not applicable
12.14 Heat of Decomposition: Not applicable
12.15 Heat of Solution: Not applicable
12.16 Heat of Polymerization: Not applicable
12.17 Heat of Pyrolysis: Data not available
12.18 Liquid Molar Volume: Data not available
12.19 Solid Molar Volume: Data not available

NOTES

Material Safety Data Sheet

from Genium's Reference Collection
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GENIUM PUBLISHING CORP.

No. 310
METHYLENE CHLORIDE
(Revision F)

Issued: September 1985
Revised: November 1988

SECTION 1. MATERIAL IDENTIFICATION

Material Name: METHYLENE CHLORIDE

Description (Origin/Uses): Used widely in paint removers, as a solvent for plastics, as a degreasing agent, in propellant mixtures for aerosol sprays, and as a blowing agent in foams.

Other Designations: Dichloromethane; Freon 30®; Methane Dichloride; Methylene Bichloride; Methylene Dichloride; CH_2Cl_2; CAS No. 0075-09-2

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

HMIS				NFPA
H	2	R	1	
F	1	I	3	
R	0	S	3	
PPG*		K	1	

*See sect. 8

SECTION 2. INGREDIENTS AND HAZARDS/EXPOSURE LIMITS

Methylene Chloride, ca 100%

OSHA PEL
8-Hour TWA: 500 ppm
Ceiling: 1000 ppm Acceptable Maximum Peak above the Ceiling: 2000 ppm for 5 Minutes in Any 2-Hour Period

ACGIH TLV, 1988-89
TLV-TWA: 50 ppm, 175 mg/m³
(Adopted 1988-89)

Toxicity Data*
Rat, Oral, LD_{50}: 2136 mg/kg
Human, Inhalation, TC_{Lo}: 500 ppm (8 Hours)

*See NIOSH, *RTECS* (PA8050000), for additional data with references to irritative, reproductive, mutagenic, and tumorigenic effects.

SECTION 3. PHYSICAL DATA

Boiling Point: 103.55°F (39.75°C) at 76 Torrs
Melting Point: -142°F (-96.7°C)
Vapor Density (Air = 1): 2.9
Vapor Pressure: 440 Torrs at 77°F (25°C)

Molecular Weight: 84.94 Grams/Mole
Solubility in Water (%): 1% by Weight
Specific Gravity (H_2O = 1): 1.3255 at 68°F (20°C)
% Volatile by Volume: Ca 100

Appearance and Odor: A clear, colorless, volatile liquid; distinctive, penetrating, ethereal odor. The odor will not serve as a useful warning property because concentrations of 100 ppm are not easily perceptible. Most persons can detect this odor at above 300 ppm.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point*	Autoignition Temperature: 1033°F (556°C)	LEL: 12% v/v	UEL: 19% v/v

Extinguishing Media: *Methylene chloride is not flammable under ordinary conditions. However, flammable vapor-air mixtures can form at approximately 212°F (100°C). Use water spray to cool fire-exposed containers and to flush spills away from exposures. Use extinguishing agents that will put out the surrounding fire. Unusual Fire or Explosion Hazards: Methylene chloride vapor is heavier than air and may collect and concentrate in low-lying, confined spaces. The high vapor pressure of methylene chloride means that when it is spilled, its vapor concentration in air can increase rapidly. If this vapor is heated, an explosion hazard is associated with the vapor-air mixture. Containers of this material may rupture violently if they are involved in fires. Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode.

SECTION 5. REACTIVITY DATA

Stability/Polymerization: Methylene chloride is stable in closed containers during routine operations. Hazardous polymerization cannot occur. Chemical Incompatibilities: Methylene chloride can react dangerously with nitrogen tetroxide, liquid oxygen, potassium, sodium, sodium-potassium alloys, lithium, potassium hydroxide with N-methyl-N-nitroso urea, potassium *t*-butoxide, and finely powdered aluminum and magnesium. Conditions to Avoid: Avoid all exposure to sources of ignition, heat, and incompatible chemicals. Prolonged exposure to water may cause hydrolysis to highly corrosive hydrochloric acid when the temperature is above 140°F (60°C). In oxygen-enriched atmospheres or when heated (>212°F [100°C]), methylene chloride vapor can be readily ignited. Hazardous Products of Decomposition: Exposure to high temperature (from open flame, hot surfaces, uninsulated steam lines, welding arcs, etc.) can produce toxic and corrosive thermal-oxidative products of decomposition such as hydrogen chloride, carbon monoxide, and even small quantities of phosgene gas, which is extremely poisonous.

SECTION 6. HEALTH HAZARD INFORMATION

Carcinogenicity: Methylene chloride is listed as a suspected human carcinogen by the ACGIH (which classifies it as a group A2 carcinogen). Summary of Risks: Accidental contact of liquid methylene chloride with skin or eyes causes painful irritation and possible burns if not promptly removed. Exposure by way of contaminated gloves, clothing, or paint remover formulations can produce these same irritant effects. Long-term exposure to mild or moderate doses of methylene chloride may cause a delayed (24 to 48 hours) onset of dizziness, headache, mental confusion, slurred speech, double vision, and sleeplessness. Medical recovery can be slow. Overexposure to methylene chloride can cause elevated levels of carboxy hemoglobin in the blood (this same effect results from overexposure to carbon monoxide). Medical Conditions Aggravated by Long-Term Exposure: None reported. Target Organs: Skin, eyes, respiratory system, CNS, liver, kidneys, and blood. Primary Entry: Inhalation, skin contact/absorption. Acute Effects: Headache, giddiness, stupor, irritability, fatigue, tingling in the limbs, and narcosis that is not usually fatal if the exposure is terminated before anesthetic death occurs. Chronic Effects: The ACGIH classification of this material as a suspected human carcinogen implies that cancer is a possible effect of chronic exposure to methylene chloride. FIRST AID: Eyes. Immediately flush eyes, including under the eyelids, gently but thoroughly with

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SECTION 6. HEALTH HAZARD INFORMATION, cont.

flooding amounts of running water for at least 15 minutes. **Skin.** Rinse the affected area with flooding amounts of water and then wash it with soap and water. **Inhalation.** Remove the exposed person to fresh air; restore and/or support his or her breathing as needed. Have qualified medical personnel administer oxygen as required. **Note to Attending Physician:** Do not administer adrenalin. **Ingestion.** Unlikely. Should this type of exposure occur, do not induce vomiting because of the danger of aspiration. If spontaneous vomiting should occur, position the exposed person's head below his or her trunk to resist aspiration. Get medical help (in plant, paramedic, community) for all exposures. Seek prompt medical assistance for further treatment, observation, and support after first aid. **Note to Physician:** Absorbed methylene chloride is stored in body fat and metabolizes to carbon monoxide. This produced carbon monoxide increases and sustains carboxyhemoglobin levels in the blood, which concommitantly reduces the oxygen-carrying capacity of the blood. NIOSH advises preplacement and annual medical exams that emphasize liver, kidney, eye, skin, CNS, and respiratory system functions and a complete blood count. Simultaneous exposure to tobacco smoke, alcohol, and carbon monoxide, along with heavy manual labor, increases the body burden of a worker as well as the toxic hazards of the methylene chloride. In significant exposures, serum methylene chloride levels are of no clinical importance. Neurologic and hepatic status as well as carboxy hemoglobin should be monitored.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel, evacuate unnecessary personnel, eliminate all sources of ignition immediately, and provide adequate explosion-proof ventilation. *Cleanup personnel need protection against this liquid's contact with the skin or eyes as well as inhalation of its* vapor. Contain large spills and collect waste or absorb it with an inert material such as sand, earth, or vermiculite. Use nonsparking tools to place waste liquid or absorbent into closable containers for disposal. Keep waste out of sewers, watersheds, and waterways. **Waste Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.

OSHA Designations
Listed as an Air Contaminant (29 CFR 1910.1000 Subpart Z).
EPA Designations (40 CFR 302.4)
RCRA Hazardous Waste, NO. U080
CERCLA Hazardous Substance, Reportable Quantity: 1000 lbs (454 kg), per the Clean Water Act (CWA), § 307 (a), and the Resource Conservation and Recovery Act (RCRA), § 3001.

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Where splashing is possible, wear a full face shield. Follow OSHA eye- and face-protection regulations (29 CFR 1910.133). **Respirator:** Use a NIOSH-approved respirator per Genium reference 88 for the maximum-use concentrations and/or exposure limits cited in section 2. Follow OSHA respirator regulations (29 CFR 1910.134). For emergency or nonroutine operations (spills or cleaning reactor vessels and storage tanks), wear an SCBA. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. **Other:** Wear impervious neoprene, PVA, or Viton gloves, boots, aprons, and gauntlets, etc., to prevent any skin contact with liquid methylene chloride. **Ventilation:** Install and operate general and local maximum, explosion-proof ventilation systems powerful enough to maintain airborne levels of acetone below the exposure limits cited in section 2. Local exhaust ventilation is preferred because it prevents dispersion of the contaminant into the general work area by eliminating it at its source. Consult the latest edition of Genium reference 103 for detailed recommendations. Floor or sump ventilation may be necessary. **Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work areas. **Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants, and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean this material from shoes and equipment. **Other:** Because the health effects of carbon monoxide and methylene chloride are additive (see sect. 6), workplaces should be equipped with automatic sensing equipment that identifies workroom atmospheric levels of both of these materials. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material and before eating, drinking, smoking, using the toilet, or applying cosmetics. Keep it off your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Do not inhale methylene chloride vapor.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store methylene chloride in closed, moisture-proof containers in a cool, dry, well-ventilated area away from sources of ignition, strong oxidizers, caustics, and incompatible chemicals (see sect. 5). Protect containers from physical damage. **Special Handling/Storage:** Prevent moist air from entering storage containers. Provide ventilation at the floor level in storage areas because methylene chloride vapor is denser than air. Installation of a dryer and a safety seal on each tank is recommended. Aluminum is not recommended for use as a storage material; appropriate storage materials include galvanized iron, black iron, or steel. **Engineering Controls:** Make sure all engineering systems (production, transportation) are of maximum explosion-proof design. Electrically ground and bond all containers and pipelines used in shipping, transferring, reacting, production, and sampling operations to prevent generating static sparks.

Transportation Data (49 CFR 172.101-2)
DOT Shipping Name: Dichloromethane *or* Methylene Chloride
DOT Hazard Class: ORM-A
ID No. UN1593
DOT Packaging Requirements: 49 CFR 173.605
DOT Packaging Exceptions: 49 CFR 173.505

IMO Shipping Name: Dichloromethane
IMO Hazard Class: 6.1
IMO Label: Saint Andrew's Cross (X)*
IMDG Packaging Group: III

*Harmful-Stow away from Foodstuffs.

References: 1, 26, 38, 84-94, 100, 116, 117, 120, 122.

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METHYL PARATHION

MPT

Common Synonyms
Metacid 50T
Penncap Admon
Nitrox Metacide
O, O-Dimethyl O-p-nitrophenyl thiophosphate
Parathion-methyl

Solid crystals — White to cream or brown — Pungent odor or garlic odor

Solid and liquid form in water, solution floats on water
Melting (freezing) point is 35°F.

AVOID CONTACT WITH LIQUID. Wear rubber gloves
Wash contaminated clothing and shoes separately
Shut electricity if possible
Lift and dampen
Remove and remove contaminated material
Notify local health and pollution control agencies

Fire

Combustible
POISONOUS GASES ARE PRODUCED IN FIRE AND WHEN HEATED
Containers may explode in fire
Keep chemical protective suit and self contained breathing apparatus available
Without fire fighter should be trained to operate safely
Extinguish with water
Use flooded quantities of water

Exposure

"ALL FOR MEDICAL AID"

LIQUID OR SOLID
POISONOUS IF SWALLOWED OR IF SKIN IS EXPOSED.
Breathing is slow
Weakness, lightheadedness, dizziness and shock
Fumes produced dense dark density on water
IN EYES: Hold eyelids open and flush with plenty of water
SWALLOWED and victim is CONSCIOUS: Have victim drink water or milk and have victim induce vomiting
SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS: do nothing except keep victim warm

Water Pollution

HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS
Solution is toxic to crustacea
May be dangerous if it enters water intakes
Notify local health and wildlife officials
Notify downstream users of possible water shortage

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)
Have warning people, water downstream
Restrict access
Stop the removal
Chemical and physical treatment

2. LABEL

2.1 Category: Poison
2.2 Class: 6

3. CHEMICAL DESIGNATIONS

3.1 CG Compatibility Class: Not listed
3.2 Formula: $(CH_3O)_2PSOC_6H_4NO_2$
3.3 IMO/UN Designation: 6.1/2783
3.4 DOT ID No.: 2783
3.5 CAS Registry No.: 298-00-0

4. OBSERVABLE CHARACTERISTICS

4.1 Physical State and Appearance: Solid crystal, or solution
4.2 Color: Colorless white or brownish liquid
4.3 Odor: Characteristic, like rotten eggs or garlic

5. HEALTH HAZARDS

5.1 Personal Protective Equipment: Approved mask or respirator, rubber rubber gloves, overshoes, protective clothing, goggles
5.2 Symptoms Following Exposure: Exposure to fumes burn a lot, or to the liquid, causes headache, blurred vision, constricted pupils of the eyes, weakness, nausea, cramps, diarrhea, and tightness in the chest. Muscle twitch and convulsions may follow. Symptoms may develop over a period of 6 hrs.
5.3 Treatment of Exposure: Solid or liquid INGESTION: call a doctor. If victim is not breathing immediate artificial respiration by mouth-to-mouth, mouth-to-nose, or mouth-to-oxygen mask, when victim is conscious, give milk, water, or bicarbonate and induce vomiting immediately. SKIN OR EYES: Rinse and wash exposed areas thoroughly with water. Remove contaminated clothing under a shower
5.4 Threshold Limit Value: 0.2 mg/m³
5.5 Short Term Exposure Limits: Data not available
5.6 Toxicity by ingestion: Grade 4 LD_{50} below 50 mg/kg rat
5.7 Late Toxicity: Data not available
5.8 Vapor (Gas) Irritant Characteristics: Not pertinent
5.9 Liquid or Solid Irritant Characteristics: Poisonous when absorbed through skin
5.10 Odor Threshold: Data not available
5.11 IDLH Value: Data not available

6. FIRE HAZARDS

6.1 Flash Point: 110°F C.C.
6.2 Flammable Limits in Air: Data not available
6.3 Fire Extinguishing Agents: Water
6.4 Fire Extinguishing Agents Not to be Used: Data not available
6.5 Special Hazards of Combustion: Poisonous Toxic gases are produced in fire.
6.6 Behavior in Fire: Burns may cause severity
6.7 Ignition Temperature: Data not available
6.8 Electrical Hazards: Not pertinent
6.9 Burning Rate: Data not available
6.10 Adiabatic Flame Temperature: Data not available
6.11 Stoichiometric Air to Fuel Ratio: Data not available
6.12 Flame Temperature: Data not available

7. CHEMICAL REACTIVITY

7.1 Reactivity with Water: Not decomposed in 6 days at 40°C
7.2 Reactivity with Common Materials: Is decomposed in metal, etc., which must be removed or neutralize prior to use
7.3 Stability During Transport: Decomposes above 50°C with prolonged exposure time
7.4 Neutralizing Agents for Acids and Caustics: Apply caustic or lime with dilute and yellow stains decomposed
7.5 Polymerization: Not pertinent
7.6 Inhibitor of Polymerization: Not pertinent
7.7 Molar Ratio (Reactants to Products): Data not available
7.8 Reactivity Groups: Data not available

8. WATER POLLUTION

8.1 Aquatic Toxicity:
1.0 ppm/96 hr/bluegill/T_{Lm}/fresh water
0.5 ppm/96 hr/shrimp/T_{Lm}/fresh water
8.2 Waterfowl Toxicity: LD_{50} = 10 mg/kg
8.3 Biological Oxygen Demand (BOD): Data not available
8.4 Food Chain Concentration Potential: Data not available

9. SHIPPING INFORMATION

9.1 Grades of Purity: Pure crystal, technical (liquid) 80% in xylene
9.2 Storage Temperature: Below 50°F
9.3 Inert Atmosphere: No requirement
9.4 Venting: Pressure-vacuum

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)
A-E-Y

11. HAZARD CLASSIFICATIONS

11.1 Code of Federal Regulations: Poison, B
11.2 NAS Hazard Rating for Bulk Water Transportation: Not listed
11.3 NFPA Hazard Classification:

Category	Classification*
Health Hazard (Blue)	4
Flammability (Red)	3
Reactivity (Yellow)	2

*Four classes for solution, related for solid

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 Physical State at 15°C and 1 atm: Solid
12.2 Molecular Weight: 263.2
12.3 Boiling Point at 1 atm: Very high
12.4 Freezing Point: 95°F = 35°C = 308°K
12.5 Critical Temperature: Not pertinent
12.6 Critical Pressure: Not pertinent
12.7 Specific Gravity: 1.358 at 20°C (liquid)
12.8 Liquid Surface Tension: Data not available
12.9 Liquid Water Interfacial Tension: Data not available
12.10 Vapor (Gas) Specific Gravity: Not pertinent
12.11 Ratio of Specific Heat of Vapor (Gas): Not pertinent
12.12 Latent Heat of Vaporization: Not pertinent
12.13 Heat of Combustion: Data not available
12.14 Heat of Decomposition: Not pertinent
12.15 Heat of Solution: Not pertinent
12.16 Heat of Polymerization: Not pertinent
12.17 Heat of Pyrolysis: Data not available
12.18 Limiting Value: Data not available
12.19 Reid Vapor Pressure: Data not available

NOTES

Material Safety Data Sheet

From Genium's Reference Collection
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No. 7

NITRIC ACID
(Revision C)
Issued: October 1980
Revised: August 1988

SECTION 1. MATERIAL IDENTIFICATION

26

Material Name: NITRIC ACID

Description (Origin/Uses): Used to dissolve noble metals, for etching and cleaning metals, to make organic nitrates and nitrocompounds, to destroy residues of organic matter, and in explosives.

Other Designations: Red Fuming Nitric Acid; HNO_3; CAS No. 7697-37-2

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

NFPA: 0 / 3 / 0 / oxy

HMIS			
H	3	R	1
F	0	I	4
R	1	S	4
PPG*		K	0

*See sect. 8

SECTION 2. INGREDIENTS AND HAZARDS

	%	EXPOSURE LIMITS
Nitric Acid, CAS No. 7697-37-2	*	**OSHA PEL** 8-Hr TWA: 2 ppm, 5 mg/m³ **ACGIH TLVs, 1987-88** TLV-TWA: 2 ppm, 5 mg/m³ TLV-STEL: 4 ppm, 10 mg/m³ **Toxicity Data**** Mouse, Inhalation, LC_{50}: 67 ppm/4 Hrs

*Contact your supplier to determine the percent by weight of nitric acid in the purchased product. Water is the other component of the product.
**See NIOSH, *RTECS* (QU5775000, QU5900000), for additional data with references to reproductive effects.

SECTION 3. PHYSICAL DATA

Boiling Point: Ca 251°F (122°C)*
Specific Gravity (H_2O = 1): 1.4*
pH: Very Acidic

Water Solubility (%): Complete
Molecular Weight: 63 Grams/Mole
Melting Point: Ca -30°F (-34°C)*

Appearance and Odor: A water white to slightly yellow liquid that darkens to a brownish color on aging and exposure to light; characteristic nitrogen dioxide (NO_2) odor.

*These properties are for the approximately 68%-by-weight nitric acid that is commercially available.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air	LOWER	UPPER
*	*	% by Volume	*	*

Extinguishing Media: *Nitric acid does not burn. Use extinguishing agents that will put out the surrounding fire. Use a water spray to dilute nitric acid during fires and to absorb liberated oxides of nitrogen.

Unusual Fire or Explosion Hazards: Although nitric acid does not burn, it is a strong oxidizing agent that can react with combustible materials to cause fires. Also, it can react with metals to liberate extremely flammable hydrogen gas. If this happens, direct fire-fighting procedures at this evolved hydrogen gas.

Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode. Choose protective equipment carefully (see sect. 5, Conditions to Avoid).

SECTION 5. REACTIVITY DATA

Nitric acid is stable in closed containers at room temperature under normal storage and handling conditions. It cannot undergo hazardous polymerization.

Chemical Incompatibilities: Nitric acid reacts explosively with metallic powders, carbides, hydrogen sulfide, and turpentine. Contact with organic materials such as wood, paper, sawdust, or alcohol, etc., may cause fires. Combustible materials can attain an increased flammability after being exposed to nitric acid even if they do not immediately catch fire.

Conditions to Avoid: Avoid any contact with incompatible chemicals. Because it is so reactive, always establish another material's compatibility with nitric acid before mixing the two materials. This applies to the selection of safety and handling equipment, because nitric acid can attack some forms of coatings, plastics, and rubber.

Hazardous Products of Decomposition: Various nitrogen oxides, including nitric oxide (NO), nitrogen dioxide (NO_2), nitrous oxide (N_2O), as well as nitric acid mist or vapor, can be produced by the decomposition reactions that can affect the nitric acid during fires.

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SECTION 6. HEALTH HAZARD INFORMATION

Nitric acid is not listed as a carcinogen by the NTP, IARC, or OSHA.
Summary of Risks: This material is corrosive to any body tissue it contacts. Dental erosion is also reported.
Medical Conditions Aggravated by Long-Term Exposure: None reported. **Target Organs:** Skin, eyes, mucous membranes of the respiratory tract, teeth. **Primary Entry:** Inhalation, skin contact. **Acute Effects:** Irritation and/or corrosive burns of skin, eyes, and upper respiratory tract (URT), delayed pulmonary edema, pneumonitis, bronchitis, and dental erosion. **Chronic Effects:** None reported.

FIRST AID: Eyes. Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes. Treat for eye burns. **Skin.** Immediately wash the affected area with soap and water. Watch for chemical skin burns and treat them accordingly. **Inhalation.** Remove the exposed person to fresh air; restore and/or support his or her breathing as needed. If the exposure is severe, hospitilization with careful monitoring by trained medical personnel to detect the delayed onset of severe pulmonary edema (lungs filled with fluid) is recommended for at least 72 hours. **Ingestion.** Call a poison control center. Never give anything by mouth to someone who is unconscious or convulsing. Do not induce vomiting. If the exposed person is responsive, give him or her one or two glasses of milk or water to drink as quickly as possible after exposure.
GET MEDICAL HELP (IN PLANT, PARAMEDIC, COMMUNITY) FOR ALL EXPOSURES. Seek prompt medical assistance for further treatment, observation, and support after first aid. NOTE TO PHYSICIAN: Wash affected skin areas with a 5% solution of sodium bicarbonate ($NaHCO_3$). If ingested, the risk versus the benefit of the passage of a naso-gastric tube is debatable. Activated charcoal is of *no* value. Do *not* give the exposed person bicarbonate to neutralize the material.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel, provide ventilation, and eliminate all sources of ignition immediately in case contact with metals should produce highly flammable hydrogen gas. Cleanup personnel need protection against contact with and inhalation of nitric acid (see sect. 8). Contain large spills and collect waste. Use water sprays to direct nitric acid away from incompatible chemicals (see sect. 5). Neutralize the spilled nitric acid with soda ash or sodium bicarbonate. Use an absorbent such as sand, earth, or vermiculite on the resulting slurry and place the neutralized nitric acid material into containers suitable for eventual disposal, reclamation, or destruction.
Waste Disposal: Consider reclamation, recycling, or destruction rather than disposal in a landfill. Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.
OSHA Designations
Air Contaminant (29 CFR 1910.1000 Subpart Z)
EPA Designations (40 CFR 302.4)
CERCLA Hazardous Substance, Reportable Quantity: 1000 lbs (454 kg), per Clean Water Act (CWA), Section 311 (b) (4)

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Where splashing of nitric acid solution is possible, wear a full face shield as a supplementary protective measure. Follow OSHA eye- and face-protection regulations (29 CFR 1910.133).
Respirator: Consult the *NIOSH Pocket Guide to Chemical Hazards* (Genium ref. 88) for general recommendations on proper respiratory procedures. Follow OSHA respirator regulations (29 CFR 1910.134). For emergency or nonroutine use (leaks or cleaning reactor vessels and storage tanks), wear an SCBA with a full facepiece operated in the pressure-demand or positive-pressure mode. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. **Other:** Wear impervious gloves, boots, aprons, gauntlets, etc., to prevent skin contact with nitric acid. Choose protective equipment carefully (see sect. 5, Conditions to Avoid).
Ventilation: Install and operate both general and local exhaust-ventilation systems powerful enough to maintain airborne concentrations of nitric acid below the OSHA PEL standard cited in section 2. Construct exhaust ducts and systems with material such as fiberglass, which resists attack by nitric acid. **Safety Stations:** Make emergency eyewash stations, washing facilities, and safety/quickdrench showers available in work areas. **Contaminated Equipment:** Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean nitric acid from shoes and equipment. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Keep it off of your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Provide preplacement and annual medical exams with emphasis on skin irritation to workers who are regularly exposed to nitric acid. Workers must receive training before handling this material in the workplace; even experienced workers should undergo refresher training periodically.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store nitric acid in a cool, dry, well-ventilated area away from incompatible chemicals (see sect. 5). Consider outside, isolated, or detached storage. Protect containers from direct sunlight.
Special Handling/Storage: Build all storage facilities of nonflammable materials that are resistant to chemical attack by nitric acid. Protect containers from physical damage. Preplan for routine use and emergency response.
Engineering Controls: Proper ventilation is essential in bulk storage areas; consider installing an automatic monitoring system to detect hazardous levels of nitrogen oxides that can develop from this material.
Comments: Separate nitric acid from hydrazine, diethylenetriamine, fluorides, and all other corrosives except sulfuric acid and sulfur trioxide when shipping or transferring it.
Transportation Data (49 CFR 172.101-2)
DOT Shipping Name: (I) Nitric Acid, Fuming or (II) Nitric Acid, Over 40% or (III) Nitric Acid, 40% or Less
DOT Label: (I) Oxidizer and Poison or (II) Oxidizer and Corrosive or (III) Corrosive
DOT Hazard Class: (I) and (II) Oxidizer or (III) Corrosive Material
DOT ID Nos. (I) UN2032; (II) UN2031; (III) NA1760
IMO Class: 8 (All Types of Nitric Acid)
IMO Label: (I) Corrosive, Oxidizer, Poison; or (II) and (III) Corrosive
References: 1, 2, 26, 38, 84-94, 100, 112, 113, 114.

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NITROGEN TETROXIDE

NOX

Nitrogen dioxide
Nitrogen dioxide
Red oxide of nitrogen
Oxides of nitrogen
Dinitrogen tetroxide

Liquefied compressed gas — Red-brown gas

Colorless under pressure

Soluble and reacts with water. Poisonous brown vapor is produced.

AVOID CONTACT WITH LIQUID AND VAPOR. Keep people away.
Wear gloves, self-contained breathing apparatus, and rubber overclothing (including gloves).
Stop discharge if possible.
Evacuate area in case of large discharge.
Notify local health and pollution control agencies.

Fire

Not flammable.
Not soluble fire and explosion in contact with combustibles.
POISONOUS GASES ARE PRODUCED IN FIRE AND WHEN HEATED.
Wear goggles, self-contained breathing apparatus, and rubber overclothing (including gloves).
Flush discharge area with water.
Stop flow of gas or cover.
Cool exposed containers with water.

Exposure

CALL FOR MEDICAL AID.
VAPOR
POISONOUS IF INHALED.
Irritating to eyes.
Move to fresh air.
If breathing has ceased, give artificial respiration.
If breathing is difficult, give oxygen.
LIQUID
Will burn skin and eyes.
POISONOUS IF SWALLOWED.
Remove contaminated clothing and shoes.
Flush affected areas with plenty of water.
IF IN EYES, hold eyelids open and flush with plenty of water.
IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.
DO NOT INDUCE VOMITING.

Water Pollution

HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS.
May be dangerous if it enters water intakes.
Notify local health and wildlife officials.
Notify operators of nearby water intakes.

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)
Minor contamination, or contamination, water contamination, atmosphere
Positive action
Evacuate area

2. LABEL

2.1 Category: Poison gas; Oxidizer
2.2 Class: 2 and 5

3. CHEMICAL DESIGNATIONS

3.1 CG Compatibility Class: Not listed
3.2 Formula: N_2O_4
3.3 IMO/UN Designation: 2/1067
3.4 DOT ID No.: 1067
3.5 CAS Registry No.: 10102-44-0

4. OBSERVABLE CHARACTERISTICS

4.1 Physical State and Appearance: Liquid
4.2 Color: Red-brown at ambient temperature; colorless below about 14°F
4.3 Odor: Pungent, acrid, nearly irritating

5. HEALTH HAZARDS

5.1 Personal Protective Equipment: Rubber gloves, safety goggles and face shield, protective clothing, and gas mask respirator or self-contained breathing apparatus.
5.2 Symptoms Following Exposure: Very concentrated fumes produce coughing, choking, headache, nausea, pain in chest and extremities, cyanosis, and pulmonary disease or death of operators. After comparatively severe or 5-72 hours, pulmonary edema gradually developes, causing tongue, restlessness, coughing, difficulty in breathing, rapid exhaustion, marked cyanosis, lethargy, death skin, and eyes, nose bleed. Some NOX mixtures with gas exchange in lungs, unconscious state and death by asphyxiation can result, usually within a few hours after onset of pulmonary edema.
5.3 Treatment of Exposure: INHALATION: remove victim to fresh air and have him breathe as deeply as possible; call a doctor; continue treatment for 24-48 hours; keep warm; give oxygen if coughing starts; dyspnea may aggravate injurious (10 mg.) EYES AND SKIN: flush with water for at least 15 min.
5.4 Threshold Limit Value: 5 ppm
5.5 Short Term Exposure Limits: 25 ppm for 5 min.
5.6 Toxicity by Ingestion: Data not available
5.7 Lethal Toxicity: Data not available
5.8 Vapor (Gas) Irritant Characteristics: Vapor causes severe irritation of nose and throat and can cause eye and lung injury. They cannot be tolerated even in low concentrations.
5.9 Liquid or Solid Irritant Characteristics: Severe eye irritant. Causes severe and third-degree burns on short contact and is very irritant to the skin.
5.10 Odor Threshold: 5 ppm
5.11 LD Value: 20 ppm

6. FIRE HAZARDS

6.1 Flash Point and Symbols
6.2 Flammable Limits in Air and Symbols
6.3 Fire Extinguishing Agents: Dry ice or gas
6.4 Fire Extinguishing Agents Not to be Used: Not applicable
6.5 Special Hazards of Combustion Products: Poisonous nitric gas when heated.
6.6 Behavior in Fire: Does not burn, but supports combustion of combustible materials such as wood. May cause fire or explosion on contact with other materials.
6.7 Ignition Temperature: Not flammable
6.8 Electrical Hazard: Data not available
6.9 Burning Rate: Not flammable
6.10 Adiabatic Flame Temperature: Data not available

(Continued)

7. CHEMICAL REACTIVITY

7.1 Reactivity with Water: Reacts to form nitric acid and nitric oxide. Nitric oxide reacts with air to form more nitrogen tetroxide.
7.2 Reactivity with Common Materials: Very corrosive to metals when wet. Reacts vigorously with combustible materials such as wood.
7.3 Stability During Transport: Stable
7.4 Neutralizing Agents for Acids and Caustics: Flush with water. Dilute and neutralize with alkali.
7.5 Polymerization: Not pertinent
7.6 Inhibitor of Polymerization: Not pertinent
7.7 Water Reactivity: Reactive to Products: Data not available
7.8 Reactivity Groups: Data not available

8. WATER POLLUTION

8.1 Aquatic Toxicity:
72 ppm/96 hr/minnows/ TL_m/fresh water
300-1000 ppm/48 hr/minnow/LC/salt water
8.2 Waterfowl Toxicity: Data not available
8.3 Biological Oxygen Demand (BOD): None
8.4 Food Chain Concentration Potential: None

9. SHIPPING INFORMATION

9.1 Grades of Purity: Data not available
9.2 Storage Temperature: Ambient. Storage and transfer structures must be equipped with mechanical ventilation systems.
9.3 Inert Atmosphere: Not required
9.4 Vapor Pressure: Have valves on containers

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)

A-4-J-O

11. HAZARD CLASSIFICATIONS

11.1 State of Federal Regulations: Poison, A
11.2 DOT Hazard Rating for Bulk Water Transportation

Category	Rating
Fire	0
Health	
Vapor Irritant	4
Liquid or Solid Irritant	4
Poison	4
Water Pollution	
Human Toxicity	3
Aquatic Toxicity	3
Aquatic Effect	4
Reactivity	
Other Chemicals	2
Water	0
Self Reaction	

11.3 NFPA Hazard Classifications

Category	Classification
Health Hazard (Blue)	3
Flammability (Red)	0
Reactivity (Yellow)	0
	Ox

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 Physical State at 15°C and 1 atm: Gaseous
12.2 Molecular Weight: 92.02
12.3 Boiling Point at 1 atm: 70.1°F = 21.2°C = 294°K
12.4 Freezing Point: 11.0°F = −11.2°C = 262°K
12.5 Critical Temperature: 317.5°F = 158.6°C = 431.7°K
12.6 Critical Pressure: 1470 atm = 100 atm = 10.1 MN/m²
12.7 Specific Gravity: 1.45 at 20°C (liquid)
12.8 Liquid Surface Tension: Not pertinent
12.9 Liquid Water Interfacial Tension: Not pertinent
12.10 Vapor (Gas) Specific Gravity: 3.2
12.11 Ratio of Specific Heats of Vapor (Gas): 1.252
12.12 Latent Heat of Vaporization: 170 Btu/lb = 93.1 cal/g = 6.15 × 10⁴ J/kg
12.13 Heat of Combustion: Not pertinent
12.14 Heat of Decomposition: Not pertinent
12.15 Heat of Solution: Data not available
12.16 Heat of Polymerization: Not pertinent
12.17 Heat of Fusion: 63.2 cal/g
12.18 Limiting Value: Data not available
12.19 Saturation Vapor Pressure: 20 psia

6. FIRE HAZARDS (Continued)

6.11 Stoichiometric Air to Fuel Ratio: Data not available
6.12 Flame Temperature: Data not available

Material Safety Data Sheet

From Genium's Reference Collection
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No. 205

POTASSIUM NITRATE

Issued: January 1987

SECTION 1. MATERIAL IDENTIFICATION

22

MATERIAL NAME: POTASSIUM NITRATE
DESCRIPTION/USES: Used in pyrotechnics; explosives; matches; as a specialty fertilizer; reagent; to modify burning properties of tobacco; in glass manufacture; tempering steel; curing foods; as an oxidizer in solid rocket propellants.
OTHER DESIGNATIONS: Nitric Acid, Potassium Salt; Niter; Saltpeter; KNO_3; CAS #7757-79-1
MANUFACTURER/SUPPLIER: Available from several suppliers, including: Aldrich Chemical Co., Inc., PO Box 355, Milwaukee, WI 53201; Telephone: (414) 273-3850

HMIS		Nonfire	Fire
H	1		
F	0	R	1
R	1	I	–
PPE*		S	2
*See Sect. 8		K	0

SECTION 2. INGREDIENTS AND HAZARDS

	%	HAZARD DATA
Potassium Nitrate, CAS #7757-79-1	>99%	ACGIH TLV: None Established OSHA PEL: None Established Oral, Rat, LD_{50}: 3750 mg/kg Oral, Rabbit, LD_{50}: 1901 mg/kg

SECTION 3. PHYSICAL DATA

Melting Point ... 633°F (334°C)
Boiling Point ... 400°C (Decomposes)
Specific Gravity @ 16°C ... 2.11
Vapor Pressure @ 20°C ... Negligible
% Volatiles ... 0
Evaporation Rate ... Not Found

Solubility in Water, at 0°C ... 13.3 g/100 cc
at 100°C ... 247 g/100 cc
pH of 5% Solution, at 25°C ... 4.5-7.0
Molecular Weight ... 101.1

Appearance and odor: White crystalline powder or granules. No odor.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air	LOWER	UPPER
Not Found	Not Found	Not Found	--	--

Potassium nitrate is not combustible. However, it is a strong oxidizer and can initiate and intensify combustion of flammable materials.
EXTINGUISHING AGENTS: Flood fires involving this material with water. Keep fire-exposed containers cool with water spray. Remove containers from the fire area if it can be done safely.
UNUSUAL FIRE/EXPLOSION HAZARDS: At high temperatures this material can fuse or melt; application of water when large quantities are involved can result in extensive scattering of molten material.
SPECIAL FIRE-FIGHTING PROCEDURES: Toxic fumes/gases can be evolved in a fire situation. Fire fighters should use self-contained breathing apparatus and wear full protective gear.

SECTION 5. REACTIVITY DATA

Potassium nitrate is stable at room temperature. It does not polymerize.

Violent reactions (including fire and explosion) may occur on its contact with organic materials, combustible materials, and reducing agents. Specific incompatibles under various conditions include aluminum, titanium, antimony, germanium, zinc, zirconium (and other metals), calcium disilicide, chromium nitride, metal sulfides, boron, carbon, sulfur, phosphorus, phosphides, sodium phosphinate, sodium thiosulfate, citric acid, tin chloride, sodium acetate, and thorium carbide.

Potassium nitrate decomposes at approximately 752°F (400°C) with the evolution of oxygen and oxides of nitrogen (toxic).

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SECTION 6. HEALTH HAZARD INFORMATION

Potassium nitrate has not been identified as a known or suspected carcinogen by the NTP, IARC, or OSHA.
This material can enter the body if it is inhaled or swallowed.

EFFECTS OF OVEREXPOSURE: Inhalation of excessive concentrations may be irritating to the nose, throat, and respiratory tract. Prolonged exposure may cause anemia, methemoglobinemia (the presence of methemoglobin, a soluble brown crystalline blood pigment that differs from hemoglobin in that it contains ferric iron and is unable to combine reversibly with molecular oxygen), and kidney injury (nephritis). Ingestion can cause severe gastrointestinal distress with abdominal pain, nausea, vomiting, and diarrhea. Eye contact may cause irritation.

FIRST AID: EYE CONTACT: Flush eyes, including under the eyelids, with a gentle flow of running water. Get medical help.* SKIN CONTACT: Wash affected area with mild soap and water. If irritation persists, prevent further contact and get medical help.* INHALATION: Remove victim from exposure. Get medical help if irritation or discomfort persists.* INGESTION: Give victim a large quantity of water to drink. Induce vomiting and get prompt medical help.* Keep him warm and at rest. NOTE: Never give anything by mouth or induce vomiting if the victim is unconscious.
* GET MEDICAL ASSISTANCE = In plant, community, paramedic. Get medical help for further treatment, observation, and support after first aid.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Ventilate the potassium nitrate spill area. Prevent contact of spilled material with combustible and incompatible materials. Cleanup personnel should wear personal protective equipment as necessary to prevent skin/eye contact and dust inhalation. Carefully scoop spilled material into a suitable container for reclamation or disposal. Avoid generating dust during cleanup. Absorb small solution spills on inert (noncombustible) material such as dry sand or earth.
Disposal: Potassium nitrate requires disposal as a hazardous waste. Reclaim material when possible. Contact your supplier or a licensed chemical waste disposal contractor for treatment and disposal instructions. Follow all applicable Federal, state, and local regulations.

Reportable Spill Quantity: Not listed in 40 CFR 117.3, "Reportable Quantities of Hazardous Substances."
EPA Hazardous Waste Number: D001 (Ignitable, 40 CFR 261.21)

SECTION 8. SPECIAL PROTECTION INFORMATION

Use local exhaust ventilation to control airborne levels where potassium nitrate dust, mist, or fumes are generated.

Use an appropriate NIOSH-approved respirator for protection against potassium nitrate dust/mist where airborne levels are excessive. Respirator usage must be in accordance with OSHA requirements (29 CFR 1910.134).

Wear protective clothing (aprons, coveralls, etc.) where the possibility of skin or clothing contamination exist. Wear rubber gloves and safety goggles when handling this material.

Eyewash stations and washing facilities should be readily accessible to workers handling this material.

Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. Particles may adhere to contact lenses and cause corneal damage.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Store potassium nitrate in closed containers in a cool, dry location on a noncombustible surface. Store it away from flammable and combustible materials, reducing agents, and other incompatible materials (see sect. 5). Protect containers from physical damage.

Practice good housekeeping. Clean up spills promptly. Use procedures and techniques that minimize dust generation. Practice good personal hygiene. Wash thoroughly after handling this material and before eating, drinking, and smoking. Do not eat, drink, or smoke in the work area. Remove contaminated clothing promptly. Launder it before wearing it again. Do not take this material out of your work area or to your home on your clothing or equipment.

DOT Hazard Classification: Oxidizer (49 CFR 172.101) DOT ID No. UN1486 DOT Label: Oxidizer

Data Source(s) Code: 4, 5, 6, 9, 25, 49, 58, 77, 82, CV

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Approvals	
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Medical Review	

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Material Safety Data Sheet

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GENIUM PUBLISHING CORP.

No. 317
TOLUENE
(Revision D)

Issued: August 1979
Revised: April 1986

SECTION 1. MATERIAL IDENTIFICATION

20

MATERIAL NAME: TOLUENE

OTHER DESIGNATIONS: Methyl Benzene, Methyl Benzol, Phenylmethane, Toluol, C_7H_8, CAS #0108-88-3

MANUFACTURER/SUPPLIER: Available from many suppliers, including:
Allied Corp., PO Box 2064R, Morristown, NJ 07960; Telephone: (201) 455-4400
Ashland Chemical Co., Industrial Chemicals & Solvents Div., PO Box 2219, Columbus, OH; Telephone: (614) 889-3844

HMIS
H: 2
F: 3
R: 0
PPE*
*See sect. 8

R 1
I 3
S 2
K 4

SECTION 2. INGREDIENTS AND HAZARDS

	%	HAZARD DATA
Toluene	ca 100	8-hr TLV: 100 ppm, or 375 mg/m^3* (Skin)** Man, Inhalation, TCLo: 100 ppm: Psychotropic*** Rat, Oral, LD_{50}: 5000 mg/kg Rat, Inhalation, LCLo: 4000 ppm/4 hrs. Rabbit, Skin, LD_{50}: 14 gm/kg Human, Eye: 300 ppm

* Current (1985-86) ACGIH TLV. The OSHA PEL is 200 ppm with an acceptable ceiling concentration of 300 ppm and an acceptable maximum peak of 500 ppm/10 minutes.

** Skin designation indicates that toluene can be absorbed through intact skin and contribute to overall exposure.

*** Affects the mind.

SECTION 3. PHYSICAL DATA

Boiling Point ... 231°F (111°C)
Vapor Pressure @ 20°C, mm Hg ... 22
Water Solubility @ 20°C, wt. % ... 0.05
Vapor Density (Air = 1) ... 3.14

Evaporation Rate (BuAc = 1) ... 2.24
Specific Gravity (H_2O = 1) ... 0.866
Melting Point ... -139°F (-95°C)
Percent Volatile by Volume ... ca 100
Molecular Weight ... 92.15

Appearance and odor: Clear, colorless liquid with a characteristic aromatic odor. The odor is detectable to most individuals in the range of 10 to 15 ppm. Because olfactory fatigue occurs rapidly upon exposure to toluene, odor is not a good warning property.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	LOWER	UPPER
40°F (4°C) CC	896°F (480°C)	% by Volume	1.27	7.1

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, alcohol foam. Do not use a solid stream of water because the stream will scatter and spread the fire. Use water spray to cool tanks/containers that are exposed to fire and to disperse vapors.

UNUSUAL FIRE/EXPLOSION HAZARDS: This OSHA class IB flammable liquid is a dangerous fire hazard. It is a moderate fire hazard when exposed to oxidizers, heat, sparks, or open flame. Vapors are heavier than air and may travel a considerable distance to an ignition source and flash back.

SPECIAL FIRE-FIGHTING PROCEDURES: Fire fighters should wear self-contained breathing apparatus with full facepiece operated in a positive-pressure mode when fighting fires involving toluene.

SECTION 5. REACTIVITY DATA

CHEMICAL INCOMPATIBILITIES: Toluene is stable in closed containers at room temperature under normal storage and handling conditions. It does not undergo hazardous polymerization. This material is incompatible with strong oxidizing agents, dinitrogen tetraoxide, silver perchlorate, tetranitromethane, and uranium hexafluoride. Contact with these materials may cause fire or explosion. Nitric acid and toluene, especially in the presence of sulfuric acid, will produce nitrated compounds that are dangerously explosive.

CONDITIONS TO AVOID: Avoid exposure to sparks, open flame, hot surfaces, and all sources of heat and ignition. Toluene will attack some forms of plastics, rubber, and coatings. Thermal decomposition or burning produces carbon dioxide and/or carbon monoxide.

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SECTION 6. HEALTH HAZARD INFORMATION | TLV

Toluene is not considered a carcinogen by the NTP, IARC, or OSHA. SUMMARY OF RISKS: Vapors of toluene may cause irritation of the eyes, nose, upper respiratory tract, and skin. Exposure to 200 ppm for 8 hours causes mild fatigue, weakness, confusion, lacrimation (tearing) and paresthesia (a sensation of prickling, tingling, or creeping on the skin that has no objective cause). Exposure to higher concentrations may cause headache, nausea, dizziness, dilated pupils, and euphoria, and, in severe cases, may cause unconsciousness and death. The liquid is irritating to the eyes and skin. Contact with the eyes may cause transient corneal damage, conjunctival irritation, and burns if not promptly removed. Repeated and/or prolonged contact with the skin may cause drying and cracking. It may be absorbed through the skin in toxic amounts. Ingestion causes irritation of the gastrointestinal tract and may cause effects resembling those from inhalation of the vapor. Chronic overexposure to toluene may cause reversible kidney and liver injury. FIRST AID: EYE CONTACT: Immediately flush eyes, including under eyelids, with running water for at least 15 minutes. Get medical attention if irritation persists.* SKIN CONTACT: Immediately flush skin (for at least 15 minutes) while removing contaminated shoes and clothing. Wash exposed area with soap and water. Get medical attention if irritation persists or if a large area has been exposed.* INHALATION: Remove victim to fresh air. Restore and/or support breathing as required. Keep victim warm and quiet. Get medical help.* INGESTION: Give victim 1 to 2 glasses of water or milk. Contact a poison control center. Do not induce vomiting unless directed to do so. Transport victim to a medical facility. Never give anything by mouth to a person who is unconscious or convulsing. * GET MEDICAL ASSISTANCE = In plant, paramedic, community. Get medical help for further treatment, observation, and support after first aid, if indicated.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

SPILL/LEAK: Notify safety personnel of large spills or leaks. Remove all sources of heat and ignition. Provide maximum explosion-proof ventilation. Limit access to spill area to necessary personnel only. Remove leaking containers to safe place if feasible. Cleanup personnel need protection against contact with liquid and inhalation of vapor (see sect. 8). WASTE DISPOSAL: Absorb small spills with paper towel or vermiculite. Contain large spills and collect if feasible, or absorb with vermiculite or sand. Place waste solvent or absorbent into closed containers for disposal using nonsparking tools. Liquid can be flushed with water to an open holding area for handling. Do not flush to sewer, watershed, or waterway. COMMENTS: Place in suitable container for disposal by a licensed contractor or burn in an approved incinerator. Consider reclaiming by distillation. Contaminated absorbent can be buried in a sanitary landfill. Follow all Federal, state, and local regulations. TLm 96: 100-10 ppm. Toluene is designated as a hazardous waste by the EPA. The EPA (RCRA) HW No. is U220 (40 CFR 261). The reportable quantity (RQ) is 1000 lbs/454 kg (40 CFR 117).

SECTION 8. SPECIAL PROTECTION INFORMATION

Provide general and local exhaust ventilation to meet TLV requirements. Ventilation fans and other electrical service must be nonsparking and have an explosion-proof design. Exhaust hoods should have a face velocity of at least 100 lfm (linear feet per minute) and be designed to capture heavy vapor. For emergency or nonroutine exposures where the TLV may be exceeded, use an organic chemical cartridge respirator if concentration is less than 200 ppm and an approved canister gas mask or self-contained breathing apparatus with full facepiece if concentration is greater than 200 ppm.
Safety glasses or splash goggles should be worn in all work areas. Neoprene gloves, apron, face shield, boots, and other appropriate protective clothing and equipment should be available and worn as necessary to prevent skin and eye contact. Remove contaminated clothing immediately and do not wear it until it has been properly laundered.

Eyewash stations and safety showers should be readily available in use and handling areas.

Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

STORAGE SEGREGATION: Store in a cool, dry, well-ventilated area away from oxidizing agents, heat, sparks, or open flame. Storage areas must meet OSHA requirements for class IB flammable liquids. Use metal safety cans for handling small amounts. Protect containers from physical damage. Use only with adequate ventilation. Avoid contact with eyes, skin, or clothing. Do not inhale or ingest. Use caution when handling this compound because it can be absorbed through intact skin in toxic amounts. SPECIAL HANDLING/STORAGE: Ground and bond metal containers and equipment to prevent static sparks when making transfers. Do not smoke in use or storage areas. Use nonsparking tools. ENGINEERING CONTROLS: Preplacement and periodic medical exams emphasizing the liver, kidneys, nervous system, lungs, heart, and blood should be provided. Workers exposed to concentrations greater than the action level (50 ppm) should be examined at least once a year. Use of alcohol can aggravate the toxic effects of toluene.
COMMENTS: Emptied containers contain product residues. Handle accordingly!
Toluene is designated as a hazardous substance by the EPA (40 CFR 116). DOT Classification: Flammable liquid. UN1294.
Data Source(s) Code: 1-9, 12, 16, 20, 21, 24, 26, 34, 81, 82. CR

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Approvals J.O. Rodriguez, 11/96.
Indust. Hygiene/Safety DW 10-86
Medical Review Oct 86

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TOXAPHENE

TXP

Common Synonyms Chlorotoxaphene	Waxy solid or in solution Amber Solid sinks in water, solution floats on water.

Stop discharge if possible. Keep people away.
Call fire department.
Avoid contact with solid and solution.
Isolate and remove contaminated material.
Notify local health and pollution control agencies.

Fire	Solid not flammable, but usually dissolved in combustible liquid. POISONOUS GASES ARE PRODUCED IN FIRE. Water spray, carbon dioxide, dry chemical, and foam extinguishing (including powder). Extinguish with foam, dry chemical or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water. C
Exposure	CALL FOR MEDICAL AID. SOLID OR SOLUTION POISONOUS IF SWALLOWED. AVOID ALL CONTACT. FLUSH SKIN WELL WITH plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim quiet and warm.
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. Solution is toxic to crustacea. May be dangerous if in water intake streams. Notify local health and wildlife officials. Notify downstream or nearby water users.

1. RESPONSE TO DISCHARGE

(See Response Methods Handbook)
Stop leak/spillage, water containment
Should be removed
Chemical and physical treatment

2. LABEL

2.1 Category: None
2.2 Class: Not defined

3. CHEMICAL DESIGNATIONS

3.1 CG Compatibility: Class: Not listed
3.2 Formula: $C_{10}H_{10}Cl_8$
3.3 BOD/UR Designation: Not listed
3.4 DOT ID No.: 2761
3.5 CAS Registry No.: 8001-35-2

4. OBSERVABLE CHARACTERISTICS

4.1 Physical State (at shipping): Waxy solid
4.2 Color: Amber
4.3 Odor: Mild turpentine odor

5. HEALTH HAZARDS

5.1 Personal Protective Equipment: Chemical-type respirator; rubber gloves; chemical goggles or face shield.
5.2 Symptoms Following Exposure: May be absorbed through skin, lungs, or intestinal tract. Symptoms include depression, dry and back muscle spasms, nausea, vomiting, hyperexcitability, tremors, drooling, clonic convulsions. Skin shows convulsions of all skeletal muscles. Lethal cases show respiratory failure. Recovered, affected as a result of the common form vomiting or convulsions, or has entered bronchial or alveolar muscular convulsions. Skin flushed in both cyanotic and rose as the disease rises.
5.3 Treatment of Exposure: If symptoms of poisoning appear, promptly remove the unabsorbed pesticide from the stomach by inducing vomiting with warm salty or soapy water (if the patient is conscious) or lavage the skin with soap and water. Keep patient warm and quiet. Call a physician.
5.4 Threshold Limit Value: 0.5 mg/m³
5.5 Short Term Injurious Limits: Not averaged
5.6 Toxicity by Ingestion: Grade 4, LD_{50} below 50 mg/kg (mg)
5.7 Late Toxicity: Data not available
5.8 Water (Food) Irritant Characteristics: The solid is corrosive. For solutions, see manufacturer.
5.9 Liquid or Solid Irritant Characteristics: Minimum irritant. If spilled on clothing and allowed to remain, may cause cracking and reddening of the skin.
5.10 Odor Threshold: Not defined
5.11 IDLH Value: 200 mg/m³

6. FIRE HAZARDS

6.1 Flash Point: 64°F C.C. (solution)
6.2 Flammable Limits in Air: 1.1%-5.0% (solution only)
6.3 Fire Extinguishing Agents: Foam, dry chemical, or carbon dioxide
6.4 Fire Extinguishing Agents Not to be Used: Water may be ineffective.
6.5 Special Hazards of Combustion Products: Toxic vapors are generated when heated.
6.6 Behavior in Fire: Solution in xylene may produce corrosive products when heated.
6.7 Ignition Temperature: 550°F (solution)
6.8 Explosion Hazards: Not pertinent
6.9 Burning Rate: 0.5 cm/min.
6.10 Adiabatic Flame Temperature: Data not available

(Continued)

7. CHEMICAL REACTIVITY

7.1 Reactivity With Water: No reaction
7.2 Reactivity with Common Materials: No reaction
7.3 Stability During Transport: Stable
7.4 Neutralizing Agents for Acids and Caustics: Not pertinent
7.5 Polymerization: Not pertinent
7.6 Inhibitor of Polymerization: Not pertinent
7.7 Water Soluble Fragment to Pesticide: Data not available
7.8 Relatively Gentle: Data not available

8. WATER POLLUTION

8.1 Aquatic Toxicity:
0.05 ppm/96 hrs/species/100% kill/fresh water
0.02 ppm/*/species/100% kill/fresh water
0.0002 ppm/24 hr/species/100% kill/salt water
*Time lapse not specified.
8.2 Waterfowl Toxicity: 300 mg/kg
8.3 Biological Oxygen Demand (BOD): Data not available
8.4 Food Chain Concentration Potential: None

9. SHIPPING INFORMATION

9.1 Grades of Purity: Technical 40% dust concentrate; 60% solution in xylene
9.2 Storage Temperature: Ambient
9.3 Inert Atmosphere: No requirement
9.4 Venting: Based exclusively in well-ventilated area

10. HAZARD ASSESSMENT CODE

(See Hazard Assessment Handbook)
S-A-T-U

11. HAZARD CLASSIFICATIONS

11.1 Code of Federal Regulations: CFR-A
11.2 NAS Hazard Rating for Bulk Water Transportation: Not rated
11.3 NFPA Hazard Classification: Not rated

12. PHYSICAL AND CHEMICAL PROPERTIES

12.1 Physical State at 15°C and 1 atm: Waxy solid
12.2 Molecular Weight: 414 (avg.)
12.3 Boiling Point at 1 atm: Decomposes
12.4 Freezing Point:
145–154°F
= 63–68°C = 336–341°K
12.5 Critical Temperature: Not pertinent
12.6 Critical Pressure: Not pertinent
12.7 Specific Gravity:
1.6 at 15°C (solid)
12.8 Liquid Surface Tension: Not pertinent
12.9 Liquid Water Interfacial Tension: Not pertinent
12.10 Vapor (Gas) Specific Gravity: Not pertinent
12.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
12.12 Latent Heat of Vaporization: Not pertinent
12.13 Heat of Combustion: Not pertinent
12.14 Heat of Decomposition: Not pertinent
12.15 Heat of Solution: Not pertinent
12.16 Heat of Polymerization: Not pertinent
12.17 Heat of Fusion: Data not available
12.18 Limiting Viscosity: Data not available
12.19 Bulk Vapor Pressure: Data not available

6. FIRE HAZARDS (Continued)

6.11 Stoichiometric Air to Fuel Ratio: Data not available
6.12 Flame Temperature: Data not available

Material Safety Data Sheet

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GENIUM PUBLISHING CORP.

No. 318

XYLENE (Mixed Isomers)
(Revision D)
Issued: November 1980
Revised: August 1988

SECTION 1. MATERIAL IDENTIFICATION

26

Material Name: XYLENE (Mixed Isomers)

Description (Origin/Uses): Used as a raw material for the production of benzoic acid, phthalic anhydride, isophthalic and terephthalic acids and their dimethyl esters in the manufacture of polyester fibers; in sterilizing catgut; with Canadian balsam as oil-immersion in microscopy; and as a cleaning agent in microscopic techniques.

Other Designations: Dimethylbenzene; Xylol; C_8H_{10}; CAS No. 1330-20-7

Manufacturer: Contact your supplier or distributor. Consult the latest edition of the *Chemicalweek Buyers' Guide* (Genium ref. 73) for a list of suppliers.

Comments: Although there are three different isomers of xylene (*ortho*, *meta*, and *para*), the health and physical hazards of all three isomers are very similar. This MSDS is written for a xylene mixture of all three isomers, which is usually commercial xylene.

NFPA: 3 / 2 / 0 / -

HMIS
H 2
F 3
R 0
PPG*
*See sect. 8

R 1
I 3
S 2
K 3

SECTION 2. INGREDIENTS AND HAZARDS

	%	EXPOSURE LIMITS
Xylene (Mixed Isomers), CAS No. 1330-20-7*	**	IDLH*** Level: 1000 ppm
*o-Xylene, CAS No. 0095-47-6 m-Xylene, CAS No. 0108-38-3 p-Xylene, CAS No. 0106-42-3		**OSHA PEL** 8-Hr TWA: 100 ppm, 435 mg/m³ **ACGIH TLVs, 1987-88** TLV-TWA: 100 ppm, 435 mg/m³ TLV-STEL: 150 ppm, 655 mg/m³
**Check with your supplier to determine if there are additions, contaminants, or impurities (such as benzene) that are present in reportable quantities per 29 CFR 1910.		**Toxicity Data**** Human, Inhalation, TC_{Lo}: 200 ppm Man, Inhalation, LC_{Lo}: 10000 ppm/6 Hrs Rat, Oral, LD_{50}: 4300 mg/kg
***Immediately dangerous to life and health.		
**** See NIOSH, *RTECS* (No. ZE2100000), for additional data with references to reproductive, irritative, and mutagenic effects.		

SECTION 3. PHYSICAL DATA

Boiling Point: 275°F to 293°F (135°C to 145°C)*
Melting Point: -13°F (-25°C)
Evaporation Rate: 0.6 Relative to BuAc = 1
Specific Gravity (H_2O = 1): 0.86

Water Solubility (%): Insoluble
Molecular Weight: 106 Grams/Mole
% Volatile by Volume: Ca 100
Vapor Pressure: 7 to 9 Torrs at 68°F (20°C)
Vapor Density (Air = 1): 3.7

Appearance and Odor: A clear liquid; aromatic hydrocarbon odor.

*Materials with wider and narrower boiling ranges are commercially available.

SECTION 4. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temperature	Flammability Limits in Air	LOWER	UPPER
81°F to 90°F (27°C to 32°C)	867°F (464°C)	% by Volume	1%	7%

Extinguishing Media: Use foam, dry chemical, or carbon dioxide. Use water sprays to reduce the rate of burning and to cool containers.

Unusual Fire or Explosion Hazards: Xylene vapor is heavier than air and may travel a considerable distance to a low-lying source of ignition and flashback.

Special Fire-fighting Procedures: Wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive pressure mode.

SECTION 5. REACTIVITY DATA

Xylene is stable in closed containers during routine operations. It does not undergo hazardous polymerization.

Chemical Incompatibilities: This material may react dangerously with strong oxidizers.

Conditions to Avoid: Avoid any exposure to sources of ignition and to strong oxidizers.

Hazardous Products of Decomposition: Carbon monoxide (CO) may be evolved during xylene fires.

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SECTION 6. HEALTH HAZARD INFORMATION

Xylene is not listed as a carcinogen by the IARC, NTP, or OSHA.
Summary of Risks: Liquid xylene is a skin irritant and causes erythema, dryness, and defatting; prolonged contact may cause blistering. Inhaling xylene can depress the central nervous system (CNS), and ingesting it can result in gastrointestinal disturbance; possibly hematemesis (vomiting blood). Effects on the eyes, kidneys, liver, lungs, and the CNS are also reported. **Medical Cond Aggravated by Long-Term Exposure:** Problems with eyes, skin, central nervous system, kidneys, and liver may be worsened exposure to xylene. **Target Organs:** CNS, eyes, gastrointestinal tract, blood, liver, kidneys, skin. **Primary Entry:** Inhalation, skin contact/absorption. **Acute Effects:** Dizziness; excitement; drowsiness; incoordination; staggering gait; irritation of eyes, nose, and throat; corneal vacuolization; anorexia; nausea; vomiting; abdominal pain; and dermatitis. **Chronic Effects:** Reversible eye damage, headache, loss of appetite, nervousness, pale skin, and skin rash.
FIRST AID: Eyes. Immediately flush eyes, including under the eyelids, gently but thoroughly with plenty of running water for at least 15 minutes. **Skin.** Immediately wash the affected area with soap and water. **Inhalation.** Remove the exposed person to fresh air; restore and/or support his or her breathing as needed. Have a trained person administer oxygen. **Ingestion.** Never give anything by mouth to someone who is unconscious or convulsing. Vomiting may occur spontaneously, but do not induce it. If vomiting should occur, keep exposed person's head below his or her hips to prevent aspiration (breathing the liquid xylene into the lungs). Severe hemorrhagic pneumonitis with grave, possibly fatal, pulmonary injury can occur from aspiring very small quantities of xylene.

GET MEDICAL HELP (IN PLANT, PARAMEDIC, COMMUNITY) FOR ALL EXPOSURES. Seek prompt medical assistance for further treatment, observation, and support after first aid. If exposure is severe, hospitilization for at least 72 hours with careful monitoring for delayed onset of pulmonary edema is recommended.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill/Leak: Notify safety personnel, provide ventilation, and eliminate all sources of ignition immediately. Cleanup personnel need protection against contact with and inhalation of xylene vapor (see sect. 8). Contain large spills and collect waste or absorb it with an inert material such as sand, earth, or vermiculite. Use nonsparking tools to place waste liquid or absorbent into closable containers for disposal. Keep waste out of sewers, watersheds, and waterways.
Waste Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow Federal, state, and local regulations.
OSHA Designations
Air Contaminant (29 CFR 1910.1000 Subpart Z)
EPA Designations (40 CFR 302.4)
RCRA Hazardous Waste, No. U239
CERCLA Hazardous Substance, Reportable Quantity: 1000 lbs (454 kg), per the Clean Water Act (CWA), section 311 (b) (9)

SECTION 8. SPECIAL PROTECTION INFORMATION

Goggles: Always wear protective eyeglasses or chemical safety goggles. Where splashing is possible, wear a full face shield as a supplementary protective measure. Follow OSHA eye- and face-protection regulations (29 CFR 1910.133). **Respirator:** Use a NIOSH-approved respirator per the *NIOSH Pocket Guide to Chemical Hazards* for the maximum-use concentrations and/or the exposure limits cited in section 2. Follow OSHA respirator regulations (29 CFR 1910.134). For emergency or nonroutine use (leaks or cleaning reactor vessels and storage tanks), wear an SCBA with a full facepiece operated in the pressure-demand or positive-pressure mode. **Warning:** Air-purifying respirators will *not* protect workers in oxygen-deficient atmospheres. **Other:** Wear impervious gloves, boots, aprons, gauntlets, etc., as required by the specifics of the work operation to prevent prolonged or repeated skin contact with xylene. **Ventilation:** Install and operate general and local maximum, explosion-proof ventilation systems powerful enough to maintain airborne levels of xylene below the OSHA PEL standard cited in section 2. Local exhaust ventilation is preferred because it prevents dispersion of xylene into general work areas by eliminating it at its source. Consult the latest edition of Genium reference 103 for detailed recommendations.
Safety Stations: Make eyewash stations, safety/quick-drench showers, and washing facilities available in areas of use and handling.
Contaminated Equipment: Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. Do *not* wear contact lenses in any work area. Remove contaminated clothing and launder it before wearing it again; clean xylene from shoes and equipment. **Comments:** Practice good personal hygiene; always wash thoroughly after using this material. Keep it off of your clothing and equipment. Avoid transferring it from your hands to your mouth while eating, drinking, or smoking. Do *not* eat, drink, or smoke in any work area. Do not inhale xylene vapor.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Storage/Segregation: Store xylene in a cool, dry, well-ventilated area away from sources of ignition and strong oxidizers. Protect containers from physical damage.

Special Handling/Storage: Make sure all engineering systems (production, transportation) are of maximum explosion-proof design. Ground and bond all containers, pipelines, etc., used in shipping, transferring, reacting, producing, and sampling operations.

Transportation Data (49 CFR 172.101-2)

DOT Shipping Name: Xylene	**DOT Label:** Flammable Liquid	**IMO Label:** Flammable Liquid
DOT ID No. UN1307	**DOT Hazard Class:** Flammable Liquid	**IMO Class:** 3.2 or 3.3

References: 1, 2, 12, 73, 84-94, 100, 103.

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APPENDIX D

INCIDENT REPORT FORM

Woodward-Clyde Consultants

APPENDIX D
FORM HS-502
HAZARDOUS WASTE INCIDENT REPORT

DATE _____ PROJECT/LOCATION _____ BUSINESS UNIT _____

DESCRIPTION OF INCIDENT, INCLUDING INJURIES, PROPERTY DAMAGE AND EMERGENCY ACTION TAKEN AND PERSONNEL INVOLVED (use additional sheets if needed):

_____

_____

_____

_____

_____

WITNESSES OF INCIDENT:

_____

_____

_____

POSSIBLE OR KNOWN CAUSES:

_____

_____

_____

WHAT ACTIONS ARE NEEDED TO PREVENT A SIMILAR INCIDENT?

_____

_____

_____

REPORTER _____

BUSINESS UNIT SAFETY OFFICER _____

PROJECT MANAGER _____

CORPORATE HEALTH AND SAFETY OFFICER _____

APPENDIX E

HNU PHOTOIONIZATION DETECTOR

APPENDIX E

HNU PHOTOIONIZATION DETECTOR (MODEL PI 101)

The instrument is turned to the battery check position first. Assuming proper charge, the main control switch is set to the standby position using the zero knob. The instrument is then allowed to warm up for above five minutes in the standby mode. The calibration gas (usually isobutylene from the HNU factory) is attached. The proper range setting is selected (usually 0-200 ppm) and the calibration gas turned on.

The gas flows through a critical orifice which reduces its flow rate to the proper rate for calibration purposes. The normal factory calibration of this instrument is for benzene in air. Isobutylene is used for normal calibration because it is less toxic. The relative response of isobutylene as compared to benzene is about 70 percent with the 10.2 eV and 11.7 eV lamps (there is a slight difference between the relative response of the two different energy probes, but it is not considered significant for most field calibration purposes). Accordingly, a bottle of isobutylene calibration gas that contains 100 ppm isobutylene will read out as about 70 ppm on a factory calibrated instrument. A bottle of factory calibration gas will state the proper readout on the instrument "as benzene".

If the instrument does not calibrate exactly, the span pot knob is normally adjusted to bring the instrument into calibration. The normal "factory" settings are 9.8 for the 10.2 eV lamp and 5.90 for the 11.7 eV lamp. If the instrument cannot be brought into calibration by using the span pot, the lamp may need to be cleaned or other maintenance items performed so that the unit will calibrate accurately.

ATTACHMENT B TO EXPEDITED CMIP RFI COMMUNITY RELATION PLAN

VICKSBURG CHEMICAL COMPANY VICKSBURG, MISSISSIPPI

Prepared for
Vicksburg Chemical Company
Vicksburg, Mississippi

June 1997

WCC File 96B315-5

Woodward-Clyde

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1.0
OVERVIEW OF COMMUNITY RELATIONS

This Community Relations Plan (CRP) for the Vicksburg Chemical Company (VCC) in Vicksburg, Mississippi, has been prepared in response to a Consent Decree entered April 17, 1992. The Community Relations Plan presented herein describes the mechanism for the dissemination of information to the public regarding RCRA Facility Investigation (RFI) activities and results. The CRP describes the history of the site, the affected community, and community concerns about the site. It also describes community relations objectives and techniques for implementing the community relations program. The community relations program will provide the public an opportunity to participate in the decision-making process regarding remedial actions at the site and inform the public of current and future site activities.

This CRP is a working document that serves as a guide for communicating with the affected community. Activities and schedules may be altered according to future circumstances.

The information in this CRP was obtained from Environmental Protection Agency (EPA) and Mississippi Department of Environmental Quality (MSDEQ) files and interviews with VCC concerning their interaction with local residents and government officials. Interviews were conducted to determine the general level of awareness and concerns of the community regarding the site.

2.0 SITE OPERATIONAL, OWNERSHIP AND PERTINENT REGULATORY HISTORY

2.1 OPERATIONAL AND OWNERSHIP HISTORY

The Vicksburg Chemical Company within the Cedar Chemical Corporation is located in Warren County, Mississippi along the Mississippi River immediately on the south limits of Vicksburg. About 70 acres border on the Mississippi River, however, none of the plant production facilities is located along the river. The address is:

Vicksburg Chemical Company
Post Office Box 821003
Rifle Range Road
Vicksburg, Mississippi 39182-1007

The facility is a manufacturer of chemicals. The 650 acre plant site is divided into two separate and distinct operations known as the North Plant and the South Plant. Active operations are conducted or have been conducted on about 130 acres.

In operation since 1961, the North Plant produces potassium nitrate, liquid chlorine and liquid nitrogen tetroxide. The raw materials for the North Plant include potassium chloride and nitric acid. The potassium nitrate is sold for various industrial uses. Most nitrogen tetroxide is sold to the government as an oxidizer for rocket fuels.

The South Plant, in operation since 1953, formerly manufactured chlorinated pesticides, nitrogen based herbicides, and other agricultural chemicals. The active operations at the South Plant are a nitric acid unit constructed in 1986 and a new potassium carbonate plant constructed in 1995. The manufactured nitric acid is used primarily in the North Plant as a raw material. During various periods prior to 1987, the South Plant produced dinitro butyl phenol (dinoseb or DNBP), monosodium methane arsonate (MSMA), diethylhexylphosphoric acid (DEHPA), 1-hydroxy-ethylidene-1,1-diphosphonic acid (UNIHIB), toxaphene, methyl parathion, cyanazine (bladex), and atrazine. Toxaphene and methyl parathion are

insecticides, while atrazine, dinoseb, and MSMA are herbicides. Raw materials for the formerly operating processes included chlorine, camphene, ortho secondary butyl phenol (OSBP), sodium arsenite, sodium hydroxide, methyl chloride, sulfuric acid, paranitrophenol, and phosphoric trichloride.

Originally, the two plants were completely separate, owned and operated by two different companies. The South Plant was originally constructed by Spencer Chemical in 1953 to produce agricultural chemicals: ammonia, nitric acid, urea, and ammonium nitrate. After purchasing the facility in 1964, Gulf Chemical added a formaldehyde unit in 1966. American Metal Climax Corporation (Amax) constructed the North Plant in 1961 to produce chloride-free potassium nitrate for selected crops in the southeast United States, such as tobacco, tomatoes, and certain vegetables. The main reason the potassium nitrate plant was built at Vicksburg, Mississippi was the availability of nitric acid from the adjacent Gulf Oil installation. The Amax plant was also referred to as the Southwest Potash Division.

Vicksburg Chemical Company was formed in early 1972 and purchased both Gulf Oil and Amax Chemical facilities except the formaldehyde plant on July 12, 1972. Production, under the new management, began in October of the same year. VCC then operated the nitric acid, potassium nitrate, and nitrate solutions plants about 2 1/2 years. By September, 1974, five more facilities were built for atrazine, methyl parathion, dinoseb, toxaphene, and UDMH (Unsymmetrical Dimethyl Hydrazine) production. The UDMH facility process was experimental and not well defined. Consequently, the UDMH process was eliminated due to production problems and economic reasons.

In 1978, Vicksburg Chemical Company was merged into Vertac, Inc. Effective September 1, 1979, Vertac, Inc. was merged into Vertac Chemical Corporation (Vertac). In February, 1986, Cedar Chemical Corporation acquired the Vicksburg Chemical plant form Vertac. Fermenta A.B. of Sweden acquired Cedar Chemical Corporation in June, 1986 and Nine West Corporation (Trans Resources, Inc.) acquired Cedar Chemical Corporation in January, 1988.

2.2 PERTINENT REGULATORY HISTORY

Vertac first registered the Vicksburg plant as a pesticide producing site on July 2, 1979. A Notification of Hazardous Waste Activity was submitted on June 23, 1980. On November 18, 1980 a Resource Conservation and Recovery Act (RCRA) Part A permit application was filed to gain interim status to store and handle hazardous waste. Vertac registered as producing potassium nitrate, dinoseb and toxaphene at the Vicksburg facility.

Vertac submitted a RCRA Part B permit application on August 10, 1983 along with a modified Part A permit application. The original Part A application had included an 80-foot by 80-foot "greater than 90-day" hazardous Drum Storage Area and the Surface Impoundment both located at the South Plant. The drummed wastes stored in the Drum Storage Area contained hazardous constituents; therefore, to ensure proper disposal, the waste were manifested by Vertac as hazardous wastes and the RCRA permit for storage was requested from the regulatory agency. After the drums of waste were sent offsite for disposal, the RCRA permit application for the Drum Storage Area became unnecessary and hence the modification to the Part A consisting of removing the "greater than 90-day" hazardous Drum Storage Area from the RCRA application was submitted. A second Part B application was filed on June 18, 1985 even though Cedar was attempting to reach agreement that a RCRA permit was not necessary on the basis that the Surface Impoundment did not qualify as a RCRA-regulated unit.

The Vicksburg facility was contracted to be sold to Cedar in 1985. The new ownership continued the negotiations with the regulatory agencies in an attempt to come to an agreement on the regulatory status of the Surface Impoundment at the plant. A hearing on the issue was scheduled for July 22, 1986 before the Mississippi Commission on Natural Resources. Cedar's position regarding the surface impoundment was based on the de minimis exemption to the mixture rule contained in 40 CFR Part 261.3. De minimis losses are defined to include losses from minor spills, leaks from pipes and valves, minor leaks from process equipment, and leaks from well-maintained pump packings and seals which would occur during normal manufacturing operations.

In December, 1986 and again on August 5, 1987, Mississippi Department of Natural Resources (MSDNR) ruled that the Surface Impoundment was not required to be RCRA regulated.

Additionally, Cedar requested a meeting with the EPA to discuss regulatory issues. On December 17, 1987 representatives from Cedar, MSDNR, and EPA met to further discuss the Surface Impoundment. Cedar proposed to consolidate the contaminated sediment into a Solid Waste Containment Area, solidify it, and cap it in such a way as to continue to be able to use the rest of the impoundment for the accumulation of rainwater runoff prior to treatment. Cedar also proposed to line the impoundment with a double synthetic liner and to continue to use the surface impoundment after containment of the existing sediment.

Cedar submitted an engineered closure plans to the MSDNR on August 4,1988. The MSDNR suggested some modifications to the plan for meeting RCRA requirements and Cedar agreed to go forward with the modified plan unless EPA voiced an objection. On January 27, 1989, Cedar reported to the MSDNR that a contract to implement the closure plan had been entered into and that the contractor had moved on site to begin closure of the impoundments. The construction has been completed.

In June of 1988 an Administrative Order for Interim Measures was drafted by EPA Region IV. The Order called for Cedar to conduct a RCRA Facility Investigation to determine the extent of any contamination; and for a Corrective Measures Study to evaluate the best solution for containment and/or clean-up of the facility as required. Based on previous inspections and a February, 1989 Sampling Investigation, the Director of Waste Management, Region IV, issued a Determination of Release for Cedar on October 12, 1989. By October 20, 1989 a draft Endangerment Assessment was completed regarding contamination at the Vicksburg Facility of Cedar. Negotiations for a Consent Decree began in January of 1990 and were completed in December of 1990. The Consent Decree was entered in the form previously negotiated on April 17, 1992.

3.0
COMMUNITY BACKGROUND

The following subsection describes the Vicksburg Community, past community involvement with the site, and major concerns expressed by local officials and residents during community interviews.

3.1 *COMMUNITY PROFILE*

A blend of tradition and progress has established Vicksburg as a modern city, yet one which retains the charm of the "Old South". Vicksburg has an interesting and diverse history. First claimed by the French in 1680, along with every foot of land drained by the Mississippi River, the area was later transferred to Spain by King Louis XV. Spain in turn sold the land to the United States in 1795.

Georgia organized the County of Bourbon in southwest Mississippi and in 1795 sold huge tracts of land to syndicates for speculation. In 1798 Congress bought the Georgia claims and created the territory of Mississippi. Warren County was organized in 1817. Vicksburg, "America's River Port City", was founded in 1812 on the plantation of William Vick and John Lane, and by 1825 was a thriving frontier settlement. From this time until the Civil War, the community continued to grow and by 1861, was a well-ordered and prosperous city.

Vicksburg's role during the days when civil strife scarred the nation is historic. Modern writers have called it "The Gibraltar of the Confederacy", for whichever force held the bluffs controlled the vital Mississippi River and the country to the west. The Confederates, surrounded, with few supplies, little ammunition, and no prospects of reinforcement, were finally starved out and forced to surrender the city to Union General U.S. Grant on July 4, 1863.

In 1899, by act of Congress, the Vicksburg National Military Park was created. This park, now a part of the National Park System, was established to preserve the field of battle and scenic and historic heritage of Vicksburg. It is considered by many as one of the country's most beautiful national memorials.

Reconstruction was a trying period for the city, as it was for the entire South. Civic progress was slow. Only because this was the era of the packet boat, coupled with Vicksburg's location which made her a center for the steamboat trade, was it possible for the community to prosper.

However, on April 27, 1876, the Mississippi River cut itself off from Vicksburg, south of the city, leaving the city's wharf high and dry. The U.S. Army Corps of Engineers began work in 1892 to divert the Yazoo River into the old Mississippi river bed thus restoring a harbor on the river. Work on the new canal was completed in January, 1903.

Now a city with a sound basic economy, Vicksburg can look to the future with confidence that her strategic location will lead to a commercial prominence. VCC provides employment for a large number of residents in the Vicksburg area.

3.2 CHRONOLOGY OF COMMUNITY INVOLVEMENT

VCC has conducted its own community relations activities to keep the community informed through dissemination of information.

VCC has:

- Issued news releases on the Corrective Action Program.
- Conducted information on site briefings with Cedar production supervisors, most of whom ar residents of the community.
- Set-up a speakers bureau and offered to meet with groups or organizations when requested.
- Published information booklets and distributed them to government and Elected Officials in Vicksburg, selected State Officials and business and opinion leaders in Vicksburg.

- Held an open meeting on a Request For a Temporary Unit in the public library. The Temporary Unit is a designated area where pilot plant studies are being conducted to test the biodegradation of site-specific contaminants in soil.

- Held an open meeting on the Preliminary Report (Report of Current Conditions) and the Closure Plan, SWMU 1 - Hazardous Waste Storage Area, SWMU 17 - Off-Specification Product Storage Area in the public library on March 15, 1996. The meeting date was publicized in local and state-wide newspapers.

4.0
COMMUNITY RELATIONS OBJECTIVES

The community relations program for the site is designed to inform and educate the local government officials and residents of current site conditions and remedial alternatives. The community relations program will present the community with a clear description of the Corrective Action Process and will encourage the community to voice opinions on present and future site activities.

Currently, concern among local officials and the community residents is low. Because community interest may change as more information on the site becomes available, the community relations program should be flexible to respond to changing interests and concerns. Objectives for the community relations program are:

- Encourage the support and interest of local government officials in community relations activities.

- Inform local residents of all site activities to ensure that the public receives accurate information on site findings and developments as they occur, solicit comments on a continuing basis, and increase public awareness of the site activities.

- Encourage and facilitate positive interaction among government agencies, local officials, and concerned citizens to foster trusting relationships among the parties involved and provide open lines of communication.

- Provide opportunities for community involvement, and solicit input on remedial activities to address community concerns. Local residents should be encouraged to contact EPA officials if new or additional concerns arise during remedial activities.

- Inform the local media of major site activities to increase public awareness and knowledge of the site.

5.0
COMMUNITY RELATIONS ACTIVITIES

The following community relations activities have been selected to inform the public of site activities and to meet the community relations objectives outlined in Section 4.0:

- **Information Repository** - Establish an information repository to include information on the Corrective Action Program and various site documents. The information repository will be updated as information becomes available. All items will be available for public inspection and copying. The local repository is the VCC Plant site. The contract person is the Director of Environmental Affairs.

- **Notifications and Briefings** - Initially contact local government officials and residents to update them on the site status. Contact was made by telephone, letters, public notices, and briefing meetings.

- **Public Comment Period** - A 30-day period will be provided to give the public an opportunity to review and comment on the CMS and proposed plan for the site.

- **Prepare Public Notices** - A public notice will be published at least two weeks before the start of the 30-day comment period. This public notice may take the form of a display advertisement in the local newspapers. This public notice may also be broadcast through local radio and television public service announcements. Local media may be informed of site events through mailings of fact sheets and public notices.

- **Fact Sheets** - Three fact sheets will be prepared to keep the public informed of site activities.

The first fact sheet has been issued, and included information on the following:

- The Cedar Corporation/Vicksburg Plant Site;
- The Corrective Action Process;
- Initiation of the RFI/CMS; and
- Opportunities for public involvement

The second fact sheet will describe RFI results and upcoming CMS activities. This fact sheet should be prepared and distributed after completion of the final RFI report for the entire site.

The third fact sheet will address the proposed plan, describe the CMS results and the preferred alternative, and the Agency's rationale for this preference. This fact sheet should be prepared and distributed, after the CMS is complete and a preferred alternative has been selected, to solicit comments during a 30-day comment period.

The fact sheets will include the name, address and telephone numbers of Federal and State contacts directly involved with site activities.

- **Public Meeting** - VCC will conduct other community relations activities, such as and open meeting at the public library to provide information or obtain community input if the community indicates interest or concern.

- **Review of CRP** - VCC will review this plan periodically, particularly after a remedy is selected, to determine if changes are needed to insure an effective community relations effort for the VCC site.

6.0
SCHEDULE OF ACTIVITIES

The following table presents a schedule of community relations for the site. Each community relations activity described in Section 5.0 is coordinated with an approval milestone of the RFI/CMS process. A "*" designates the appropriate time to conduct the community relations activity associated with the milestone. A "**" indicates the activity has taken place.

Community Relations Activity	Milestone								
	Consent Decree	Temporary Unit	Preliminary Report, Closure Plan, SWMU 1 and 17	RFI Workplan, GWA Workplan, PECMT	RfI Report, GWA Report	CMS Report	Expedited CMIP	CMIP	CI (CQA) Report
News Release	**								
Internal Briefings	**	**	**	*	*	*	*	*	*
Notification (Local Government)	**								
Public Notice (Newspaper)	**	**	**	*	*	*		*	
Fact Sheet	**				*	*			
Public Meeting	**	**	**	*	*	*		*	

EXPEDITED RCRA FACILITY INVESTIGATION REPORT
SWMU 16 - FORMER ATRAZINE PRODUCTION AREA
SWMU 1 - CONTAINER (DRUM) STORAGE AREA
SWMU 17 - RETURNED PRODUCT STORAGE AREA

VICKSBURG CHEMICAL COMPANY
VICKSBURG, MISSISSIPPI

Prepared for
Vicksburg Chemical Company
Vicksburg, Mississippi

Cedar Chemical Corporation
Memphis, Tennessee

June 1997

WCC File 96B315-003

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LIST OF ACRONYMS

Acronym	Meaning
CCC	Cedar Chemical Corporation
VCC	Vicksburg Chemical Company
RFI	RCRA Facility Investigation
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
SWMU	Solid Waste Management Unit
AOC	Area of Concern
PECMT	Preinvestigation - Evaluation of Corrective Measures Technologies
EPA	United States Environmental Protection Agency
MSDEQ	Mississippi Department of Environmental Quality
CMS	Corrective Measures Study
SWMU 1	Hazardous Waste Container Storage Area
SWMU 17	Off-specification Product Storage Area
SWMU 2	Inactive Landfill will include AOC 4
SWMU 7	Former Dinoseb Production Area
SWMU 14	Former Toxaphene Production Area
SWMU 4	Activated Carbon Treatment Unit
SWMU 5	South Plant Drainage System
SWMU 8	Dinoseb Loading/Unloading Area
SWMU 9	Dinoseb Drumming Area
SWMU 11	Former MSMA Production Area
SWMU 12	Former MSMA Unloading Area

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LIST OF ACRONYMS (Continued)

Acronym	Meaning
SWMU 13	South Plant Drainage Ditches
SWMU 15	Former Methyl Parathion Production Area
SWMU 16	Former Atrazine Production Area
SWMU 17	Returned Product Storage Area
SWMU 18	Former Blue Tank
SWMU 20	Railroad Car Loading/Unloading Station
SWMU 22	North Plant Neutralization System Concrete Sump
SWMU 25	North Plant Subsurface Wastewater Pipes
SWMU 29	Floor under North Plan Oil Collection Unit
SWMU 30	North Plant Waste Accumulation Area
SWMU 31	North Plant No. 6 Fuel Oil Area
bgs	below ground surface
TCL	Toxic Compound List
TAL	Toxic Analyte List

1.0
INTRODUCTION

Vicksburg Chemical Company (VCC) retained Woodward-Clyde Consultants (WCC) to perform activities associated with a RCRA corrective action program. The corrective action program is in response to a Consent Decree. The Consent Decree requires that a RCRA Facility Investigation (RFI) be conducted at the Vicksburg, Mississippi manufacturing facility.

The purpose of the RFI is to determine the nature and extent of releases of hazardous wastes and/or constituents from regulated units, solid waste management units (SWMUs), and other areas of concern (AOCs) at the facility and to gather all necessary data to support a Corrective Measures Study.

The RFI constitutes the second phase of the RCRA corrective action program. The program's initial phase consists of the RCRA Facility Assessment (RFA) which is conducted by EPA and precedes the RFI. The RFI itself is divided into five separate tasks which includes the Preliminary Report (submitted as a separate document and resubmitted as the Amended and Restated Preliminary Report and subsequently approved by the U.S. EPA), the RFI Work Plan (submitted in June 1996), the Facility Investigation, and the Investigative Analysis and Reports. In addition to these phases, a Groundwater Assessment Work Plan (submitted in June 1996), a Closure Plan for SWMU 1 and SWMU 17 (submitted and subsequently approved by the U.S. EPA) and Annual Groundwater Assessment Reports are required by the Consent Decree.

This document is the RFI Report describing the activities and the results of analyses of samples obtained during the execution of the RFI Expedited Work Plan (January 1997). The work plan and this report are limited to the following areas:

- SWMU 16, Former Atrazine Production Area (including warehouse);
- SWMU 1, Container (Drum) Storage Area; and
- SWMU 17, Returned Product Storage Area.

The location of the SWMUs are presented on Figure 1.

The work plan included or incorporated by reference the following plans presented in the RFI Work Plan (submitted in June 1996):

- Data Collection Quality Assurance Plan
- Data Management Plan
- Health and Safety Plan

The work plan included or incorporated by reference the plans presented in the Closure Plan for SWMU 1 and SWMU 17.

This Expedited RFI includes information contained in the Amended and Supplemental Preliminary Report (Report of Current Conditions). The work plan and subsequent work were expedited because of VCC's plans to consider construction of a new manufacturing facility in the South Plant and potentially utilize some of the area to be investigated for storage, transportation and manufacturing.

The RCRA Facility Investigation is intended to obtain information to characterize the nature and extent of releases of hazardous waste or constituents, if any. This information is used to determine whether a Corrective Measures Study (CMS) is necessary. The purpose of a CMS is to develop and evaluate the corrective action alternatives and to recommend the corrective measure or measures to be taken at the facility.

2.0
SUMMARY OF EXPEDITED RFI WORK PLAN STRATEGY

The Amended and Supplemental Preliminary Report provides an overview of the investigations and analyses undertaken to characterize the potential contaminants of concern as well as the environmental setting and to determine those areas requiring additional investigation. Information includes:

- Site background information
- Facility's history and file data
- The facility's environmental setting
- Boundaries of SWMUs and AOCs
- Surface SWMUs not requiring further investigation
- Characterization of waste sources to fullest extent possible
- Potential receptor population

The Expedited RFI Work Plan objectives, strategy, and approach are summarized herein. Several plans are needed to insure an accurate and complete field investigation of the facility. These plans include by reference the RFI Work Plan (submitted in June 1996) and any modifications of that plan needed to comply with deficiencies to the plan provided by the U.S. EPA and MSDEQ.

2.1 RFI EXPEDITED WORK PLAN OBJECTIVES

The primary objectives for the Expedited RFI Work Plan were to provide procedures for collecting information as necessary to protect human health and the environment. A secondary objective is for evaluation of areas for new manufacturing facilities in the South Plant and potentially utilize some of the area to be investigated for storage, transportation and manufacturing.

2.2 RFI WORK PLAN RATIONALE

The rationale is based on VCC's knowledge of the SWMUs requiring further investigation. For example, it is known that the Inactive Landfill (SWMU 2) is associated with waste disposal practices (SWMU 2 is not included within the Expedited Work Plan). In addition, several former production areas have been identified as requiring further investigation based on current information as discussed in the Preliminary Report. SWMU 1 and SWMU 17 are investigated for purposes of closure and possible reuse.

The location of each SWMU is shown in Figure 1. SWMU boundaries were defined in the Preliminary Report. The environmental setting and potential receptors/pathways were presented in the Preliminary Report. The information to be gathered during the Expedited RFI, RFI and GWA (after the RFI and GWA work plans are approved) includes the following:

- The vertical and horizonal extent of releases that have or are occurring within the SWMU boundaries which could potentially impact human health or the environment.

- The transport mechanisms, rates, and pathways for migration of hazardous constituents from SWMU areas.

For the former production areas, it is necessary to determine if hazardous constituents are migrating out of the SWMU area through surface water or groundwater. If there are indications of release, the vertical and horizontal extent of established constituents of concern will be assessed and data will be gathered to determine flow directions and pathways.

Storage areas will be approached from the standpoint that the type of hazardous constituents stored in the units are known. The extent of contamination, if any, will therefore be assessed, in the overall RFI (which will incorporate data obtained in this Expedited RFI) followed by a study, as necessary, of migration rates, pathways, and potential receptors. Groundwater contamination and plume migration will not be a main consideration in the Expedited RFI but will be considered in the overall RFI and GWA.

The field investigation is being done in phases. Phase I focuses on areas of surficial contamination within the SWMUs or AOCs that are suspected or confirmed to have a release. The density of sampling is approximately on sample per 2,500 square feet of area investigated. This Expedited RFI should be considered a part of the overall Phase I program.

The following table is a summary of the total surficial contamination sampling to be executed during Phase I (more specific information on the sampling, performed under the Expedited RFI for SWMU 1, SWMU 17 and SWMU 16 is included in Section 3.1):

SWMU Number	Sample Points	Samples	Analyte Lists
1/17 - Container Storage - Off-Spec Storage*	12	34	A
2 - Landfill	10	23	B
4 - Activated Carbon Treatment	6	6	B
5 - South Plant Drainage	16	16	C
7/20 - Former Dinoseb Production Area/Railroad Car Loading/Unloading Station	21	42	A
8 - Dinoseb Loading/Unloading Area	2	6	A
11/12/15 MSMA-Methyl Production Area*	57	105	A, B, C, D, G
13 - West Drainage	9	9	C
14 - Toxaphene	3	6	C
16 - Atrazine - Production and Warehouse*	35	57	C
18 - Blue Tank	3	3	C
30 - Waste Oil	3	3	E
34 - Junkyard	6	6	F

LEGEND:

- * Part of the Expedited RFI (sampling density generally has been increased to expedite investigation by precluding a need for Phase II shallow or surface sampling)
- A Atrazine, cyanazine, arsenic, dinoseb, toxaphene, toluene
- B TCL, TAL, atrazine, cyanazine, dinoseb
- C Atrazine, cyanazine, arsenic, dinoseb, toxaphene
- D TLC, dioxin, TAL, atrazine, cyanazine, dinoseb
- E BTEX, TPH
- F BTEX, TPH, atrazine, cyanazine, arsenic, dinoseb, toxaphene
- G Arsenic

A Phase II investigation was executed for those areas where additional information was needed. The primary objective of Phase II is to establish the vertical and horizontal extent of contamination, if it is not adequately established in Phase I. The Phase II work may, for example, identify locations for monitor wells for individual SWMUs where there is evidence of releases.

Based on the data in this Expedited RFI Report there was a need for a limited Phase II investigation. During the Groundwater Assessment and the RFI covering the entire plant site the data in this report will be further considered for the placement of monitor wells.

In order to meet VCC's objectives to expedite work in this area a Corrective Measures Study and Corrective Measures Implementation Plan will accompany this Expedited RFI Report.

3.0
SUMMARY OF SITE CHARACTERIZATION PLAN

The overall approach is designed to accomplish the objectives as stated in Section 2.1. The primary purpose of the sampling was to determine if the areas to be investigated are releasing hazardous constituents of concern into the environment. A secondary purpose is for evaluation of areas for new manufacturing facilities in the South Plant and potentially utilize some of the area to be investigated for storage, transportation and manufacturing. To accomplish this, the effort will involve specific field sampling, data assessment, and development of a field investigation report which summarizes the results of the work.

The general locations of the areas that were investigated are depicted in Figure 1. The specific sample locations for SWMU 1, SWMU 17, and SWMU 16 are depicted on Figure 2.

3.1 SAMPLING RATIONALE

For each sample point there were two or three samples taken:

- A core of the concrete (if the sample point is a former production or storage area).
- A composite sample of the first 0 to 12 inches of soil beneath the concrete referred to as the shallow sample.
- A sample of soil generally 12 to 24 inches beneath the concrete referred to as the deep sample.

The total number of samples to be submitted for analysis was as follows:

SWMU Number	Sample Description	Sample Points	Number of Samples	Analyte List
16 Atrazine Warehouse	Concrete and Soil	5 concrete and soil	15	C
	Soil	1 soil	2	B

SWMU Number	Sample Description	Sample Points	Number of Samples	Analyte List
16 Atrazine Production Area	Concrete and Soil	6	18	C
	Soil	11	22	B
1, 17 Container Storage and Off-Spec Storage	Concrete and Soil	10 concrete and soil	30	A
	Soil	2 soil	4	A

LEGEND:

A Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene, Toluene
B TCL, TAL, Atrazine, Cyanazine, Dinoseb
C Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene
D TCL, Dioxin, TAL, Atrazine, Cyanazine, Dinoseb
E BTEX, TPH
F BTEX, TPH, Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene
G Arsenic

The sample points for SWMUs 16, 1, and 17 are located on Figures 3 and 4. Figure 3 depicts all the sample points and the Sample ID for soil locations (locations not overtopped by concrete). Figure 4 depicts all the sample points and the Sample ID for concrete/soil locations. The locations and Sample IDs of matrix and matrix spike duplicate samples for QA/QC are also noted on Figures 3 and 4.

Note that, in essence, the soil samples (alphabetic ID location) were analyzed for the Target Compound List and Target Analyte List plus atrazine, cyanazine, arsenic, dinoseb, and toxaphene). The concrete/soil samples were analyzed for atrazine, cyanazine, arsenic, dinoseb and toxaphene.

Upon receiving results of analyses, a Phase II extension of sampling and analysis was executed based on the following criteria for resampling:

- Above action levels - established in Closure Plan for SWMU 1 and SWMU 17 (submitted and subsequently approved by the U.S. EPA)

dinoseb	80,000
arsenic	20,000

toxaphene	2,600
atrazine	400,000
toluene	16,000,000

- If concentration of analytes noted above in sample of 2-foot interval exceeds concentration in sample of 1-foot interval, sample continuously in 4-foot intervals to groundwater. In addition, sample groundwater for analysis of the particular analyte.

- Determine by sampling the background concentration of arsenic.

The total number of samples submitted for analysis in the Phase II effort is as follows:

SWMU Number	Sample Description	Sample Points	Number of Samples	Analytes
16 Atrazine Warehouse	Soil and Groundwater	2	7	Toxaphene
		1	4	Toxaphene and Arsenic
16 Atrazine Production Area	Soil and Groundwater	1	4	Toxaphene
1, 17 Container Storage and Off-Spec Storage	Concrete	1	1	Dinoseb and Arsenic
Background	Soil	6	6	Arsenic

The Phase II contaminated area sampling points and sample IDs are located on Figure 2. Three of the background samples for arsenic were obtained in a level field immediately west of the parking lot serving the main administration building in the North Plant. Three of the background samples were obtained from the Vicksburg Chemicals Employee Park located between the plant site and the Mississippi River to the west.

3.2 SUMMARY ANALYTICAL RATIONALE

The soil and concrete samples submitted for analysis in the Phase I effort were analyzed for atrazine, cyanazine, arsenic, dinoseb and toxaphene. Many samples were analyzed for the Target Compound List (TCL) and Target Analyte List (TAL) in the Phase I effort. The TCL/TAL parameters provide scientifically valid data that is more defensible than protocols for Appendix IX constituents. A discussion of the list TCL/TAL parameters presented in the RFI Work Plan and the list of Appendix IX constituents is presented in the Expedited RFI Work Plan.

3.3 SAMPLING PROCEDURES

The following procedures were employed to sample the soil and concrete under concrete. The sampling locations are noted in Figures 2, 3 and 4. A concrete coring drill was used to remove a plug of the concrete. The concrete samples were wrapped in aluminum foil.

Samples of soil underneath the concrete were obtained utilizing a geoprobe. The geoprobe contained a clear plastic tube. A new tube was used for each thrust of the geoprobe. Each thrust penetrated to 2 feet thereby filling the plastic tube with a continuous 2-foot core that was examined and logged prior to sectioning and placing in sample bottles. Following the removal of the soil probe and logging, the sample was extracted from the plastic tube. The soil samples were transferred to sample bottles, appropriately labeled, and placed on ice for transport to the laboratory. All equipment was cleaned in accordance with decontamination procedures before collection of each sample.

Sample points are to be chosen near to locations of joints and/or cracks where contamination could most likely accumulate if released. As a point of reference, according to guidance provided in OSWER 9476-00-8.C a clean closure demonstration may be made with one sample per 2500 ft^2. The areal locations meet the criterion noted. The mobility of pesticides in soil underneath the concrete will be limited; therefore, the highest concentrations would likely be found in areas where there are cracks above the concrete/soil interface.

All equipment was initially be decontaminated before use and again after each sample is collected. The following decontamination procedures were employed:

- Washing in tap water and a detergent (Alconox) solution. Brush, if necessary, to remove particulate matter and surface films
- Rinsing thoroughly with tap water
- Rinsing with distilled, deionized water
- Rinsing twice with pesticide - grade solvent
- Rinsing with organic - free water
- Allow to air dry as long as possible

3.4 DOCUMENTATION OF SAMPLE ACQUISITION

All information pertinent to field observations and sampling was recorded in logbooks. The logbooks include at least the following:

- A grid of the site area
- Purpose of sampling
- Number and approximate volume of samples taken
- Location of sampling point on grid
- Description of sampling point
- Date and time of collection
- Collector's sample identification number(s)
- References, such as maps or photographs of the sampling site
- Field observations
- Weather conditions

The documentation in the logbook is sufficient to reconstruct the sampling situation without relying on the collector's memory. Sampling was generally unremarkable. Sampling was executed on February 12, 13 and 14, 1997. It rained steadily on February 12 and thereby limited the concrete coring to locations (1, 2, 3, 4, 12, 13, 14, 15, and 16) with an overhead roof. (The concrete coring is driven by electricity created by a portable diesel generator). The concrete coring was completed on February 13, 1997. The geoprobe was not impeded by weather. The temperature was in the low thirties to low forties (°F) all 3 days. All three days were cloudy. Samples were kept cold until transfer to the sample containers. Once the samples were transferred to an appropriate laboratory sample container, sample tags were completed and affixed to the sample container. The concrete samples were wrapped in

aluminum foil and identification attached. Samples were transferred in coolers with ice added by Federal Express to Pace Laboratories.

3.4.1 Sample Tagging

Each sample was tagged and sealed properly immediately after collection. Tags included at least the following information:

- Name of collection
- Date and time of collection
- Place of collection
- Collector's sample number, which uniquely identifies the sample (see Figures 3 and 4)

3.4.2 Chain-of-Custody

In addition in the field logbook, each sample was recorded on a chain-of-custody record. An identifying code was assigned to each sample and this code was used on the chain-of-custody and in the logbook to ensure that the sample description is identifiable. A brief description of the sampling point will also be placed on the chain-of-custody form. (See Figures 3 and 4 for sampling locations, and sample identification numbers.)

3.4.3 Analytical Methods and Parameters

A summary of the parameters and methods employed by Pace Laboratories are as follows:

Toxaphene, Atrazine and Cyanazine	EPA SW-846, Method 8080
Dinitrobutyl Phenol (Dinoseb)	EPA SW-846, Method 8150
Arsenic	TAL, SOW
BTEX	EPA SW-846, Method 8020
TCL/TAL	See Table 1 (RFI Expedited Work Plan)

4.0
PROJECT SCHEDULE

4.1 RFI FIELD INVESTIGATION SCHEDULE

The schedule for the project is as follows:

- February 4, 1997 - Establish and mark sample points and clear space for sampling.
- February 11, 12, 13 and 14, 1997 - Mobilize, sample and send samples for analyses.
- April 3-4, 1997 - Receive results of Phase I analysis and begin Expedited RFI Report.
- April 30, May 1 and 2, 1997 - Mobilize for Phase II, sample and send samples for analyses.
- May 23-28, 1997 - Receive results of Phase II analysis and finalize Expedited RFI Report for review by VCC.
- May 28-30, 1997 - Complete Expedited Corrective Measure Study for review by VCC.
- June 4-11, 1997 - Complete Expedited Corrective Measures Implementation Report (CMIP) application for Corrective Action Management Unit (CAMU) for review by VCC.
- June 11-13, 1997 - VCC complete review. Publish copies of three reports and 1 application for submittal to the U.S. EPA and MSDEQ.

The rationale, approach, and strategy for the Expedited RFI discussed above will be implemented in accordance with the referenced Data Collection Quality Assurance Plan and Data Management Plan, where appropriate. The Health and Safety Plan is appropriate for all of the WCC work on the VCC site. Changes in the procedures outlined will be documented.

4.2 RFI FIELD INVESTIGATION REPORT

This report is compiled at the conclusion of the field investigation. The report includes the following:

- Summary of RFI Expedited Work Plan and other relevant work accomplished to date
- Summary of findings
- Conclusions
- Supporting analytical and field data

In addition, the report includes discussion of results, and any new significant issues that would impact the RFI. The report contains appropriate drawings, tables, figures, maps, cross-sections, and other diagrams as needed to allow for a clear understanding of the nature and extent of any contamination that exists at the site.

5.0
PROJECT MANAGEMENT PLAN

The Project Management Plan consists of the following elements:

- Project task definition
- Specific personnel positions within the project organizational structure

5.1 PROJECT TASK DEFINITION

Vicksburg Chemical Corporation (VCC) has retained the services of Woodward-Clyde Consultants (WCC) to develop the Expedited RFI Field Investigation Plan and complete the field investigation phases of the RFI.

5.2 PROJECT PERSONNEL

Duties of key personnel are described

5.2.1 Vicksburg Chemical Project Director

The Vicksburg Chemical Project Director is Steve Boswell and is the official representative for VCC. He is in charge of administration of the work and the completion of the project.

5.2.2 Woodward-Clyde Consultants Project Manager

The WCC Project Manager developed the plans required and oversaw and participated in implementation of the work plan on behalf of Vicksburg Chemical. The WCC Project Manager is Richard D. Karkkainen.

5.2.3 Expedited RFI Field Investigation Site Coordinator

Richard D. Karkkainen handled day to day work plan activities. He coordinated efforts with Dean Lowe and Barry Chamberlain from Terra Technologies who performed the soil logging

and sample transfer and Tom Kinute who operated the geoprobe. The concrete was cut by Nick Bassett from Capital Concrete Coring during Phase I. The one concrete sample in Phase II was obtained using the geoprobe.

5.2.4 WCC Health and Safety Officer

Pat Ryan of VCC instructed all the personnel noted above in the Health and Safety orientation of the plant. Steve Boswell provided the instructions on potential health hazards on the site. All personnel involved were appropriately trained.

6.0
SITE CHARACTERIZATION

The following information describes the environmental setting on a regional and local basis.

6.1 REGIONAL GEOLOGY

The Vicksburg area lies on the eastern flank, near the axis, of the Mississippi Embayment. Containing unconsolidated sediments of Cretaceous to Quaternary Age, the sediments thicken in the structural trough toward the axis of the Embayment and the Gulf of Mexico.

Wind-borne deposited silty sediments form loess. The Pleistocene loess in the Vicksburg area is a homogeneous, massive silt with variable clay content. The loess underlies the ground surface throughout the local region. Loess generally is characterized by a higher vertical permeability in comparison to its horizontal permeability.

Underlying the Pleistocene loess is the Oligocene Vicksburg formation. This formation consists of alternating beds of sandy marl, clay marl, montmorillonitic clay and thin beds of limestone.

6.2 ARSENIC IN REGIONAL SOILS

Arsenic is naturally prevalent in regional soils surrounding and within Vicksburg, Mississippi. The average content of arsenic in soils in the conterminous United States is 7.2 ppm and the range is 0.1 to 97 ppm (see Attachment 1 "Elemented Concentrations in Soils and Other Surficial Materials of the Conterminous United States", U.S. Geological Survey Professional Paper 1270, Table 2). In the area surrounding and within the Vicksburg, Mississippi area there are four data points (Attachment 1, Figure 4). The range of the points is 4.1 to 97 ppm; the average is approximately 20 ppm.

6.3 SITE GEOLOGIC FEATURES

Developers International Services Corporation (DISC) provided the initial descriptions of the geology of the site in a November 1981 report "Hydrogeological Investigation". A second description was provided by IT Corporation in January 1985 "Final Report: Groundwater Assessment Program". Both reports provided hydraulic conductivity data from laboratory testing on soil obtained from borings on site and supplemented the information by generalized descriptions obtained from U.S.G.S. publications. Both reports observed that a silty clay (fill) extends from the surface to a depth of less than 10 feet. Pleistocene loess (silty clay - clayey silt) extends from about 6 to 48 feet below the surface across the site. Immediately below the loess, a thin layer (1 to 2 feet) of greenish-gray sandy clay is usually present. Underlying the sandy clay is a marl from the Vicksburg formation called the Byram marl. The top of the marl varies across the site from 60 to 65 feet mean sea level (msl). This marl serves as the bottom of a shallow confined aquifer. A cross section of the geology beneath the South Plant is shown in Figure 3.

The bedrock underlying the facility is a layer of Glendon limestone of the Vicksburg Formation and, beneath the limestone, is the Jackson Formation. The top of the Glendon limestone is expected to be 80 to 100 feet beneath the plant site and ranges from 25 to 65 feet thick. The Glendon is a dark gray to brown, dense, fine-grained limestone. The underlying non-permeable Jackson Formation is 40 to 150 feet thick.

Information in the 1965 Bulletin 105 "Mississippi Geological, Economic and Topographical Survey" by William H. Moore describes the Glendon limestone and the Byram marl which is located at the top of the highest hard limestone ledge of the Glendon:

> "The Glendon limestone consists of alternating beds of gray, fossiliferous, glauconitic, slightly sandy limestone and gray-green, glauconitic, fossiliferous, sandy marl. The Glendon weathers to a yellowish or buff color. The limestone beds in the Glendon are not constant with the number, thickness and stratigraphic position varying from place to place. A hard bed about 10 feet from the top of the Glendon is the most consistent and usually the thickest. On the outcrop the marls weather more rapidly and the limestone ledges tend to stand out. The Glendon weathers completely in places leaving a dark-brown residual clay. ... At some localities the

residual clay contains white, partly weathered limestone and contains at other localities a white, waxy, clayey material. ... The material is a clay giving an x-ray pattern of major montmorillonite and halloysite in which kaolinite is still a trace constituent.

Thick beds of bentonite are present between ledges of Glendon limestone in Smith County. In Warren and Yazoo Counties thin beds of bentonite are present in the same stratigraphic position. ...

The Byram marl consists of gray-green, glauconitic, fossiliferous, clayey marl and gray-green, glauconitic, fossiliferous, limy clay."

The North Pond RFI field program executed in November and December 1993 confirmed the direct geologic observations of previous investigations. Stratigraphic sections are presented in Appendix C. Monitor well and piezometer logs are presented in Appendix D. (For reference, the North Pond was constructed at surface elevation 133 feet msl, whereas the railroad track area (SWMU 20), surface pond (SWMU 3) and area surrounding the inactive disposal area (SWMU 2) are located at surface elevations of approximately 110 feet msl. The South Plant process area is constructed at surface elevation approximately 120 feet msl, the North Plant process area is constructed at surface elevation approximately 115 feet msl. The inactive disposal area surface elevation is approximately 135 feet msl.)

The location of SWMU 1, SWMU 17 and SWMU 16 relative to the entire plant site are depicted in Figure 1. The SWMUs are located in the South Plant.

6.4 REGIONAL GROUNDWATER HYDROLOGY

A shallow confined loess aquifer underlying the VCC plant is on top of a marl formation (the Byram marl). Reported wells in the area are the upgradient of the plant and are producing water from deeper, more productive aquifers such as the Catahoula and Forrest Hill formation. These deeper aquifers are apparently hydraulically separated from the shallow groundwater aquifer.

The shallow aquifer underlying the VCC plant is, however, hydraulically connected to Stouts Bayou and Hennesseys Bayou. Hatcher Bayou and Stouts Bayou merge southeast of the plant site to form Hennesseys Bayou, which flows to the Mississippi River. Noted as intermittent streams on USGS topographical maps these bayous are limited to fresh water fish and wildlife habitat. They are not drinking water or recreational water sources. The major use of the Mississippi River downstream of its confluence with Hennesseys Bayou is as a marine transportation route. There are no drinking water intakes in these waters within three miles downstream of the facility.

6.5 SHALLOW GROUNDWATER HYDROLOGY BENEATH THE FACILITY

The Byram marl in the Vicksburg Formation constitutes the bottom of the uppermost water-bearing zone underlying the facility. The Byram marl is described in Section 2.1.2 as *representing mixed clastic and carbonate sedimentation in an open shelf or platform* environment. The argillaceous, massive and medium dense character of the marl would inhibit any significant movement of water through this unit, and there is no indication of secondary permeability. The uppermost water bearing zone is approximately 40 feet thick consisting almost exclusively of Pleistocene loess (silt). The clayey fill material placed atop the loess is acting as a "cap" inhibiting the vertical migration of the groundwater. The presence of the marl on the bottom of the aquifer creates a slightly artesian confined aquifer which is not hydraulically connected to any potential water-bearing zones at greater depths. The artesian property is characteristic of an aquifer which is under pressure from above and below. The background water quality of this aquifer is marginally acceptable for drinking water, however due to its low lateral flow and yield characteristics its usefulness as a domestic water supply is severely limited.

Several groundwater monitoring wells and piezometers have been installed across the plant site. The results of groundwater level measurements from piezometers installed at the North Pond area in December 1993 combined with groundwater level measurements from the entire VCC site are tabulated in Table 1.

Figure 2 is a comprehensive potentiometric contour of the uppermost aquifer with the potentiometric contour of the perched water table in the vicinity of the North Pond superimposed on it. The direction of groundwater flow is generally toward Stouts Bayou or

Hennesseys Bayou. The evidence of the perched water table atop the clay lens in the North Pond area was established by the installation of shallow piezometers. The perched water table merges with or stops in the vicinity of the roadway that connects the North Plant with the South Plant. Even though there is a mixed stratigraphy in the area to the east of the road connecting the North Plant with the South Plant, including the Railroad Area, Surface Impoundment Area and Inactive Disposal Area there is no evidence of more than one zone in the uppermost aquifer in those areas, that is, the mixed stratigraphic areas are well connected.

The DISC report, noted in Section 2.1.2, observed that at a depth of 40 feet, the hydraulic conductivity ranged from 7.5×10^{-4} to 4.3×10^{-7} centimeters per second. Additional aquifer properties obtained by IT during various investigations prior to 1993 are summarized below:

Monitor Well No.	Porosity (%)	Standard Thickness (ft)	Hydraulic Gradient (ft/ft)	Hydraulic Conductivity (cm/sec)	Velocity (ft/day)	Transmissivity (gal/day)(ft)
1*	46	30	0.04	9.07×10^{-5}	0.022	58
6	45	20.5	0.025	9.26×10^{-5}	0.015	40
11	44	42	0.11	2.59×10^{-4}	0.184	232
12	42	41	0.011	1.3×10^{-4}	0.01	116

NOTES:

* MW-1 was replaced by MW-1A in 1986.

6.6 HISTORIC GROUNDWATER QUALITY (Relevant to SWMU 1, SWMU 17 and SWMU 16)

VCC has endeavored to maintain a groundwater monitoring program equivalent to the RCRA program.

Wells 2 and 8 are relevant to SWMU 1, SWMU 17, and SWMU 16. The chronology of well installation is as follows:

- 1981 Well 2
- 1983 Well 8

The groundwater monitoring results are tabulated by compound, by monitor well, and date in Appendix H of the Amended and Supplemental Preliminary Report and are updated in the Groundwater Assessment Work Plan. The Groundwater Assessment Work Plan also describes the need to add additional monitor wells at the site. The results of analyses are a time series history of the available data.

The groundwater data in Appendix H shows that certain compounds are present in trace concentrations at the VCC site, due to man made sources on site. Approximate concentrations detected (from Wells 2, and 8) are listed below, with comment to give perspective to the concentration:

Well Number	Approximate Concentration in ppb	Comment
2	10 ppb dichloroethylene	May 1993 Drinking Water Standard and Health Advisory = 7 ppb

7.0
RESULTS OF SAMPLING AND ANALYSIS

The logs of the various geoprobe borings are presented in Attachment 1. The results of Phase I sampling are summarized as follows:

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
A-1-B	ND	ND	11,800	ND	332	ND	ND
A-2-B	22.7	ND	5,660	ND	2,830	ND	ND
B-1-B	ND	ND	11,100	ND	ND	ND	ND
B-2-B	ND	ND	10,300	ND	ND	ND	ND
C-1-B	ND	ND	5,120	ND	ND	ND	ND
C-2-B	ND	ND	8,470	ND	ND	ND	ND
D-1-B	8,850	ND	12,500	ND	195	ND	ND
D-2-B	8,380	ND	5,140	ND	583	ND	ND
E-1-B	82.2	32.4	8,480	ND	ND	ND	ND
E-2-B	ND	ND	9,410	ND	ND	ND	ND
F-1-B	ND	ND	8,820	ND	ND	ND	ND
F-2-B	ND	ND	8,580	ND	ND	ND	ND
G-1-B	ND	ND	7,730	ND	ND	ND	ND
G-2-B	ND	ND	8,460	ND	ND	ND	ND
H-1-B	ND	ND	3,140	ND	732	ND	ND
H-2-B	ND	ND	7,300	ND	ND	ND	ND
I-1-B	ND	898	27,000	ND	31,700	ND	ND
I-2-B	ND	ND	7,860	ND	343	ND	ND
J-1-B	ND	ND	3,890	ND	372	ND	ND
J-2-B	ND	ND	4,720	ND	ND	ND	ND
K-1-A	ND	ND	10,500	ND	ND	NR	NR
K-2-A	ND	ND	11,300	ND	ND	NR	NR
L-1-A	ND	265	14,500	ND	ND	NR	NR
L-2-A	ND	263	8,550	ND	ND	NR	NR

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
M-1-B	74.2	ND	8,440	ND	ND	ND	ND
M-2-B	ND	ND	7,530	ND	ND	ND	ND
N-1-B	819	ND	6,320	ND	ND	ND	ND
N-2-B	ND	ND	6,090	ND	ND	ND	ND
1-C-C	835	ND	2,650	ND	ND	NR	NR
1-1-C	726	22.7	5,710	ND	ND	NR	NR
1-2-C	272	ND	7,890	ND	1,680	NR	NR
2-C-C	1,150	ND	36,000	ND	554	NR	NR
2-1-C	94.8	ND	7,270	644	1,680	NR	NR
2-2-C	29.3	ND	7,220	ND	4,050	NR	NR
3-C-C	2,210	ND	3,220	ND	980	NR	NR
3-1-C	ND	ND	5,020	ND	3,970	NR	NR
3-2-C	ND	ND	5,050	ND	ND	NR	NR
4-C-C	180	ND	9,560	ND	ND	NR	NR
4-1-C	10,100	ND	7,070	ND	ND	NR	NR
4-2-C	327	ND	6,520	ND	ND	NR	NR
5-C-C	ND	ND	3,890	ND	ND	NR	NR
5-1-C	3,200	ND	8,940	ND	ND	NR	NR
5-2-C	69.4	ND	4,980	ND	ND	NR	NR
6-C-C	ND	ND	3,830	ND	ND	NR	NR
6-1-C	ND	ND	3,410	ND	ND	NR	NR
6-2-C	ND	ND	4,990	ND	ND	NR	NR
7-C-C	ND	ND	3,910	ND	ND	NR	NR
7-1-C	ND	ND	4,280	ND	ND	NR	NR
7-2-C	ND	ND	4,670	ND	ND	NR	NR
8-C-C	2,110	ND	6,940	ND	ND	NR	NR
8-1-C	ND	ND	4,070	ND	ND	NR	NR
8-2-C	ND	ND	5,680	ND	ND	NR	NR
9-C-C	ND	ND	2,710	ND	ND	NR	NR
9-1-C	ND	ND	2,380	ND	ND	NR	NR
9-2-C	ND	ND	3,200	ND	ND	NR	NR

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
10-C-C	30.4	ND	10,100	ND	ND	NR	NR
10-1-C	18.0	ND	2,100	ND	ND	NR	NR
11-C-C	52,800	ND	7,140	ND	ND	NR	NR
11-1-C	5,510	ND	3,290	ND	ND	NR	NR
11-2-C	3,850	ND	3,450	ND	ND	NR	NR
12-C-A	132	ND	3,340	ND	ND	ND	ND
12-1-A	21.6	20.9	4,690	ND	ND	ND	ND
12-2-A	ND	ND	13,300	ND	ND	ND	ND
13-C-A	ND	ND	6,270	ND	ND	ND	ND
13-1-A	249	ND	8,980	ND	ND	ND	ND
13-2-A	50.1	ND	8,130	ND	ND	ND	ND
14-C-A	5,920	ND	5,590	6,660	479	278	ND
14-1-A	6,820	ND	5,360	14,300	ND	ND	ND
14-2-A	212	ND	8,000	ND	ND	118	ND
15-C-A	ND	ND	4,670	ND	ND	54.3	ND
15-1-A	ND	ND	7,760	ND	ND	ND	ND
15-2-A	ND	ND	12,900	446	ND	ND	ND
16-C-A	145	ND	13,700	ND	545	ND	ND
16-1-A	21.4	ND	8,000	ND	ND	ND	ND
16-2-A	ND	ND	6,760	ND	ND	ND	ND
17-C-A	17.8	ND	3,660	ND	237	ND	ND
17-1-A	1,030	ND	4,390	ND	ND	ND	ND
17-2-A	726	ND	1,750	ND	ND	ND	ND
18-C-A	20.2	85.8	27,000	97,500	ND	ND	ND
18-1-A	7,320	ND	4,510	ND	ND	ND	ND
18-2-A	191	ND	9,660	ND	ND	ND	ND
19-C-A	19.7	ND	18,800	15,700	636	ND	ND
19-1-A	405	ND	4,400	ND	ND	ND	ND
19-2-A	203	ND	4,160	ND	ND	ND	ND
20-C-A	ND	ND	8,330	ND	506	ND	ND
20-1-A	189	ND	3,760	ND	ND	ND	ND

Sample No.[1]	Atrazine[2] (µg/kg)	Cyanazine[2] (µg/kg)	Arsenic[2] (µg/kg)	Dinoseb[2] (µg/kg)	Toxaphene[2] (µg/kg)	Toluene[2] (µg/kg)	Significant Additional TCL/TAL Compounds Detected[2]
20-2-A	36.0	ND	4,090	ND	ND	ND	ND
21-C-A	ND	ND	2,050	ND	ND	ND	ND
21-1-A	40	ND	3,600	ND	ND	ND	ND
21-2-A	ND	ND	2,590	ND	ND	ND	ND

NOTES:

(1) Sample ID = Location-Type-Parameters

Location:	Type:	Parameters:
Alphabetic = Soil	C = Concrete	A = Atrazine, Cyanazine, Arsenic, Dinoseb, Toxaphene, Toluene
Numeric = Concrete/Soil	1 = 0 to 12-inch Soil	B = TCL, TAL, Atrazine, Cyanazine, Dinoseb
	2 = 12 to 24-inch Soil	C = Atrazine, Cyanazine, Arsenic, Dinoseb,

(2) ND = Nondetect
NR = Not required and not requested for analysis

The results of Phase II sampling are summarized as follows:

Sample No.[1]	Arsenic[2]	Dinoseb[2]	Toxaphene[2]
A-2, 4-T	NR	NR	4,510
A-4, 8-T	NR	NR	ND
A-8, 12-T	NR	NR	ND
A-W-T	NR	NR	ND
D-2, 4-T	NR	NR	ND
D-4, 8-T	NR	NR	ND
D-8, 12-T	NR	NR	ND
D-W-T	NR	NR	ND
1-2, 4-T	NR	NR	ND
1-4, 8-T	NR	NR	ND
1-8, 12-T	NR	NR	ND

Sample No.[1]	Arsenic[2]	Dinoseb[2]	Toxaphene[2]
1-W-T	NR	NR	ND
2-2, 4-TA	9,210	NR	1,530
2-4, 8-TA	8,050	NR	ND
2-8, 12-TA	10,200	NR	ND
2-W-TA	538	NR	ND
18-C-DA	7,840	ND	NR
B1-0, 2-A	9,380	NR	NR
B2-0, 2-A	7,470	NR	NR
B3-0, 2-A	7,270	NR	NR
B4-0, 2-A	10,800	NR	NR
B5-0, 2-A	11,700	NR	NR
B5-0, 2-A	11,800	NR	NR

NOTES:

(1) Sample ID = Location - Type - Parameters

Location:	Type:	Parameters:
Alphabetic = Soil	c = concrete	T = Toxaphene
Numeric = Concrete/Soil	2, 4 = 2 to 4 foot soil interval	TA = Toxaphene and Arsenic
	4, 8 = 4 to 8 foot soil interval	DA = Dinoseb and Arsenic
	8, 12 = 8 to 12 foot soil interval	A = Arsenic
	W = groundwater	

(2) ND = Nondetect
NR = Not required and not requested for analysis

8.0
CONCLUSIONS

- It can be concluded that the sampling and analyses were thorough.

- The absence of significant (above background) detection of TCL/TAL compounds other than the atrazine, cyanazine, arsenic, dinoseb, and toxaphene known to be present in low concentrations in some areas of the plant is indicative that the VCC claim that "thorough process knowledge the investigation can limit target parameters" is accurate.

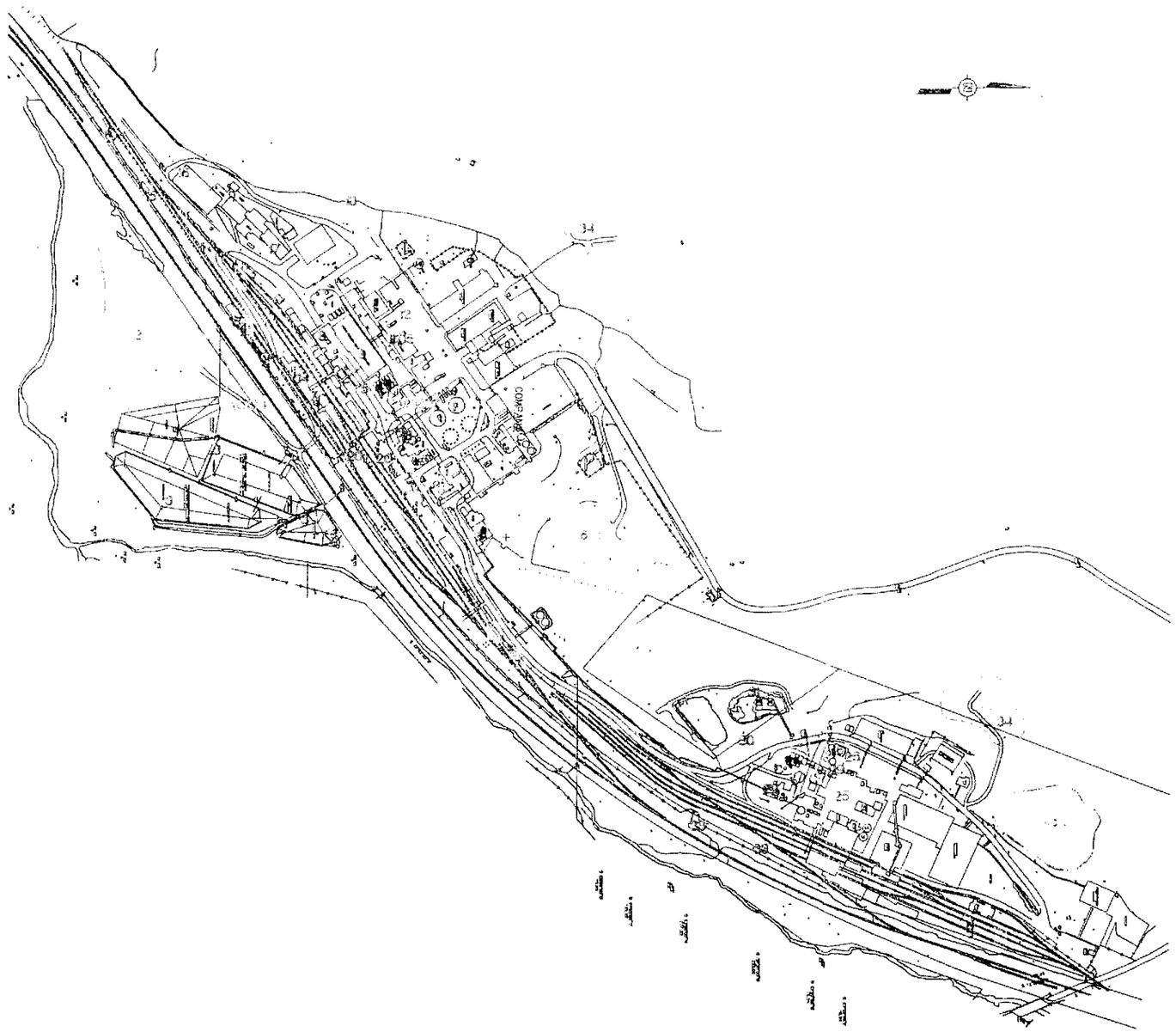
- Arsenic is present as a background component of natural soils. Arsenic in background soil samples averaged 10,000 ppb by analysis and 20,000 ppb by examination of the literature.

- A Phase II RFI was executed. In four locations soil was sampled continuously to groundwater; groundwater samples were also obtained. In one location a concrete sample was obtained.

- Regulatory clean closure of SWMU 1 and SWMU 17 can be obtained. A minor hit of 538 ppb arsenic in groundwater occurred in location 2, underneath SWMU 16 (Atrazine Warehouse). Groundwater samples need to be obtained adjacent to the SWMU 15 (Former MSMA Production Area) during Phase I of the site RFI and the GWA.

- A Corrective Measures Study and Corrective Measures Implementation Plan is necessary regarding soil and concrete areas surrounding points A, I, 2, 1 and 18.

FIGURES



SWMU NUMBER	SOUTH PLANT
1	CONTAINER (DRUM) STORAGE AREA
2	INACTIVE LANDFILL
3	SURFACE IMPOUNDMENT (SOUTH PLANT)
4	ACTIVATED CARBON TREATMENT UNITS
5	SOUTH PLANT DRAINAGE SYSTEMS
6	WASTEWATER STORAGE (HILL) TANKS
7	FORMER DINOSEB PRODUCTION AREA
8	DINOSEB LOADING/UNLOADING AREA
9	DINOSEB DRUMMING AREA
11	FORMER MSMA PRODUCTION AREA
12	FORMER MSMA SALT UNLOADING AREA
13	SOUTH PLANT DRAINAGE DITCHES
14	FORMER TOXAPHENE PRODUCTION AREA
15	FORMER METHYL PARATHION PRODUCTION AREA
16	FORMER ATRAZINE PRODUCTION AREA
17	RETURNED PRODUCT STORAGE AREA
18	FORMER BLUE TANK AREA
20	RAILROAD CAR UNLOADING STATION
	NORTH PLANT
22	NORTH PLANT NEUTRALIZATION SYSTEM
23	EQUALIZATION/NEUTRALIZATION POND (NORTH PLANT)
25	NORTH PLANT WASTEWATER PIPES
26	C-10 SCRUBBER
29	OIL COLLECTION UNIT
30	NORTH PLANT WASTE OIL ACCUMULATION AREA
31	NO. 6 FUEL OIL AREA
33	NORTH PLANT DRAINAGE DITCHES
	BOTH PLANTS
34	SURPLUS EQUIPMENT STORAGE (JUNKYARD)

AOC NUMBER	AOC NAME
1	FISH POND (NORTH PLANT)
2	DRUM STORAGE AREA
3	NEUTRALIZATION TANKS (SOUTH PLANT)
4	CHEMICAL CRYPT (SEPTIC TANKS)

SCALE
200 0 200 400 FEET

NO.	REVISION	DATE	INITIAL

SWMU 16,1,&17 RFI REPORT; CMS; CMIP

WOODWARD-CLYDE CONSULTANTS
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

CEDAR CHEMICAL CORPORATION
VICKSBURG CHEMICAL DIVISION
VICKSBURG, MISSISSIPPI

SCALE:	MADE BY: GT	DATE: 4/6/92	FILE NO.
1" = 200'	CHECKED BY: RDK	DATE:	96B315

LOCATION OF SOLID WASTE MANAGEMENT UNITS

FIGURE 1

Location: Baton Rouge File name: S:\2907C99.DWG Last edited: 02/21/95 @ 11:13

NOTES:

- SAMPLE ID = LOCATION-TYPE-PARAMETERS

LOCATON:

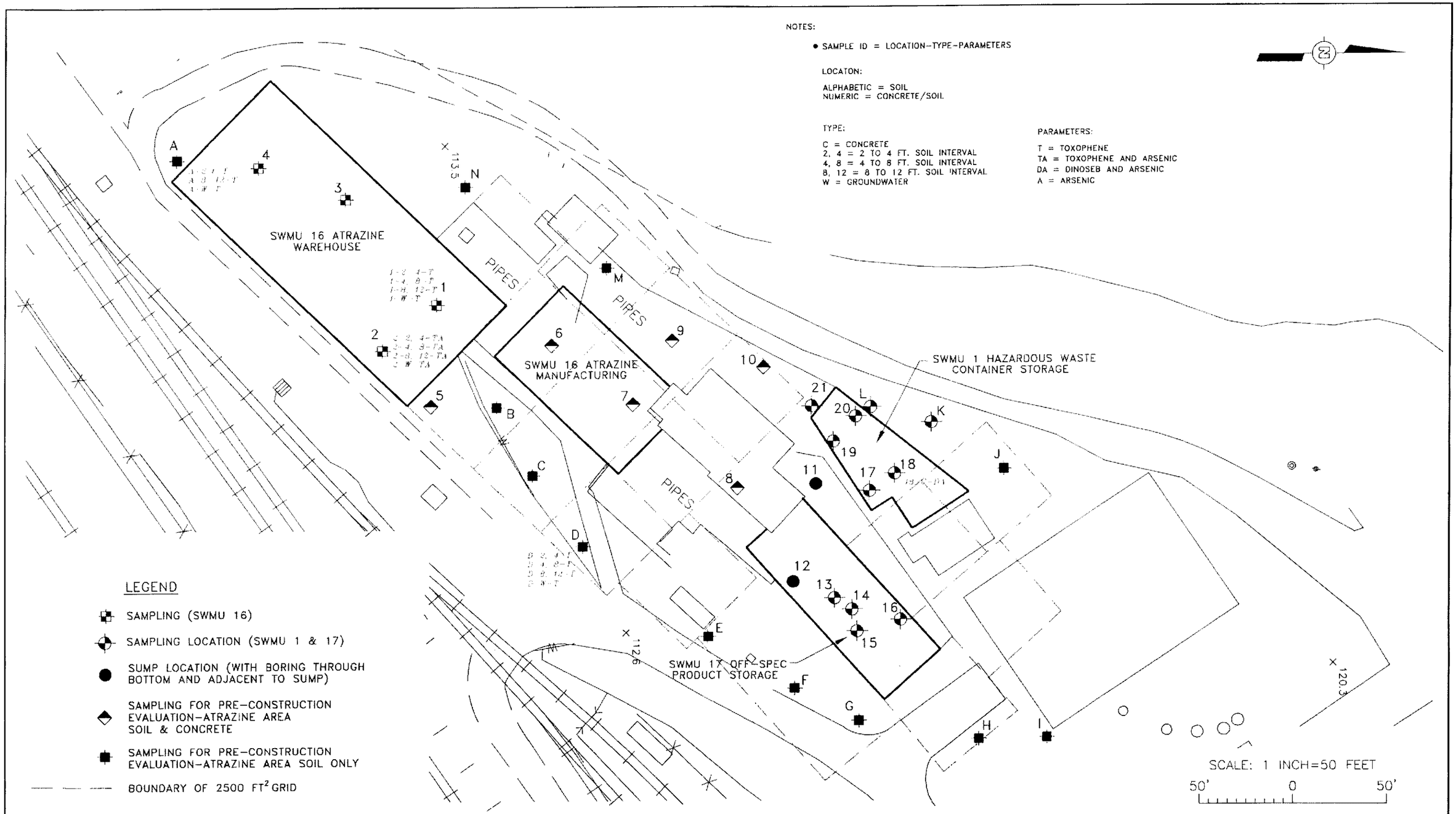
ALPHABETIC = SOIL
NUMERIC = CONCRETE/SOIL

TYPE:

C = CONCRETE
2, 4 = 2 TO 4 FT. SOIL INTERVAL
4, 8 = 4 TO 8 FT. SOIL INTERVAL
8, 12 = 8 TO 12 FT. SOIL INTERVAL
W = GROUNDWATER

PARAMETERS:

T = TOXOPHENE
TA = TOXOPHENE AND ARSENIC
DA = DINOSEB AND ARSENIC
A = ARSENIC



REV	DESCRIPTION OF REVISION	BY	DATE
△			
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△			
△	ADD PHASE II SAMPLE ID	RDK	5/97

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VICKSBURG, MISSISSIPPI

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2822 O'Neal Lane
Baton Rouge, Louisiana 70816

SCALE: AS SHOWN
DESIGNED
DRAWN: PCG
CHECKED
PEER REVIEWED
DATE: 5/27/97

SWMU 16, 1, AND 17

SAMPLE AREA LOCATIONS
(BASE MAP-AS MARKED IN THE FIELD)
AND PHASE II SAMPLE ID

REVISION △
PROJECT 96B315-003
DRAWING 2

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NOTES:

- SAMPLE ID = LOCATION-TYPE-PARAMETERS

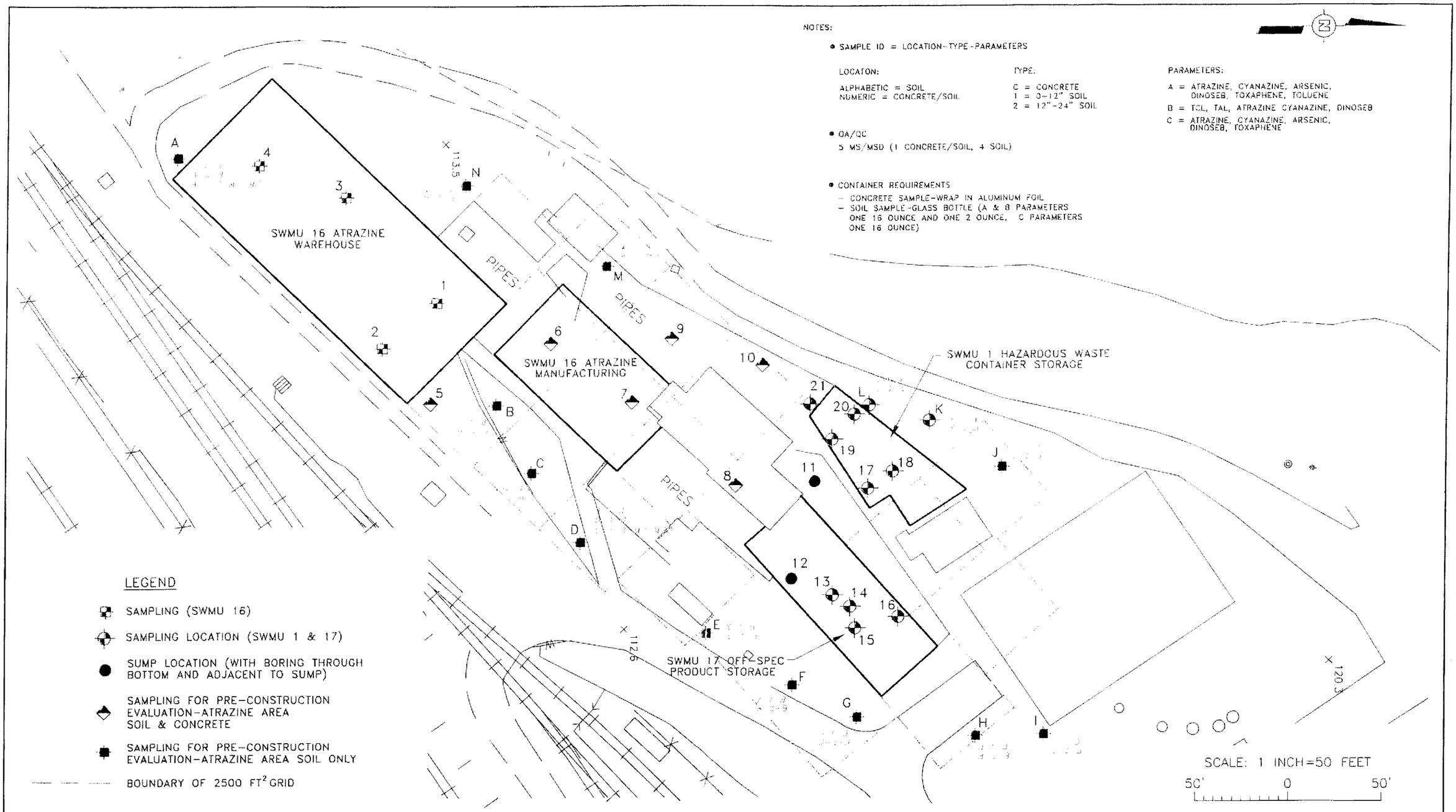
LOCATON:
ALPHABETIC = SOIL
NUMERIC = CONCRETE/SOIL

TYPE:
C = CONCRETE
1 = 0-12" SOIL
2 = 12"-24" SOIL

PARAMETERS:
A = ATRAZINE, CYANAZINE, ARSENIC, DINOSEB, TOXAPHENE, TOLUENE
B = TCL, TAL, ATRAZINE CYANAZINE, DINOSEB
C = ATRAZINE, CYANAZINE, ARSENIC, DINOSEB, TOXAPHENE

- QA/QC
5 MS/MSD (1 CONCRETE/SOIL, 4 SOIL)

- CONTAINER REQUIREMENTS
  - CONCRETE SAMPLE-WRAP IN ALUMINUM FOIL
  - SOIL SAMPLE-GLASS BOTTLE (A & B PARAMETERS ONE 16 OUNCE AND ONE 2 OUNCE, C PARAMETERS ONE 16 OUNCE)



REV	DESCRIPTION OF REVISION	BY	DATE
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PEER REVIEWED
DATE: 1/15/97

SWMU 16, 1, AND 17

SAMPLE AREA LOCATIONS AND SAMPLE ID FOR SOIL LOCATIONS

REVISION △
PROJECT 96B315-003
DRAWING 3

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NOTES:

- SAMPLE ID = LOCATION-TYPE-PARAMETERS

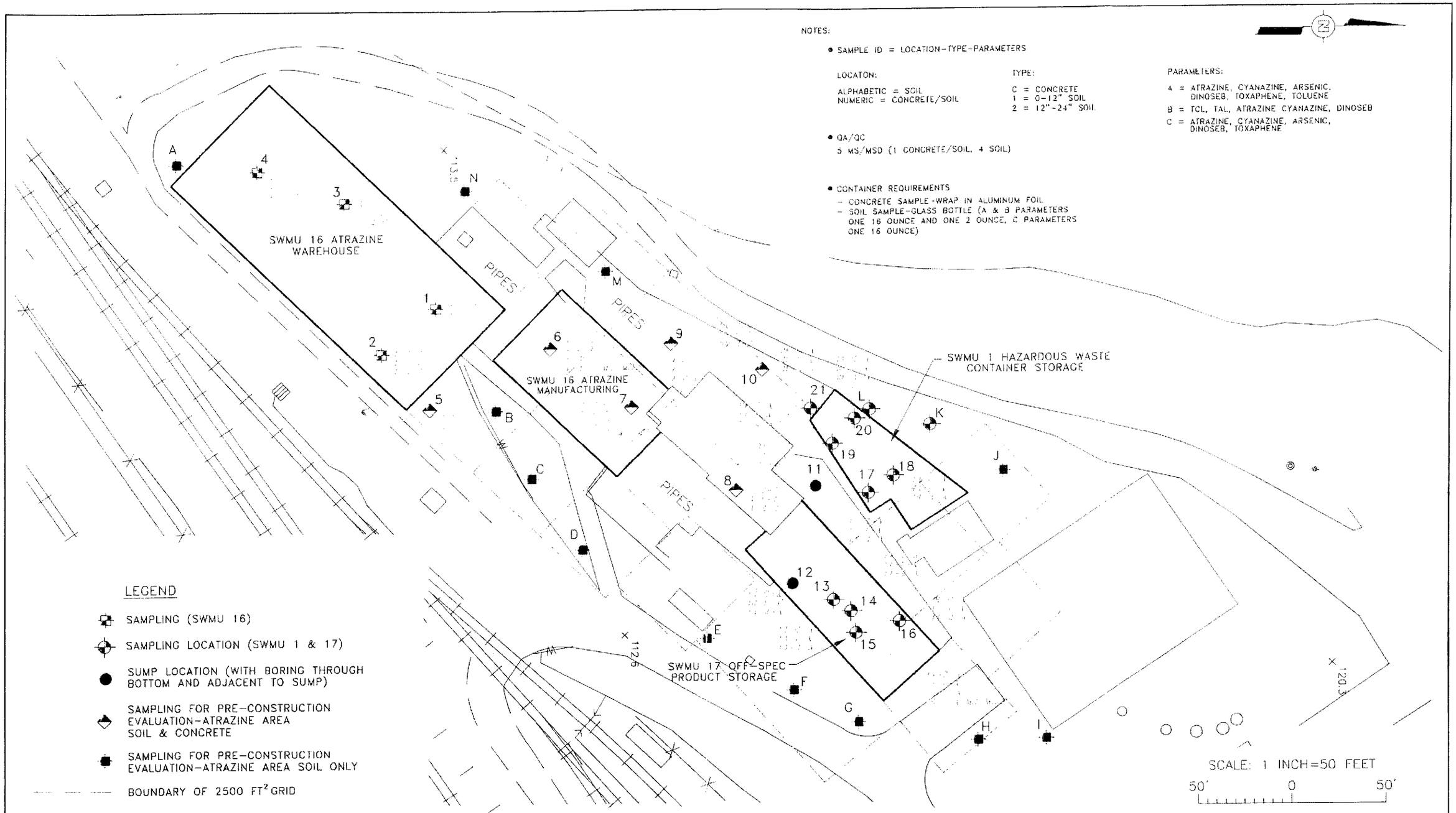
LOCATON:
ALPHABETIC = SOIL
NUMERIC = CONCRETE/SOIL

TYPE:
C = CONCRETE
1 = 0-12" SOIL
2 = 12"-24" SOIL

PARAMETERS:
A = ATRAZINE, CYANAZINE, ARSENIC, DINOSEB, TOXAPHENE, TOLUENE
B = TCL, TAL, ATRAZINE CYANAZINE, DINOSEB
C = ATRAZINE, CYANAZINE, ARSENIC, DINOSEB, TOXAPHENE

- QA/QC
5 MS/MSD (1 CONCRETE/SOIL, 4 SOIL)

- CONTAINER REQUIREMENTS
  - CONCRETE SAMPLE-WRAP IN ALUMINUM FOIL
  - SOIL SAMPLE-GLASS BOTTLE (A & B PARAMETERS ONE 16 OUNCE AND ONE 2 OUNCE, C PARAMETERS ONE 16 OUNCE)



REV	DESCRIPTION OF REVISION	BY	DATE
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Baton Rouge, Louisiana 70816

SCALE: AS SHOWN
DESIGNED:
DRAWN: PCG
CHECKED:
PEER REVIEWED:
DATE: 1/15/97

SWMU 16, 1, AND 17

SAMPLE AREA LOCATIONS AND SAMPLE ID FOR CONCRETE/SOIL LOCATIONS

REVISION: △
PROJECT: 96B315-003
DRAWING: 4

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ATTACHMENT 1

BORING LOGS

phase 1

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO A-1&2-B
JOB NO. 9673315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PPM RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	
A-1-B				Tan Fine Silt (Loess)
				5" — Gray Limestone
				6"
	1.0			Tan Fine Silt (Loess)
A-2-B				18" — Gray Weath Cherty Limesone
				20"
	2.0			Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co, **LOG OF BORING**

FOR WCC

BORING NO A-1-MS/MSD
JOB NO. 96 B 315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	METHOD OF ADVANCE AUGER TO WASH TO FREE WATER ENCOUNTERED YES NO AT WATER AT AFTER HRS PP/"N" RECOVERY	
A-1-B MSD A-1-B MS				8"	Brown to Tan Silty Gravelly Medium to Fine Sand (Fill) Dry
	1.0				
Not Sampled					Tan Fine Silt (Loess) Dry
	2.5				
					Total Depth 2.5 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO B-E2-B
JOB NO. 96B315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
NS		0.0			LIMESTONE ROCK Surface Gravel (FILL)
B-1-B		1.3		100%	Tan Fine Silt (Loess)
B-2-B		2.3		100%	22" Gray Fine Silt (Loess)
					Total Depth 27"

LOG OF BORING

PROJECT Vicksburg Chemical Co

FOR WCC

BORING NO C-1&2-B
JOB NO. 96B315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO

FREE WATER ENCOUNTERED YES NO AT

WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
NS					Lime Rock Gravel (Fill)
C-1-B	1.0			100%	Tan and Red Mottled Fine Silt and Coarse Sand Mixture (Fill)
C-2-B	2.2			100%	Tan Fine Silt (Loess)
					Total Depth 22"

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO C-2-MS/MSD
JOB NO. 963315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDK

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	METHOD OF ADVANCE AUGER TO WASH TO FREE WATER ENCOUNTERED YES NO AT WATER AT AFTER HRS PP/"N" RECOVERY	
Not Sampled				17"	Reddish Tan & Gray Mix of Coarse Silty Gravelly Sand and Fine Silty Sand (Fill)
C-2 MS/MSD	2.5				Gray Fine Silt (Loess) Grading to Tan with Depth — Tan
					Total Depth 2.5 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO D-1&2-B
JOB NO. 96B315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
D-1-B				100%	Dark Gray & Brown Coarse Sandy Silty Gravel (FILL) 0.8
	1.0				
D-2-B				100%	Brown & Gray Mixed Coarse Sand and Gravel and clayey Silt (FILL)
	2.0				
					Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO E-1&2-B
JOB NO. 963315
DATE 2/12/97
PAGE 1 of 1
TECHNICIAN HDK

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	
				Brown Silty Coarse Gravel (Fill)
	0.4			
E-1-B			100%	Tan Fine Silt (Loess)
	1.0			
E-2-B			100%	
	2.0			
Not Sampled				
	3.0			Total Depth 3.0 Ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO E-1&2-B
JOB NO. 9673315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDL

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
				METHOD OF ADVANCE AUGER TO WASH TO	
				FREE WATER ENCOUNTERED YES NO AT	
				WATER AT AFTER HRS	
				PP/"N" RECOVERY	
F-1-B			100%	Gray Fine Silt (Weathered Loess)	
	1.0				
F-2-B			100%	Tan Fine Silt (Loess)	
	2.0				
NS					
				Total Depth 29"	

LOG OF BORING

PROJECT Vicksburg Chemical Co

FOR LOCC

BORING NO G-1&2-B
JOB NO. 960315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO

FREE WATER ENCOUNTERED YES NO AT

WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
G-1-B	1.0			100%	Dark Gray-Brown Fine Silt with occasional Gravels (Fill)
					Gray-Brown Fine Silt (Weathered Loess)
G-2-B	2.0			100%	Tan Fine Silt (Loess)
NS	2.5				
					Total Depth 2.5 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO H-1&2-B
JOB NO. 963315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
P.P./"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
H-1-B				2"	Gray Silty Gravelly Sand (Fill)
				100%	Red Silty Gravelly Sand (Fill)
	11"				
H-2-B					Black Stained 11-12 Inches
				100%	HDC Dark Gray Fine Silt (Loess) - Appears to be weathered or stained
				19"	
	2.0				Tan Fine Silt (Loess)
Not Sampled				100%	
	3.0				
					Total Depth 40"

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO I-1&2-B
JOB NO. 963315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO

FREE WATER ENCOUNTERED YES NO AT

WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	P.P./"N" RECOVERY	
I-1-B	1.0			100%	Dark Gray and Brown Mottled Silty Gravelly Sand (Fill)
I-2-B	3.0			100%	Tan Fine Silt (Loess)
Not Sampled	3.0			100%	
					Total Depth 3.0 ft.

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO J-1&2-B
JOB NO. 96B315
DATE 2/12/97
PAGE 1 of 1
TECHNICIAN HDL

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
				METHOD OF ADVANCE AUGER TO WASH TO	
				FREE WATER ENCOUNTERED YES NO AT	
				WATER AT AFTER HRS	
				PP/W RECOVERY	
J-1-B			100%	Dark Gray to Brown Silty Sandy Gravelly Fill Dark Gray and Brown Mottled Silty Gravelly Sand (Fill)	
	1.0			Red Fine to Med. Grain Sand Fill w/ occas. Gravels near top	
J-2-B			100%		
	2.0			Tan Fine Silt (Loess) HDL	
NS					
				Total Depth 28"	
				Total Depth 3.0 ft.	

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO K-1&2-B
JOB NO. 96B315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PR/N RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
					Reddish Tan Sand Fill
K-1-B				100%	Tan Fine Silt (Loess)
K-2-B				100%	
NS					Total Depth 28"

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO L-1&2-B
JOB NO. 96B315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN MDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N"	RECOVERY	
M-1-B		ML			100%	Tan Fine Silt (Loess)
M-2-B		ML			100%	
NOT SAMPLED					100%	
	4.0					

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO M-1&2-B
JOB NO. 960315
DATE 2/12/97
PAGE 1 OF 1
TECHNICIAN HDC

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	METHOD OF ADVANCE AUGER TO WASH TO FREE WATER ENCOUNTERED YES NO AT WATER AT AFTER HRS PP/"N" RECOVERY	
M-1-B				95%	Grass/other organic matter 0-2" Tan Silt (Loess
	1.0				
M-2-B				95%	Calcareous (Lime) Rock fragments
	2.0				Total Depth 2.0 ft

PROJECT Vicksburg Chemical **LOG OF BORING**

FOR WCC

BORING NO N-1&2 B
JOB NO. 968315
DATE 2/12/97
PAGE 1 of 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
N-1-B				100%	Red Brick/Tile Rubble and Black Topsoil
	1.0				Black Charred Material
N-2-B				100%	Tan fine Silt (Loess)
	2.0				TOTAL DEPTH 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO HDL 2-1&2-C
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
HDL 2-1-C		1.0		100%	Tan Fine Silt (Loess) HDL
HDL 2-2-C		2.0		100%	
					Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 1-1&2-C
JOB NO. 968315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	METHOD OF ADVANCE AUGER TO WASH TO FREE WATER ENCOUNTERED YES NO AT WATER AT AFTER HRS PP/"N" RECOVERY	
1-1-C				100% 6"	Tan sandy Silt w/ occasional pea gravels (Fill) very moist
	1.0				Tan to Reddish Tan Fine Silt (Loess) moist
1-2-C				100%	
	2.0				Tan & Gray Mottled Fine Silt (Loess) moist
1-3-C				0%	
	2.5				Gray Fine Silt (Loess) wet

Total Depth 2.5ft.

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 3-1E2-C
JOB NO. 963315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N"	RECOVERY	
3-1-C					100%	Tan Fine Sandy, Gravelly Silt (Fill) Wet
3-2-C					50%	
No Sample	2.0					

Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co

LOG OF BORING

FOR WCC

HC 4
BORING NO 8-1&2-C
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N"	RECOVERY	
4-1-C					100%	wet at top 2" moist below 2" Tan Fine Silt with occasional gravels and Coarse Sand pockets (Fill)
1&2-C					50%	
						Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 5-1&2-C
JOB NO. 9613315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PR/'N' RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
5-1-C	1.0			100%	Tan Sandy Gravelly Silt (Fill)
5-2-C	2.0			100%	Gray Sandy Gravelly Silt (Fill)
Not Sampled	3.6			100%	Dark Gray Gravelly Silt (Fill)
Not Sampled				100%	Tan Fine Silt (Loess)

Total Depth 44"

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 6-12-C
JOB NO. 963315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
NS				3" 100%	Brown Coarse Sand (Fill) Wet.
6-1-C					Mixed Reddish Tan Fine to Medium Sand w/ occasional gravels (Fill) Moist and Gray to Dark Gray Sandy, Gravelly Silt (Fill) Moist
NS				100%	
					Gray Fine Silt (Loess) Moist
NS				0%	
					Total Depth 30"

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 6-2-C MS/MSD
JOB NO. 9673315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PPM RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PPM	RECOVERY	
Not Sampled					100%	Tan to Reddish Tan Silty, Gravelly, Coarse to Medium Sand (Fill) Wet, Dense
6-2-C MS					100%	Black Fine Sandy, Gravelly Silt (Fill) Moist, Dense
6-2-C MSD					100%	Gray Fine Silt (Loess)
NS	2.5				0%	
						Total Depth 30"

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 7-1&2-C
JOB NO. 960315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN MDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/'N' RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
7-1-C	1.0			100%	Tan to Reddish Tan Medium to Coarse Gravelly Sand (Fill) - Moist, Dense HOL
7-2-C	2.0			100% 18"	Gray Fine Silt (Loess) Moist
					Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO B-1&2-C
JOB NO. 963315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN ADL

METHOD OF ADVANCE AUGER TO WASH TO

FREE WATER ENCOUNTERED YES NO AT

WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
B-1-C				100%	Tan to Reddish Tan Medium to Coarse Silty Gravelly Sand (Fill) V. Moist, Dense
B-2-C	2.5			100%	Gray Fine Silt (Loess)

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 9-1&2-C
JOB NO. 963315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
P.P./"W" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	P.P./"W" RECOVERY	
9-1-C	1.0			100%	Tan to Reddish Tan Med. to Coarse Silty Gravelly Sand (FILL) Dense
9-2-C	2.0			100%	Gray Fine Silt (Loess)
					Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 10-1&2-C
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
10-1-C	1.0			100%	Tan-Brown to Gray Coarse silty Gravelly Sand (Fill)
10-2-C	2.0			100%	
					Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 11-1&2-C
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN MDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
11-1-C	1.0			100%	Tan to Reddish Tan Coarse to Med Silty Gravelly Sand (Fill)
11-2-C	2.0			100%	
NS	2.5				Gray Fine Silt (Loess)
					Total Depth 30"

LOG OF BORING

PROJECT Vicksburg Chemical Co

FOR WCC

BORING NO 12-1&2-A
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN ADL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
12-1-A		0.8		100%	Reddish Brown Sand, w/Gravels & silt (Fill) - wet -
NS		1.0		100%	Black Silt & Humus
12-2-A		2.0		100%	Dark Gray Fine Silt (Loess), wet Grades to Gray, to Light Gray to Tan with Depth
Not Sampled		3.0		100%	Dry 33" Tan Fine Silt (Loess)
					Total Depth 38"

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 13-1&2-A
JOB NO. 968315
DATE 2/13/97
PAGE 1 of 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
13-1-A	1.0			100%	Reddish Brown Coarse Gravelly Sand (Fill)
No Sample	1.5			100%	
13-2-A	2.0			100%	Dark Gray Fine Silt w/ Organic Matter (Loess) Becomes Gray to Light Gray w/ Depth
No Sample	3.0			100%	
					Total Depth 3.0 ft.

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 14-1&2-A
JOB NO. 863315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
14-1-A	1.0			100%	Reddish Tan Course Gravelly Sand (Fill)
14-2-A	2.0			100%	Gray Fine Silt (Weathered Loess)
No Sample	3.0				

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 15-1&2-A
JOB NO. 963315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N" RECOVERY	
M5				2"	Brown & Gray Silt and Coarse Sand Mix (Fill)
15-1-A	1.0			100%	Dark Gray Fine Silt (Loess) Grades to Light Gray with Depth
15-2-A	2.0			100%	20"
No Sample	2.5			100%	Tan Fine Silt (Loess)
					Total Depth 2.5 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 15-1-MS/MSD
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDL

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	METHOD OF ADVANCE AUGER TO WASH TO FREE WATER ENCOUNTERED YES NO AT WATER AT AFTER HRS P.P./"N" RECOVERY	
MS					Reddish Brown Coarse Silty Sand (Fill)
15-1-MS/MSD		1.0			Gray Fine Silt (Loess) Grades to Tan
No Sample		2.0			Tan Fine Silt (Loess)
No Sample					

NOTE: Collected MS and MSD from Same Boring Due to undetermined obstruction at 15-1-MSD Location (approx 20 to 24" Depth). Could not core through

PROJECT Vicksburg Chemical Co. **LOG OF BORING**

FOR WCC

BORING NO 16-~~1~~2-A
JOB NO. 96B315
DATE 2/13/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PR/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PR/"N"	RECOVERY	
N4			XXX		2"	Brown Coarse Silty Sand (Fill) · Moist
16-1-A					100%	Dark Gray Fine Silt (Loess) Moist to 4" Dry 4" to TD Grading to Light Gray to 18"
16-2-A					100%	18"
						Tan Fine Silt (Loess)
Not Sampled					100%	
	3.0					
						Total Depth 3.0 ft

PROJECT Vicksburg Chem Co.

LOG OF BORING

FOR WCC

BORING NO 17-1&2-A
JOB NO. 96B315
DATE
PAGE 1 OF 1
TECHNICIAN

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
17-1-A		1.0		100%	Reddish Tan Medium Silty Gravelly Sand (FILL) Dense, Wet
17-2-A		2.0		100%	Gray Fine Silt HDL (Loess)
NS		2.4			
					Total Depth 27"

WOODWARD-CLYDE CONSULTANTS

PROJECT Vicksburg Chem. Co. **LOG OF BORING**

FOR WCC

BORING NO 18-1&2-A
JOB NO. 96B315
DATE 2/14/97
PAGE 1 OF 1
TECHNICIAN HDC

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PP/"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	PP/"N"	RECOVERY	
18-1-A	1.0				100%	Reddish Tan Med. to Coarse Silty Gravelly Sand (Fill) Moist, Dense
18-2-A	2.0			14"	100%	Gray Fine Silt (Loess)
NS	2.5				100%	

Total Depth 30"

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 19-1&2-A
JOB NO. 263315
DATE 2/14/97
PAGE 1 OF 1
TECHNICIAN KDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	P.P./"N"	RECOVERY	
19-1-A					100%	Reddish Tan Med. to Coarse Silty Gravelly Sand (Fill) Wet, Dense
19-2-A					100% 16"	
	2.0					Gray Fine Silt (Loess)
						Total Depth 24" (2.0 ft)

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 20-1&2-A
JOB NO. 963315
DATE 2/14/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
PR/"W" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES		
20-1-A	1.0			100%	Reddish Tan Medium Silty Gravelly Sand (Fill) Moist, Dense
20-2-A	2.0			100% 20"	Gray Fine Silt (Loess)
					Total Depth 2.0 ft.

PROJECT Vicksburg Chemical Co **LOG OF BORING**

FOR WCC

BORING NO 21-1&2-A
JOB NO. 96B315
DATE 2/14/97
PAGE 1 OF 1
TECHNICIAN HDL

METHOD OF ADVANCE AUGER TO WASH TO
FREE WATER ENCOUNTERED YES NO AT
WATER AT AFTER HRS
P.P./"N" RECOVERY

SAMPLE NUMBER	DEPTH FEET	SYMBOL	SAMPLES	P.P./"N"	RECOVERY	
21-1-A					100%	Reddish Tan Medium Silty Gravelly Sand (Fill) Dense, wet
	1.0					HDL
21-2-A					100% 17.5"	
						Gray Fine Silt (Loess)
NS	2.0				0%	
						Total Depth 2.0 ft.

phase 2

TERRA TECHNOLOGIES

PROJECT NUMBER	BORING NUMBER	SHEET	OF
97-1063	2		

SOIL BORING LOG

PROJECT Woodward Clyde/Vicksburg Chem LOCATION V'burg Chem, Vicksburg MS

ELEVATION 0 K DRILLING CONTRACTOR

DRILLING METHOD AND EQUIPMENT GEOPROBE

WATER LEVEL AND DATE 01 May 97 START FINISH LOGGER

Depth Below Surface (FT)	SAMPLE Interval	SAMPLE Type and Number	SAMPLE Recovery (IN)	Standard Penetration Test Results 6"-6"-6" (N)	SOIL DESCRIPTION Soil Name, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USGS Group	Symbolic Log	COMMENTS Monitoring Well Installation; Geotechnical Properties, Analytical Tests, Instrumentation
					0-2 - No SAMPL		
	X		18"		2-4 - CLAY: GRY-BROWN, V. SILTY to SNDY, CHERT gravel, DRY		2-2,4-TA /1420
5	X		35"		LOESS: BROWN, SILTY FIRM-HRD DRY - GRY CLAY @ ≈3', 2" thick		2-4,8-TA /1435
10	X		46"		8-12 LOESS: AS ABOVE ~~wet~~ damp @ 11.5' wet		2-8,12-TA /1445
15	X		46"		12-16: LOESS AS ABOVE Becomes gray @ ≈14.5' dry to slightly damp		
20	X		46"		16-20 LOES AS ABOVE BROWN V. wet @ 19'		
					TD ~~#~~20		

PROJECT NUMBER	BORING NUMBER	SHEET 1 OF 1
97-1063	A	

SOIL BORING LOG

PROJECT WOODWARD CLYDE / VICKSBURG Chemical LOCATION D - Vicksburg MS

ELEVATION UK DRILLING CONTRACTOR

DRILLING METHOD AND EQUIPMENT GEOPROBE

WATER LEVEL AND DATE 01 MAY 97 START FINISH LOGGER

Depth Below Surface (FT)	SAMPLE Interval	SAMPLE Type and Number	SAMPLE Recovery (IN)	Standard Penetration Test Results 6"-6"-6" (N)	SOIL DESCRIPTION Soil Name, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USGS Group	Symbolic Log	COMMENTS Monitoring Well Installation, Geotechnical Properties, Analytical Tests, Instrumentation
					0-2 NO SAMPLE		
			24		2-4 - CLY - BRN - GRAY V. SILTY - SANDY w/ CHERT gravels - vague chem odor	CL	A-2,4-T / 1310
5			48		4-8 - CLY: GRY-GREEN SILTY w/gravels, damp, chert Mortar like consistency	CL	A-4,8-T / 1325
			48		8-12 - LOESS - GRY BROWN V. silty firm wet @ 10' no odor		A-8,12-T / 1345
10							
					TD - 12 ft		
15							
20							
25							

PROJECT NUMBER	BORING NUMBER	SHEET	OF
97-1063	7		

SOIL BORING LOG

PROJECT Woodward Clyde / V'burg Chem LOCATION Vicksburg Chemical, Vicksburg MS

ELEVATION UK DRILLING CONTRACTOR

DRILLING METHOD AND EQUIPMENT GEOPROBE

WATER LEVEL AND DATE 01 MAY 97 START FINISH LOGGER

Depth Below Surface (FT)	SAMPLE Interval	Type and Number	Recovery (IN)	Standard Penetration Test Results 6" - 6" - 6" (N)	SOIL DESCRIPTION Soil Name, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USGS Group	Symbolic Log	COMMENTS Monitoring Well Installation, Geotechnical Properties, Analytical Tests, Instrumentation
					0-2 NO SAMPLE		
			18"		2-4: LOESS - V SILTY BROWN-GRAY WET to DAMP		1-2,4-T / 1545
5			46"		4-8 LOESS - GRAY DRY TOWARD TOP BECOMING DAMP w/ Depth V. silty firm - friable no odors		1-4,8-T / 1555
10			46"		8-12 LOESS AS ABOVE GRAY water @ 8' silty		1-8,12-T / 1600
					TD 12'		
15							
20							

PROJECT NUMBER	BORING NUMBER	
97-1063	D	SHEET 1 OF

SOIL BORING LOG

PROJECT WOODWARD CLYDE/V'burg Che LOCATION Vicksburg Chemical, Vicksburg MS

ELEVATION UK DRILLING CONTRACTOR

DRILLING METHOD AND EQUIPMENT GEOPROBE

WATER LEVEL AND DATE 02 MAY 97 START FINISH LOGGER

Depth Below Surface (FT)	SAMPLE Interval	SAMPLE Type and Number	SAMPLE Recovery (IN)	Standard Penetration Test Results 6"-6"-6" (N)	SOIL DESCRIPTION Soil Name, Color, Moisture Content, Relative Density or Consistency, Soil Structure, Mineralogy, USGS Group	Symbolic Log	COMMENTS Monitoring Well Installation, Geotechnical Properties, Analytical Tests, Instrumentation
					0-2 NO SAMPLE		
	X		18"		2-4 LOESS: GRAY, v. silty clayey no odor dry		D-2,4-T/0955
5	X		46"		4-5.5 Loess w/clayey, firm dry 5.5-6 Loess v. silty no clay wet 6-7 Gray Clay v. silty dry 7-8 Loess: brown v. silty dry		D-4,8-T/1000
10	X		46"		8-9.5 Sand/silty Gray wet fine-med hydrocarbon odor 9.5-12 - Loess - brown v. silty dry		D-8,12-T/1010
					TD-12'		
15							
20							

ATTACHMENT 2

"Element Concentrations in Soils and Other Surficial Materials of Conterminous United States", U. S. Geological Survey, Professional Paper 1270

Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States

By HANSFORD T. SHACKLETTE *and* JOSEPHINE G. BOERNGEN

U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1270

An account of the concentrations of 50 chemical elements in samples of soils and other regoliths

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ELEMENT CONCENTRATIONS IN SOILS AND OTHER SURFICIAL MATERIALS OF THE CONTERMINOUS UNITED STATES

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ABSTRACT

Samples of soils or other regoliths, taken at a depth of approximately 20 cm from locations about 80 km apart throughout the conterminous United States, were analyzed for their content of elements. In this manner, 1,318 sampling sites were chosen, and the results of the sample analyses for 50 elements were plotted on maps. The arithmetic and geometric mean, the geometric deviation, and a histogram showing frequencies of analytical values are given for 47 elements.

The lower concentrations of some elements (notably, aluminum, barium, calcium, magnesium, potassium, sodium, and strontium) in most samples of surficial materials from the Eastern United States, and the greater abundance of heavy metals in the same materials of the Western United States, indicates a regional geochemical pattern of the largest scale. The low concentrations of many elements in soils characterize the Atlantic Coastal Plain. Soils of the Pacific Northwest generally have high concentrations of aluminum, cobalt, iron, scandium, and vanadium, but are low in boron. Soils of the Rocky Mountain region tend to have high concentrations of copper, lead, and zinc. High mercury concentrations in surficial materials are characteristic of Gulf Coast sampling sites and the Atlantic coast sites of Connecticut, Massachuetts, and Maine. At the State level, Florida has the most striking geochemical pattern by having soils that are low in the concentrations of most elements considered in this study. Some smaller patterns of element abundance can be noted, but the degree of confidence in the validity of these patterns decreases as the patterns become less extensive.

INTRODUCTION

The abundance of certain elements in soils and other surficial materials is determined not only by the element content of the bedrock or other deposits from which the materials originated, but also by the effects of climatic and biological factors as well as by influences of agricultural and industrial operations that have acted on the materials for various periods of time. The diversity of these factors in a large area is expected to result in a corresponding diversity in the element contents of the surficial materials.

At the beginning of this study (1961), few data were available on the abundance of elements in surficial materials of the United States as a whole. Most of the early reports discussed only the elements that were of economic importance to mining or agriculture in a metallogenic area or State; and the data, for the most part, cannot be evaluated with reference to average, or normal, amounts in undisturbed materials because they were based on samples of deposits expected to have anomalous amounts of certain elements, or were based only on samples from cultivated fields.

We began a sampling program in 1961 that was designed to give estimates of the range of element abundance in surficial materials that were unaltered or very little altered from their natural condition, and in plants that grew on these deposits, throughout the conterminous United States. We believed that analyses of the surficial materials would provide a measure of the total concentrations of the elements that were present at the sampling sites, and that analysis of the plants would give an estimate of the relative concentrations among sites of the elements that existed in a chemical form that was available to plants. Because of the great amount of travel necessary to complete this sampling, we asked geologists and others of the U.S. Geological Survey to assist by collecting samples when traveling to and from their project areas and to contribute appropriate data they may have collected for other purposes. The reponse to this request, together with the samples and data that we had collected, resulted in our obtaining samples of surficial materials and plants from 863 sites. The analyses of surficial materials sampled in this phase of the study were published for 35 elements by plotting element concentrations, in two to five frequency classes, on maps (Shacklette, Hamilton, and others, 1971).

Soon after the publication of the results of this study, interest in environmental matters, particularly in the effects of contamination and industrial pollution, increased greatly. At the same time, technological advances in analytical methods and data processing facilitated measurements of geochemical and other parameters of the environment. In response to the need for background data for concentrations of certain elements of particular environmental concern, the samples of surficial materials that were collected for the first study (Shacklette, Hamilton, and others, 1971) (with some ad-

ditional samples) were analyzed for other elements, and the results were published in U.S. Geological Survey Circulars: for mercury, Shacklette, Boerngen, and Turner (1971); for lithium and cadmium, by Shacklette, and others (1973); and for selenium, fluorine, and arsenic, Shacklette and others (1974).

The collection of samples for this study continued, as opportunities arose, until autumn 1975, resulting in the sampling of an additional 355 sites that were selected to give a more uniform geographical coverage of the conterminous United States. This sampling continuation is referred to as phase two. These samples were analyzed, and the data were merged with those of the original samples to produce the results given in the present report. In addition, the availability of analytical methods for elements not included in the earlier reports permitted data to be given on these elements in the more recently collected samples.

The collection localities and dates, sample descriptions, and analytical values for each sample in the present report were published by Boerngen and Shacklette (1981). The elemental compositions of only the surficial materials are given in this report; the data on analyses of the plant samples are held in files of the U.S. Geological Survey.

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REVIEW OF LITERATURE

The literature on the chemical analysis of soils and other surficial materials in the United States is extensive and deals largely with specific agricultural problems of regional interest. Many of the papers were written by soil scientists and chemists associated with State agricultural experiment stations and colleges of agriculture, and most reports considered only elements that were known to be nutritive or toxic to plants or animals.

Chemists with the U.S. Department of Agriculture prepared most early reports of element abundance in soils for large areas of the United States. (See Robinson, 1914; Robinson and others, 1917). The 1938 yearbook of agriculture was devoted to reports on soils of the United States; in this book, McMurtrey and Robinson (1938) discussed the importance and abundance of trace elements in soils. Amounts of the major elements in soil samples from a few soil profiles distributed throughout the United States were compiled by the soil scientist C. F. Marbut (1935) to illustrate characteristics of soil units.

The use of soil analysis in geochemical prospecting began in this country in the 1940's, and many reports were published on the element amounts in soils from areas where mineral deposits were known or suspected to occur. Most of these reports included only a few elements in soils from small areas. This early geochemical work was discussed by Webb (1953) and by Hawkes (1957). In succeeding years, as soil analyses became an accepted method of prospecting and as analytical

methods were improved, many elements in soils were analyzed; still, the areas studied were commonly small.

An estimate of the amounts of elements in average, or normal, soils is useful in appraising the amounts of elements in a soil sample as related to agricultural, mineral prospecting, environmental quality, and health and disease investigations. Swaine (1955) gave an extensive bibliography of trace-element reports on soils of the world, and he also summarized reports of the average amounts of elements as given by several investigators. The most comprehensive list of average amounts of rare and dispersed elements in soils is that of Vinogradov (1959), who reported the analytical results of extensive studies of soils in the Union of Soviet Socialist Republics, as well as analyses of soils from other countries. He did not state the basis upon which he established the average values; however, these values are presumably the arithmetic means of element amounts in samples from throughout the world. In their discussions of the principles of geochemistry, Goldschmidt (1954) and Rankama and Sahama (1955) reported the amounts of various elements present in soils and in other surficial materials, Hawks and Webb (1962) and, more recently, Brooks (1972), Siegal (1974), Levinson (1974), and Rose and others (1979) gave average amounts of certain elements in soils as useful guides in mineral exploration.

A report on the chemical characteristics of soils was edited by Bear (1964). In this book, the chapter on chemical composition of soils by Jackson (1964) and the chapter on trace elements in soils by Mitchell (1964) gave the ranges in values or the average amounts of some soil elements.

Regional geochemical studies conducted by scientists of the U.S. Geological Survey within the past two decades have been largely directed to the establishment of baseline abundances of elements in surficial materials, including soils. Most of the earlier work investigated these materials that occurred in their natural condition, having little or no alterations that related to human activities, with the objective of establishing normal element concentrations in the materials by which anomalous concentrations, both natural or man induced, could be judged. Some of these studies were conducted in cooperation with medical investigators who were searching for possible relationships of epidemiological patterns to characteristics of the environment. In one study, the geochemical characteristics of both natural and cultivated soils were determined in two areas of Georgia that had contrasting rates of cardiovascular diseases (Shacklette and others, 1970). In an extensive geochemical study of Missouri, also conducted cooperatively with medical researchers, both cultivated and natural soils were sampled. The results were presented for the State as a whole, and for physiographic regions or other subdivisions and smaller areas, as follows: Erdman and others (1976a, 1976b); Tidball (1976, 1983a, 1983b); and Ebens and others (1973). The results of these studies, and of other regional geochemical investigations, were summarized and tabulated by Connor and Shacklette (1975).

Recent regional studies of soil geochemistry by the U.S. Geological Survey related to the development of energy resources in the western part of the United States, including North Dakota, South Dakota, Montana, Wyoming, Colorado, Utah, and New Mexico. These studies established regional geochemical baselines for soils, both in undisturbed areas and in areas that had been altered by mining and related activities. Some of these studies considered the elements in soils both as total concentrations and as concentrations that were available to plants of the region. The results of these studies were published in annual progress reports (U.S. Geological Survey, 1974, 1975, 1976, 1977, and 1978). The data on soils, as well as on other natural materials, in these reports were summarized and tabulated by Ebens and Shacklette (1981). In a study of the elements in fruits and vegetables from 11 areas of commercial production in the United States, and in the soils on which this produce grew, soils were analyzed for 39 elements, as reported by Boerngen and Shacklette (1980) and Shacklette (1980).

The average amounts of elements in soils and other surficial materials of the United States, as determined in the present study, are given in table 1, with the average values or ranges in values that were reported by Vinogradov (1959), Rose and others (1979), Jackson (1964), Mitchell (1964), and Brooks (1972). The averages from the present study given in table 1 are the arithmetic means. Although the averages were computed by the methods described by Miesch (1967), the values obtained are directly comparable with the arithmetic means derived by common computational procedures.

COLLECTION AND ANALYSIS OF GEOCHEMICAL DATA

SAMPLING PLAN

The sampling plan was designed with the emphasis on practicality, in keeping with the expenditures of time and funds available, and its variance from an ideal plan has been recognized from the beginning. Because the collection of most samples was, by necessity, incidental to other duties of the samplers, the instructions for sampling were simplified as much as possible, so that sampling methods would be consistent within the wide range of kinds of sites to be sampled. The samples were

TABLE 1.—*Average or median contents, and range in contents, reported for elements in soils and other surficial materials*

[Data are in parts per million; each average represents arithmetic mean; leaders (—) in figure columns indicate no data available. A, average; M, median. <, less than; >, greater than]

Element	This report		Rose, and others (1979) (elements useful in geochemical prospecting)	Vinogradov (1959) (presumably, averages from worldwide sampling)	Jackson (1964)	Mitchell (1964)	Brooks (1972)
	Average	Range			"Typical",[1] average, or range in values	Range in contents in Scottish surface soils	Average or range
Al	72,000	700 - <10,000	—	71,300	10,000 - 60,000	—	—
As	7.2	<0.1 - 97	7.5 (M)	5	—	—	5
B	33	<20 - 300	29 (M)	10	30	—	10
Ba	580	10 - 5,000	300 (M)	—	—	400 - 3,000	500
Be	.92	<1 - 15	0.5 - 4	6	—	<5 - 5	6
Bi	.85	<0.5 - 11	—	5	—	—	—
C, total	25,000	600 - 370,000	—	20,000	—	—	—
Ca	24,000	100 - 320,000	—	13,700	7,000	—	—
Ce	75	<150 - 300	—	—	—	—	—
Co	9.1	<3 - 70	10 (M)	8	—	<2 - 80	10
Cr	54	1 - 2,000	6.3 (M)	200	—	5 - 3,000	200
Cu	25	<1 - 700	15 (M)	20	20	<10 - 100	20
F	430	<10 - 3,700	300 (M)	200	—	—	—
Fe	26,000	100 - >100,000	21,000 (M)	38,000	7,000 - 42,000	—	10,000 - 50,000
Ga	17	<5 - 70	—	30	—	15 - 70	20
Ge	1.2	<0.1 - 2.5	—	1	—	—	5
Hg	.09	<0.01 - 4.6	0.056 (M)	—	—	—	.01
I	1.2	<0.5 - 9.6	—	—	—	—	—
K	15,000	50 - 63,000	11,000 (M)	13,600	400 - 28,000	—	—
La	37	<30 - 200	—	—	—	<30 - 200	—
Li	24	<5 - 140	6.2 (M)	30	—	—	30
Mg	9,000	50 - >100,000	—	6,300	<6,000	—	—
Mn	550	<2 - 7,000	320 (M)	850	—	200 - 5,000	850
Mo	.97	<3 - 15	2.5 (A)	2	—	<1 - 5	2.5
Na	12,000	<500 - 100,000	—	6,300	—	—	—
Nb	11	<10 - 100	15 (A)	—	—	—	15
Nd	46	<70 - 300	—	—	—	—	—
Ni	19	<5 - 700	17 (M)	40	—	10 - 800	40
P	430	<20 - 6,800	300 (M)	800	500	—	—
Pb	19	<10 - 700	17 (M)	—	—	<20 - 80	10
Rb	67	<20 - 210	35 (M)	100	—	—	—
S, total	1,600	<800 - 48,000	100 - 2,000	850	—	—	—
Sb	.66	<1 - 8.8	2 (A)	—	—	—	.5
Sc	8.9	<5 - 50	—	7	—	<3 - 15	—
Se	.39	<0.1 - 4.3	0.31 (M)	.001	—	—	.5
Si	310,000	16,000 - 450,000	—	330,000	—	—	—
Sn	1.3	<0.1 - 10	10 (A)	—	—	—	10
Sr	240	<5 - 3,000	67 (M)	300	—	60 - 700	300
Ti	2,900	70 - 20,000	—	4,600	1,200 - 6,000	—	—
Th	9.4	2.2 - 31	—	—	—	—	13
U	2.7	0.29 - 11	1 (A)	—	—	—	1
V	80	<7 - 500	57 (M)	100	—	20 - 250	100
Y	25	<10 - 200	—	50	—	25 - 100	—
Yb	3.1	<1 - 50	—	—	—	—	—
Zn	60	<5 - 2,900	36 (M)	50	—	—	50
Zr	230	<20 - 2,000	270 (M)	300	—	200 - >1,000	—

[1]Author's usage; generally used to indicate the most commonly occurring value.

collected by U.S. Geological Survey personnel along their routes of travel to areas of other types of field studies or within their project areas.

The locations of the routes that were sampled depended on both the network of roads that existed and the destinations of the samplers. Sampling intensity was kept at a minimum by selecting only one sampling site every 80 km (about 50 miles; selected for convenience because vehicle odometers were calibrated in miles) along the routes. The specific sampling sites were selected, insofar as possible, that had surficial materials that were very little altered from their natural condition and that supported native plants suitable for sampling. In practice, this site selection necessitated sampling away from roadcuts and fills. In some areas, only cultivated fields and plants were available for sampling.

Contamination of the sampling sites by vehicular emissions was seemingly insignificant, even though many sites were within 100 m or less of the roads. Col-

lecting samples at about 20 cm depth, rather than at upper soil horizons, may have avoided the effects urface contamination on the samples. However, we had no adequate way of measuring any contamination that may have occurred. (See Cannon and Bowles, 1962.) Many of the sampled routes had only light vehicular traffic, and some were new interstate highways. Routes through congested areas generally were not sampled; therefore, no gross contamination of the samples was expected.

The study areas that were sampled follow: Wisconsin and parts of contiguous States, southeastern Missouri, Georgia, and Kentucky, sampled by Shacklette; Kentucky, sampled by J. J. Connor and R. R. Tidball; Nevada, New Mexico, and Maryland, sampled by H. L. Cannon; various locations in Arizona, Colorado, Montana, New Mexico, Utah, and Wyoming, sampled by F. A. Branson and R. F. Miller; Missouri, sampled by Shacklette, J. A. Erdman, J. R. Keith, and R. R. Tidball; and various locations in Colorado, Idaho, Montana, South Dakota, Utah, and Wyoming, sampled by A. T. Miesch and J. J. Connor. Sampling techniques used in these areas varied according to the primary objectives of the studies being conducted, but generally these techniques were closely similar to the methods used in sampling along the roads.

In general, the sampling within study areas was more intensive than that along the travel routes. To make the sampling intensity of the two sampling programs more nearly equal, only the samples from selected sites in the study areas were used for this report. The selected sites were approximately 80 km apart. Where two or more samples were collected from one site, they were assigned numbers, and one of these samples was randomly chosen for evaluation in this study.

SAMPLING MEDIA

The material sampled at most sites could be termed "soil" because it was a mixture of comminuted rock and organic matter, it supported ordinary land plants, and it doubtless contained a rich microbiota. Some of the sampled deposits, however, were not soils as defined above, but were other kinds of regoliths. The regoliths included desert sands, sand dunes, some loess deposits, and beach and alluvial deposits that contained little or no visible organic matter. In some places the distinctions between soils and other regoliths are vague because the materials of the deposits are transitional between the two. Samples were collected from a few deposits consisting mostly of organic materials that would ordinarily be classified as peat, rather than soil.

To unify sampling techniques, the samplers were asked to collect the samples at a depth of approximately cm below the surface of the deposits. This depth was chosen as our estimate of a depth below the plow zone that would include parts of the zone of illuviation in most well-developed zonal soils, and as a convenient depth for sampling other surficial materials. Where the thickness of the material was less than 20 cm, as in shallow soils over bedrock or in lithosols over large rock fragments, samples were taken of the material that lay just above the rock deposits. About 0.25 liter of this material was collected, put in a kraft paper envelope, and shipped to the U.S. Geological Survey laboratories in Denver, Colo.

CHEMICAL-ANALYSIS PROCEDURES

The soil samples were oven dried in the laboratory and then sifted through a 2-mm sieve. If the soil material would not pass this sieve, the sample was pulverized in a ceramic mill before seiving. Finally, the sifted, minus 2-mm fraction of the sample was used for analysis.

The methods of analysis used for some elements were changed during the course of this study, as new techniques and instruments became available. For most elements, the results published in the first report (Shacklette, Hamilton, and others, 1971) were obtained by use of a semiquantitative six-step emission spectrographic method (Meyers and others, 1961). The methods used for other elements were: EDTA titration for calcium; colorimetric (Ward and others, 1963) for phosphorus and zinc; and flame photometry for potassium. Many of the elements analyzed in the 355 samples collected in phase two of the study were also analyzed by the emission spectrographic method (Neiman, 1976). Other methods were used for the following elements: flame atomic absorption (Huffman and Dinnin, 1976) for mercury, lithium, magnesium, sodium, rubidium, and zinc; flameless atomic absorption (Vaughn, 1967) for mercury; X-ray fluorescence spectrometry (Wahlberg, 1976) for calcium, germanium, iron, potassium, selenium, silver, sulfur, and titanium; combustion (Huffman and Dinnin, 1976) for total carbon; and neutron activation (Millard, 1975, 1976) for thorium and uranium.

DATA PRESENTATION

Summary data for 46 elements are reported in tables 1 and 2. In table 1, the element concentrations found in samples of soil and other surficial materials of this study are compared with those in soils reported in other studies. Arithmetic means are used for the data of this study to make them more readily compared with the data generally reported in the literature. These arithmetic means were derived from the estimated geometric means by using a technique described by Miesch (1967), which is based on methods devised by Cohen (1959) and Sichel (1952). The arithmetic means in table

1, unlike the geometric means shown in table 2, are estimates of geochemical abundance (Miesch, 1967). Arithmetic means are always larger than corresponding geometric means (Miesch, 1967, p. B1) and are estimates of the fractional part of a single specimen that consists of the element of concern rather than of the typical concentration of the element in a suite of samples.

Concentrations of 46 elements in samples of this study are presented in table 2, which gives the determination ratios, geometric-mean concentrations and deviations, and observed ranges in concentrations. The analytical data for most elements as received from the laboratories were transformed into logarithms because of the tendency for elements in natural materials, particularly the trace elements, to have positively skewed

TABLE 2.—*Mean concentrations, deviations, and ranges of elements in samples of soils and other surficial materials in the conterminous United States*

[Means and ranges are reported in parts per million (μg/g), and means and deviations are geometric except as indicated. Ratio, number of samples in which the element was found in measurable concentrations to number of samples analyzed. <, less than; >, greater than]

Element	Conterminous United States			Western United States (west of 96th meridian)					Eastern United States (east of 96th meridian)				
	Mean	Deviation	Estimated arithmetic mean	Ratio	Mean	Deviation	Observed range	Estimated arithmetic mean	Ratio	Mean	Deviation	Observed range	Estimated arithmetic mean
Al, percent	4.7	2.48	7.2	661:770	5.8	2.00	0.5 - >10	7.4	450:477	3.3	2.87	0.7 - >10	5.7
As	5.2	2.23	7.2	728:730	5.5	1.98	<0.10 - 97	7.0	521:527	4.8	2.56	<0.1 - 73	7.4
B	26	1.97	33	506:778	23	1.99	<20 - 300	29	425:541	31	1.88	<20 - 150	38
Ba	440	2.14	580	778:778	580	1.72	70 - 5,000	670	541:541	290	2.35	10 - 1,500	420
Be	.63	2.38	.92	310:778	.68	2.30	<1 - 15	.97	169:525	.55	2.53	<1 - 7	.85
Br	.56	2.50	.85	113:220	.52	2.74	<0.5 - 11	.86	78:128	.62	2.18	<0.5 - 5.3	.85
C, percent	1.6	2.57	2.5	250:250	1.7	2.37	0.16 - 10	2.5	162:162	1.5	2.88	0.06 - 37	2.6
Ca, percent	.92	4.00	2.4	777:777	1.8	3.05	0.06 - 32	3.3	514:514	.34	3.08	0.01 - 28	.63
Ce	63	1.78	75	81:683	65	1.71	<150 - 300	75	70:489	63	1.85	<150 - 300	76
Co	6.7	2.19	9.1	698:778	7.1	1.97	<3 - 50	9.0	403:533	5.9	2.57	<0.3 - 70	9.2
Cr	37	2.37	54	778:778	41	2.19	3 - 2,000	56	541:541	33	2.60	1 - 1,000	52
Cu	17	2.44	25	778:778	21	2.07	2 - 300	27	523:533	13	2.80	<1 - 700	22
F	210	3.34	430	598:610	280	2.52	<10 - 1,900	440	390:435	130	4.19	<10 - 3,700	360
Fe, percent	1.8	2.38	2.6	776:777	2.1	1.95	0.1 - >10	2.6	539:540	1.4	2.87	0.01 - >10	2.5
Ga	13	2.03	17	767:776	16	1.68	<5 - 70	19	431:540	9.3	2.38	<5 - 70	14
Ge	1.2	1.37	1.2	224:224	1.2	1.32	0.58 - 2.5	1.2	130:131	1.1	1.45	<0.1 - 2.0	1.2
Hg	.058	2.52	.089	729:733	.046	2.33	<0.01 - 4.6	.065	534:534	.081	2.52	0.01 - 3.4	.12
I	.75	2.63	1.2	169:246	.79	2.55	<0.5 - 9.6	1.2	90:153	.68	2.81	<0.5 - 7.0	1.2
K, percent[1]	1.5	.79	None	777:777	1.8	.71	0.19 - 6.3	None	537:537	1.2	.75	0.005 - 3.7	—
La	30	1.92	37	462:777	30	1.89	<30 - 200	37	294:516	29	1.98	<30 - 200	37
Li	20	1.85	24	731:731	22	1.58	5 - 130	25	479:527	17	2.16	<5 - 140	22
Mg, percent	.44	3.28	.90	777:778	.74	2.21	0.03 - >10	1.0	528:528	.21	3.55	0.005 - 5	.46
Mn	330	2.77	550	777:777	380	1.98	30 - 5,000	480	537:540	260	3.82	<2 - 7,000	640
Mo	.59	2.72	.97	57:774	.85	2.17	<3 - 7	1.1	32:524	.32	3.93	<3 - 15	.79
Na, percent	.59	3.27	1.2	744:744	.97	1.95	0.05 - 10	1.2	363:449	.25	4.55	<0.05 - 5	.78
Nb	9.3	1.75	11	418:771	8.7	1.82	<10 - 100	10	322:498	10	1.65	<10 - 50	12
Nd	40	1.68	46	120:538	36	1.76	<70 - 300	43	109:332	46	1.58	<70 - 300	51
Ni	13	2.31	19	747:778	15	2.10	<5 - 700	19	443:540	11	2.64	<5 - 700	18
P	260	2.67	430	524:524	320	2.33	40 - 4,500	460	380:382	200	2.95	<20 - 6,800	360
Pb	16	1.86	19	712:778	17	1.80	<10 - 700	20	422:541	14	1.95	<10 - 300	17
Rb	58	1.72	67	221:224	69	1.50	<20 - 210	74	107:131	43	1.94	<20 - 160	53
S, percent	.12	2.04	.16	34:224	.13	2.37	<0.08 - 4.8	.19	20:131	.10	1.34	<0.08 - 0.31	.11
Sb	.48	2.27	.67	35:223	.47	2.15	<1 - 2.6	.62	31:131	.52	2.38	<1 - 8.8	.76
Sc	7.5	1.82	8.9	685:778	8.2	1.74	<5 - 50	9.6	389:526	6.5	1.90	<5 - 30	8.0
Se	.26	2.46	.39	590:733	.23	2.43	<0.1 - 4.3	.34	449:534	.30	2.44	<0.1 - 3.9	.45
Si, percent[1]	31	6.48	None	250:250	30	5.70	15 - 44	None	156:156	34	6.64	1.7 - 45	—
Sn	.89	2.36	1.3	218:224	.90	2.11	<0.1 - 7.4	1.2	123:131	.86	2.81	<0.1 - 10	1.5
Sr	120	3.30	240	778:778	200	2.16	10 - 3,000	270	501:540	53	3.61	<5 - 700	120
Ti, percent	.24	1.89	.29	777:777	.22	1.78	0.05 - 2.0	.26	540:540	.28	2.00	0.007 - 1.5	.35
Th	8.6	1.53	9.4	195:195	9.1	1.49	2.4 - 31	9.8	102:102	7.7	1.58	2.2 - 23	8.6
U	2.3	1.73	2.7	224:224	2.5	1.45	0.68 - 7.9	2.7	130:130	2.1	2.12	0.29 - 11	2.7
V	58	2.25	80	778:778	70	1.95	7 - 500	88	516:541	43	2.51	<7 - 300	66
Y	21	1.78	25	759:778	22	1.66	<10 - 150	25	477:541	20	1.97	<10 - 200	25
Yb	2.6	1.79	3.1	754:764	2.6	1.63	<1 - 20	3.0	452:486	2.6	2.06	<1 - 50	3.3
Zn	48	1.95	60	766:766	55	1.79	10 - 2,100	65	473:482	40	2.11	<5 - 2,900	52
Zr	180	1.91	230	777:778	160	1.77	<20 - 1,500	190	539:541	220	2.01	<20 - 2,000	290

[1]Means are arithmetic, deviations are standard.

frequency distributions. For this reason, the geometric mean is the more proper measure of central tendency of these elements. The frequency distributions for potassium and silicon, on the other hand, are more nearly normal if the data are not transformed to logarithms and the mean is expressed as the arithmetic average.

In geochemical background studies, the magnitude of scatter to be expected around the mean is as important as the mean. In lognormal distributions, the geometric deviation measures this scatter, and this deviation may be used to estimate the range of variation expected for an element in the material being studied. About 68 percent of the samples in a randomly selected suite should fall within the limits M/D and $M \cdot D$, where M represents the geometric mean and D the geometric deviation. About 95 percent should fall between M/D^2 and $M \cdot D^2$, and about 99.7 percent between M/D^3 and $M \cdot D^3$.

The analytical data for some elements include values that are below, or above, the limits of numerical determination, and these values are expressed as less than (<) or greater than (>) a stated value. These data are said to be censored, and for these the mean was computed by using a technique described by Cohen (1959) and applied to geochemical studies by Miesch (1967). This technique requires an adjustment of the summary statistics computed for the noncensored part of the data. The censoring may be so severe in certain sets of data that a reliable adjustment cannot be made; with the data sets used in the present study, however, no such circumstances were encountered. The use of these procedures in censored data to quantify the central tendency may result in estimates of the mean that are lower than the limit of determination. For example, in table 2 the geometric-mean molybdenum concentration in soils from the Eastern United States is estimated to be 0.32 ppm, although the lower limit of determination of the analytical method that was used is 3 ppm. Use of this procedure permits inclusion of the censored values in the calculation of expected mean concentrations.

The determination ratios in table 2—that is, the ratio of the number of samples in which the element was found in measurable concentrations to the total number of samples—permit the number of censored values, if any, to be found that were used in calculating the mean. This number is found by subtracting the left value in the ratio from the right.

The distribution of the sampling sites and the concentrations of elements determined for samples from the sites are presented on maps of the conterminous United States (figs. 1–47). Figure 1 shows the locations of sites where four elements, bismuth, cadmium, praseodymium, and silver, were found in the samples. These elements were determined too uncommonly for reliable mean concentrations to be calculated. Each of the remaining maps (figs. 2–47) gives the locations where an element was found in a sample from a site and the concentration of the element, shown by a symbol that represents a class of values. By examining the tables of frequency for concentration values of the elements, we were able to divide the ranges of reported values for many elements into five classes so that approximately 20 percent of the values fell into each class. The limited range in values for some elements, however, prohibited the use of more than two or three classes to represent the total distribution. Symbols representing the classes were drawn on the maps by an automatic plotter that was guided by computer classification of the data, including the latitude and longitude of the sampling sites. A histogram on each map gives the frequency distribution of the analytical values, and the assignment of analytical values to each class as represented by symbols.

We were able to obtain analyses of 11 more elements for the 355 samples of phase two of this study than for the 963 samples of phase one because of improved analytical methods and services. These elements are antimony, bromine, carbon, germanium, iodine, rubidium, silicon, sulfur, thorium, tin, and uranium. The constraints of resources and time prohibited analysis of the 963 samples of the first phase for these additional elements. Results of analysis of the plant samples that were collected at all soil-sampling sites are not presented in this report.

Some elements were looked for in all samples but were not found. These elements, analyzed by the semiquantitative spectrographic method, and their approximate lower detection limits, in parts per million, are as follows: gold, 20; hafnium, 100; indium, 10; platinum, 30; palladium, 1; rhenium, 30; tantalum, 200; tellurium, 2,000; and thallium, 50. If lanthanum or cerium were found in a sample, the following elements, with their stated lower detection limits, were looked for in the same sample but were not found: dysprosium, 50; erbium, 50; gadolinium, 50; holmium, 20; lutetium, 30; terbium, 300; and thulium, 20.

DISCUSSION OF RESULTS

The data presented in this report may reveal evidence of regional variations in abundances of elements in soils or other regoliths; single values or small clusters of values on the maps may have little significance if considered alone. Apparent differences in values shown between certain sampling routes, such as some of those across the Great Plains and the North Central States where high values for cerium, cobalt, gallium, and lead predominate, suggest the possibility of systematic er-

rors in sampling or in laboratory analysis. Some gross patterns and some of lesser scale, nevertheless, are evident in the compositional variation of regoliths, as shown in figures 2–47.

The lower abundances of some elements (notably aluminum, barium, calcium, magnesium, potassium, sodium, and strontium) in regoliths of the Eastern United States, and the greater abundances of the heavy metals in the same materials of the Western United States indicate a regional pattern of the largest scale. This visual observation of the maps can be substantiated by examining the mean concentrations for these two regions given in table 2. The abundances of these elements differ markedly on either side of a line extending from western Minnesota southward through east-central Texas. This line is generally from the 96th to 97th meridian, and corresponds to the boundary proposed by Marbut (1935, p. 14), which divides soils of the United States into two major groups—the pedalfers that lie to the east, and the pedocals to the west. Marbut (1928) attributed the major differences in chemical and physical qualities of these two major groups to the effects of climate on soils. A line approximating the 96th meridian also separates the Orders, Suborders, and Great Groups of moist-to-wet soils in the Eastern United States from the same categories of dry soils that lie to the west, as mapped by the [U.S.] Soil Conservation Service (1969). As shown in table 2, soils of the Western United States have the highest mean values for all elements considered in this report except for antimony, boron, bromine, mercury, neodymium, selenium, titanium, and zirconium. The differences, however, probably are not significant for these latter elements, except for zirconium.

Superimposed upon this large-scale compositional variation pattern are several features of intermediate scale. Perhaps the most notable of these are the low concentrations of many elements in soils of the Atlantic Coastal Plain. Soils of the Pacific Northwest are high in concentrations of aluminum, cobalt, iron, scandium, and vanadium, but low in boron, and soils of the Rocky Mountain region tend to be high in copper, lead, and zinc.

Several small-scale patterns of compositional variation can be noted, among them the high mercury concentrations in surficial materials from the Gulf Coast of eastern Texas, Louisiana, Mississippi, Alabama, and northwest Florida, and a similar pattern on the Atlantic Coast in Connecticut, Massachusetts, and Maine. High phosphorus values occur in soils along a line extending west across Utah and Nevada to the coast of California, then south-east in California and Arizona. At the State level, Florida shows the most striking pattern by having low soil concentrations of most of the elements considered in this study.

The concentrations of certain elements do not show well-defined patterns of distribution, and the regional concentrations of some other elements cannot be evaluated because they were not present in detectable amounts in most of the samples, or because the sampling density was insufficient. The degree of confidence in regional patterns of element abundance is expected to be in direct proportion to the number of samples analyzed from the region. As the observed patterns become smaller, the probability increases that the characteristics that form the patterns are the results of chance.

Some features of element-abundance patterns probably reflect geologic characteristics of the areas that the soils overlie. Samples from most of the regoliths overlying basic volcanic rocks of Washington and Oregon contained higher than average concentrations of iron and other elements, as mentioned earlier. A few soil samples with high phosphorus content are associated with phosphate deposits in Florida, and a single sample in Michigan with high copper content is known to be of soil that occurs over a copper deposit.

These data do not provide obvious evidences of north-south trends in elemental compositions that might be expected to relate to differences in temperature regimes under which the surficial materials developed. There is, moreover, no consistent evidence of significant differences in element abundances between glaciated and nonglaciated areas (the general area of continental glaciation includes the northern tier of States from Montana to Maine and south in places to about lat 40°N.; see fig. 1).

The world averages of abundance for some elements in soils, as given by Vinogradov (1959) and by others (table 1), do not correspond to the averages of abundance for these elements in the soils of the United States, according to the data presented in this report. The world averages are too low for the concentrations of boron, calcium, cerium, lead, magnesium, potassium, and sodium in United States soils and other surficial materials, and too high for beryllium, chromium, gallium, manganese, nickel, phosphorus, titanium, vanadium, and yttrium.

The stability of values for concentrations of most elements seems to be satisfactory because the addition of analytical values for 355 samples of phase two of the study to values for 963 samples of the first phase did not significantly change the geometric means and deviations of element abundance that were reported earlier (Shacklette, Boerngen, and Turner, 1971; Shacklette, Hamilton, and others, 1971; Shacklette and others,

1973, 1974). Although additional sampling of the same type as reported here might give a clearer picture of small-to-intermediate element-abundance patterns, mean values reported herein most likely would not change significantly.

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Webb, J. S., 1953, A review of American progress in geochemical prospecting and recommendations for future British work in this field: Institute of Mining and Metallurgy Transactions, v. 62, pt. 7, p. 321–348.

ILLUSTRATIONS

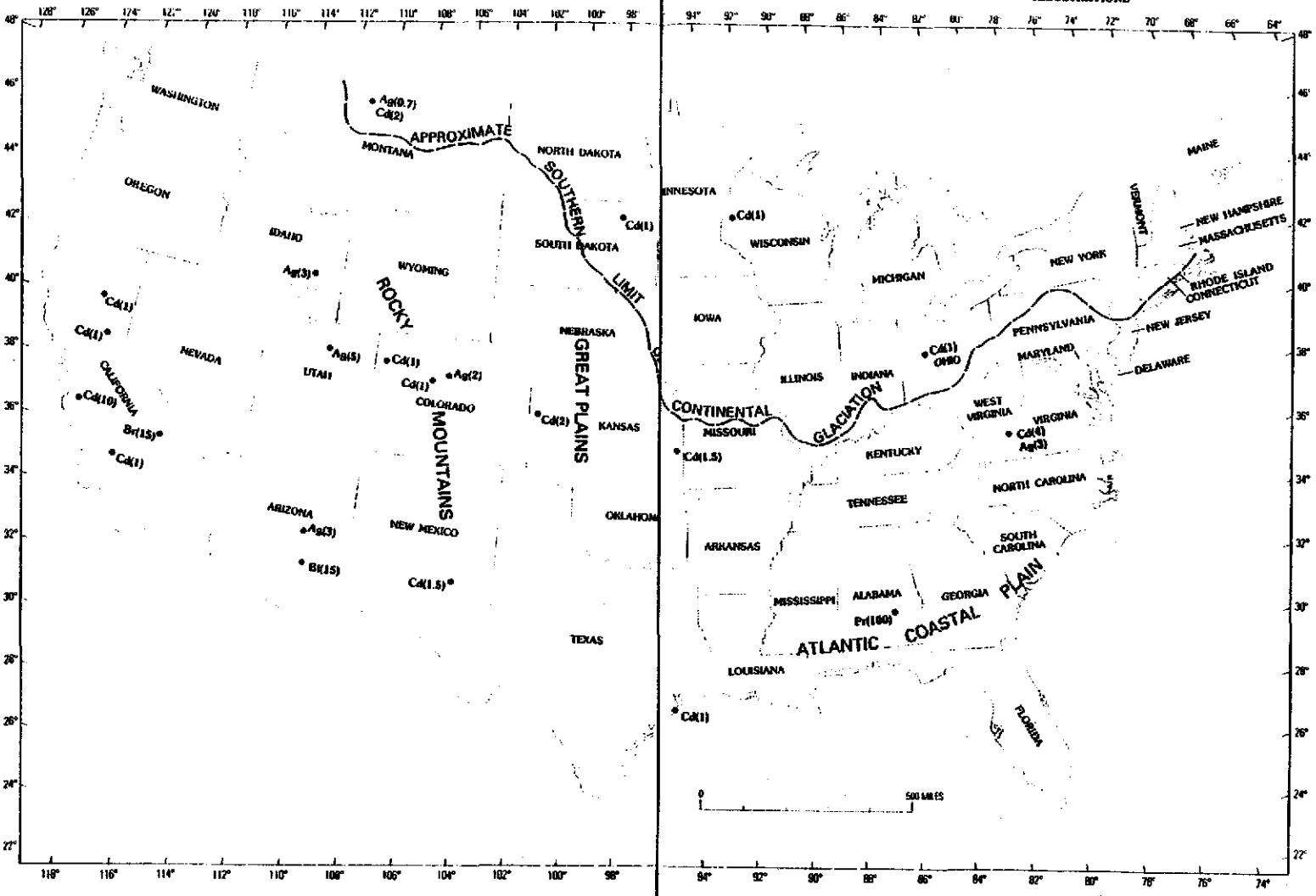

FIGURE 1.—Location of sampling sites in the conterminous United States where elements not commonly detected in surficial deposits were found, and the amounts of the elements present, in parts per million, in parentheses.

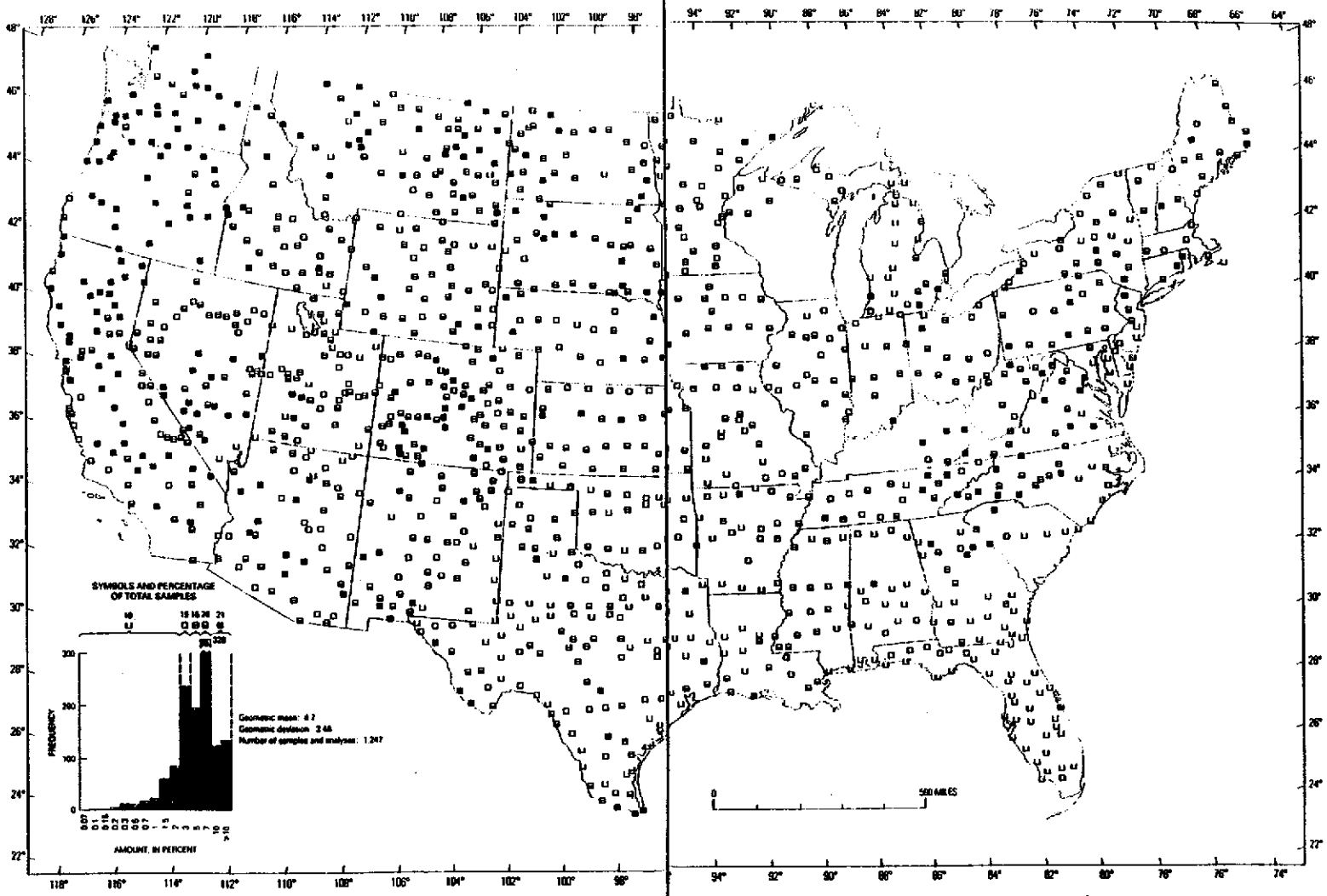

FIGURE 2.—Aluminum content of surficial materials.

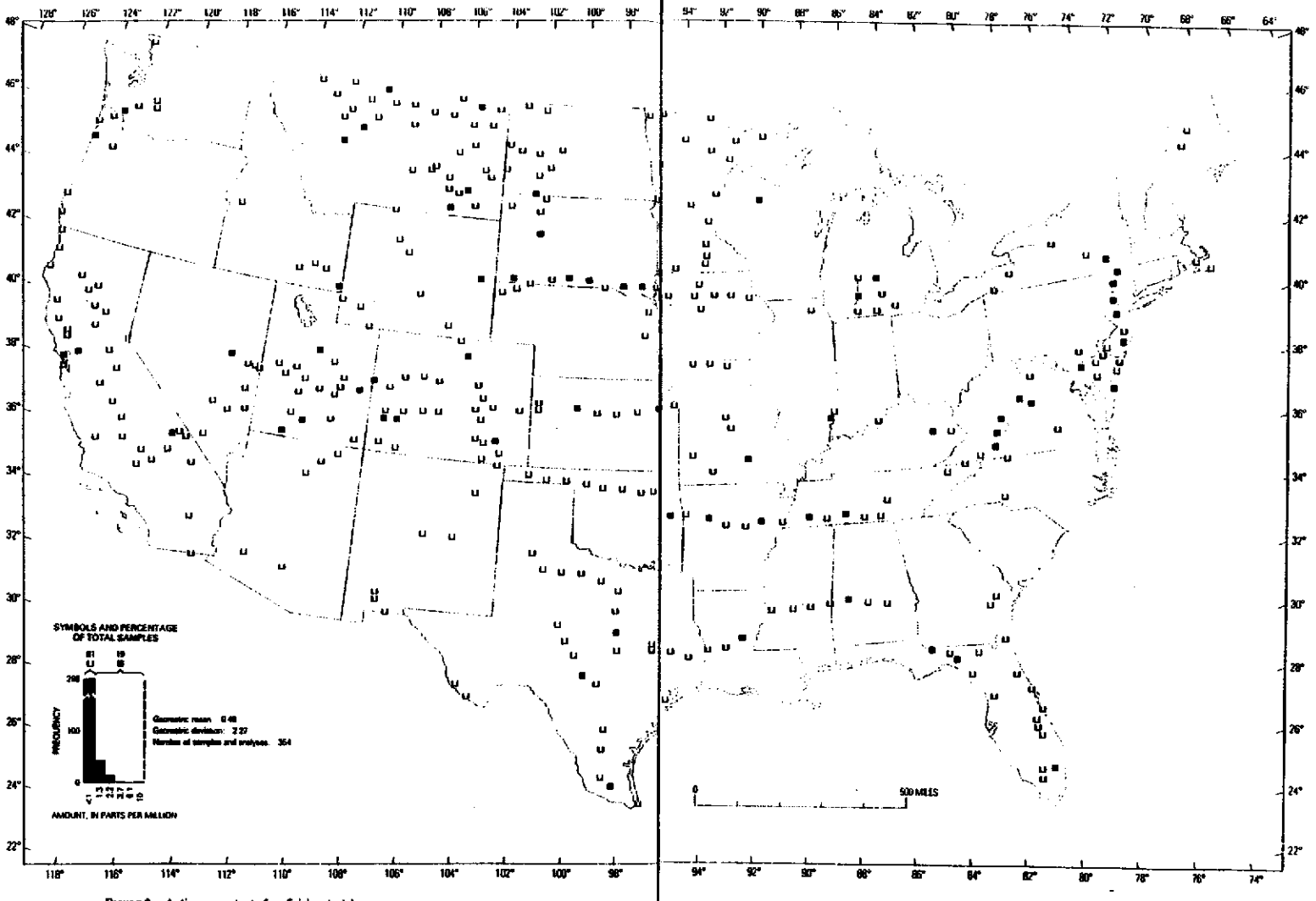

FIGURE 3.—Antimony content of surficial materials.

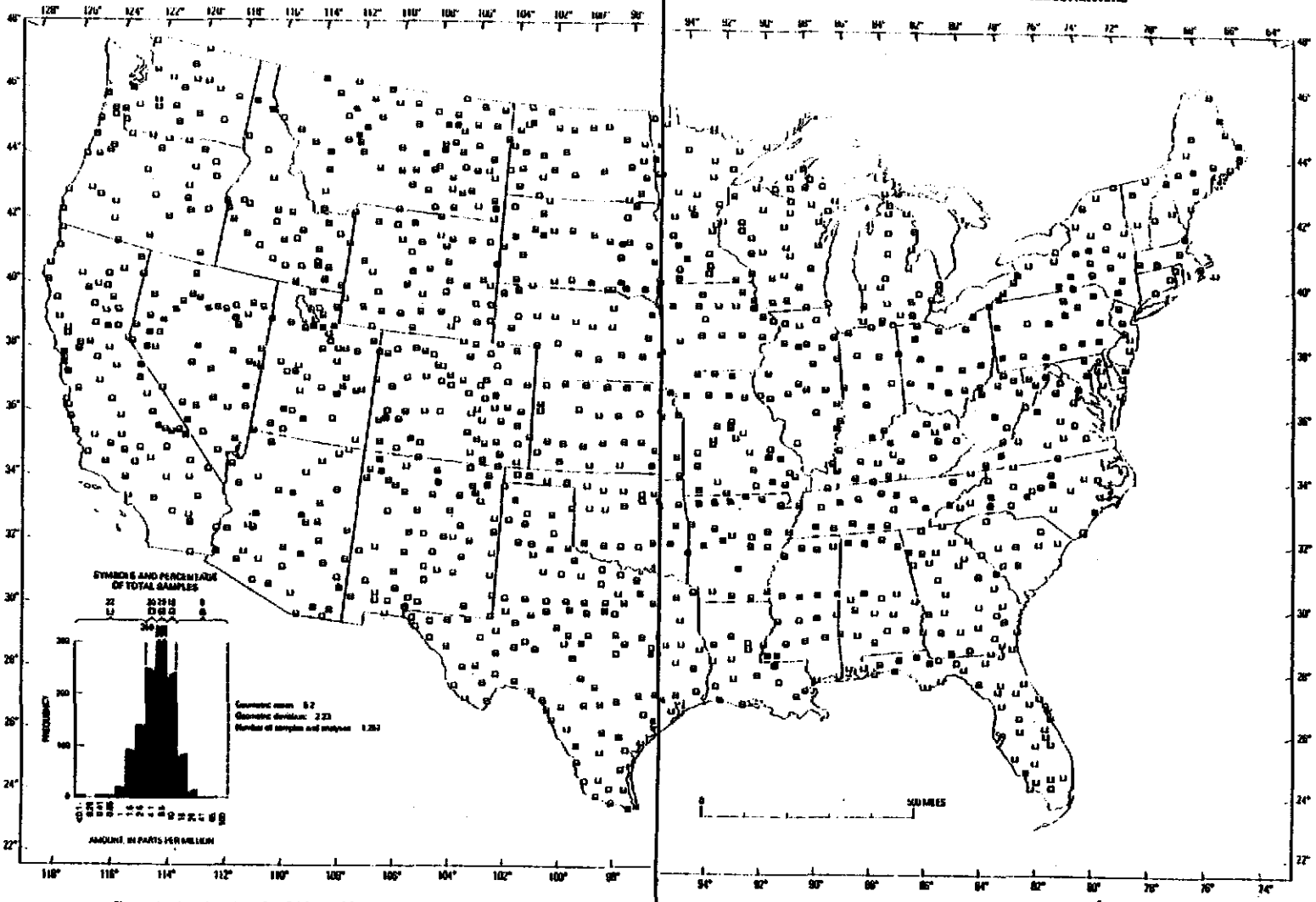

FIGURE 4.—Arsenic content of surficial materials.

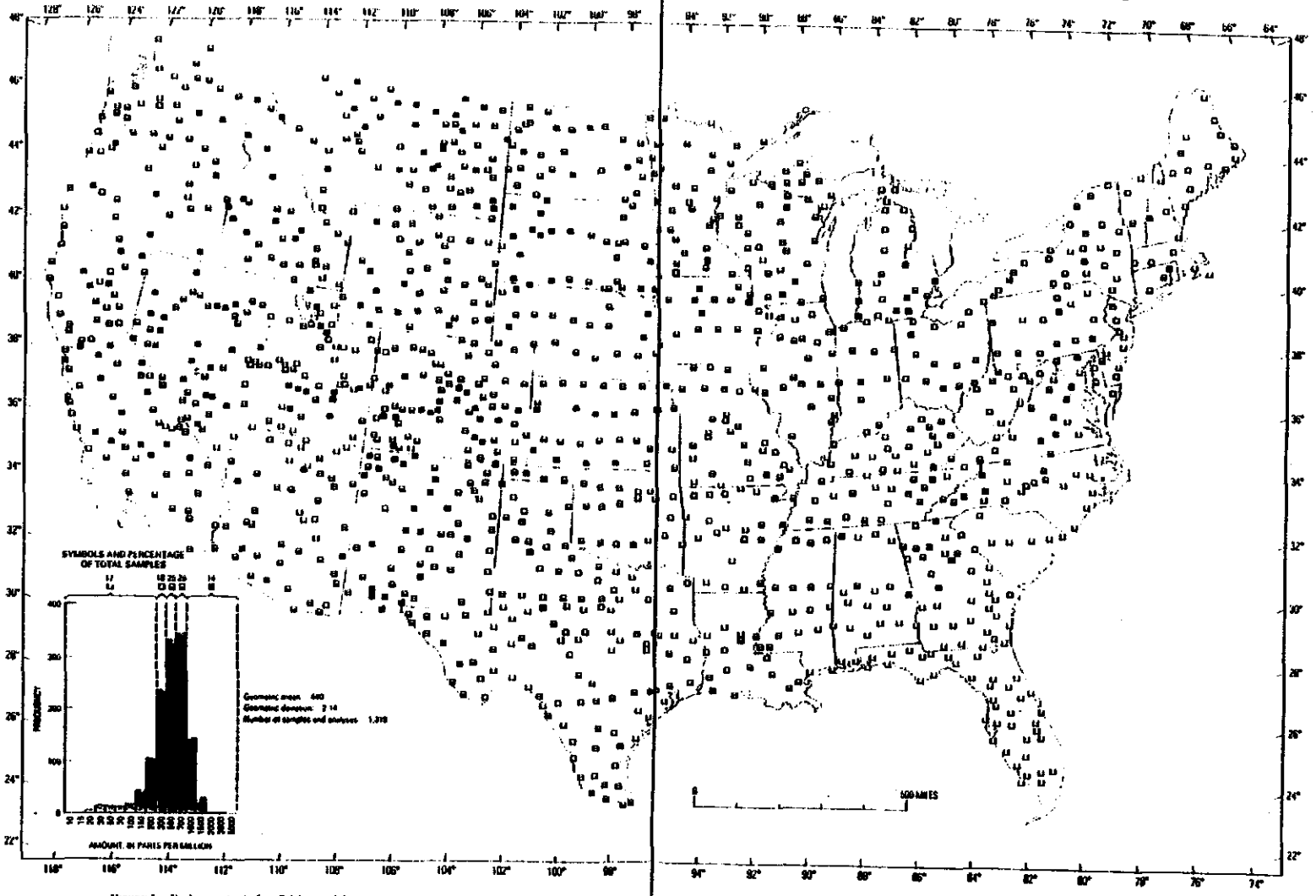

FIGURE 6.—Barium content of surficial materials.

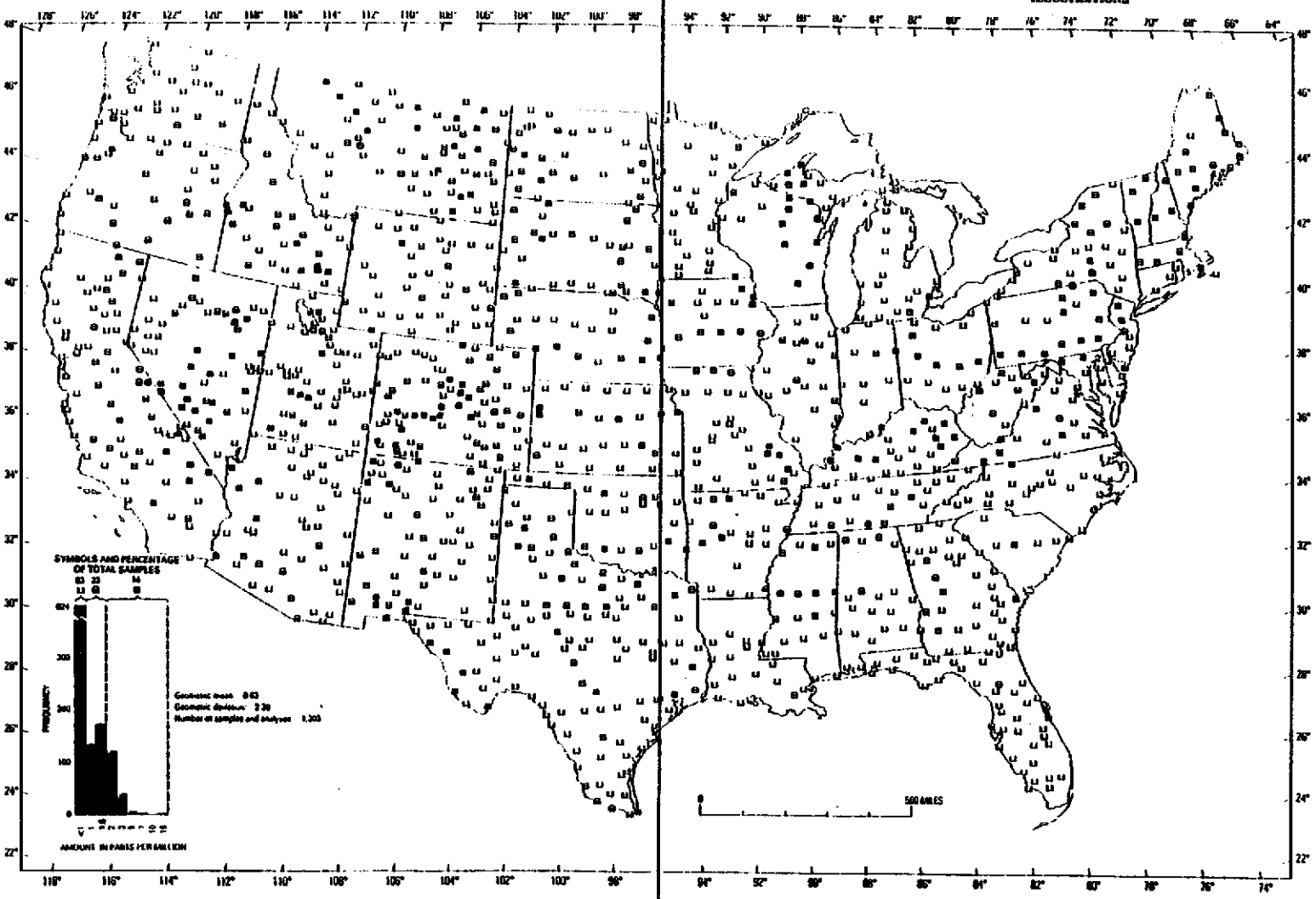

FIGURE 6.—Beryllium content of surficial materials.

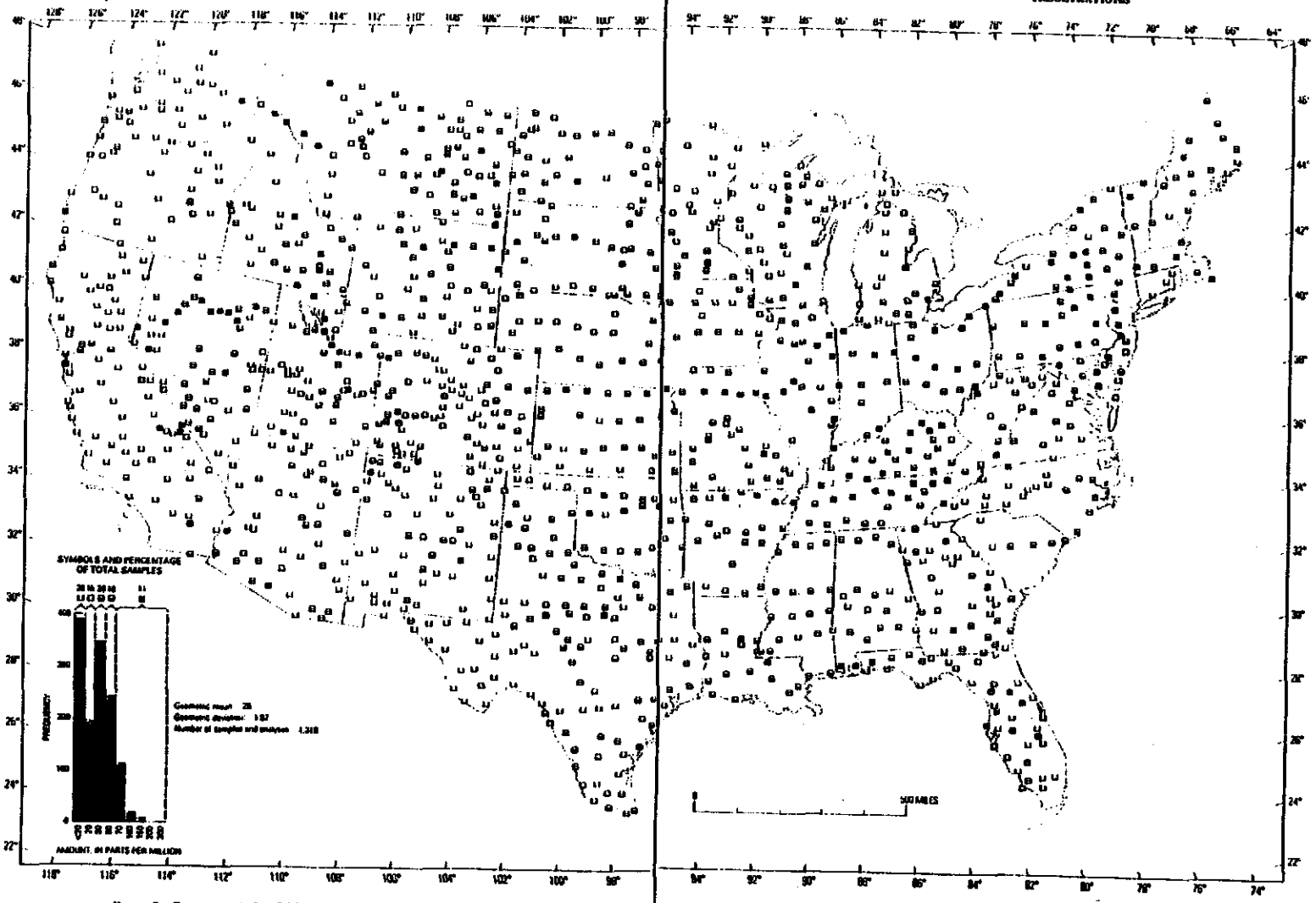

FIGURE 7.—Boron content of surficial materials.

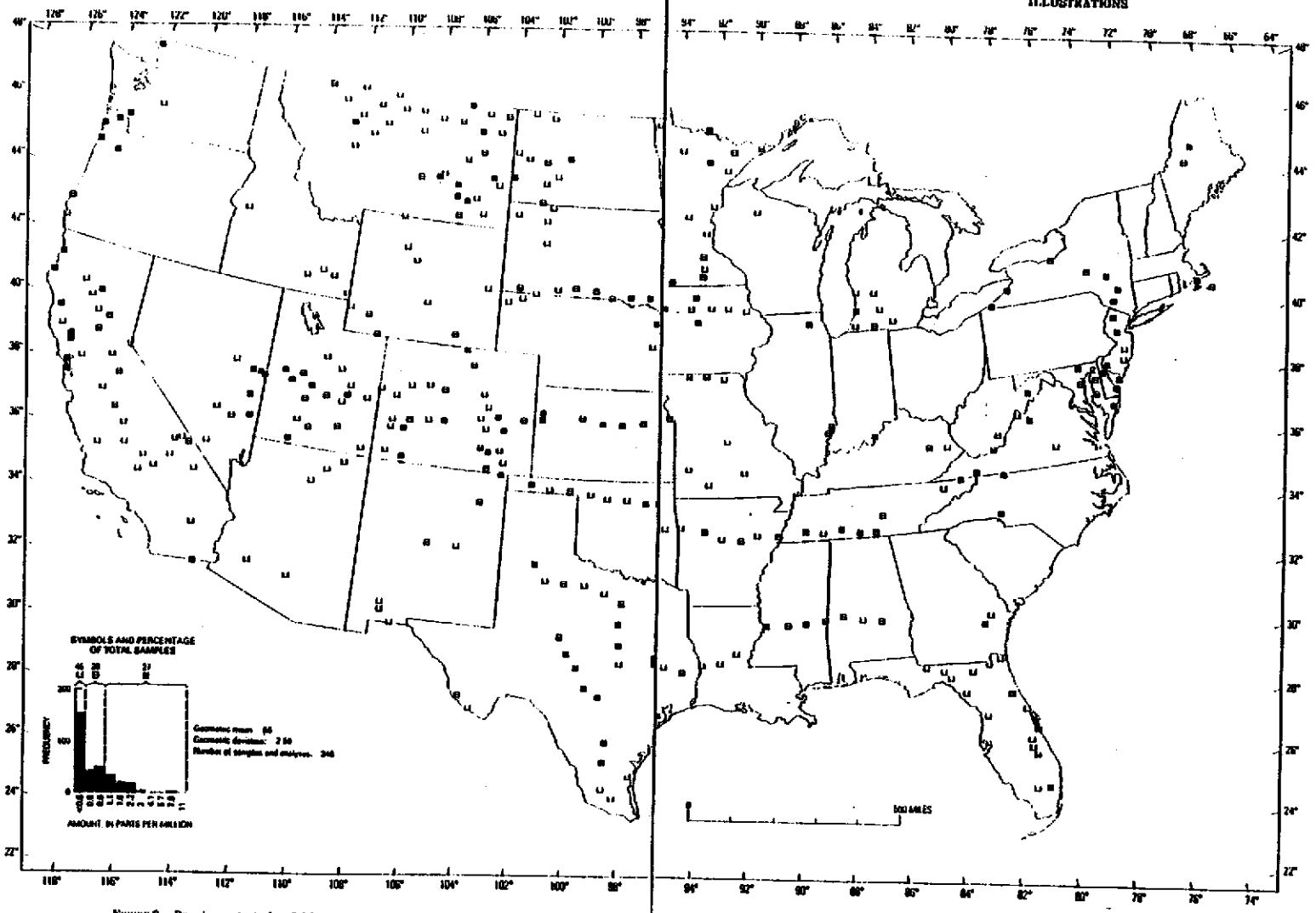

FIGURE 8.—Bromine content of surficial materials.

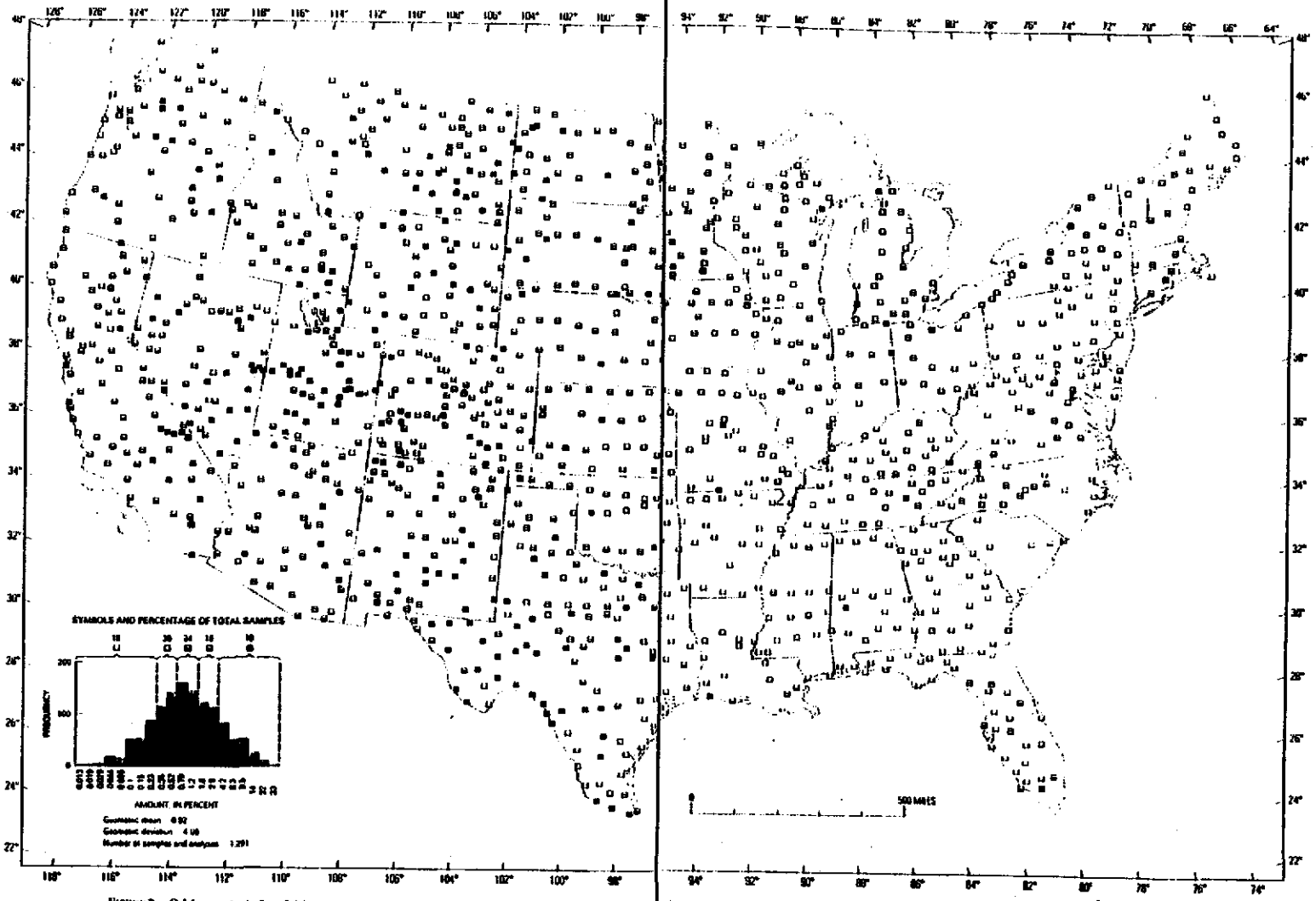

FIGURE 9.—Calcium content of surficial materials.

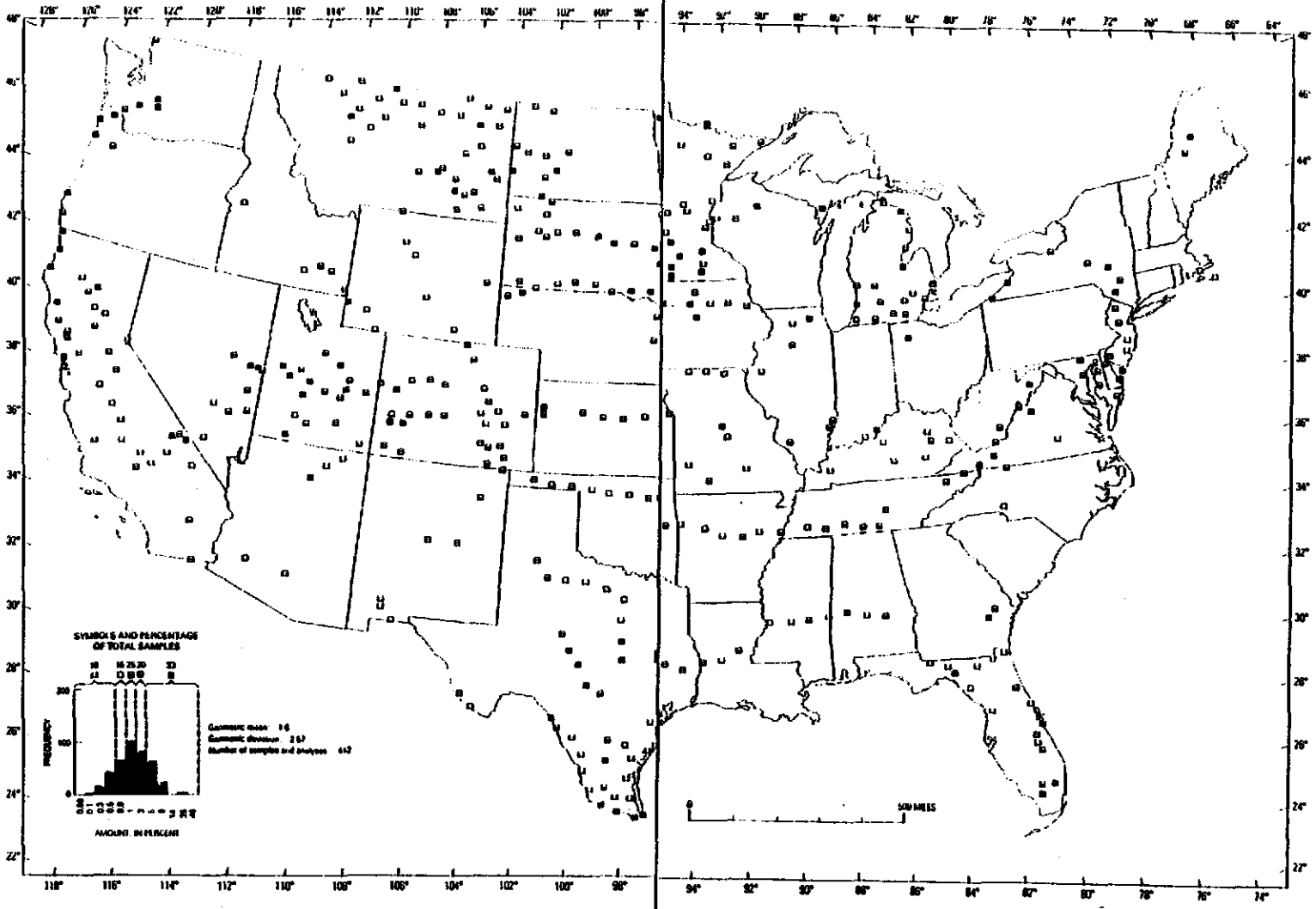

FIGURE 10.—Carbon (total) content of surficial materials.

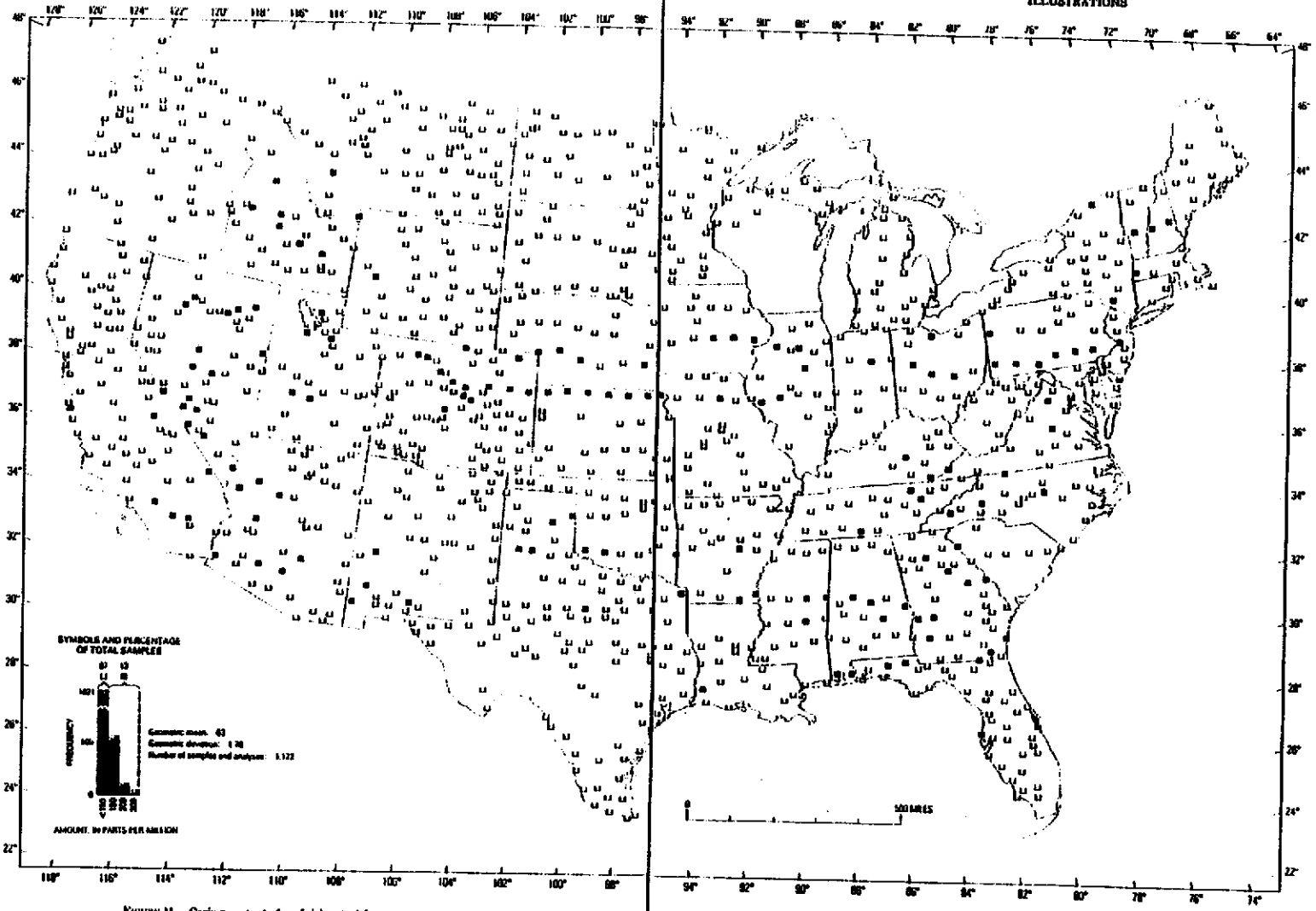

FIGURE 11.—Cerium content of surficial materials.

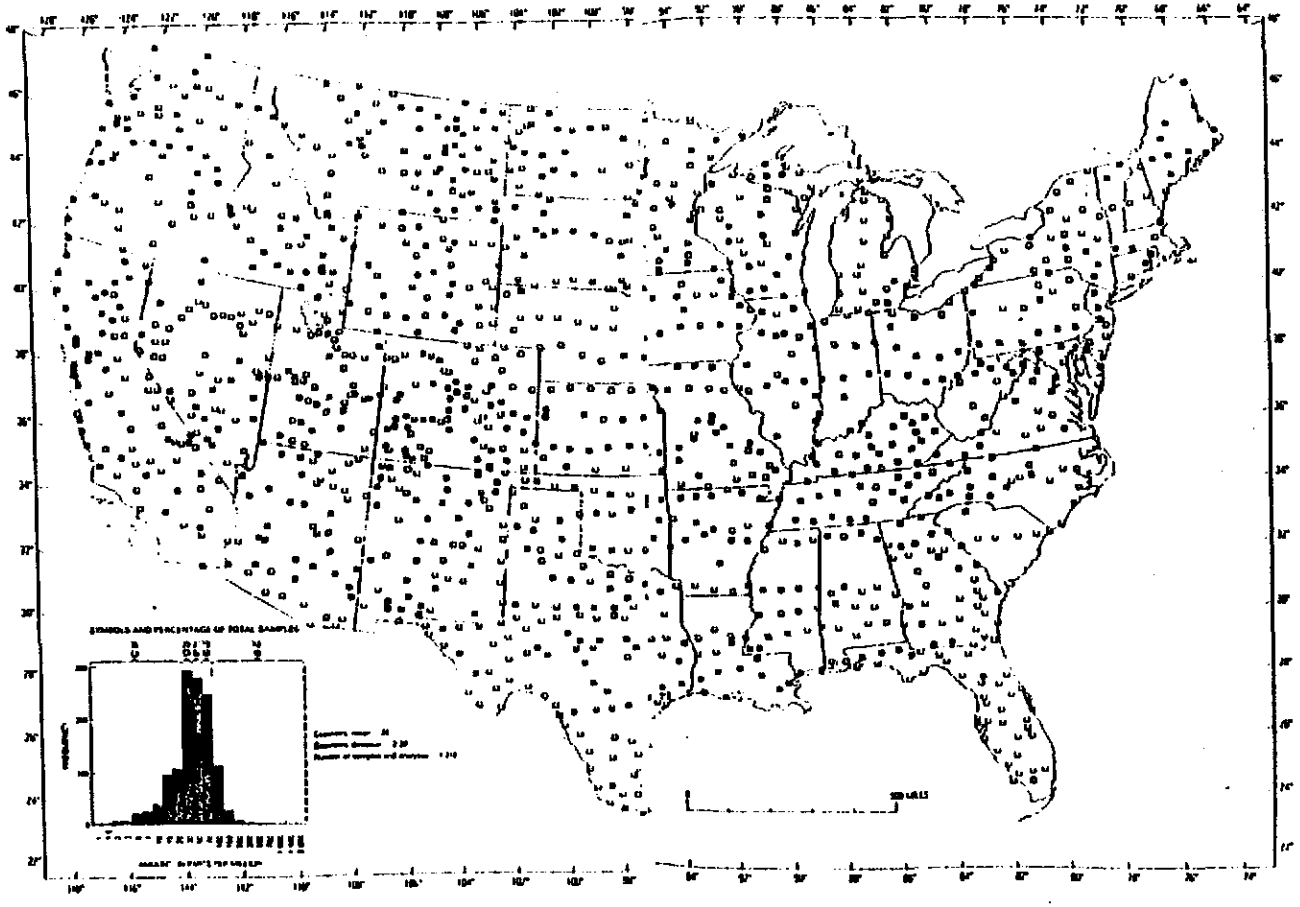

FIGURE 12.—Chromium content of surficial materials

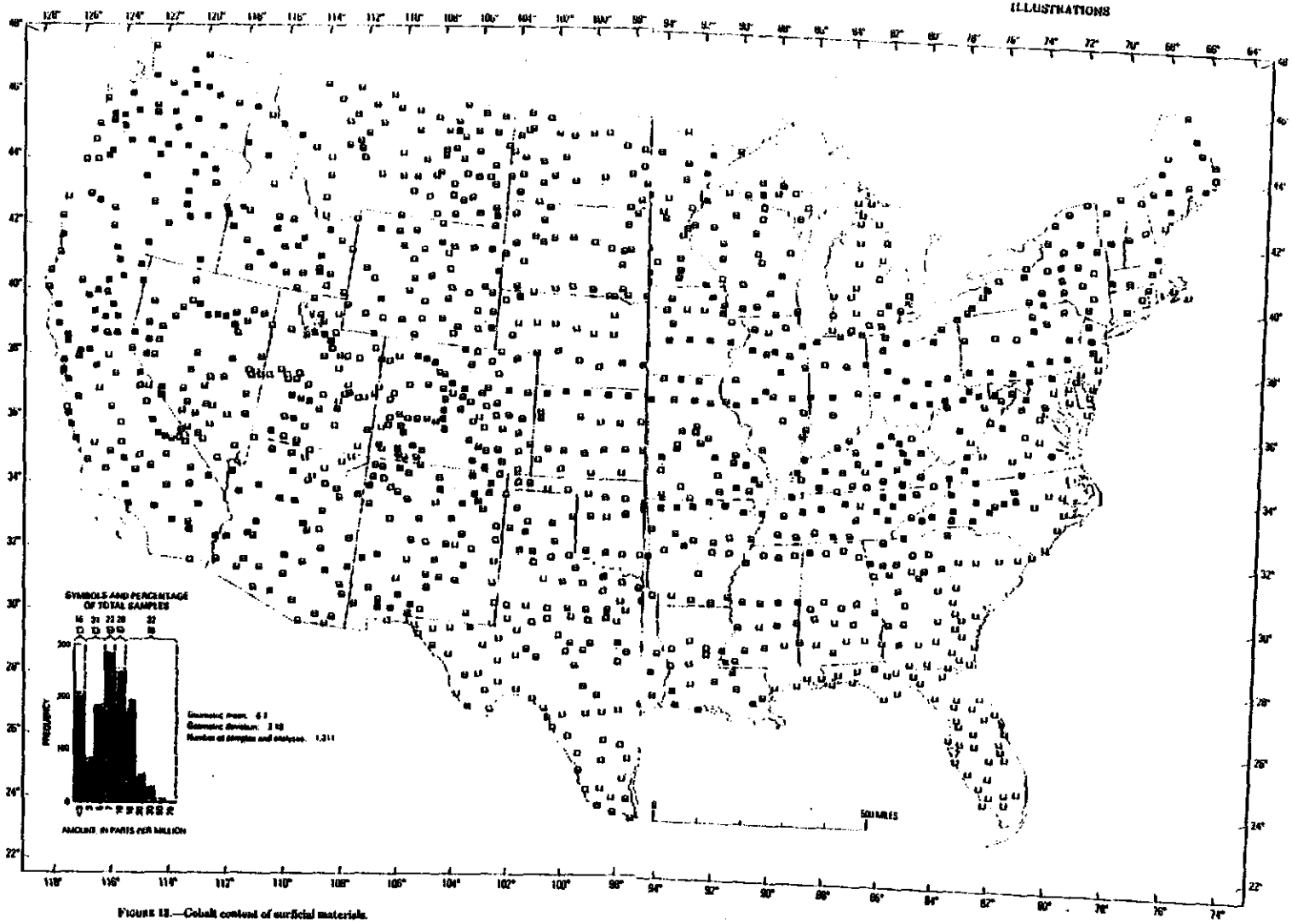

FIGURE 13.—Cobalt content of surficial materials.

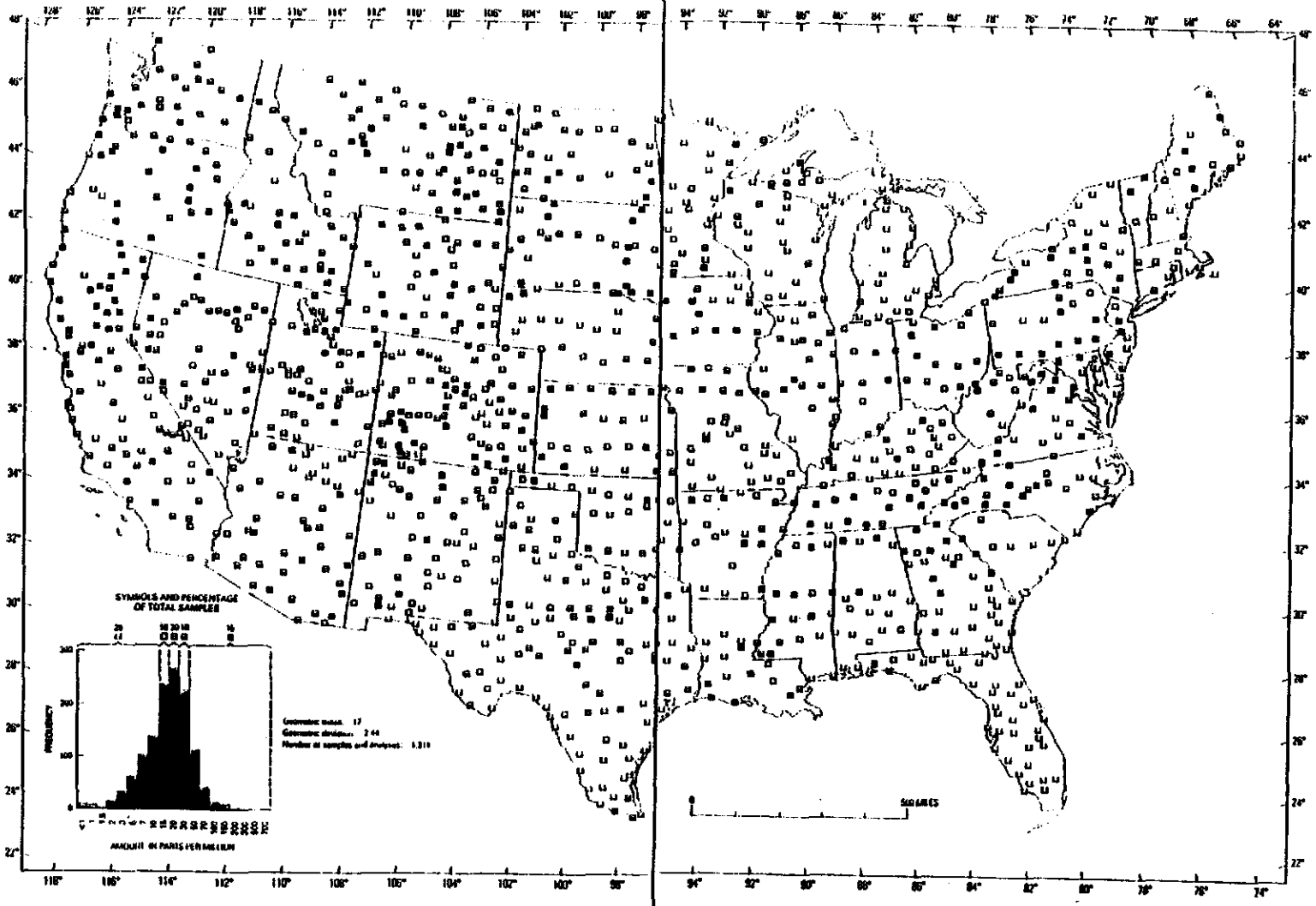

FIGURE 14.—Copper content of surficial materials.

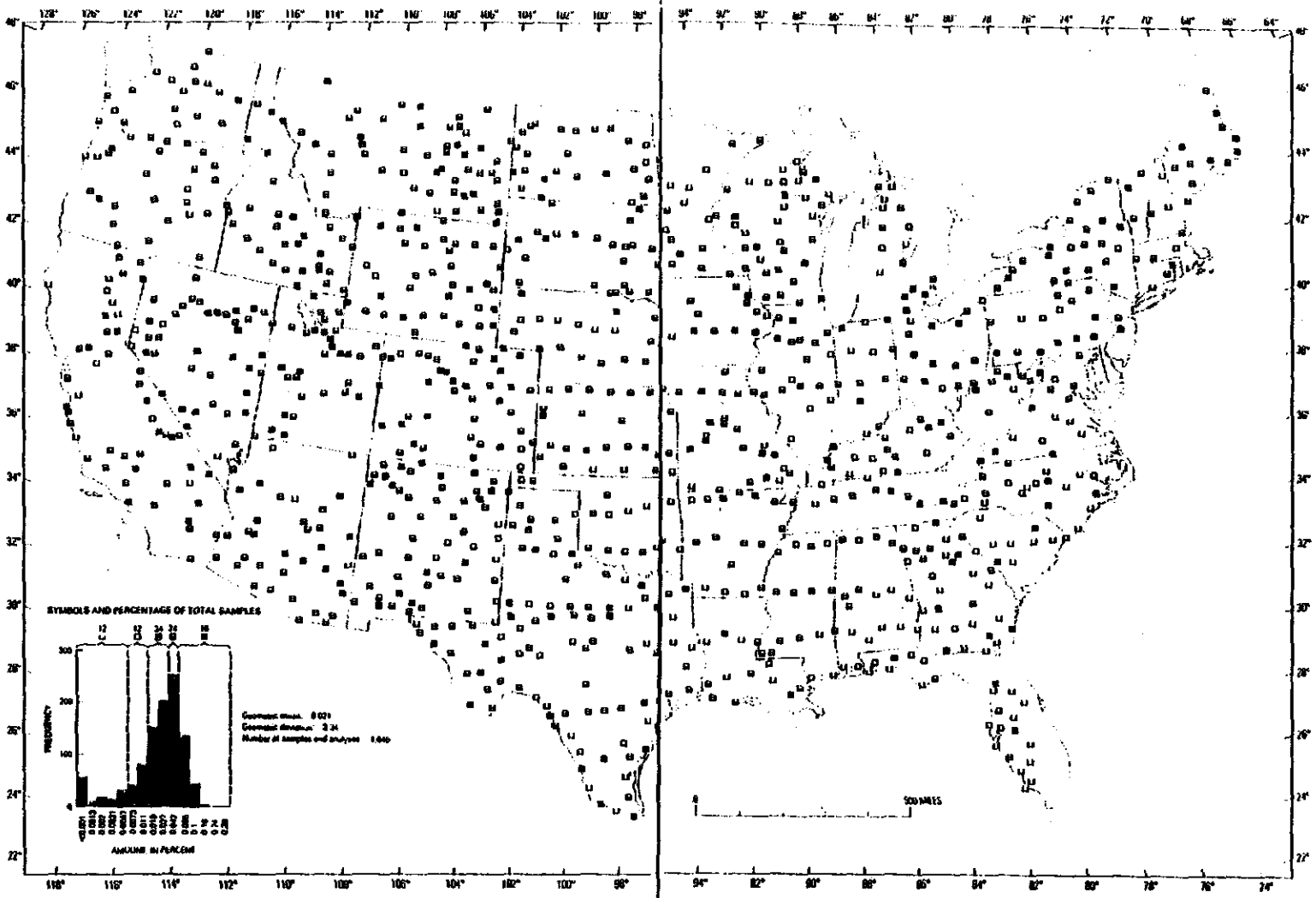

FIGURE 15.—Fluorine content of surficial materials.

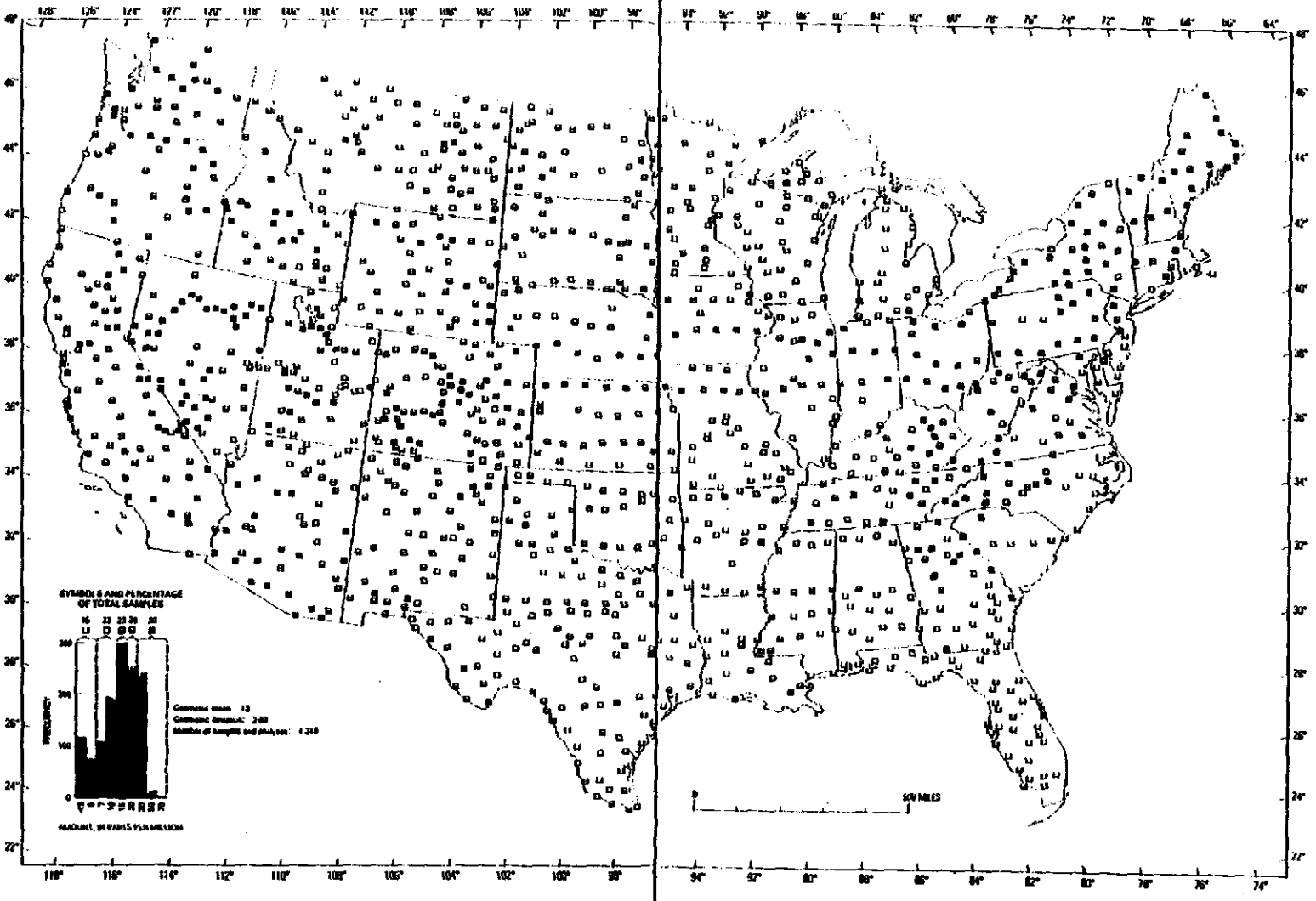

FIGURE 16.—Gallium content of surficial materials.

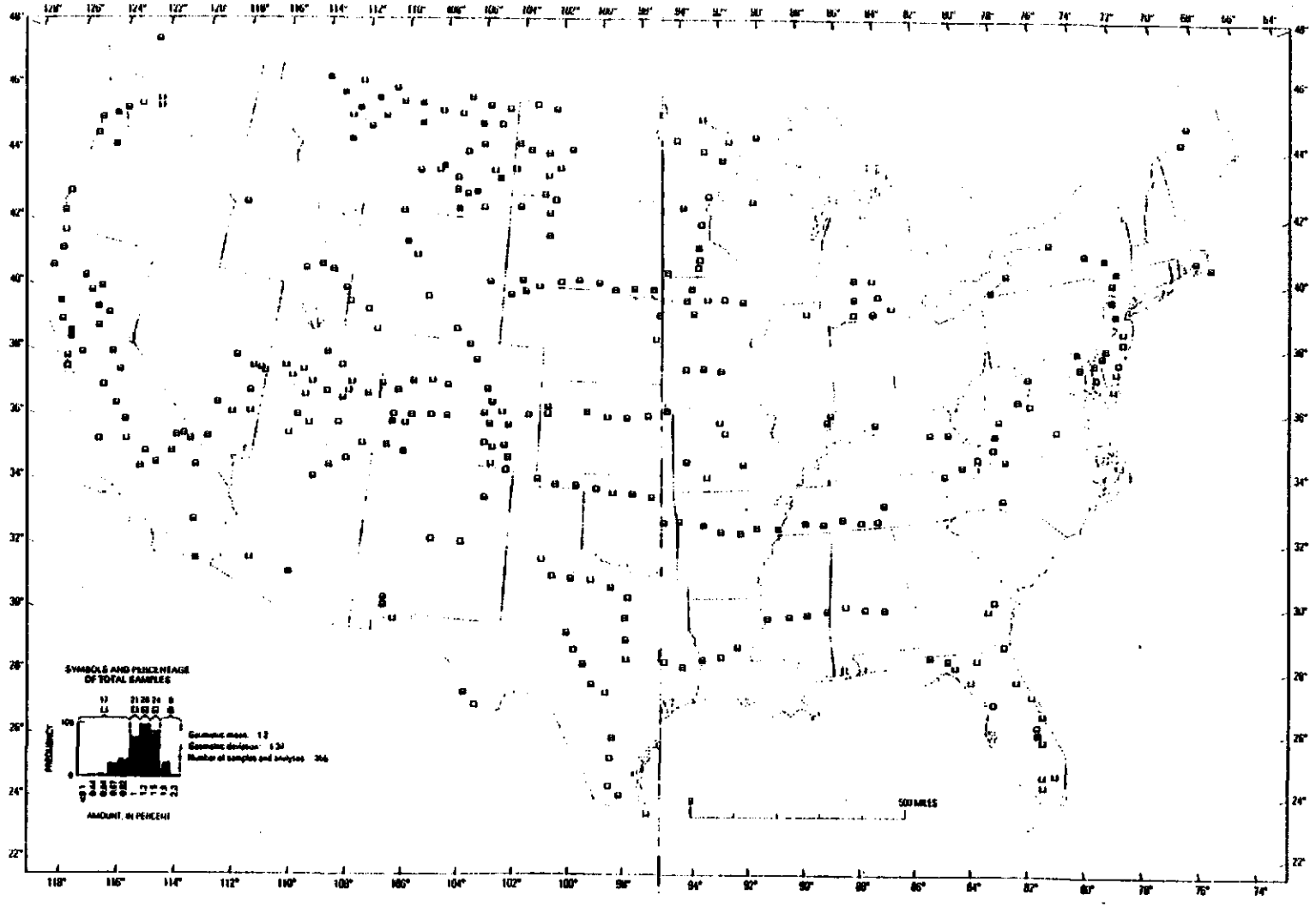

FIGURE 17.—Germanium content of surficial materials.

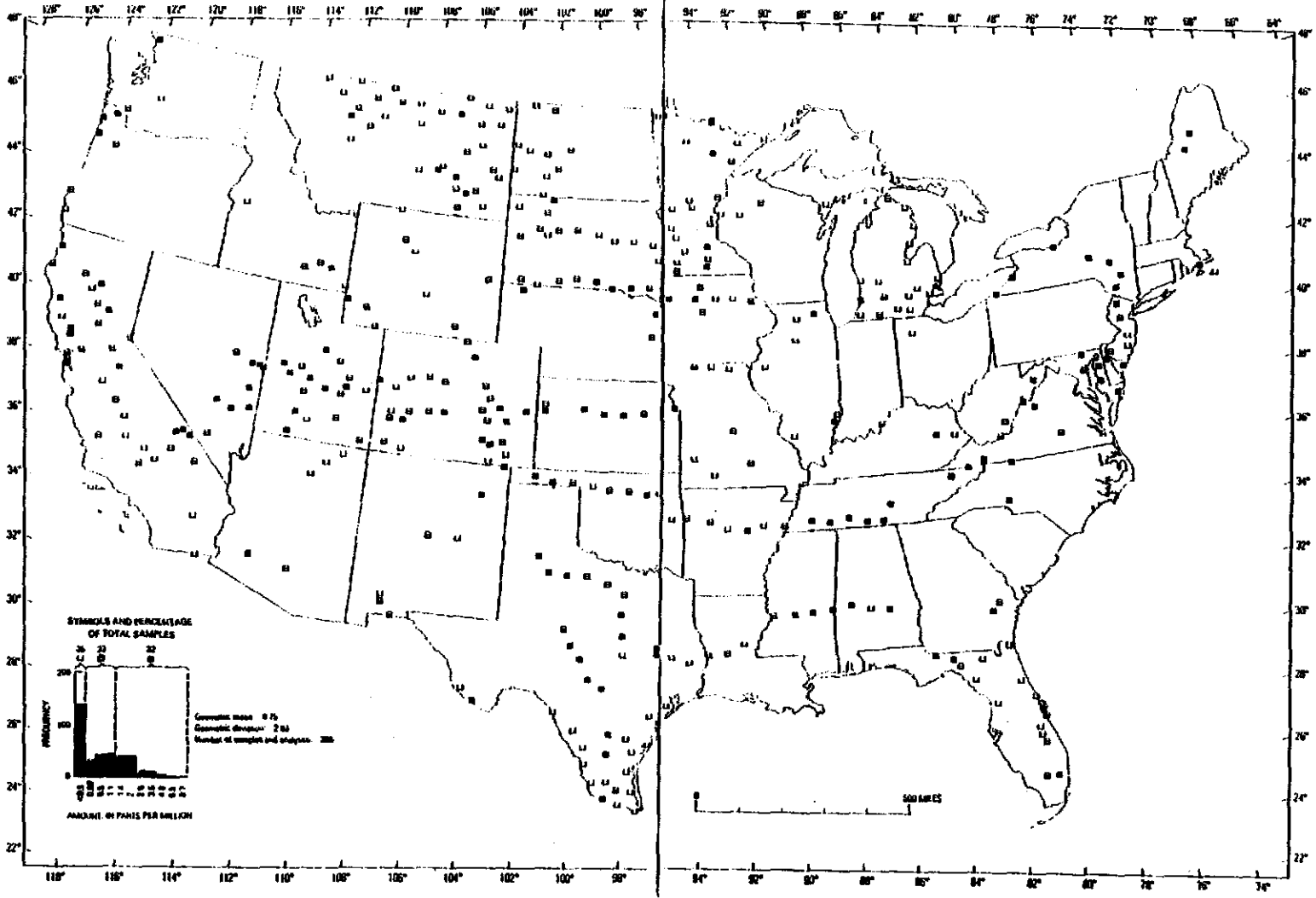

FIGURE 18.—Iodine content of surficial materials.

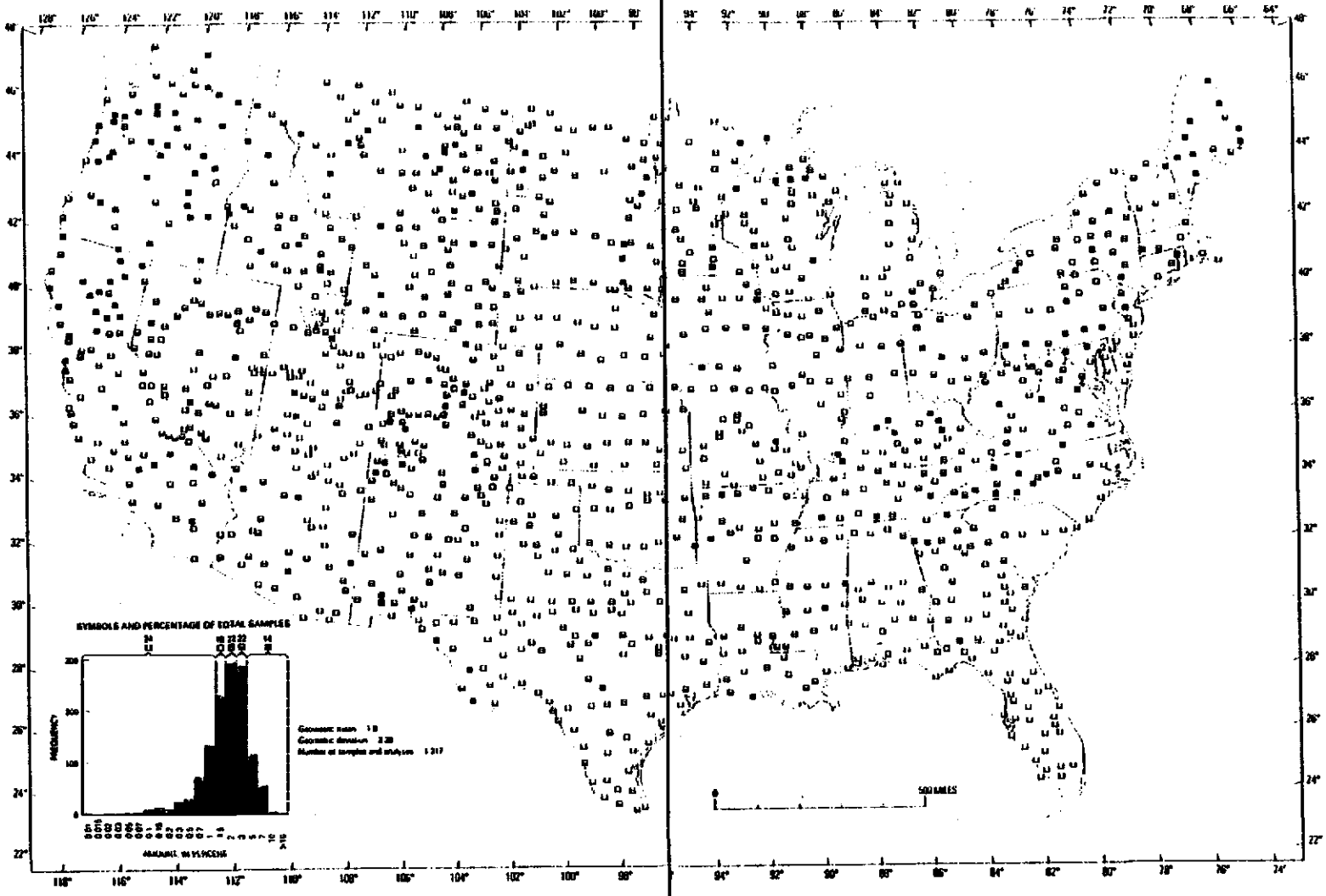

FIGURE 19.—Iron content of surficial materials.

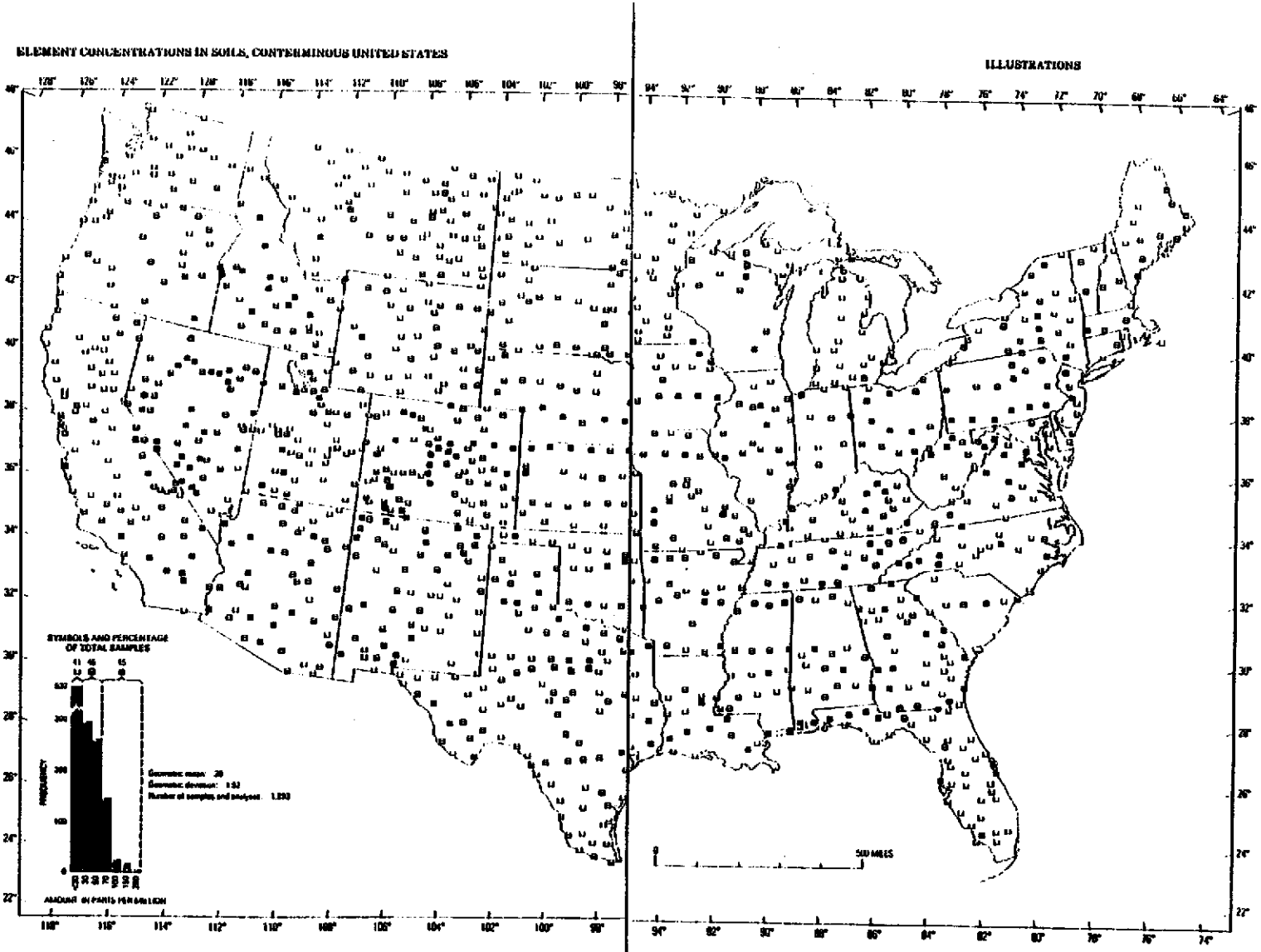

FIGURE 29.—Lanthanum content of surficial materials.

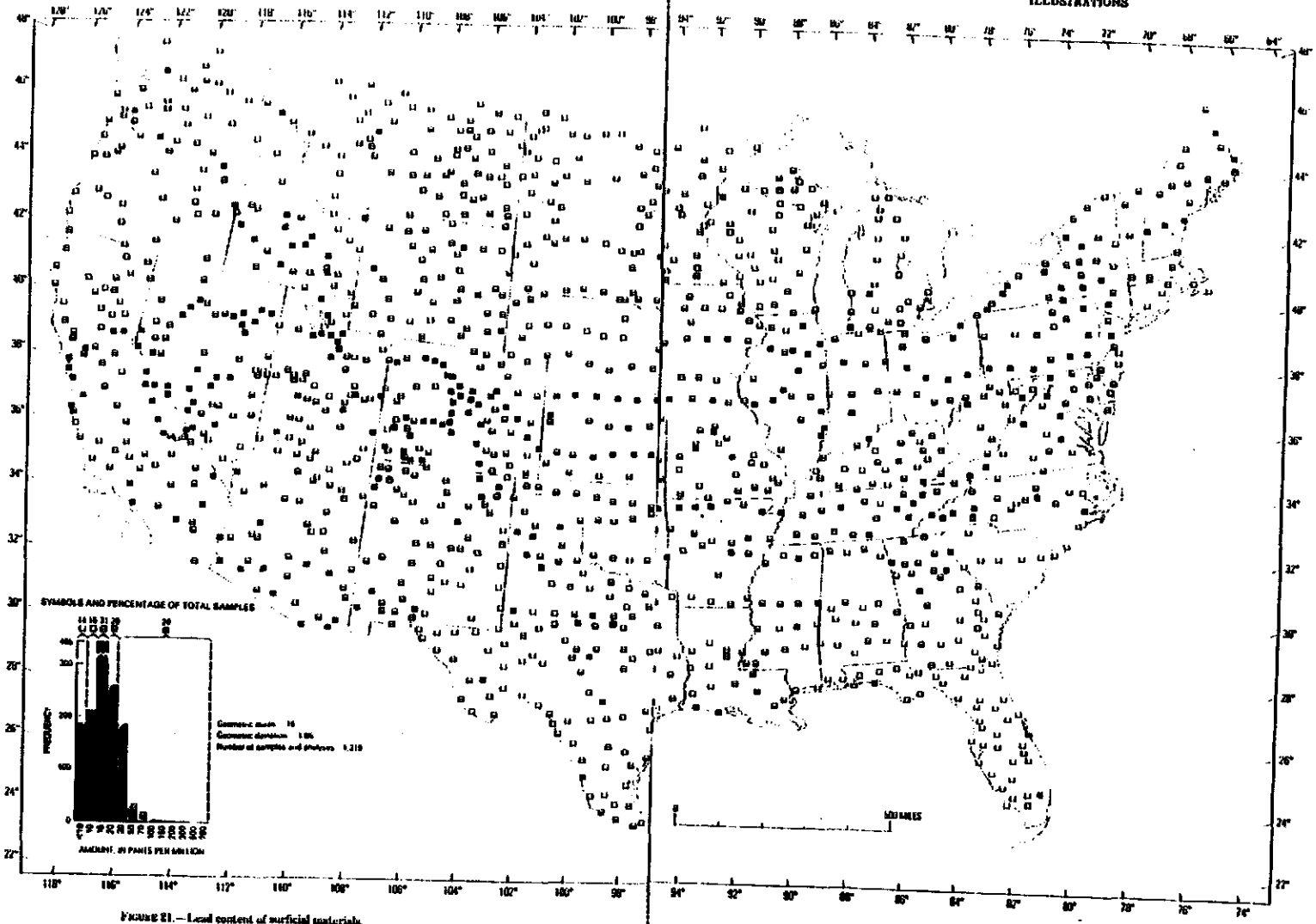

FIGURE 21.—Lead content of surficial materials.

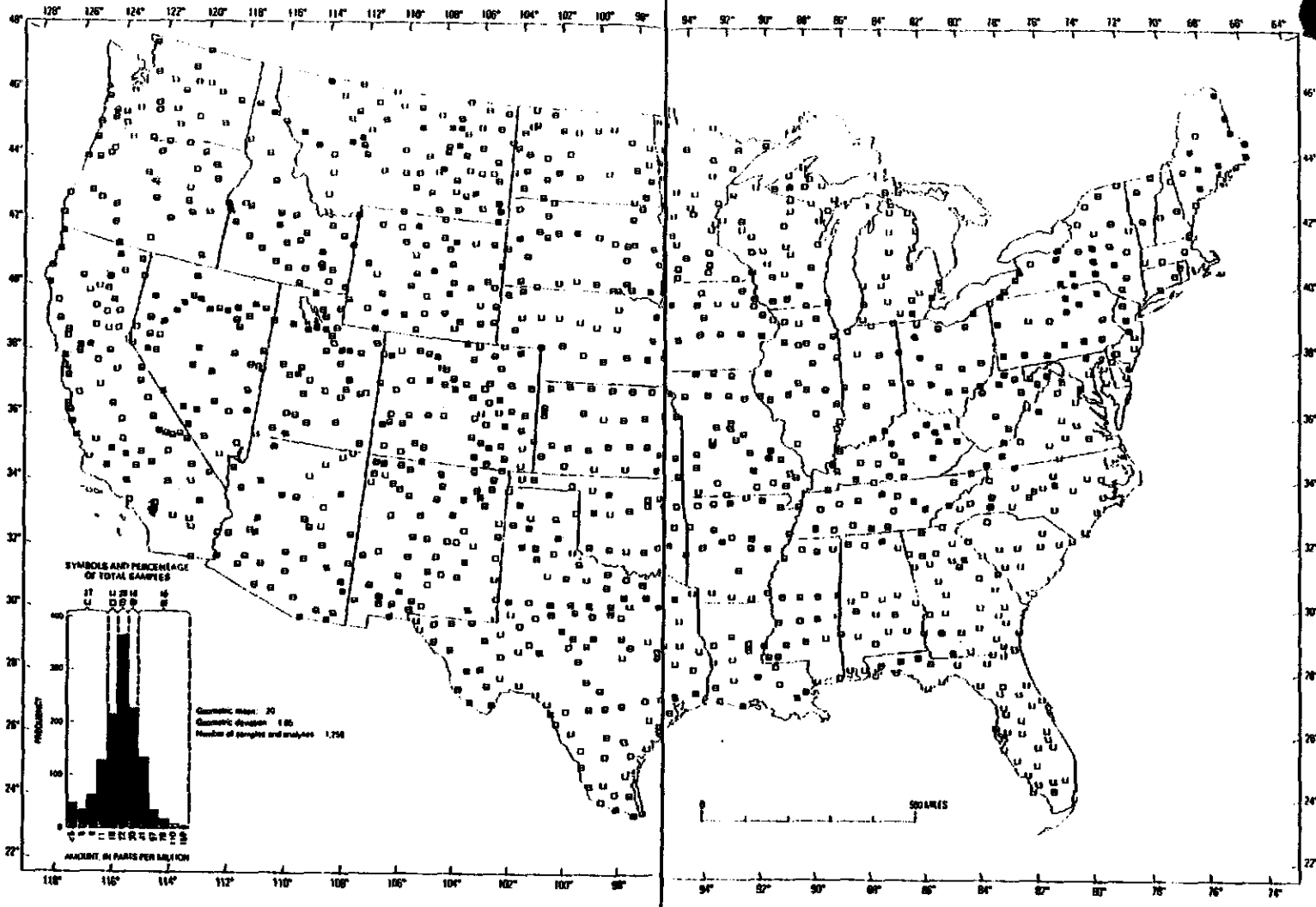

FIGURE 22.—Lithium content of surficial materials.

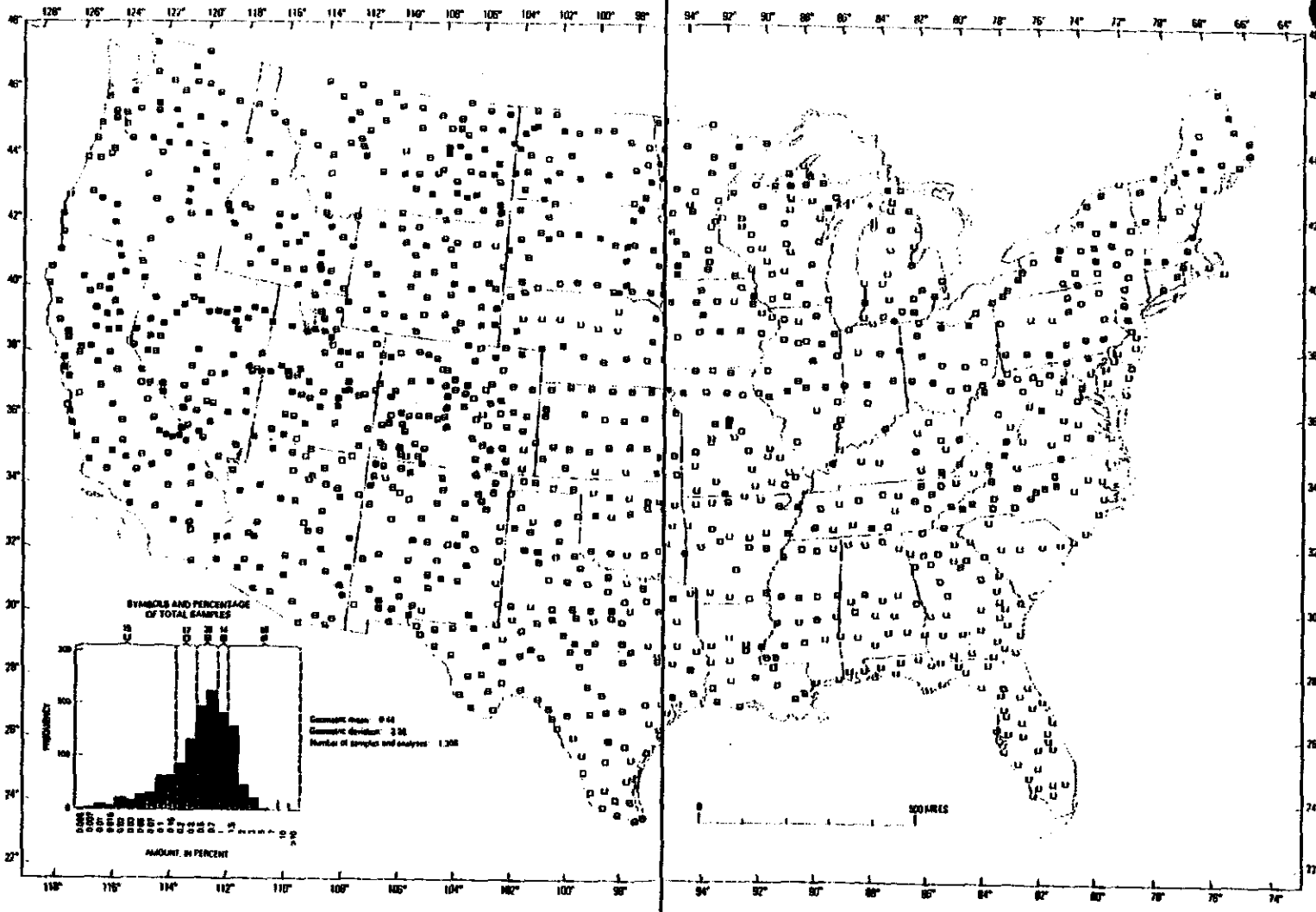

FIGURE 22.—Magnesium content of surficial materials.

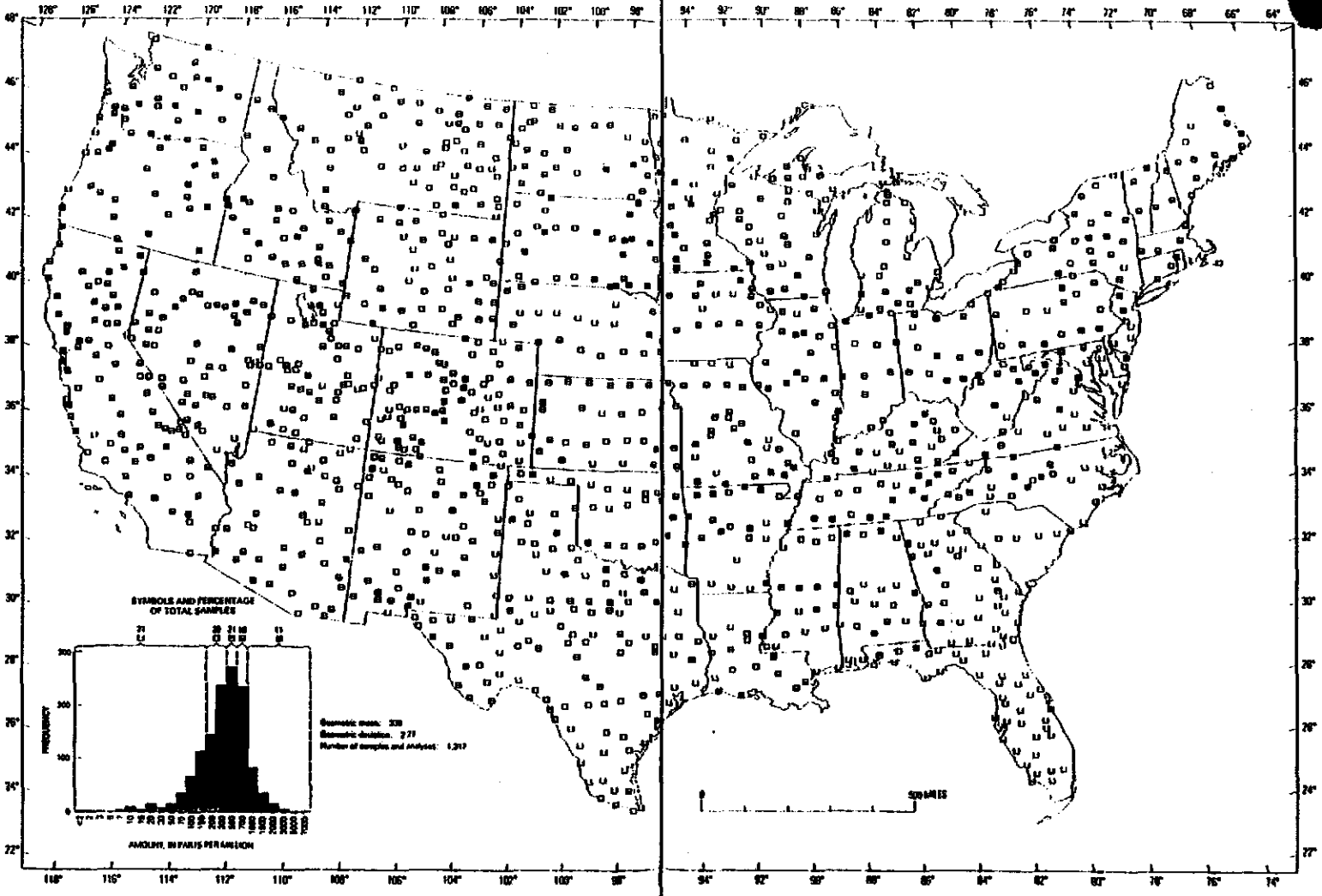

FIGURE 24.—Manganese content of surficial materials.

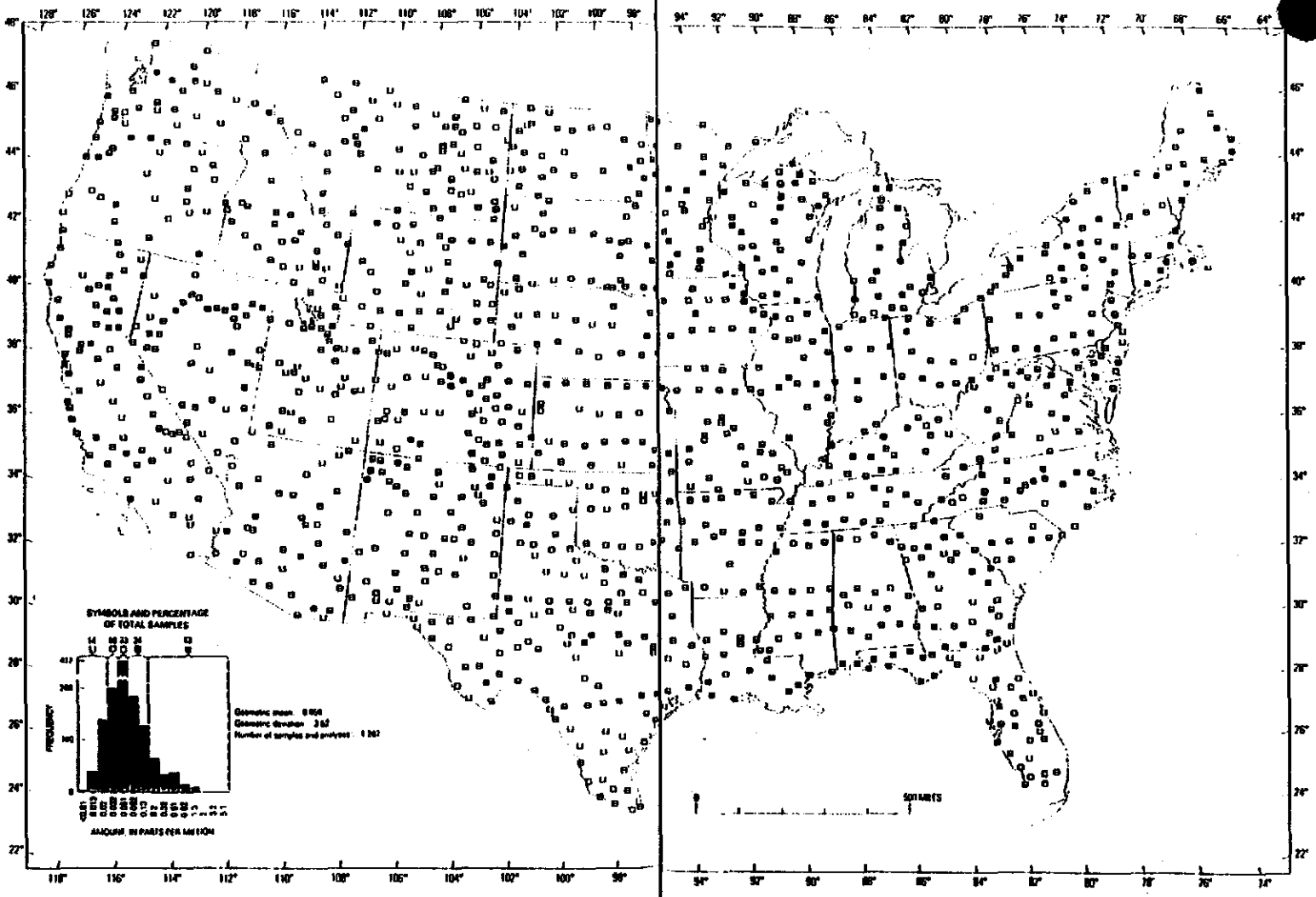

FIGURE 25.—Mercury content of surficial materials.

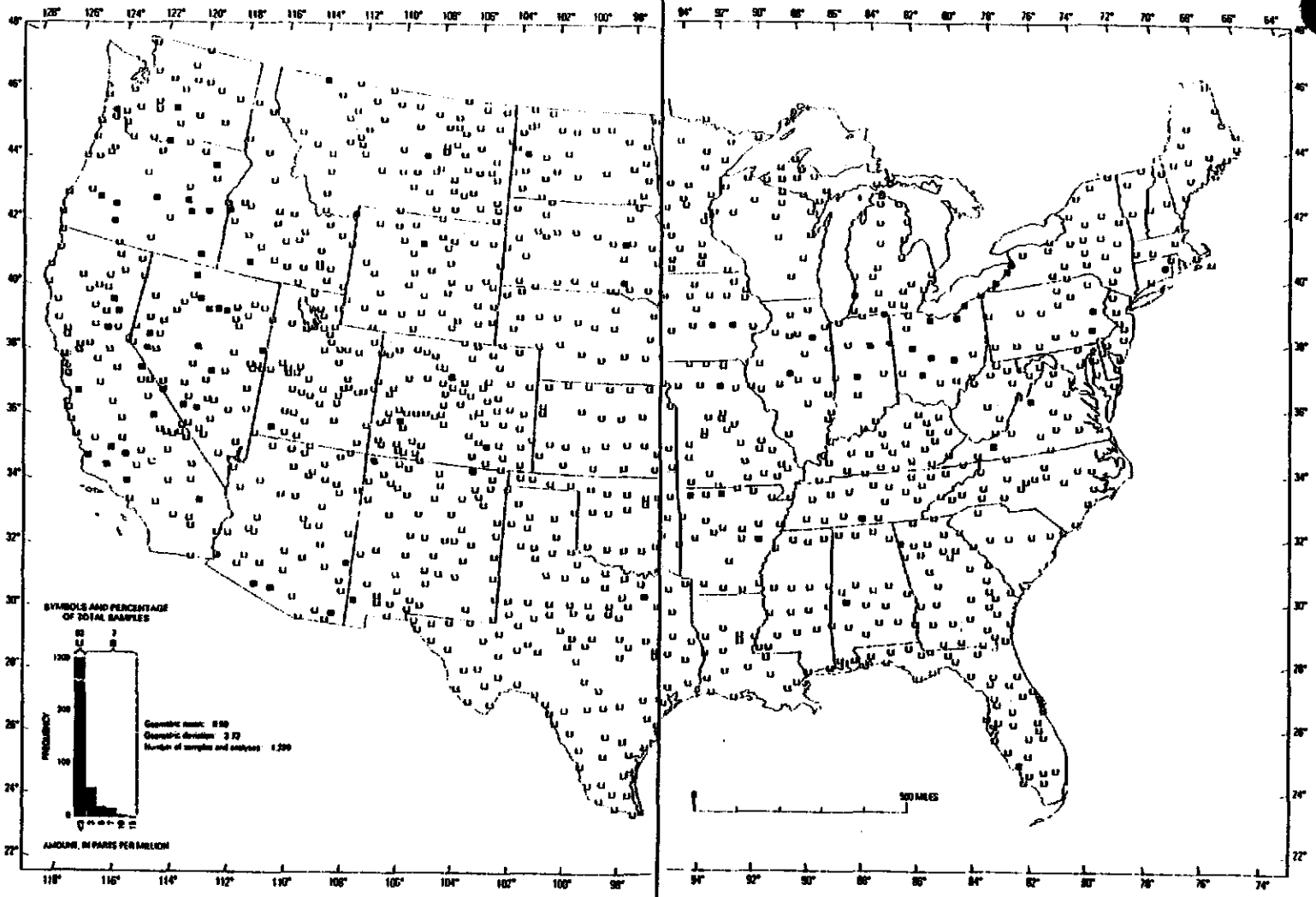

FIGURE 28.—Molybdenum content of surficial materials.

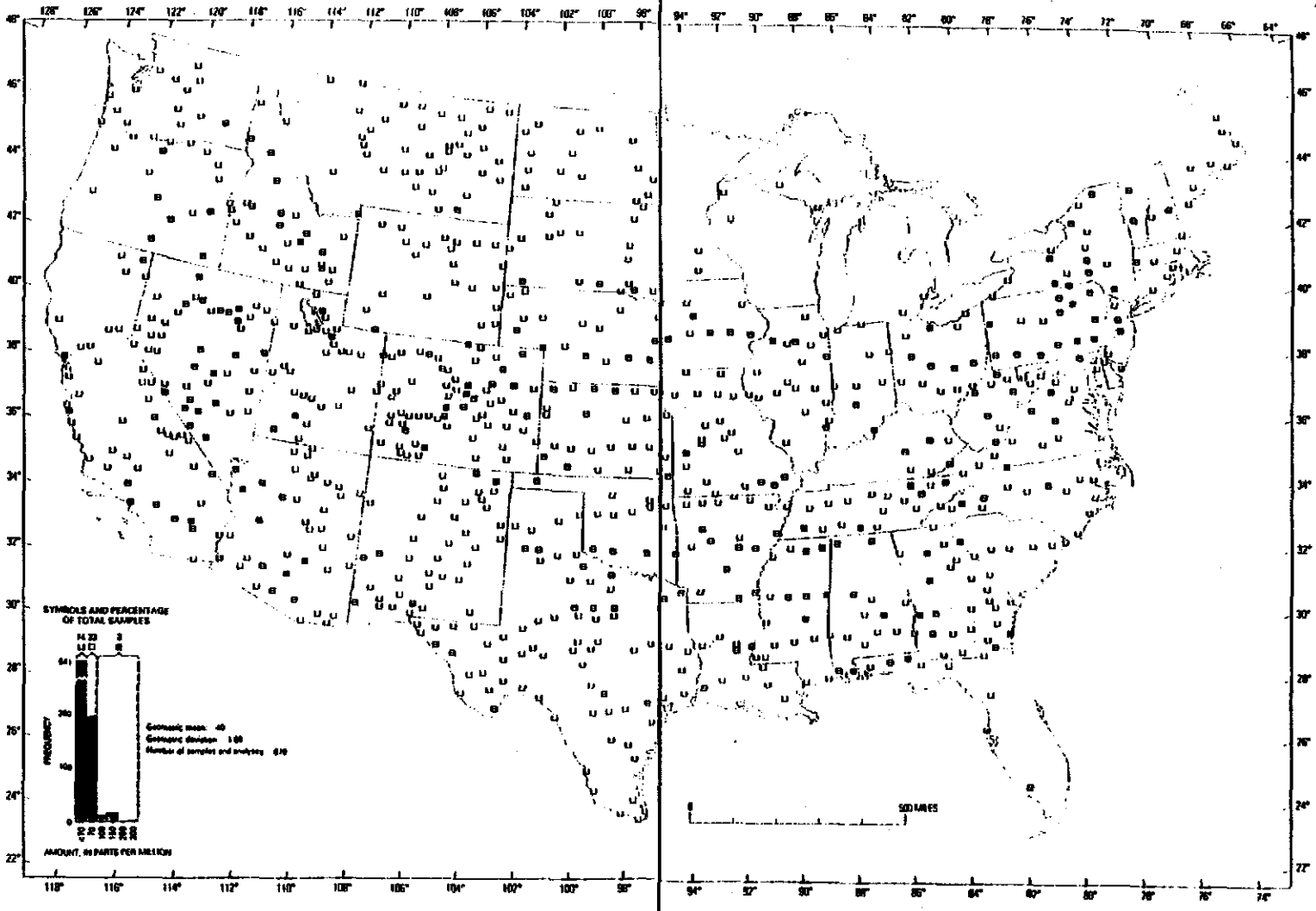

FIGURE 27.—Neodymium content of surficial materials.

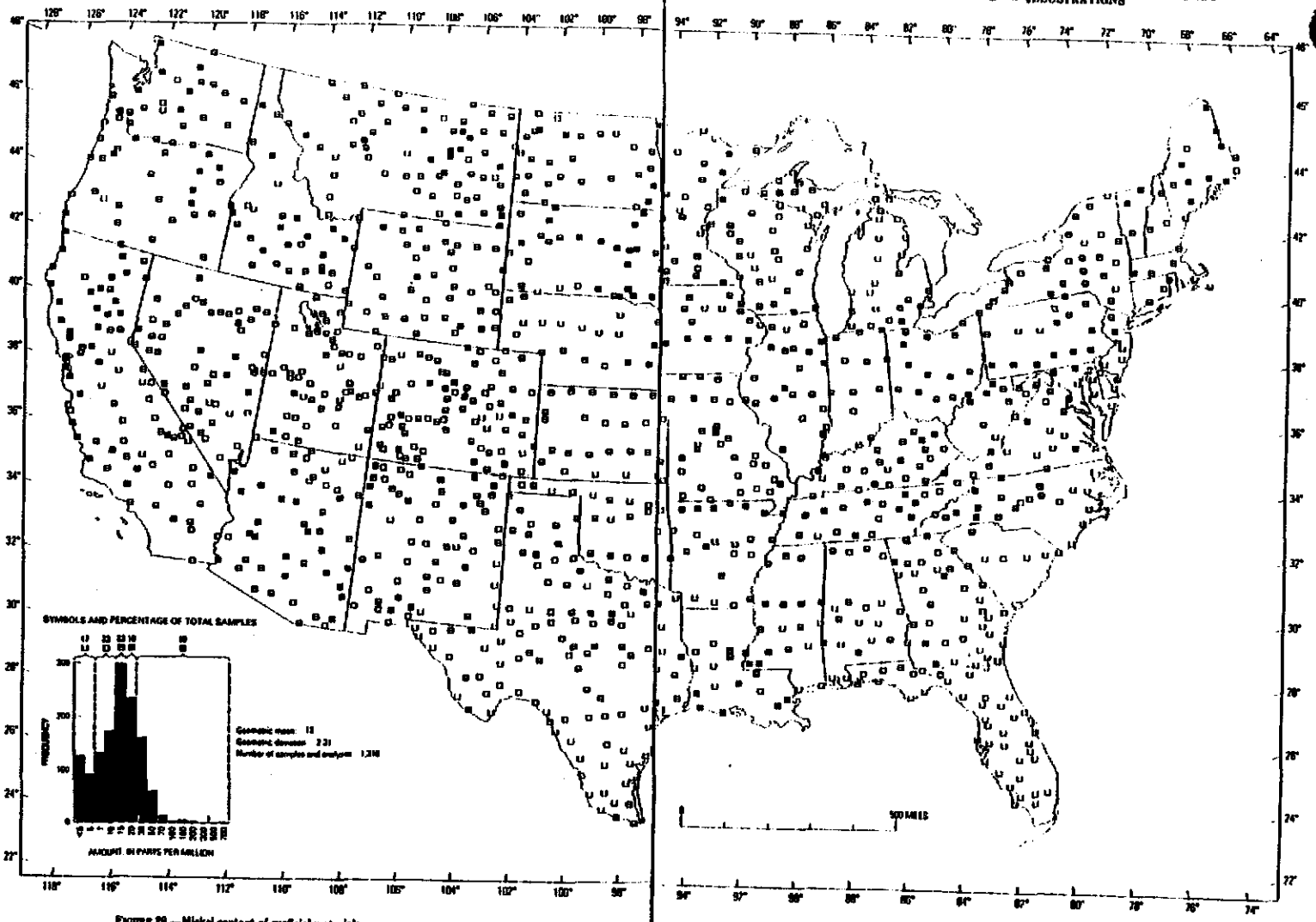

FIGURE 28.—Nickel content of surficial materials.

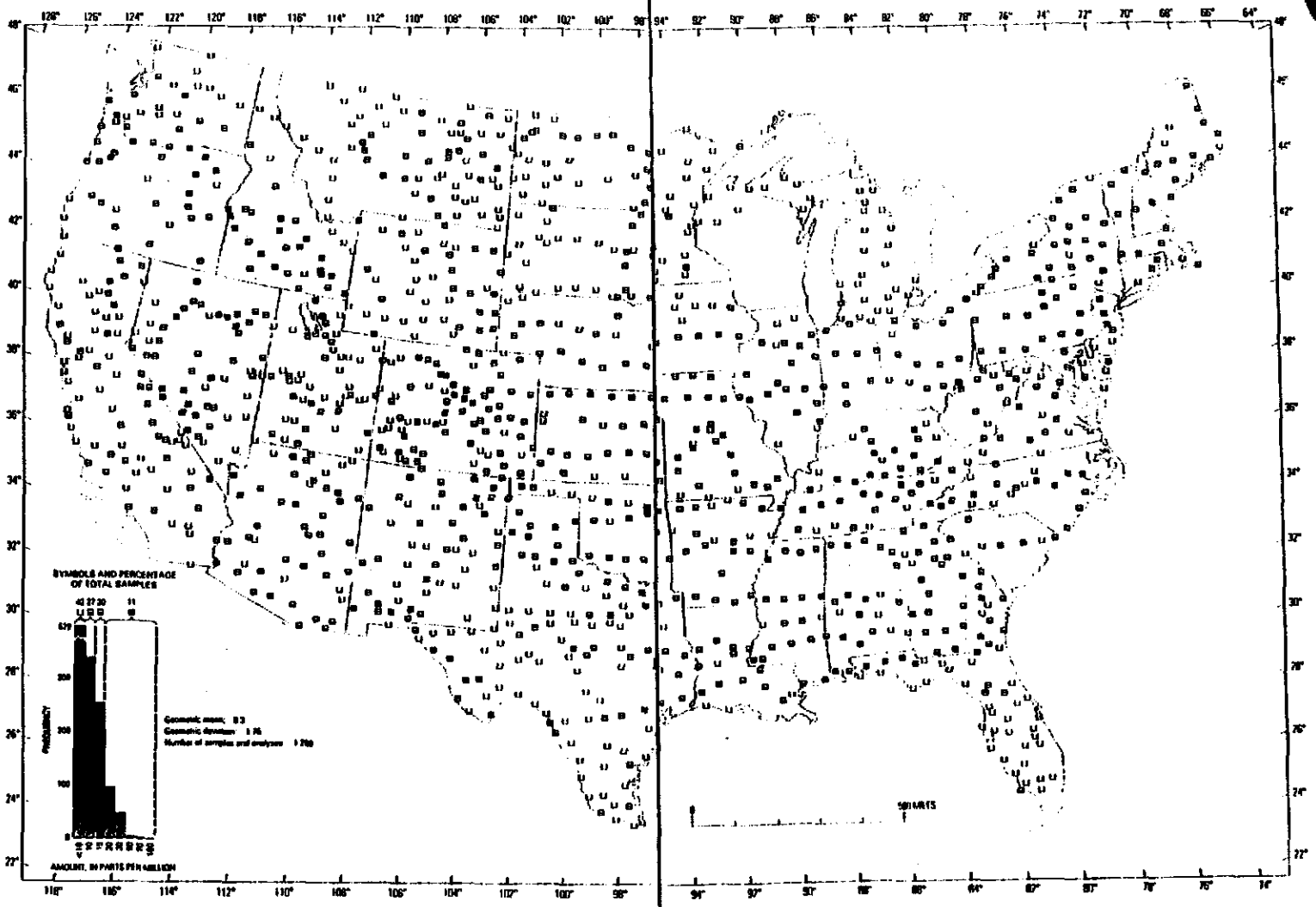

FIGURE 28.—*Niobium content of surficial materials.*

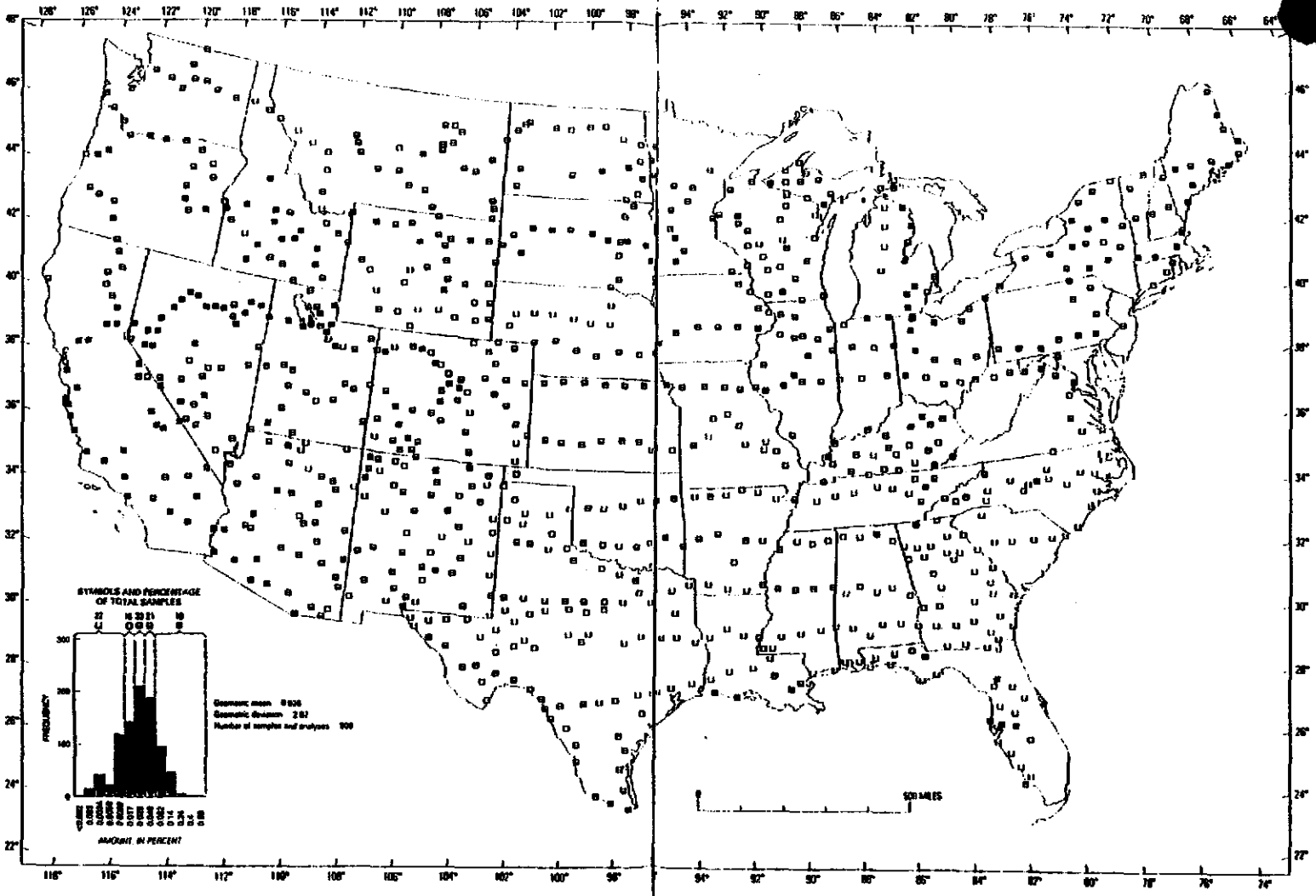

FIGURE 30.—Phosphorus content of surficial materials.

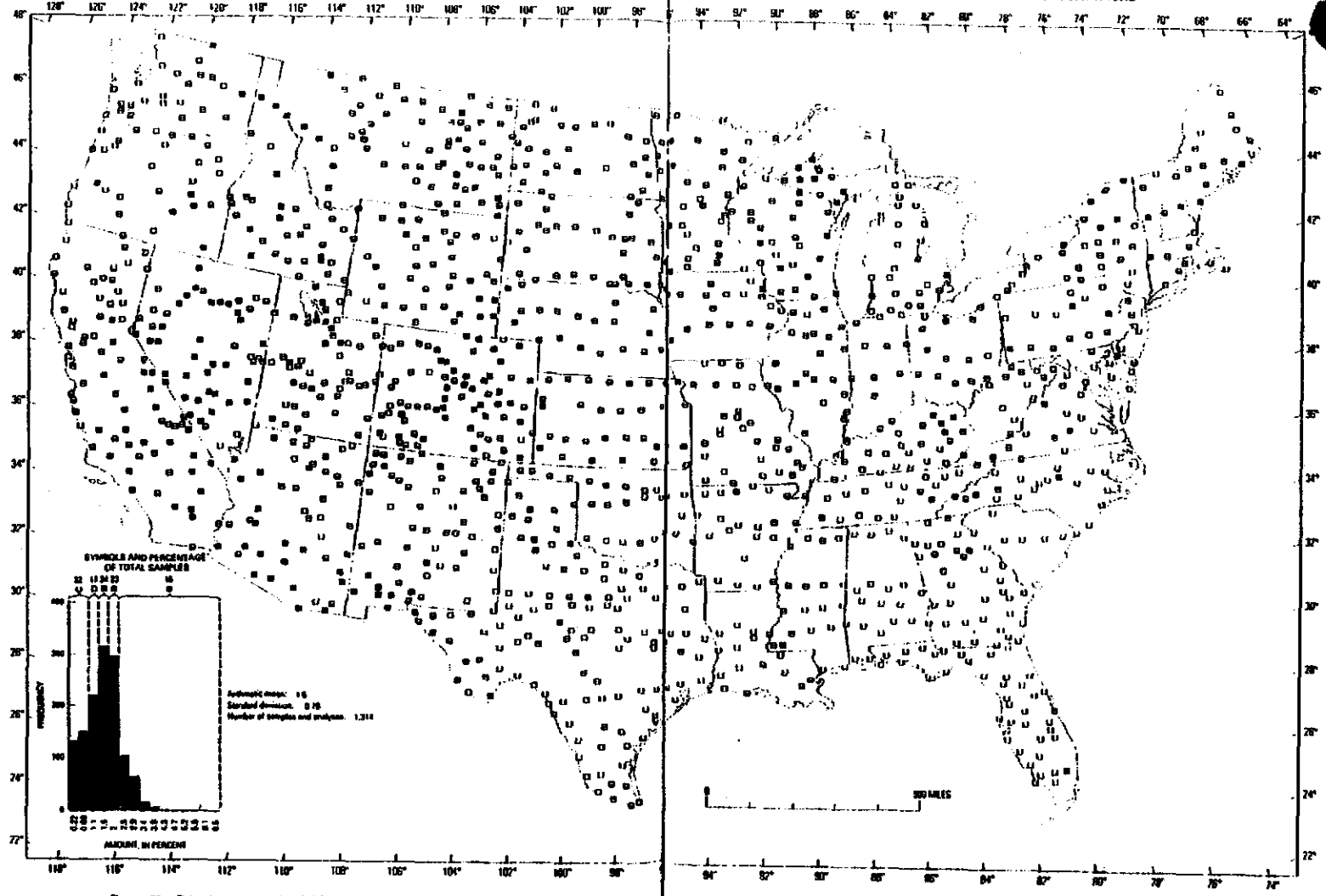

FIGURE 31.—Potassium content of surficial materials.

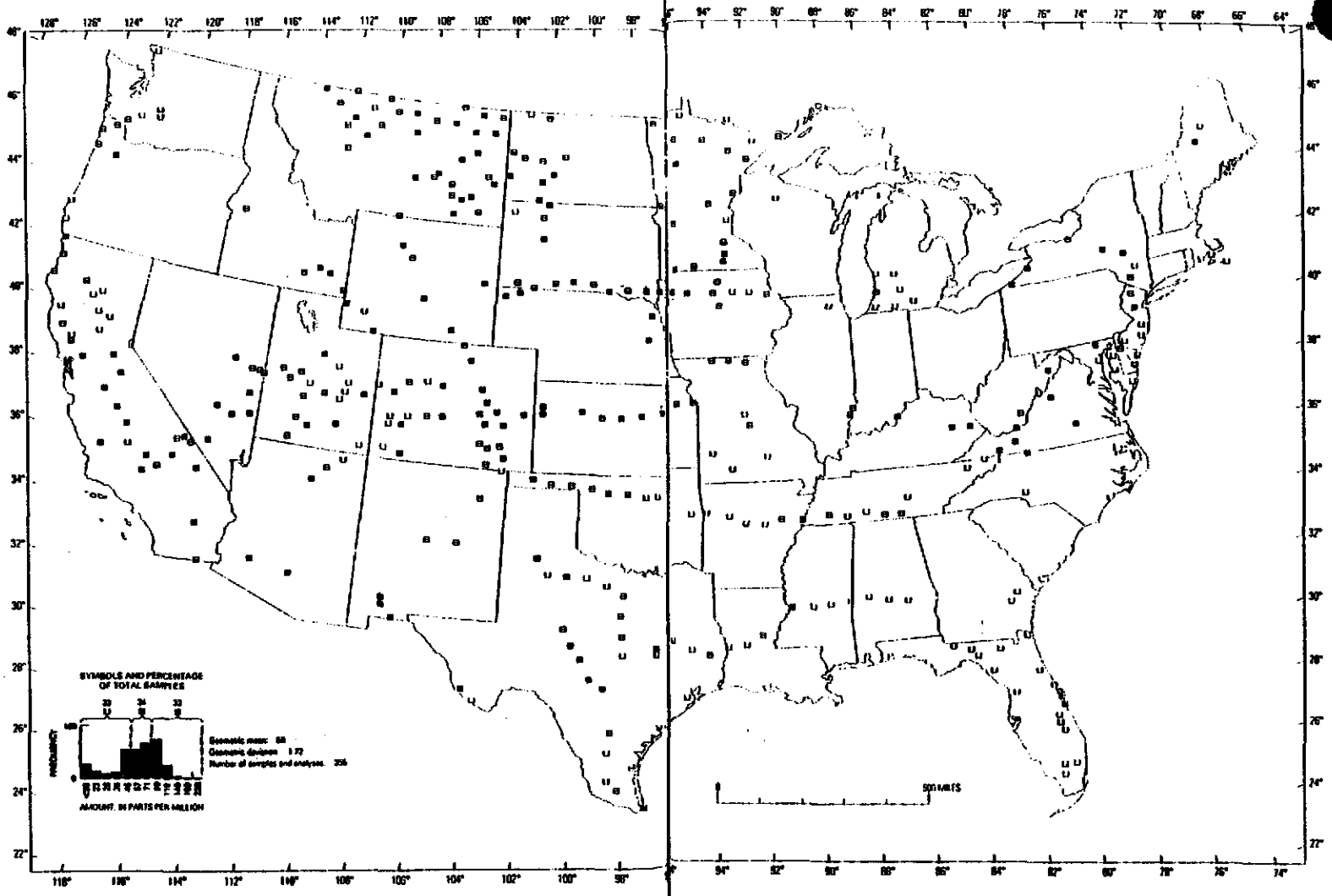

FIGURE 32.—Rubidium content of surficial materials.

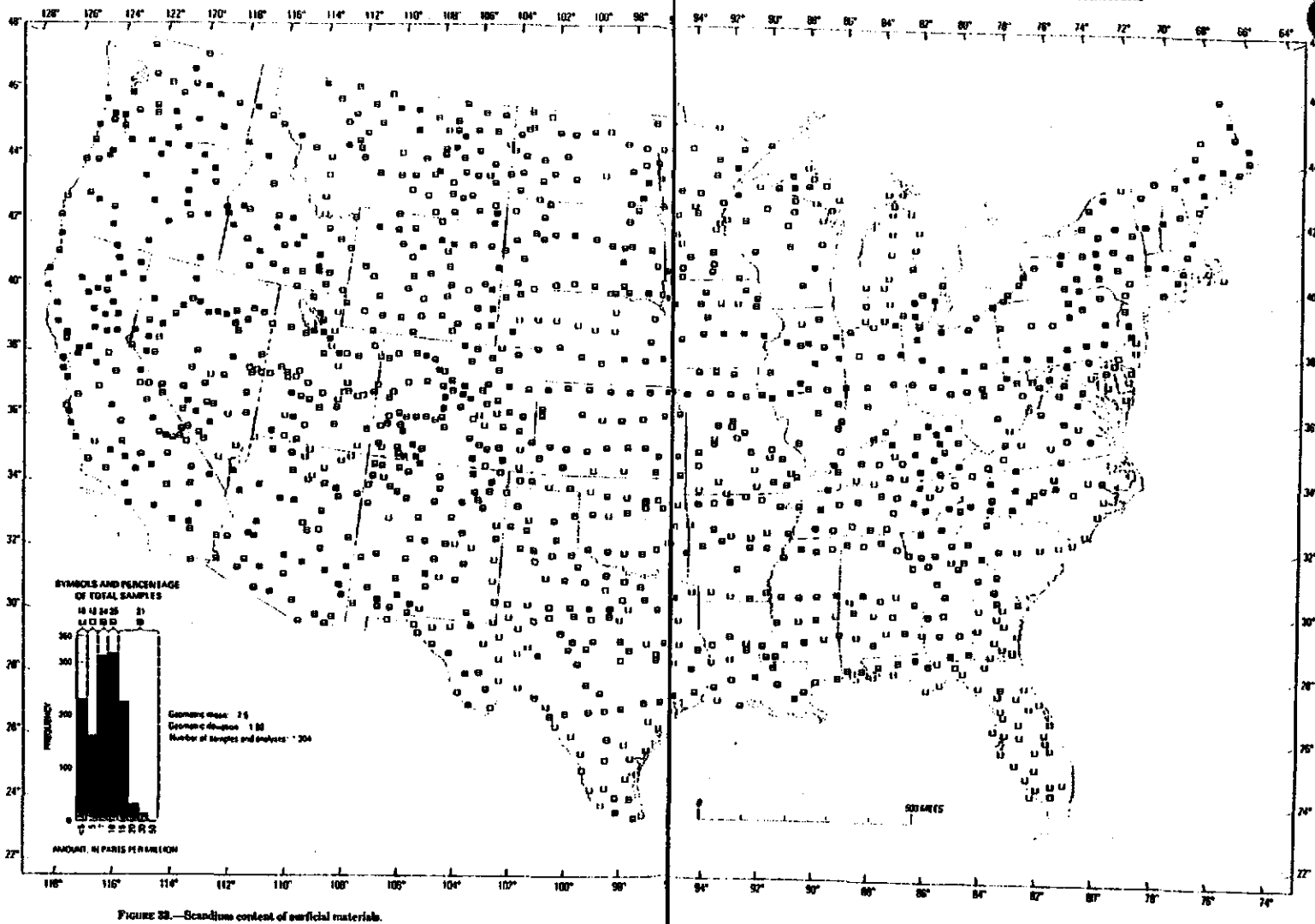

FIGURE 33.—Scandium content of surficial materials.

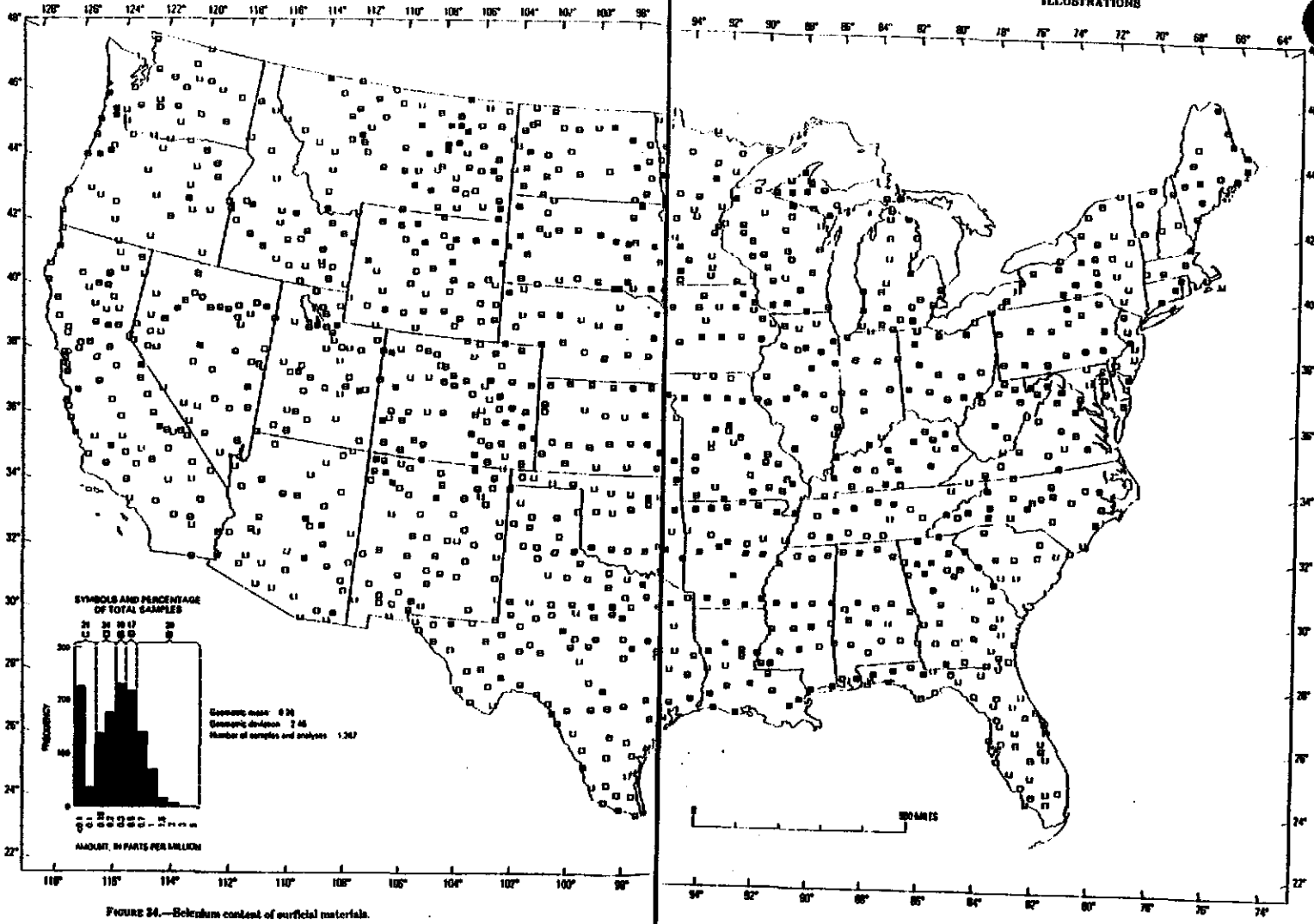

FIGURE 24.—Selenium content of surficial materials.

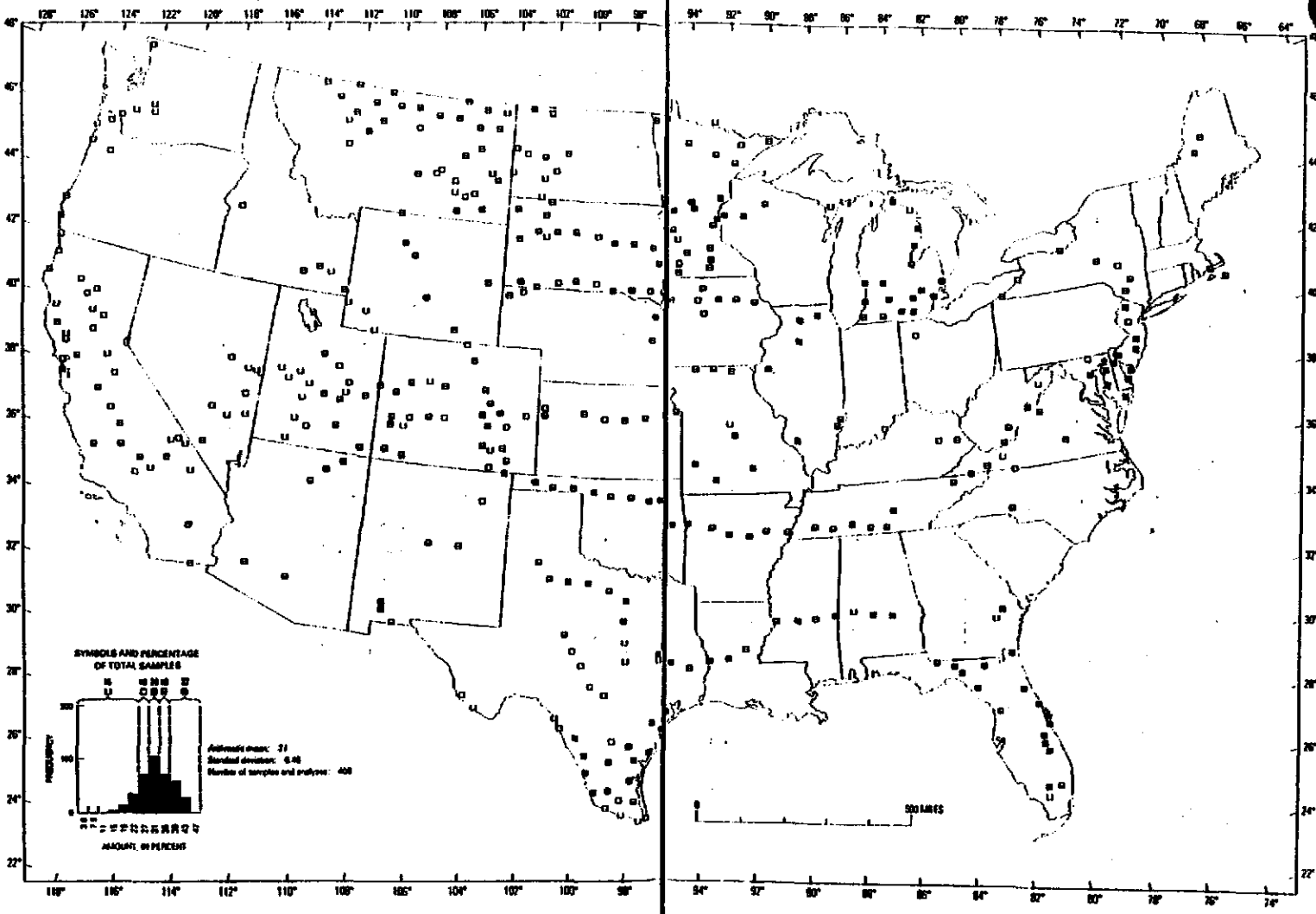

FIGURE 35.—Silicon content of surficial materials.

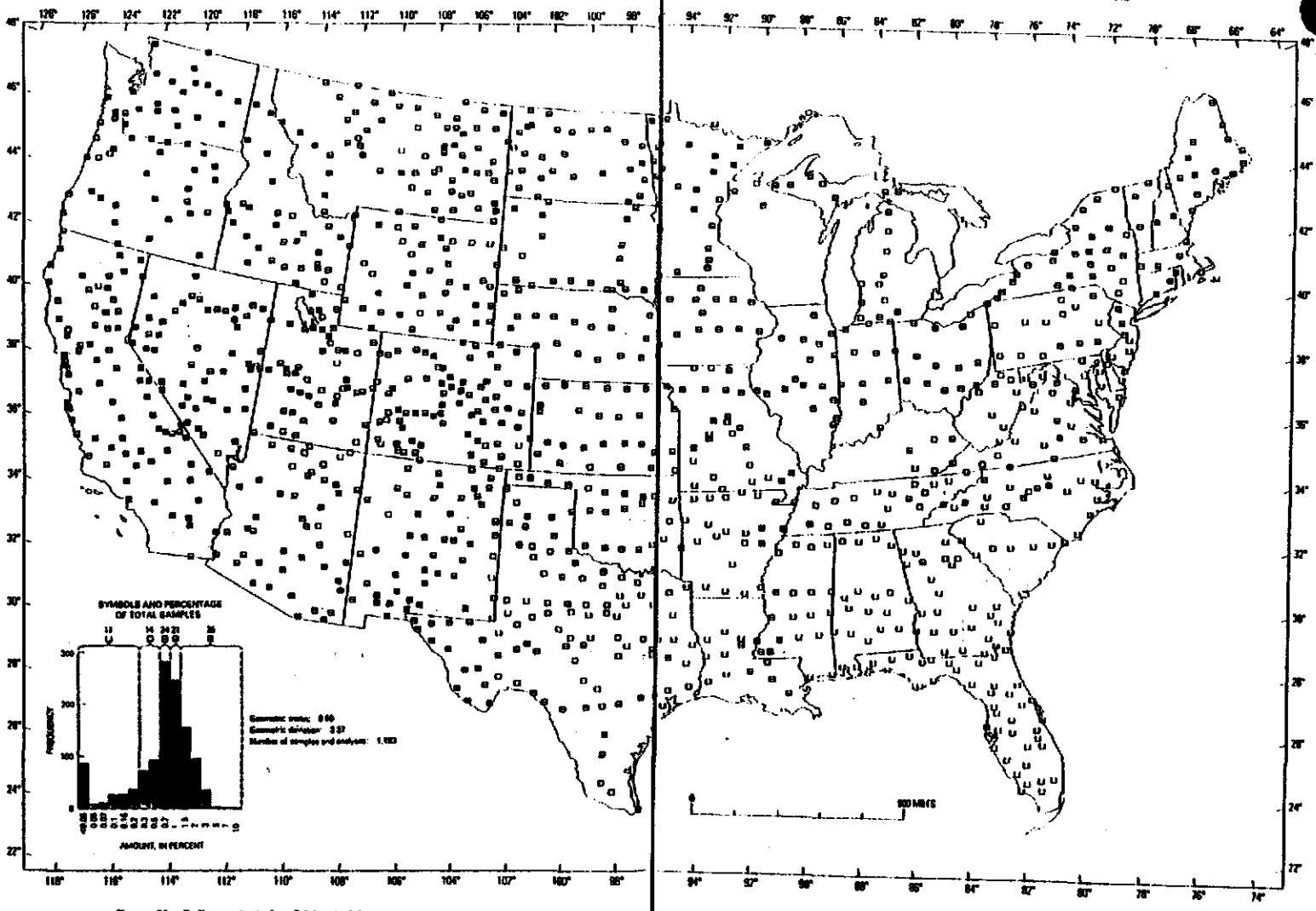

FIGURE 26.—Sodium content of surficial materials.

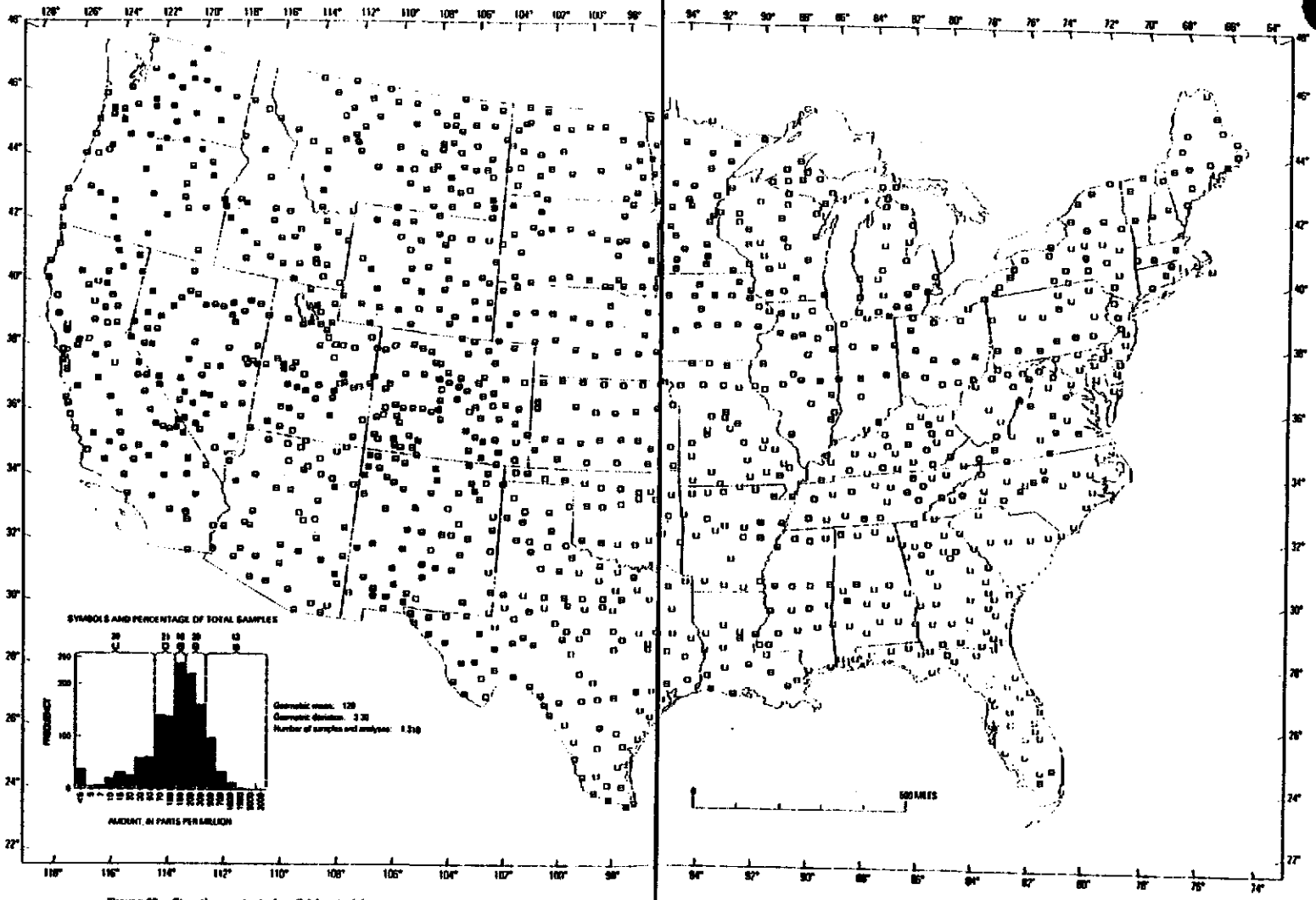

FIGURE 37.—Strontium content of surficial materials.

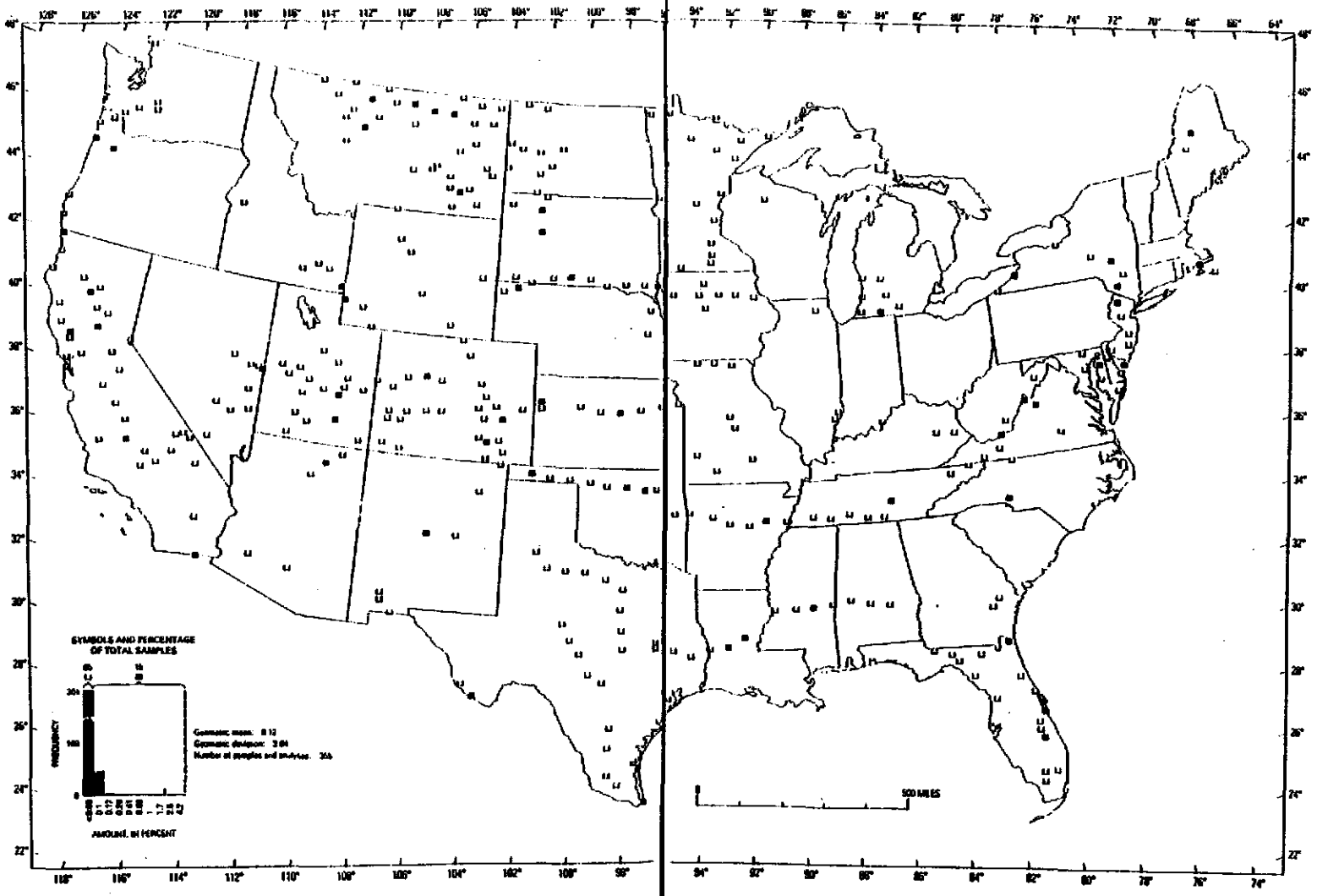

FIGURE 38.—Sulfur content of surficial materials.

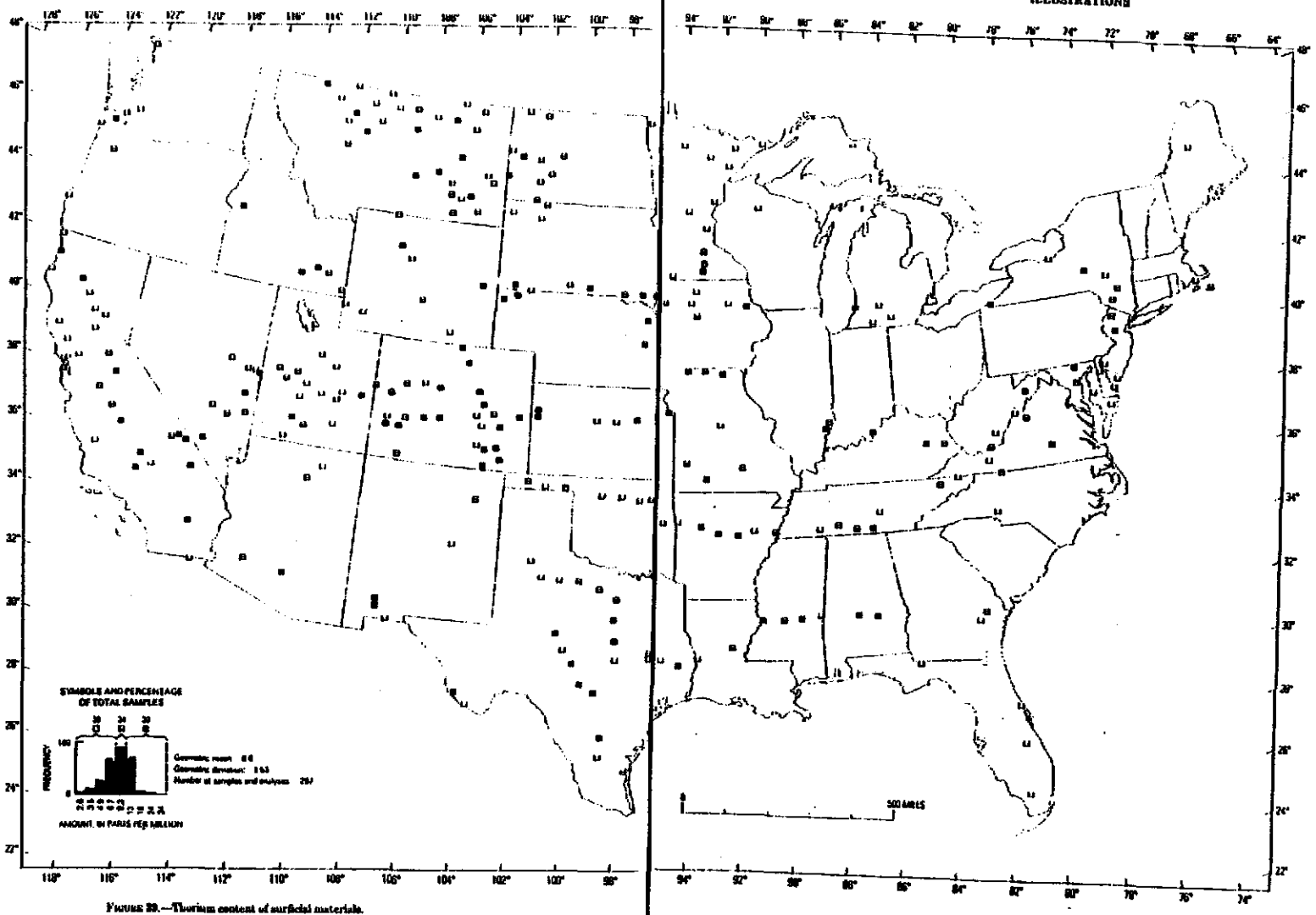

FIGURE 39.—Thorium content of surficial materials.

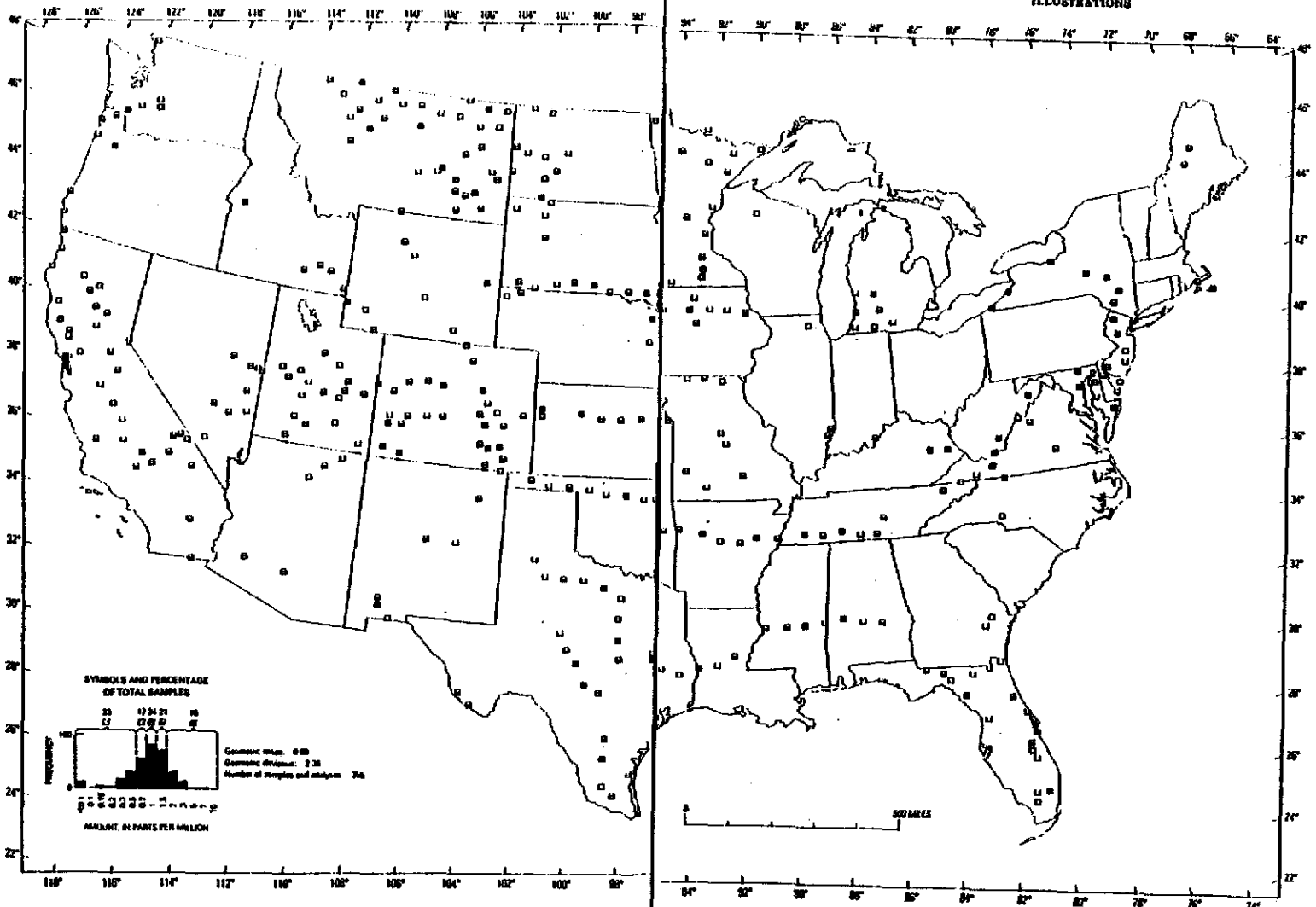

FIGURE 40.—Tin content of surficial materials.

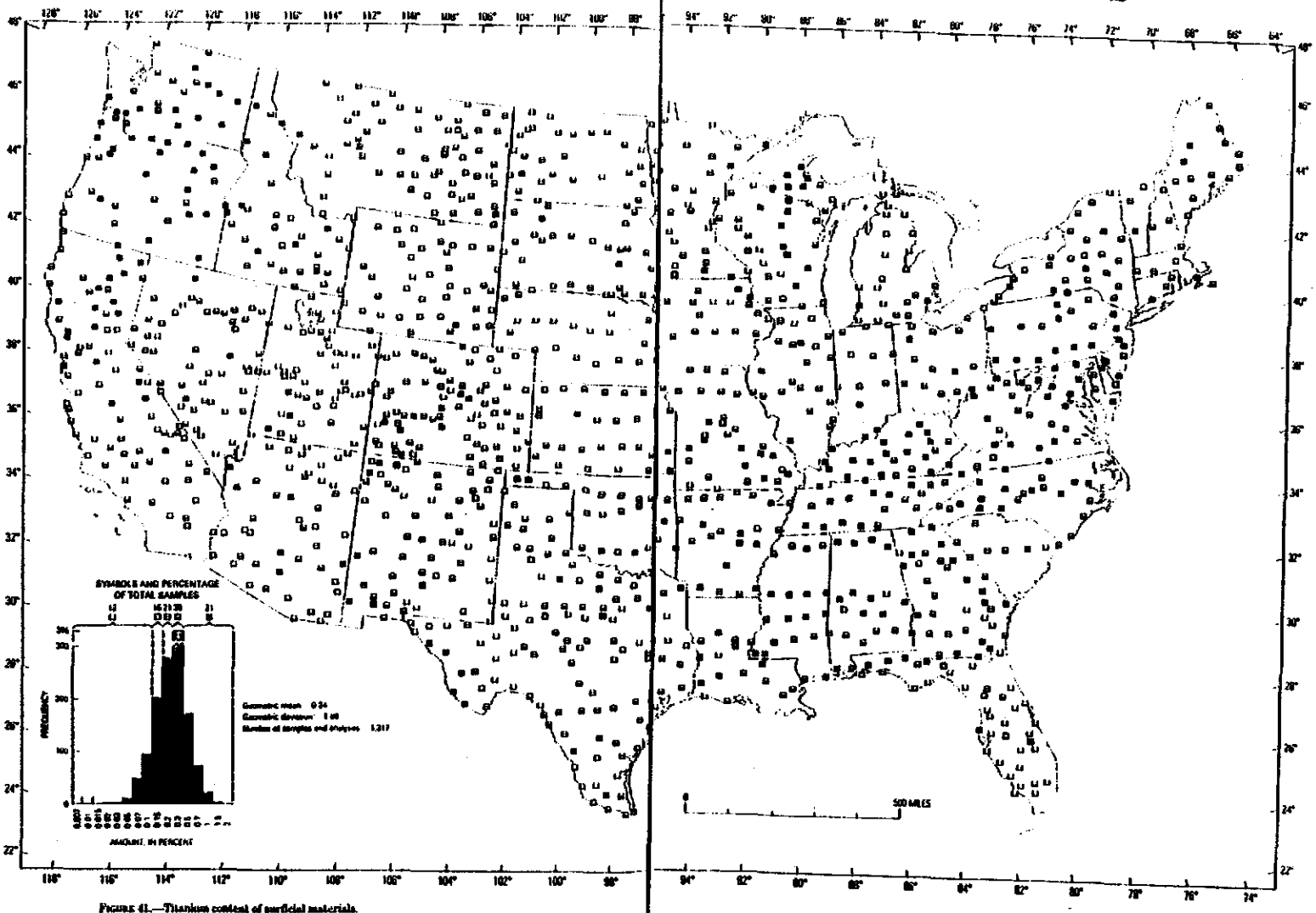

FIGURE 41.—Titanium content of surficial materials.

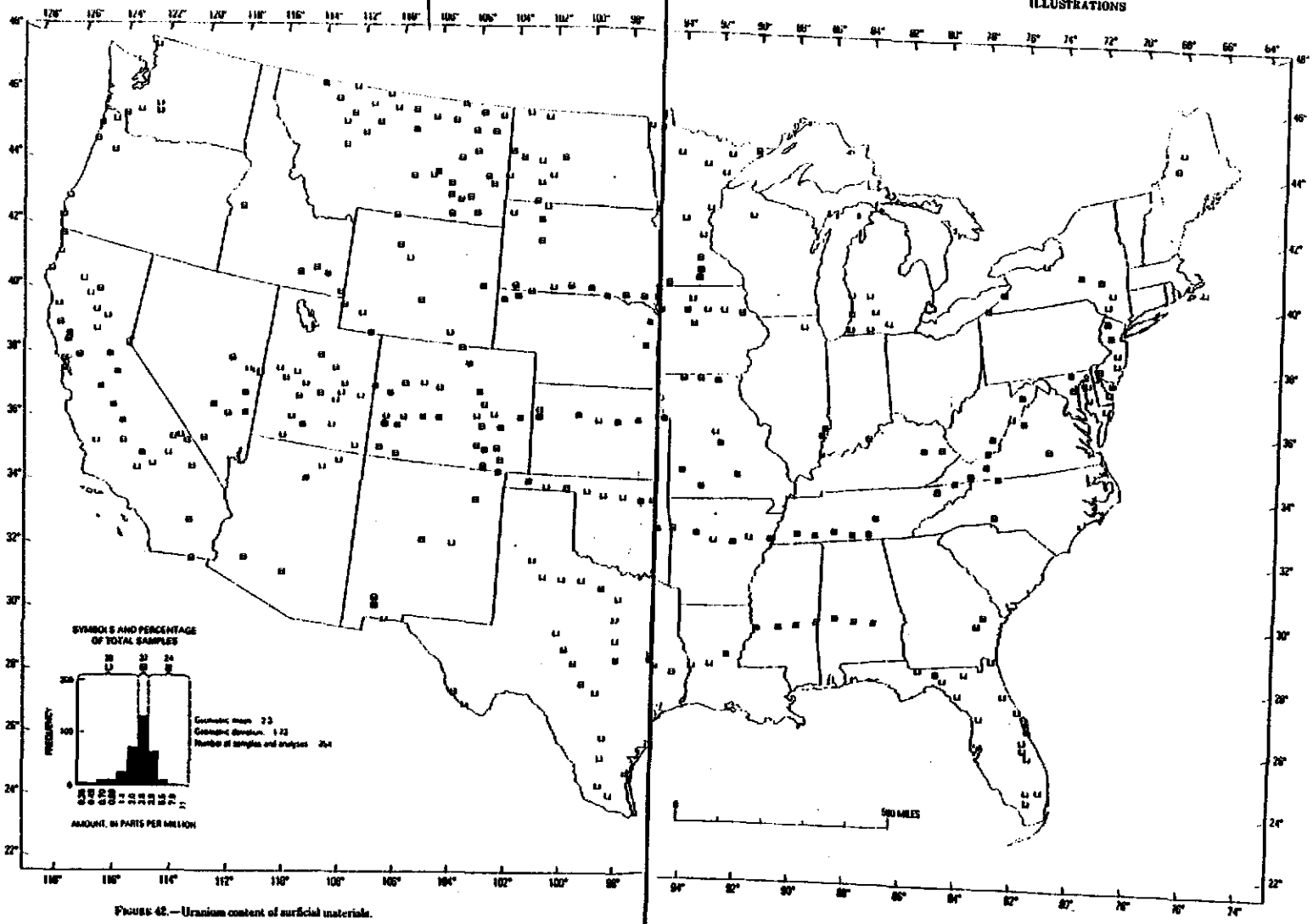

FIGURE 42.—Uranium content of surficial materials.

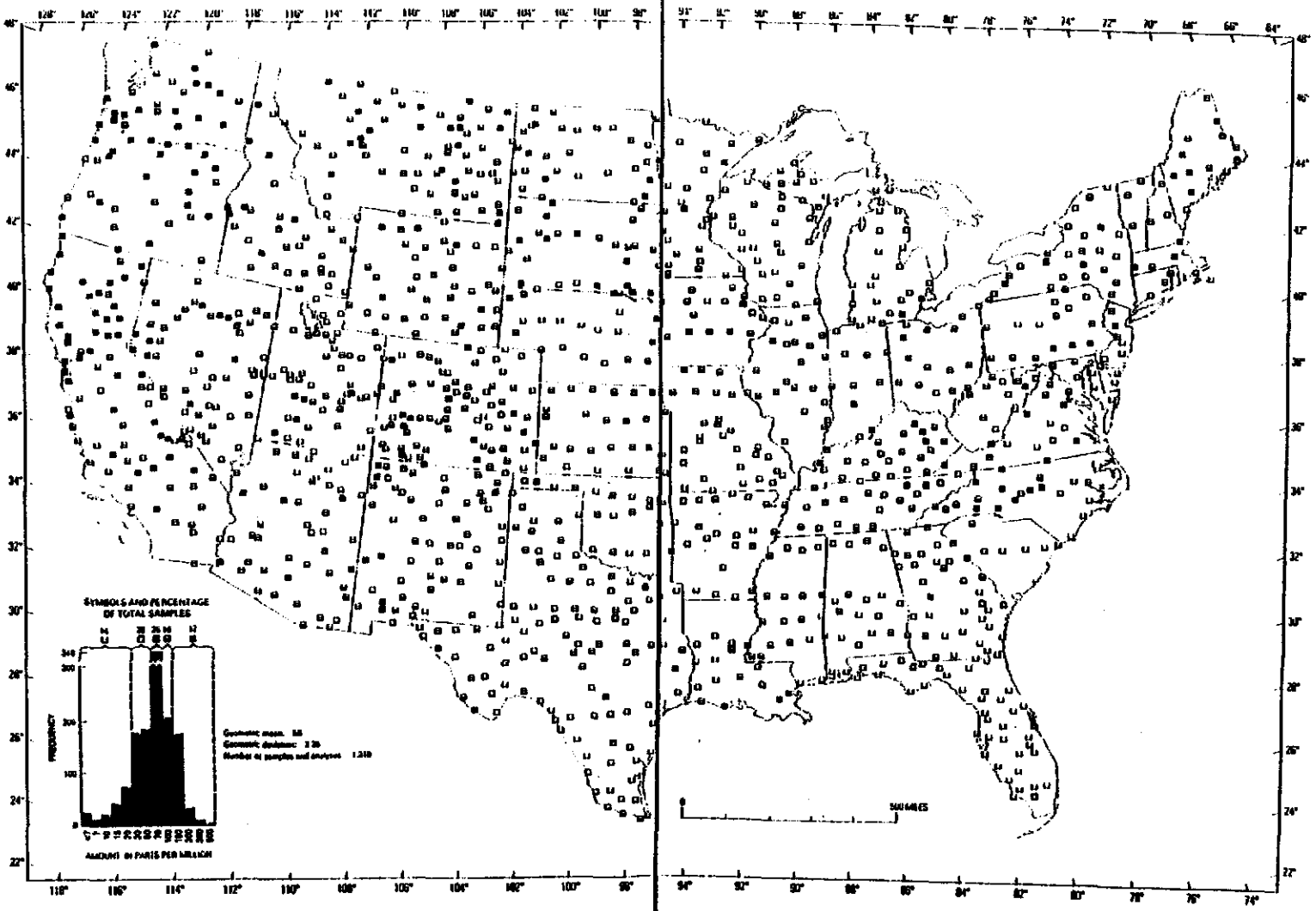

FIGURE 63.—Vanadium content of surficial materials.

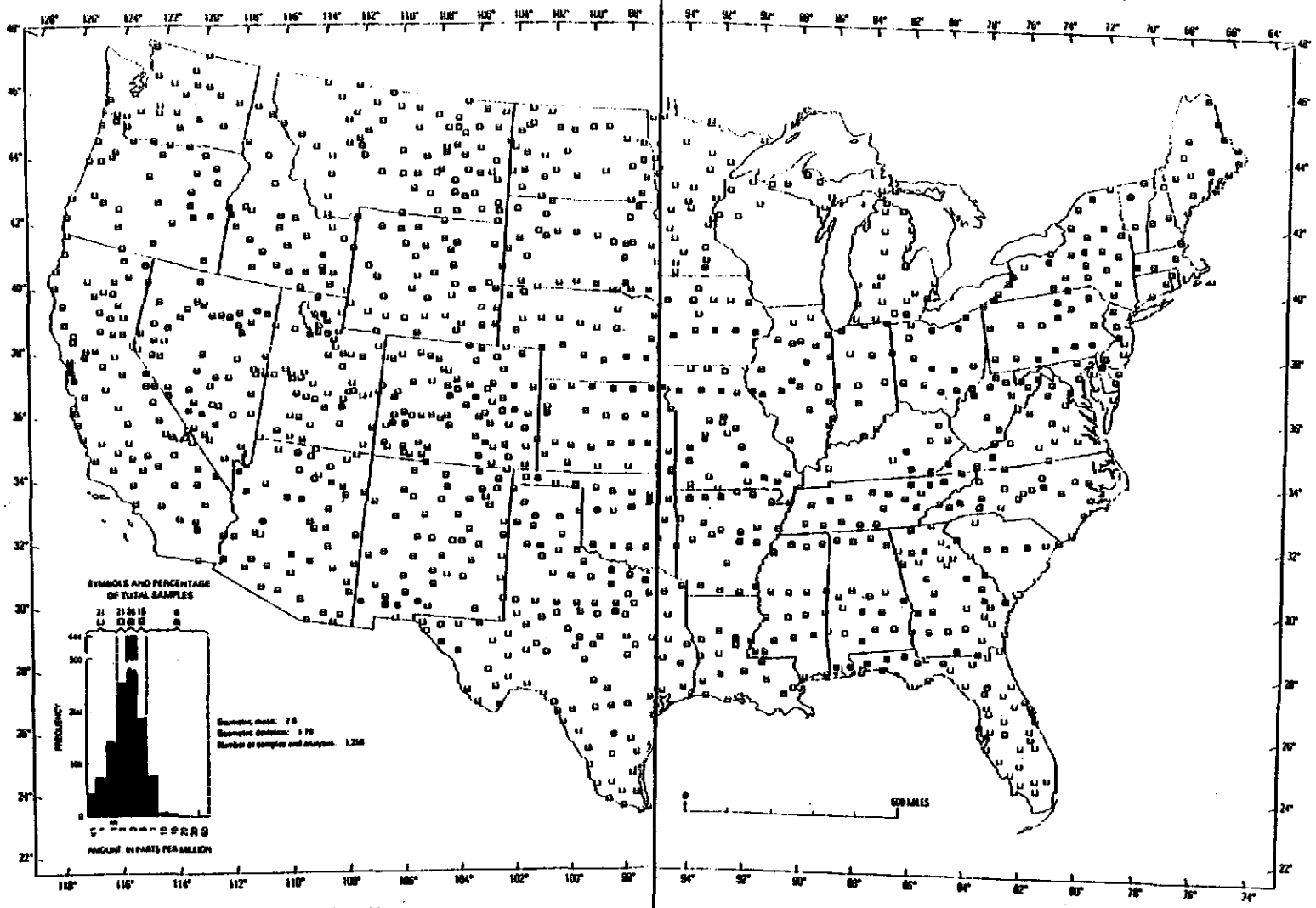

FIGURE 44.—Ytterbium content of surficial materials.

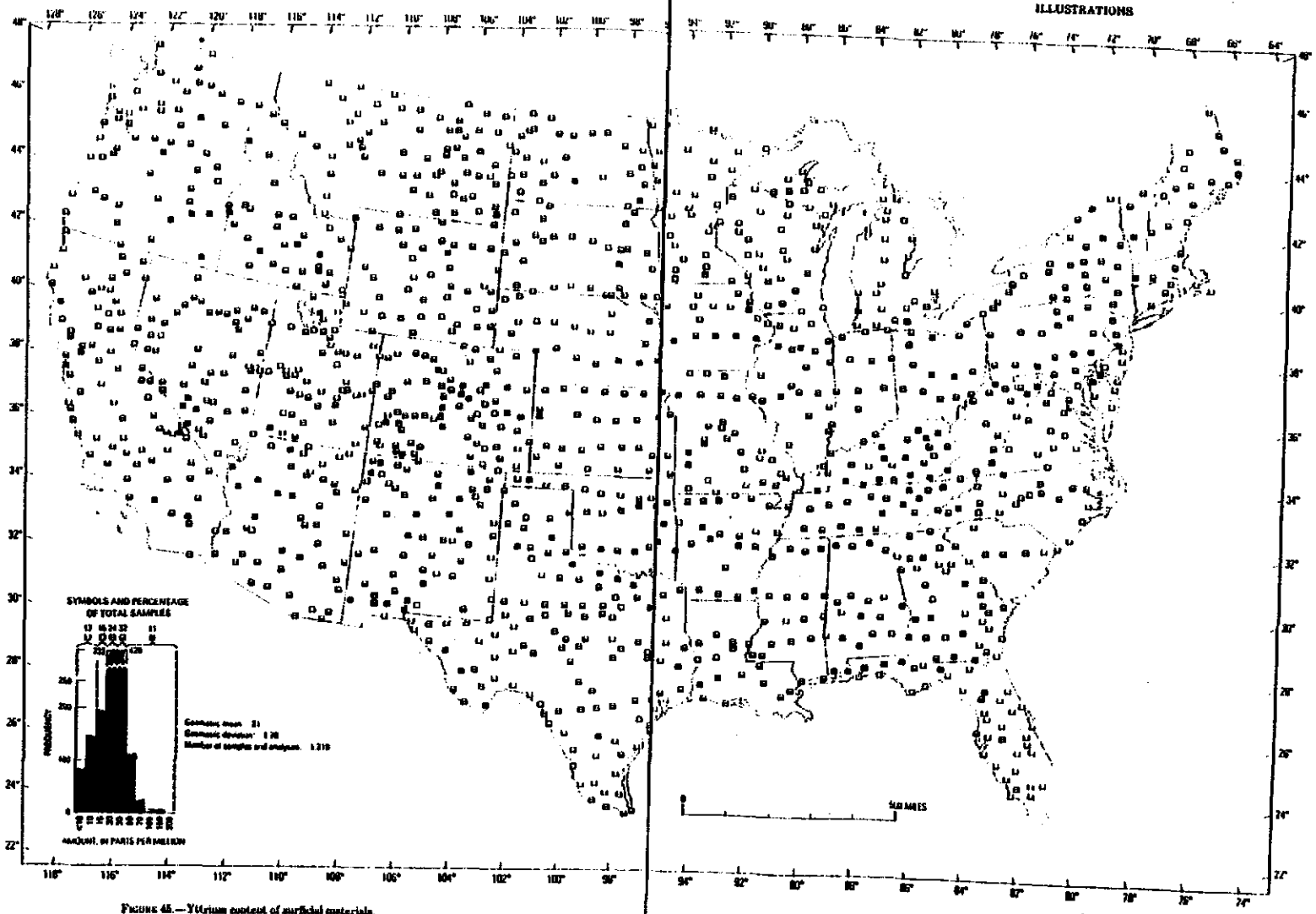

FIGURE 45.—Yttrium content of surficial materials.

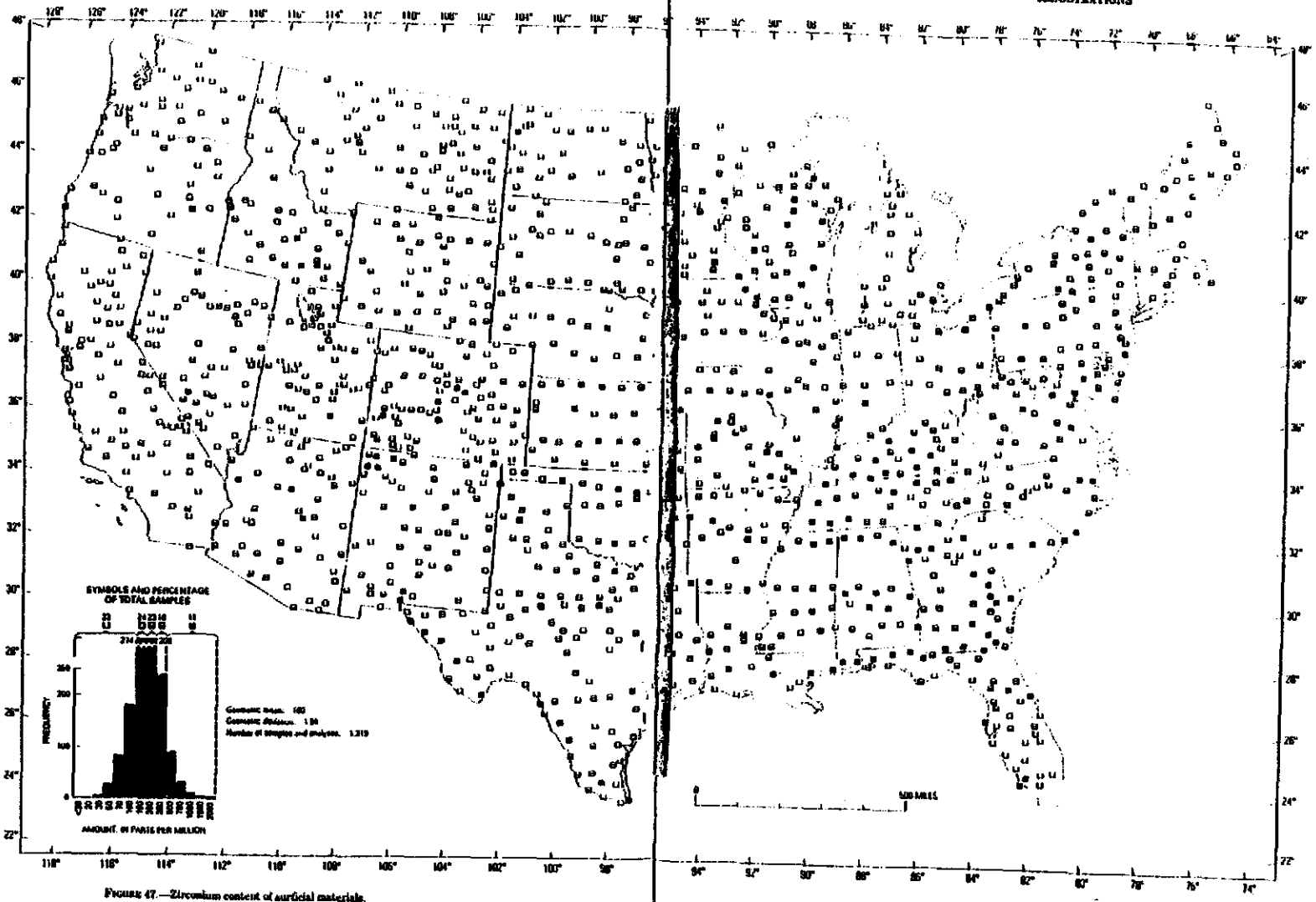

FIGURE 47.—Zirconium content of surficial materials.

ATTACHMENT 3 (SEPARATE VOLUME)
COMPLETE ANALYTICAL DATA FOR:

RCRA FACILITY INVESTIGATION REPORT
SWMU 16 - FORMER ATRAZINE PRODUCTION AREA
SWMU 1 - CONTAINER (DRUM) STORAGE AREA
SWMU 17 - RETURNED PRODUCT STORAGE AREA

VICKSBURG CHEMICAL COMPANY
VICKSBURG, MISSISSIPPI

Prepared for
Vicksburg Chemical Company
Vicksburg, Mississippi

Cedar Chemical Corporation
Memphis, Tennessee

June 1997

WCC File 96B315-003

Woodward-Clyde

Woodward-Clyde Consultants
2822 O'Neal Lane
Baton Rouge, Louisiana 70816

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(ATTACHMENT 3 - THE ANALYTICAL DATA)

Attachment 3A - Phase I - Quality Control Data and Chain of Custody Document

Attachment 3B - Phase I Analytical Data

Section	Sample Numbers	Matrix	Pace Episode	Analytical Parameters
1-1	A-1-B through F-2-B	Soil	GEQ	• Vol./Semi-Vol.
1-2	A-1-B through F-2-B	Soil	GEQ	• Atrazine/Cyanazine • Pesticides/PCBs
1-3	A-1-B through F-2-B	Soil	GEQ	• Inorganics
2-1	G-1-B through N-2-B	Soil	GEA	• Vol./Semi-Vol. (except for K and L which are toluene/dinoseb)
2-2	G-1-B through N-2-B	Soil	GEA	• Atrazine/Cyanazine • Pesticides/PCBs (except for K and L which is toxaphene)
2-3	G-1-B through N-2-B	Soil	GEA	• Inorganics (except for K and L which is arsenic)
3-1	I-1-C through 11-2-C	Soil	GEQ	• Dinoseb
3-2	I-1-C through 11-2-C	Soil	GEQ	• Atrazine/Cyanazine • Toxaphene
3-3	I-1-C through 11-2-C	Soil	GEQ	• Arsenic
4-1	12-1-A through 21-2-A	Soil	GEQ	• Dinoseb

TABLE OF CONTENTS

(ATTACHMENT 3 - THE ANALYTICAL DATA)

Section	Sample Numbers	Matrix	Pace Episode	Analytical Parameters
4-2	12-1-A through 21-2-A	Soil	GEQ	• Toluene • Atrazine/Cyanazine • Toxaphene
4-3	12-1-A through 21-2-A	Soil	GEQ	• Arsenic
5-1	1-C-C through 21-C-A	Concrete	GED	• Dinoseb
5-2	1-C-C through 21-C-A	Concrete	GED	• Toluene • Atrazine/Cyanazine • Toxaphene
5-3	1-C-C through 21-C-A	Concrete	GED	• Arsenic

Attachment 3C - Phase II Quality Control Data, Chain of Custody Documents, and Analytical Data - Pace Episode HGT

Attachment 3D - Phase II Quality Control Data, Chain of Custody Documents, and Analytical Data - Pace Episode HGK

attachment 3a - phase 1 - quality control data and chain of custody documents

Pace Analytical

Pace Analytical Services, Inc.
161 James Drive West, Suite 100
St. Rose, LA 70087
Tel: 504-469-0333
Fax: 504-469-0555

Richard Karkkainen
Woodward-Clyde Consultants-B.R.
2822 O'Neal Lane
Baton Rouge, LA 70816-1003

Project: RCRA INVESTIGATION
Site: VICKSBURG
RG: 97021
Episode:
GEA GED GEQ

To: Richard Karkkainen

Enclosed please find the analytical results for sample(s) received by Pace Analytical Services, Inc. - New Orleans.

This report contains a summary of the quality control data associated with the analyses as well as copies of the chain-of-custody documents.

You may direct any inquires concerning this report to your Project Manager, or any one of the Project Managers listed below:

Ms. Karen H. Brown, Manager, Ext. 325
Mr. Craig McCollum, Ext. 326
Ms. Cindy Olavesen, Ext. 327

Sincerely,

C McCollum
Project Manager

3-31-97
Date

Enclosures

Pace Analytical Services. Inc. 97021

Woodward-Clyde Consultants

Narrative

The Woodward-Clyde Consultants project consisted of four (4) water. twenty three (23) other. eighty two (82) soil samples (including MS and MSD) which were received by Pace Analytical Services. Inc. on February 14 and 17. 1997 and logged in as Episodes GEA, GED and GEQ. The samples were identified on the attached Sample Cross Reference report.

Volatile Organics

No problems were encountered with this analyses.

Semivolatile Organics

Samples GEQ-041. GEQ-043. GEQ-045. GEQ-046. GEQ-047. and GEQ-049 required reextraction and reanalyzes due to low acid surrogate recoveries. The acid surrogates were within QC limits for these six samples upon re-analysis. The results reported are from the original analyses because the re-extractions were performed outside the method holding time limit and because dinoseb results obtained were similar in both sets of analyses. Of these 6 samples. the concentration of dinoseb was only determined to be above the reporting limit in samples GEQ-043 and GEQ-43RE.

Shelley Antoine 4/2/97

Shelley Antoine Date

GC/MS Manager

Pesticides/PCBs

Toxaphene was detected in several samples. Toxaphene is a multicomponent pesticide with peaks eluting across nearly the entire elution range of the individual component pesticides. Toxaphene thus functions as a serious interference with respect to the determination of said individual component pesticides. Where toxaphene is observed in samples. the individual pesticide hits which fall within the elution range of the toxaphene peaks are reported not detected at an elevated detection limit. Because of the possibility of false positives and negatives for individual component pesticides in the presence of the observed toxaphene. the actual detection limits for individual pesticide compounds which have retention times within the range of the toxaphene is indeterminate.

Sample 21-1-A and 3-2-C were re-extracted outside the holding time. The original extracts were lost during GPC clean-up..

There were seven sets of QC data included in this report group. in which four sets of QC were spiked with CLP pesticide compounds. and in addition. two more sets of QC sample were spiked with Toxaphene only. One QC set was inadvertently spiked with both CLP pesticide spike solution and the Toxaphene spike solution. The presence of the Toxaphene caused the individual pesticide component to appear at a higher concentration than would have been expected. The high QC recoveries are flagged on the QA/QC spike recovery result page.

Several samples were run with dilution due to matrix interference or high concentration of target analytes exceeding calibration range.

Surrogate TBP recovery were poor in sample 7-C-C and M-1-B due to matrix interference.

All batch QC sample including LCS, matrix spike, and matrix spike duplicate were re-extracted due to the target analytes were not routine components in original matrix spiking solution. The re-extraction was performed out side of sample holding time. All QC data were generated from re-extracted sample runs. No excursion was found.

Shelley Antoine for 4/2/97

Steven L. Yin Date

GC Manager

Metals

No problems were encountered with this analyses.

Karen Brown for 4/2/97

Keith Rhode Date

Inorganics Manager

Quality Assurance

This data package has been reviewed for both completeness and technical specifications. The data were reviewed for overall QA/QC requirements of precision, accuracy, and consistency in data presentation. The data were evaluated for compliance against the CLP Statement of Work and SW 846 protocols. These guidelines were used in the preparation of our technical narratives. The release of this data package has therefore been authorized by the Laboratory Manager through Quality Assurance review.

Elaine Wild

QA Reviewer

Pace Analytical Services, Inc. - New Orleans
Sample Cross Reference Summary

RG: 97021 Client: Woodward-Clyde Consultants-B.R.

Project: RCRA INVESTIGATION

Site: VICKSBURG

Lab ID	Client ID	Description	Matrix	Collected	Received
GEA-001	G-1-B		Soil	02/12/97	02/14/97
GEA-002	G-2-B		Soil	02/12/97	02/14/97
GEA-003	H-1-B		Soil	02/12/97	02/14/97
GEA-004	H-2-B		Soil	02/12/97	02/14/97
GEA-005	I-1-B		Soil	02/12/97	02/14/97
GEA-006	I-2-B		Soil	02/12/97	02/14/97
GEA-007	J-1-B		Soil	02/12/97	02/14/97
GEA-008	J-2-B		Soil	02/12/97	02/14/97
GEA-009	K-1-A		Soil	02/12/97	02/14/97
GEA-010	K-2-A		Soil	02/12/97	02/14/97
GEA-011	L-1-A		Soil	02/12/97	02/14/97
GEA-012	L-2-A		Soil	02/12/97	02/14/97
GEA-013	M-1-B		Soil	02/12/97	02/14/97
GEA-014	M-2-B		Soil	02/12/97	02/14/97
GEA-015	N-1-B		Soil	02/12/97	02/14/97
GEA-016	N-2-B		Soil	02/12/97	02/14/97
GEA-017	TRIP BLANK		Water	02/12/97	02/14/97
GED-001	1-C-C		Other	02/13/97	02/14/97
GED-002	2-C-C		Other	02/13/97	02/14/97
GED-003	3-C-C		Other	02/13/97	02/14/97
GED-004	4-C-C		Other	02/13/97	02/14/97
GED-005	5-C-C		Other	02/13/97	02/14/97
GED-006	6-C-C		Other	02/13/97	02/14/97
GED-007	7-C-C		Other	02/13/97	02/14/97
GED-008	7-C-C-MS	MATRIX SPIKE	Other	02/13/97	02/14/97
GED-009	7-C-C MSD	MATRIX SPIKE DUP	Other	02/13/97	02/14/97
GED-010	8-C-C		Other	02/13/97	02/14/97
GED-011	9-C-C		Other	02/13/97	02/14/97
GED-012	10-C-C		Other	02/13/97	02/14/97
GED-013	11-C-C		Other	02/13/97	02/14/97
GED-014	12-C-A		Other	02/12/97	02/14/97
GED-015	13-C-A		Other	02/12/97	02/14/97
GED-016	14-C-A		Other	02/12/97	02/14/97
GED-017	15-C-A		Other	02/12/97	02/14/97
GED-018	16-C-A		Other	02/12/97	02/14/97
GED-019	17-C-A		Other	02/13/97	02/14/97
GED-020	18-C-A		Other	02/13/97	02/14/97
GED-021	19-C-A		Other	02/13/97	02/14/97
GED-022	20-C-A		Other	02/13/97	02/14/97
GED-023	21-C-A		Other	02/13/97	02/14/97

GEQ-001	A-1-B		Soil	02/12/97	02/17/97
GEQ-002	A-2-B		Soil	02/12/97	02/17/97
GEQ-003	A-1-MS	MATRIX SPIKE	Soil	02/13/97	02/17/97
GEQ-004	A-1-MSD	MATRIX SPIKE DUP	Soil	02/13/97	02/17/97
GEQ-005	B-1-B		Soil	02/12/97	02/17/97
GEQ-006	B-2-B		Soil	02/12/97	02/17/97
GEQ-007	C-1-B		Soil	02/12/97	02/17/97
GEQ-008	C-2-B		Soil	02/12/97	02/17/97
GEQ-009	D-1-B		Soil	02/12/97	02/17/97
GEQ-010	D-2-B		Soil	02/12/97	02/17/97
GEQ-011	E-1-B		Soil	02/12/97	02/17/97
GEQ-012	E-2-B		Soil	02/12/97	02/17/97
GEQ-013	F-1-B		Soil	02/12/97	02/17/97
GEQ-014	F-2-B		Soil	02/12/97	02/17/97
GEQ-015	C-2-B MS	MATRIX SPIKE	Soil	02/13/97	02/17/97
GEQ-016	C-2-B MSD	MATRIX SPIKE DUP	Soil	02/13/97	02/17/97
GEQ-017	12-1-A		Soil	02/13/97	02/17/97
GEQ-018	12-2-A		Soil	02/13/97	02/17/97
GEQ-019	13-1-A		Soil	02/13/97	02/17/97
GEQ-020	13-2-A		Soil	02/13/97	02/17/97
GEQ-021	14-1-A		Soil	02/13/97	02/17/97
GEQ-022	14-2-A		Soil	02/13/97	02/17/97
GEQ-023	2 TRIP BLANK		Water	02/12/97	02/17/97
GEQ-024	15-1-A		Soil	02/13/97	02/17/97
GEQ-025	15-1-A MS	MATRIX SPIKE	Soil	02/13/97	02/17/97
GEQ-026	15-1-A MSD	MATRIX SPIKE DUP	Soil	02/13/97	02/17/97
GEQ-027	15-2-A		Soil	02/13/97	02/17/97
GEQ-028	16-1-A		Soil	02/13/97	02/17/97
GEQ-029	16-2-A		Soil	02/13/97	02/17/97
GEQ-030	17-1-A		Soil	02/14/97	02/17/97
GEQ-031	17-2-A		Soil	02/14/97	02/17/97
GEQ-032	18-1-A		Soil	02/14/97	02/17/97
GEQ-033	18-2-A		Soil	02/14/97	02/17/97
GEQ-034	19-1-A		Soil	02/14/97	02/17/97
GEQ-035	19-2-A		Soil	02/14/97	02/17/97
GEQ-036	20-1-A		Soil	02/14/97	02/17/97
GEQ-037	20-2-A		Soil	02/14/97	02/17/97
GEQ-038	21-1-A		Soil	02/14/97	02/17/97
GEQ-039	21-2-A		Soil	02/14/97	02/17/97
GEQ-040	TRIP BLANK		Water	02/14/97	02/17/97
GEQ-041	1-1-C		Soil	02/13/97	02/17/97
GEQ-042	1-2-C		Soil	02/13/97	02/17/97
GEQ-043	2-1-C		Soil	02/13/97	02/17/97
GEQ-044	2-2-C		Soil	02/13/97	02/17/97
GEQ-045	3-1-C		Soil	02/13/97	02/17/97
GEQ-046	3-2-C		Soil	02/13/97	02/17/97
GEQ-047	4-1-C		Soil	02/13/97	02/17/97
GEQ-048	4-2-C		Soil	02/13/97	02/17/97
GEQ-049	5-1-C		Soil	02/13/97	02/17/97
GEQ-050	5-2-C		Soil	02/13/97	02/17/97
GEQ-051	6-1-C		Soil	02/13/97	02/17/97
GEQ-052	6-2-C		Soil	02/13/97	02/17/97
GEQ-053	6-2-C MS	MATRIX SPIKE	Soil	02/13/97	02/17/97

GEQ-054	6-2-C MSD	MATRIX SPIKE DUP	Soil	02/13/97	02/17/97
GEQ-055	7-1-C		Soil	02/13/97	02/17/97
GEQ-056	7-2-C		Soil	02/13/97	02/17/97
GEQ-057	TRIP BLANK		Water	02/13/97	02/17/97
GEQ-058	8-1-C		Soil	02/13/97	02/17/97
GEQ-059	8-2-C		Soil	02/13/97	02/17/97
GEQ-060	9-1-C		Soil	02/13/97	02/17/97
GEQ-061	9-2-C		Soil	02/13/97	02/17/97
GEQ-062	10-1-C		Soil	02/13/97	02/17/97
GEQ-063	10-2-C		Soil	02/13/97	02/17/97
GEQ-064	11-1-C		Soil	02/13/97	02/17/97
GEQ-065	11-2-C		Soil	02/13/97	02/17/97
GEQ-066	A-1-MS	MATRIX SPIKE	Soil	02/13/97	02/17/97
GEQ-067	A-1-MSD	MATRIX SPIKE DUP	Soil	02/13/97	02/17/97
GEQ-068	C-2-B MS	MATRIX SPIKE	Soil	02/13/97	02/17/97
GEQ-069	C-2-B MSD	MATRIX SPIKE DUP	Soil	02/13/97	02/17/97

Report Qualifiers

Pace Analytical Services, Inc. - New Orleans

Single Episode

Episode: GEA

Qualifier	Qualifier Description
A10	N-Nitrosodiphenylamine is reported as diphenylamine.
A11	This analyte is a common solvent. Its presence in field samples may be an artifact of sample collection, transport or analysis.
D1	The value for this analyte was based upon analysis at a dilution due to the high analyte concentration.
D2	The value for this analyte was based upon analysis at a dilution due to the presence of matrix interferences.
G1	Interferences are present which caused poor surrogate recovery.
M7	Poor internal standard responses were observed in this sample. Analysis of the subsequent dilution yielded similar results, indicating a sample matrix effect. No further corrective action was taken.
N	See narrative for a detailed explanation.
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q2	The matrix spike recoveries are poor due to the presence of matrix interferences. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q3	The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.
Q7	The sample used for matrix spike analyses required extensive dilution such that matrix spike analytes were diluted beyond their reporting limit. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.

Report Qualifiers

Pace Analytical Services, Inc. - New Orleans

Single Episode

Episode: GED

Qualifier	Qualifier Description
D2	The value for this analyte was based upon analysis at a dilution due to the presence of matrix interferences.
D4	The sample was analyzed at a dilution due to the presence of matrix interferences.
G1	Interferences are present which caused poor surrogate recovery.
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q7	The sample used for matrix spike analyses required extensive dilution such that matrix spike analytes were diluted beyond their reporting limit. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.

Report Qualifiers

Pace Analytical Services, Inc. - New Orleans

Single Episode

Episode: GEQ

Qualifier	Qualifier Description
A10	N-Nitrosodiphenylamine is reported as diphenylamine.
A11	This analyte is a common solvent. Its presence in field samples may be an artifact of sample collection, transport or analysis.
D1	The value for this analyte was based upon analysis at a dilution due to the high analyte concentration.
D2	The value for this analyte was based upon analysis at a dilution due to the presence of matrix interferences.
D4	The sample was analyzed at a dilution due to the presence of matrix interferences.
G1	Interferences are present which caused poor surrogate recovery.
N	See narrative for a detailed explanation.
P2	The sample extract could not be concentrated to the method specified final volume. The reporting limit is elevated accordingly.
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q2	The matrix spike recoveries are poor due to the presence of matrix interferences. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q3	The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.
Q7	The sample used for matrix spike analyses required extensive dilution such that matrix spike analytes were diluted beyond their reporting limit. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.

Pace Analytical Services, Inc. - New Orleans
Laboratory Quality Control Definitions

Our laboratory employs quality control (QC) measures to ensure the quality of our analytical data by defining its accuracy and precision. Presentation of the QC data with the report allows the data user the opportunity to evaluate these results and to gauge the method performance. In order to assist the understanding of these data, routine components of our QC program are defined below.

BATCH - A batch is a group of 20 samples or less of a given matrix and analysis by a specific protocol or analytical method.

BLANK - A method blank is a "clean" laboratory sample carried through the entire analytical process. One or more method blanks are prepared with each batch of samples. The analysis of method blanks demonstrates that method interferences caused by contaminants, reagents and glassware are known and minimized. A method blank should not contain any analytes of interest above the reporting limit. There are method allowances for common laboratory artifacts such as methylene chloride, acetone and bis-2-ethylhexyl phthalate.

LABORATORY CONTROL SPIKE - A laboratory control spike (LCS or blank spike) is a blank which has been spiked with known concentrations of target analytes. The LCS is carried through the entire analytical process. One or more LCS are prepared with each batch of samples. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the absence of matrix effects.

MATRIX SPIKE - A matrix spike (MS) is a client sample which is spiked with known concentrations of target analytes. The MS is carried through the entire analytical process. One or more matrix spikes are prepared with every batch of samples. For organic methods, a matrix spike duplicate (MSD) is also prepared. The percent recovery of the spiked analytes provides a measure of the method accuracy in the selected sample and matrix.

DUPLICATE - A duplicate is a sample for which replicate aliquouts are carried through the entire analytical process. Comparison of the original results to those of the duplicate results provides a measure of the method precision in the sample and matrix. By convention, precision is measured for inorganic analyses using a sample and a sample duplicate, whereas for organics analyses, an MS/MSD are used.

SURROGATE - A surrogate is a non-target analyte which is added to all samples and QC samples prior to extraction or analysis. The percent recovery of the surrogate provides a measure of the method accuracy in each sample tested. Surrogates are used for organics methods only.

QC LIMITS - QC limits specify the expected percent recovery range for a spiked compound. QC limits may be set by method criteria or calculated from laboratory generated data. For many methods, these limits are advisory and do not require corrective action if exceeded.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GEQ

Method: Low Soil GC/MS Volatile Organics **Batch:** 21393 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
1,1-Dichloroethene (Dichloroethylene)	50.	107	50.	116	124	0	59-172	59-172	22	
Trichloroethene (Trichloroethylene)	50.	106	50.	114	117	0	62-137	62-137	24	
Benzene	50.	108	50.	114	120	0	66-142	66-142	21	
Toluene	50.	87	50.	97	97	0	59-139	59-139	21	
Chlorobenzene	50.	109	50.	113	116	0	60-133	60-133	21	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEO

Method: Low Soil GC/MS Volatile Organics **Batch:** 21418 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Benzene	50.0	118	50.0	107	119	0	66-142	66-142	21	
Chlorobenzene	50.0	105	50.0	109	105	3	60-133	60-133	21	
1,1-Dichloroethene (Dichloroethylene)	50.0	96	50.0	97	101	0	59-172	59-172	22	
Toluene	50.0	86	50.0	106	88	19	59-139	59-139	21	
Trichloroethene (Trichloroethylene)	50.0	110	50.0	102	112	0	62-137	62-137	24	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GEQ

Method: Low Soil GC/MS Volatile Organics **Batch:** 21393

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21393B1L18	96	93	103					
21393BL19	96	97	95					
21393S1	101	96	97					
GEA-001	99	87	98					
GEA-002	102	94	100					
GEA-003	106	88	99					
GEA-004	98	88	99					
GEA-005	103	91	101					
GEA-006	104	93	98					
GEA-007	97	91	98					
GEA-008	93	88	96					
GEA-013	99	95	92					
GEA-014	107	93	97					
GEA-015	110	85	95					
GEA-016	99	92	97					
GEQ-001	101	97	97					
GEQ-002	114	107	113					
GEQ-003	106	98	98					
GEQ-004	105	96	98					
GEQ-005	102	96	97					
GEQ-006	102	90	97					
GEQ-007	102	94	94					
GEQ-009	98	94	95					
GEQ-010	105	101	97					
GEQ-011	97	99	97					
QC limits:	84 - 138	59 - 113	70 - 121					

Sur 1: SS Toluene-d8
Sur 2: SS 4-Bromofluorobenzene
Sur 3: SS 1,2-Dichloroethane-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEO

Method: Low Soil GC/MS Volatile Organics **Batch:** 21418

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21418B1K12	100	88		91				
21418B1L21	99	100		104				
21418BL03	102	98		92				
21418BL05	96	97		100				
21418BL22	100	98		99				
21418MS	98	96		95				
21418MSD	97	91		96				
21418S1	98	90		89				
GFS-005	103	96		93				
GFS-006	84	89		178 *				
GFS-006RE	66 *	83		199 *				
GFS-007	103	94		111				
GFS-008	104	91		91				
GFS-009	106	92		94				
GFS-010	102	92		105				
GFS-011	106	89		99				
GFS-012	103	90		97				
GFS-013	103	88		95				
GFS-014	107	91		95				
GFS-017	87	86		157 *				
GFS-017RE	92	87		137 *				
GFS-018	96	93		164 *				
GFS-018RE	91	93		167 *				
GJE-010	100	94		101				
GJE-017	95	90		93				
QC limits:	81 - 117	74 - 121		70 - 121				

Sur 1: SS Toluene-d8
Sur 2: SS 4-Bromofluorobenzene

Sur 4: SS 1,2-Dichloroethane-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exception.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ

Method: Low Soil GC/MS Volatile Organics **Batch:** 21418C

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21418BILI19	96	97	95					
21418BL20	100	98	99					
GEQ-008	99	92	94					
GEQ-012	98	93	94					
GEQ-013	100	88	94					
GEQ-014	100	95	97					
GEQ-015	98	96	95					
GEQ-016	97	91	96					
QC limits:	84 - 138	59 - 113	70 - 121					

Sur 1: SS Toluene-d8
Sur 2: SS 4-Bromofluorobenzene
Sur 3: SS 1,2-Dichloroethane-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21393B1L18

Description: Low Soil Method Blank **Episode:** GEQ 6-EA **% Moisture:** n/a

Method: Low Soil GC/MS Volatile Organics **Batch:** 21393 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		10.
74-83-9	Bromomethane (Methyl bromide)	1	ND		10.
75-01-4	Vinyl chloride (Chloroethene)	1	ND		10.
75-00-3	Chloroethane	1	ND		10.
75-09-2	Methylene chloride (Dichloromethane)	1	ND		10.
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		10.
75-15-0	Carbon disulfide	1	ND		10.
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		10.
75-34-3	1,1-Dichloroethane	1	ND		10.
540-59-0	1,2-Dichloroethene (total)	1	ND		10.
67-66-3	Chloroform	1	ND		10.
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		10.
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		10.
56-23-5	Carbon tetrachloride	1	ND		10.
75-27-4	Bromodichloromethane	1	ND		10.
78-87-5	1,2-Dichloropropane	1	ND		10.
10061-01-5	cis-1,3-Dichloropropene	1	ND		10.
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		10.
124-48-1	Dibromochloromethane	1	ND		10.
79-00-5	1,1,2-Trichloroethane	1	ND		10.
71-43-2	Benzene	1	ND		10.
10061-02-6	trans-1,3-Dichloropropene	1	ND		10.
75-25-2	Bromoform	1	ND		10.
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.
591-78-6	2-Hexanone	1	ND		10.
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		10.
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		10.
108-88-3	Toluene	1	ND		10.
108-90-7	Chlorobenzene	1	ND		10.
100-41-4	Ethylbenzene	1	ND		10.
100-42-5	Styrene	1	ND		10.
1330-20-7	Xylene (total)	1	ND		10.

33 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21418B1K12

Description: Low Soil Method Blank **Episode:** GEO **% Moisture:** n/a

Method: Low Soil GC/MS Volatile Organics **Batch:** 21418 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** **Analyzed:** 12-Mar-97 20:45 AJ

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		10.0
71-43-2	Benzene	1	ND		5.00
75-27-4	Bromodichloromethane	1	ND		5.00
75-25-2	Bromoform	1	ND		5.00
74-83-9	Bromomethane (Methyl bromide)	1	ND		10.0
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.0
75-15-0	Carbon disulfide	1	ND		5.00
56-23-5	Carbon tetrachloride	1	ND		5.00
108-90-7	Chlorobenzene	1	ND		5.00
75-00-3	Chloroethane	1	ND		10.0
67-66-3	Chloroform	1	ND		5.00
74-87-3	Chloromethane (Methyl chloride)	1	ND		10.0
124-48-1	Dibromochloromethane	1	ND		5.00
75-34-3	1,1-Dichloroethane	1	ND		5.00
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		5.00
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		5.00
540-59-0	1,2-Dichloroethene (total)	1	ND		5.00
78-87-5	1,2-Dichloropropane	1	ND		5.00
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00
100-41-4	Ethylbenzene	1	ND		5.00
591-78-6	2-Hexanone	1	ND		10.0
1634-04-4	Methyl tert-butyl ether (MTBE)	1	ND		5.00
75-09-2	Methylene chloride (Dichloromethane)	1	29.7		5.00
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0
100-42-5	Styrene	1	ND		5.00
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		5.00
108-88-3	Toluene	1	ND		5.00
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		5.00
79-00-5	1,1,2-Trichloroethane	1	ND		5.00
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		5.00
108-05-4	Vinyl acetate	1	ND		10.0
75-01-4	Vinyl chloride (Chloroethene)	1	ND		10.0
1330-20-7	Xylene (total)	1	ND		5.00

35 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21418B1L19

Description: Low Soil Method Blank **Episode:** GEO **% Moisture:** n/a

Method: Low Soil GC/MS Volatile Organics **Batch:** 21418 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		10.
74-83-9	Bromomethane (Methyl bromide)	1	ND		10.
75-01-4	Vinyl chloride (Chloroethene)	1	ND		10.
75-00-3	Chloroethane	1	ND		10.
75-09-2	Methylene chloride (Dichloromethane)	1	ND		10.
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		10.
75-15-0	Carbon disulfide	1	ND		10.
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		10.
75-34-3	1,1-Dichloroethane	1	ND		10.
540-59-0	1,2-Dichloroethene (total)	1	ND		10.
67-66-3	Chloroform	1	ND		10.
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		10.
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		10.
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		10.
56-23-5	Carbon tetrachloride	1	ND		10.
75-27-4	Bromodichloromethane	1	ND		10.
78-87-5	1,2-Dichloropropane	1	ND		10.
10061-01-5	cis-1,3-Dichloropropene	1	ND		10.
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		10.
124-48-1	Dibromochloromethane	1	ND		10.
79-00-5	1,1,2-Trichloroethane	1	ND		10.
71-43-2	Benzene	1	ND		10.
10061-02-6	trans-1,3-Dichloropropene	1	ND		10.
75-25-2	Bromoform	1	ND		10.
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.
591-78-6	2-Hexanone	1	ND		10.
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		10.
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		10.
108-88-3	Toluene	1	ND		10.
108-90-7	Chlorobenzene	1	ND		10.
100-41-4	Ethylbenzene	1	ND		10.
100-42-5	Styrene	1	ND		10.
1330-20-7	Xylene (total)	1	ND		10.

33 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GEQ, GED

Method: Low Soil GC/MS Semivolatile Organics Batch: 21398 Units: ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Phenol	2500	63	2500	54	42	25	26-90	26-90	35	
Phenol	2500	73					26-90			Q7
Phenol	2500	61	2500	66	63	5	26-90	26-90	35	
Phenol	2500	60	2500	37	41	10	26-90	26-90	35	
Phenol	2500	42	2500	66	48	32	26-90	26-90	35	
2-Chlorophenol (o-Chlorophenol)	2500	63	2500	36	39	8	25-102	25-102	50	
2-Chlorophenol (o-Chlorophenol)	2500	64	2500	63	49	25	25-102	25-102	50	
2-Chlorophenol (o-Chlorophenol)	2500	66	2500	73	72	1	25-102	25-102	50	
2-Chlorophenol (o-Chlorophenol)	2500	78					25-102			Q7
2-Chlorophenol (o-Chlorophenol)	2500	34	2500	62	40	43	25-102	25-102	50	
1,4-Dichlorobenzene (p-Dichlorobenzene)	1660	57	1660	65	50	26	28-104	28-104	27	
1,4-Dichlorobenzene (p-Dichlorobenzene)	1660	73					28-104			Q7
1,4-Dichlorobenzene (p-Dichlorobenzene)	1660	61	1660	32	41	25	28-104	28-104	27	
1,4-Dichlorobenzene (p-Dichlorobenzene)	1660	23 *	1660	58	29	66 *	28-104	28-104	27	
1,4-Dichlorobenzene (p-Dichlorobenzene)	1660	68	1660	73	74	1	28-104	28-104	27	
N-Nitroso-di-n-propylamine	1660	37 *	1660	57	44	26	41-126	41-126	38	
N-Nitroso-di-n-propylamine	1660	50	1660	57	58	2	41-126	41-126	38	
N-Nitroso-di-n-propylamine	1660	55	1660	36 *	36 *	0	41-126	41-126	38	Q1
N-Nitroso-di-n-propylamine	1660	63	1660	46	38 *	19	41-126	41-126	38	
N-Nitroso-di-n-propylamine	1660	83					41-126			Q7
1,2,4-Trichlorobenzene	1660	42	1660	65	52	22	39-98	39-98	23	
1,2,4-Trichlorobenzene	1660	66	1660	82	66	22	39-98	39-98	23	
1,2,4-Trichlorobenzene	1660	69	1660	38 *	44	15	39-98	39-98	23	Q1
1,2,4-Trichlorobenzene	1660	78	1660	87	88	1	39-98	39-98	23	
1,2,4-Trichlorobenzene	1660	80					39-98			Q7
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2500	60	2500	32	38	17	26-103	26-103	33	
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2500	65	2500	67	70	4	26-103	26-103	33	
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2500	68	2500	60	46	26	26-103	26-103	33	
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2500	79					26-103			Q7
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2500	58	2500	63	50	23	26-103	26-103	33	
Acenaphthene	1660	61	1660	70	65	7	31-137	31-137	19	
Acenaphthene	1660	66	1660	71	60	17	31-137	31-137	19	
Acenaphthene	1660	67	1660	43	43	0	31-137	31-137	19	
Acenaphthene	1660	73	1660	78	76	3	31-137	31-137	19	
Acenaphthene	1660	78					31-137			Q7
4-Nitrophenol (p-Nitrophenol)	2500	65	2500	68	67	1	11-114	11-114	50	
4-Nitrophenol (p-Nitrophenol)	2500	66	2500	72	59	20	11-114	11-114	50	
4-Nitrophenol (p-Nitrophenol)	2500	71	2500	47	38	21	11-114	11-114	50	
4-Nitrophenol (p-Nitrophenol)	2500	71	2500	72	71	1	11-114	11-114	50	
4-Nitrophenol (p-Nitrophenol)	2500	78					11-114			Q7
2,4-Dinitrotoluene	1660	73	1660	75	73	3	28-89	28-89	47	
2,4-Dinitrotoluene	1660	87					28-89			Q7

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

2,4-Dinitrotoluene	1660	71	1660	70	60	15	28-89	28-89	47	
2,4-Dinitrotoluene	1660	69	1660	43	42	2	28-89	28-89	47	
2,4-Dinitrotoluene	1660	71	1660	75	78	4	28-89	28-89	47	
Pentachlorophenol	2500	67	2500	23	48	69 *	17-109	17-109	47	
Pentachlorophenol	2500	67	2500	71	57	22	17-109	17-109	47	
Pentachlorophenol	2500	69	2500	36	20	57 *	17-109	17-109	47	
Pentachlorophenol	2500	76					17-109			Q7
Pentachlorophenol	2500	60	2500	52	48	8	17-109	17-109	47	
Pyrene	1660	68	1660	77	60	25	35-142	35-142	36	
Pyrene	1660	82					35-142			Q7
Pyrene	1660	70	1660	70	70	0	35-142	35-142	36	
Pyrene	1660	65	1660	40	39	2	35-142	35-142	36	
Pyrene	1660	70	1660	80	83	4	35-142	35-142	36	
2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	2500	89	2500	89	89	0			50	
2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	2500	73	2500	71	71	12			50	
2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	2500	75								Q7
2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	2500	77	2500	36	36	25			50	
2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	2500	88	2500	58	58	95 *			50	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GED, GEQ

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 21398

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21398B1	61	72	75	60	64	70	73	73
21398B2	66	57	64	63	56	57	57	62
21398B3	76	70	68	71	68	70	65	67
21398B4	80	70	71	78	73	70	66	76
21398B5	66	62	64	66	62	53	61	64
21398B6	62	63	62	59	55	49	58	64
21398B7	81	80	74	78	75	64	75	79
21398S1	62	71	73	58	62	63	68	69
21398S2	64	62	66	63	57	60	57	59
21398S3	71	68	71	65	63	60	58	62
21398S4	65	60	63	63	61	54	59	59
21398S5	37	55	65	36	33	60	34	27
GEA-001	57	65	68	52	55	61	64	64
GEA-002	43	50	60	41	42	45	48	49
GEA-003	42	61	78	38	30	44	41	40
GEA-004	56	71	71	52	53	69	66	69
GEA-005	55	108	83	46	46	85	56	59
GEA-005RE	51	74	96	44	48	101	54	57
GEA-006	67	74	74	68	68	57	68	69
GEA-007	57	74	73	45	45	86	55	66
GEA-008	55	71	68	47	49	76	58	68
GEA-009	54	69	72	47	51	72	59	68
GEA-010	52	66	72	47	49	64	59	62
GEA-011	51	57	63	53	55	54	56	54
GEA-012	107	121 *	121	108	111	98	114	113
GEA-013	58	64	69	57	58	50	61	64
GEA-014	57	68	72	60	61	53	63	66
GEA-015	63	74	77	63	61	48	65	70
GEA-016	40	54	66	42	37	49	43	40
GED-001	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-002	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-003	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-004	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-005	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-006	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-007	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D

Sur 1: SS Nitrobenzene-d5
Sur 2: SS 2-Fluorobiphenyl
Sur 3: SS Terphenyl-d14
Sur 4: SS Phenol-d5
Sur 5: SS 2-Fluorophenol
Sur 6: SS 2,4,6-Tribromophenol
Sur 7: SS 2-Chlorophenol-d4
Sur 8: SS 1,2-Dichlorobenzene-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exception.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GED, GEA

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 21398

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GED-008MS	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-009MSD	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-010	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-011	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-012	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-013	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-014	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-015	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-016	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-017	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-018	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-019	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-020	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-021	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-022	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GED-023	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GEQ-001	54	69	77	50	46	58	55	54
GEQ-002	52	74	76	50	49	48	57	69
GEQ-003MS	65	78	77	63	64	65	75	77
GEQ-004MSD	63	75	77	62	65	67	76	77
GEQ-005	54	77	78	49	55	84	62	69
GEQ-006	43	67	74	41	41	69	49	55
GEQ-007	34	43	45	32	30	23	35	40
GEQ-008	58	76	75	59	61	70	71	76
GEQ-009	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GEQ-010	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GEQ-011	61	77	78	63	62	54	68	69
GEQ-012	66	58	62	61	52	46	52	58
GEQ-013	59	55	60	58	52	45	56	60
GEQ-014	95	76	78	61	42	33	53	66
GEQ-014DL	93	65	71	58	44	27	47	64
GEQ-015MS	52	71	76	54	60	69	65	66
GEQ-016MSD	44	60	60	42	47	51	50	50
GEQ-017	57	54	58	58	53	53	52	54
GEQ-018	45	45	49	44	41	45	42	46
GEQ-019	55	55	59	51	35	34	45	56

Sur 1: SS Nitrobenzene-d5
Sur 2: SS 2-Fluorobiphenyl
Sur 3: SS Terphenyl-d14
Sur 4: SS Phenol-d5
Sur 5: SS 2-Fluorophenol
Sur 6: SS 2,4,6-Tribromophenol
Sur 7: SS 2-Chlorophenol-d4
Sur 8: SS 1,2-Dichlorobenzene-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GEA, GED

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 21398

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-020	61	54	59	55	50	52	51	53
GEQ-021	56	61	64	49	32	25	44	54
GEQ-021DL	0 D	0 D	0 D	0 D	0 D	0 D	0 D	0 D
GEQ-022	60	61	64	60	53	54	57	59
GEQ-024	54	53	52	52	43	36	42	46
GEQ-025MS	37	39	42	37	31	30	32	31
GEQ-026MSD	41	40	36	39	36	29	35	39
GEQ-027	63	62	57	55	46	28	46	57
GEQ-028	62	57	58	58	56	48	51	54
GEQ-029	52	48	50	47	43	32	41	48
GEQ-030	53	52	51	46	39	26	39	46
GEQ-031	54	55	50	44	40	22	41	52
GEQ-032	55	53	51	46	33	17 *	37	49
GEQ-033	28	35	41	29	18 *	20	21	21
GEQ-034	40	39	39	36	32	27	31	34
GEQ-035	50	56	58	50	52	46	49	42
GEQ-036	63	64	60	55	59	40	56	60
GEQ-037	58	65	70	54	54	56	52	58
GEQ-038	58	66	69	53	48	38	48	51
GEQ-039	45	48	44	36	41	33	39	42
GEQ-041	64	74	75	32	10 *	7 *	22	52
GEQ-041RE	81	80	72	74	65	51	68	77
GEQ-042	67	70	66	55	53	30	54	66
GEQ-043	17 *	31	47	17 *	9 *	21	14 *	11 *
GEQ-043RE	78	75	69	72	65	49	65	73
GEQ-044	75	80	71	51	36	16 *	44	69
GEQ-045	47	58	57	15 *	3 *	2 *	13 *	35
GEQ-045RE	71	68	66	68	65	48	66	69
GEQ-046	51	69	70	33	17 *	7 *	24	46
GEQ-046RE	72	68	67	73	68	58	66	72
GEQ-047	63	81	82	36	19 *	12 *	29	56
GEQ-047RE	67	65	63	62	54	43	57	62
GEQ-048	87	96	86	58	34	13 *	44	83
GEQ-049	48	65	75	33	16 *	14 *	25	44
GEQ-049RE	57	58	59	52	42	34	47	55
GEQ-050	56	75	76	43	28	23	37	53

Sur 1: SS Nitrobenzene-d5
Sur 2: SS 2-Fluorobiphenyl
Sur 3: SS Terphenyl-d14
Sur 4: SS Phenol-d5
Sur 5: SS 2-Fluorophenol
Sur 6: SS 2,4,6-Tribromophenol
Sur 7: SS 2-Chlorophenol-d4
Sur 8: SS 1,2-Dichlorobenzene-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exception.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

3/26/97 14:38:11

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GEA, GED

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 21398

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-051	32	44	49	33	27	39	28	25
GEQ-052	46	56	57	45	42	50	43	38
GEQ-053MS	64	73	66	60	67	60	63	57
GEQ-054MSD	49	63	65	41	34	43	38	30
GEQ-055	56	78	100	40	31	46	44	58
GEQ-056	44	50	54	40	34	27	37	39
GEQ-058	80	83	80	70	57	42	63	80
GEQ-059	64	72	72	54	45	42	48	54
GEQ-060	52	62	59	50	44	39	46	44
GEQ-061	50	66	72	47	38	45	42	44
GEQ-062	47	71	89	35	32	38	43	61
GEQ-063	69	76	72	65	63	47	63	64
GEQ-064	43	47	46	37	30	26	34	38
GEQ-065	68	79	81	69	69	67	68	58
QC limits:	23 - 120	30 - 115	18 - 137	24 - 113	25 - 121	19 - 122	20 - 130	20 - 130

Sur 1: SS Nitrobenzene-d5
Sur 2: SS 2-Fluorobiphenyl
Sur 3: SS Terphenyl-d14
Sur 4: SS Phenol-d5
Sur 5: SS 2-Fluorophenol
Sur 6: SS 2,4,6-Tribromophenol
Sur 7: SS 2-Chlorophenol-d4
Sur 8: SS 1,2-Dichlorobenzene-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exceptio.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

3/26/97 14:38:12

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21398B1

Description: Low Soil Method Blank **Episode:** GEA, GED, GEQ **% Moisture:** n/a

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 21398 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 05-Mar-97 16:23 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
108-95-2	Phenol	1	ND		333
111-44-4	bis(2-Chloroethyl) ether	1	ND		333
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		333
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		333
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		333
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		333
95-48-7	2-Methylphenol (o-Cresol)	1	ND		333
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		333
106-44-5	4-Methylphenol (p-Cresol)	1	ND		333
621-64-7	N-Nitroso-di-n-propylamine	1	ND		333
67-72-1	Hexachloroethane	1	ND		333
98-95-3	Nitrobenzene	1	ND		333
78-59-1	Isophorone	1	ND		333
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		333
105-67-9	2,4-Dimethylphenol	1	ND		333
111-91-1	bis(2-Chloroethoxy)methane	1	ND		333
120-83-2	2,4-Dichlorophenol	1	ND		333
120-82-1	1,2,4-Trichlorobenzene	1	ND		333
91-20-3	Naphthalene	1	ND		333
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		333
87-68-3	Hexachlorobutadiene	1	ND		333
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		333
91-57-6	2-Methylnaphthalene	1	ND		333
77-47-4	Hexachlorocyclopentadiene	1	ND		333
88-06-2	2,4,6-Trichlorophenol	1	ND		333
95-95-4	2,4,5-Trichlorophenol	1	ND		833
91-58-7	2-Chloronaphthalene	1	ND		333
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		833
131-11-3	Dimethylphthalate	1	ND		333
208-96-8	Acenaphthylene	1	ND		333
606-20-2	2,6-Dinitrotoluene	1	ND		333
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		833
83-32-9	Acenaphthene	1	ND		333
51-28-5	2,4-Dinitrophenol	1	ND		833
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		833
132-64-9	Dibenzofuran	1	ND		333
121-14-2	2,4-Dinitrotoluene	1	ND		333
84-66-2	Diethylphthalate	1	ND		333
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		333

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21398B1

Description: Low Soil Method Blank **Episode:** GEA, GED, GEQ **% Moisture:** n/a

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 21398 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 16:23 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
86-73-7	Fluorene	1	ND		333
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		833
534-52-1	4.6-Dinitro-2-methylphenol (4.6-Dinitro-o-cresol)	1	ND		833
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	333
101-55-3	4-Bromophenyl phenyl ether	1	ND		333
118-74-1	Hexachlorobenzene	1	ND		333
87-86-5	Pentachlorophenol	1	ND		833
85-01-8	Phenanthrene	1	ND		333
120-12-7	Anthracene	1	ND		333
84-74-8	Carbazole	1	ND		333
84-74-2	Di-n-butylphthalate	1	ND		333
206-44-0	Fluoranthene	1	ND		333
129-00-0	Pyrene	1	ND		333
85-68-7	Butylbenzylphthalate	1	ND		333
91-94-1	3.3'-Dichlorobenzidine	1	ND		667
56-55-3	Benzo(a)anthracene	1	ND		333
218-01-9	Chrysene	1	ND		333
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		333
117-84-0	Di-n-octylphthalate	1	ND		333
205-99-2	Benzo(b)fluoranthene	1	ND		333
207-08-09	Benzo(k)fluoranthene	1	ND		333
50-32-8	Benzo(a)pyrene	1	ND		333
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		333
53-70-3	Dibenz(a,h)anthracene	1	ND		333
191-24-2	Benzo(g,h,i)perylene	1	ND		333
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		333

65 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GEQ

Method: Water GC Aromatic/TPH Volatile Organics **Batch:** 21360 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Benzene	20.0	94	20.0	113	110	3	62-155	62-155	25	
Ethylbenzene	20.0	92	20.0	104	97	7	61-155	61-155	23	
Toluene	20.0	96	20.0	106	106	0	62-146	62-146	27	
m-p-Xylene	40.0	94	40.0	109	106	3	59-152	59-152	27	
o-Xylene	20.0	94	20.0	110	106	4	59-152	59-152	27	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21391 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Benzene	2000	89	2000	124	137	10	62-155	62-155	25	
Ethylbenzene	2000	89	2000	123	138	12	61-155	61-155	23	
Toluene	2000	89	2000	124	138	11	62-146	62-146	27	
m-p-Xylene	4000	91	4000	124	140	12	59-152	59-152	27	
o-Xylene	2000	93	2000	126	143	13	59-152	59-152	27	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21482 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Benzene	2000	86	2000	80	81	1	62-155	62-155	25	
Ethylbenzene	2000	92	2000	88	88	0	61-155	61-155	23	
Toluene	2000	88	2000	83	85	2	62-146	62-146	27	
m-p-Xylene	4000	88	4000	85	85	0	59-152	59-152	27	
o-Xylene	2000	92	2000	88	88	0	59-152	59-152	27	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GED, GEQ

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21488 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Benzene	2000	85	2000	80	79	1	62-155	62-155	25	
Ethylbenzene	2000	89	2000	87	85	2	61-155	61-155	23	
Toluene	2000	86	2000	83	81	2	62-146	62-146	27	
m-p-Xylene	4000	86	4000	83	81	2	59-152	59-152	27	
o-Xylene	2000	89	2000	88	85	3	59-152	59-152	27	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GEQ

Method: Water GC Aromatic/TPH Volatile Organics **Batch:** 21360

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21360B1	89	91						
21360B10	91	95						
21360B3	96	99						
21360B4	93	94						
21360B5	96	100						
21360B6	96	100						
21360B7	89	94						
21360B9	98	101						
21360MS	100	103						
21360MSD	95	98						
21360S1	90	93						
GDQ-001	101	108						
GDQ-004	90	97						
GDQ-007	103	102						
GEA-017	101	108						
GEQ-017	99	105						
GEQ-023	94	100						
GEQ-040	99	105						
GEQ-057	99	105						
GES-001	96	99						
GFE-001	98	102						
GFF-001	91	94						
GFF-002	94	98						
GFF-003	98	101						
GFQ-004	89	94						
GGD-001	95	100						
GGU-001	102	108						
GGW-001	97	96						
GGW-002	102	100						
QC limits:	38 - 144	38 - 144						

Sur 1: SS 4-Bromofluorobenzene (PID)
Sur 2: SS 4-Bromofluorobenzene (PID confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21391

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21391B1	97	101						
21391B2	93	96						
21391B2A	93	96						
21391B2B	93	96						
21391B3	92	98						
21391MS	138	145						
21391MSD	152 G1	158 G1						
21391S1	99	104						
GDP-001	125	131						
GDP-002	137	143						
GDP-003	175 G1	185 G1						
GEA-009	110	114						
GEA-010	131	137						
GEA-011	120	126						
GEA-012	99	100						
GEW-001	110	114						
GEW-002	117	127						
GEW-003	121	142						
GFO-002	161 G1	174 G1						
GFO-003	164 G1	182 G1						
GFO-004	87	92						
GFO-005	79	83						
GFO-006	138	146						
GFO-007	96	103						
GFO-008	86	90						
GFQ-001	86	90						
GFQ-002	100	104						
GFQ-003	19 G1	61						
QC limits:	48 - 148	48 - 148						

Sur 1: SS 4-Bromofluorobenzene (PID)
Sur 2: SS 4-Bromofluorobenzene (PID confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exceptation.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21482

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21482B1	89	96						
21482S1	94	101						
GEQ-024	90	99						
GEQ-025	89	98						
GEQ-026	92	100						
GEQ-029	89	98						
GEQ-030	91	98						
GEQ-031	94	101						
GEQ-032	81	89						
GEQ-033	86	94						
GEQ-034	88	94						
GEQ-035	85	91						
GEQ-036	88	95						
GEQ-037	77	82						
GEQ-038	81	88						
GEQ-039	83	92						
QC limits:	48 - 148	48 - 148						

Sur 1: SS 4-Bromofluorobenzene (PID)
Sur 2: SS 4-Bromofluorobenzene (PID confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

3/26/97 14:44:02

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ , GED

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21488

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21488B1	94	97						
21488MS	92	96						
21488MSD	88	93						
21488S1	91	97						
GED-014	116	124						
GED-015	81	87						
GED-016	87	93						
GED-017	86	90						
GED-018	89	96						
GED-019	85	93						
GED-020	79	86						
GED-021	89	98						
GED-022	81	89						
GED-023	83	90						
GEQ-017	94	101						
GEQ-018	93	101						
GEQ-019	88	96						
GEQ-020	87	93						
GEQ-021	92	100						
GEQ-022	95	103						
GEQ-027	94	102						
GEQ-028	90	98						
QC limits:	48 - 148	48 - 148						

Sur 1: SS 4-Bromofluorobenzene (PID)
Sur 2: SS 4-Bromofluorobenzene (PID confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a N suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21360B4

Description: Water Method Blank **Episode:** GEA, G-EQ **% Moisture:** n/a

Method: Water GC Aromatic/TPH Volatile Organics **Batch:** 21360 **Units:** ug/l

Prep Factor: 1 **Leached:** n/a **Prepared:** **Analyzed:** 17-Feb-97 15:56 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
71-43-2	Benzene	1	ND		0.500
100-41-4	Ethylbenzene	1	ND		0.500
108-88-3	Toluene	1	ND		0.500
1330-20-7	m-p-Xylene	1	ND		0.500
1330-20-7	o-Xylene	1	ND		0.500

5 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21391B1

Description: Med Soil Method Blank **Episode:** GEA **% Moisture:** n/a

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21391 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 17-Feb-97 **Analyzed:** 17-Feb-97 18:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
71-43-2	Benzene	1	ND		50.0
100-41-4	Ethylbenzene	1	ND		50.0
108-88-3	Toluene	1	ND		50.0
1330-20-7	m-p-Xylene	1	ND		50.0
1330-20-7	o-Xylene	1	ND		50.0

5 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21482B1

Description: Med Soil Method Blank **Episode:** GEO **% Moisture:** n/a

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21482 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 15:55 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
71-43-2	Benzene	1	ND		50.0
100-41-4	Ethylbenzene	1	ND		50.0
108-88-3	Toluene	1	ND		50.0
1330-20-7	m-p-Xylene	1	ND		50.0
1330-20-7	o-Xylene	1	ND		50.0

5 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21488B1

Description: Med Soil Method Blank **Episode:** GED, GEQ **% Moisture:** n/a

Method: Med Soil GC Aromatic/TPH Volatile Organics **Batch:** 21488 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 25-Feb-97 16:28 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
71-43-2	Benzene	1	ND		50.0
100-41-4	Ethylbenzene	1	ND		50.0
108-88-3	Toluene	1	ND		50.0
1330-20-7	m-p-Xylene	1	ND		50.0
1330-20-7	o-Xylene	1	ND		50.0

5 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEA, GED, GEQ

Method: Low Soil GC Organophosphate Pesticides Batch: 21421 Units: ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Atrazine	167	67	167	94	104	10	40-150	40-150	50	
Atrazine	167	78	167	120	79	41	40-150	40-150	50	
Atrazine	167	81	167	92	99	7	40-150	40-150	50	
Atrazine	167	96	167	94	101	7	40-150	40-150	50	
Atrazine	167	98	167	103	125	19	40-150	40-150	50	
Cyanazine	167	75	167	86	99	14	40-150	40-150	50	
Cyanazine	167	54	167	65	78	18	40-150	40-150	50	
Cyanazine	167	62	167	90	101	11	40-150	40-150	50	
Cyanazine	167	63	167	65	67	3	40-150	40-150	50	
Cyanazine	167	74	167	74	80	8	40-150	40-150	50	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEO, GEA, GED

Method: Low Soil GC Organophosphate Pesticides **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21421B1	101	93						
21421B2	80	85	78	89				
21421B3	124	126	134	138				
21421B4	109	107	124	119				
21421B5	85	97	76	99				
21421B9	74	81	87	90				
21421S1	78	79	85	79				
21421S11	101	102	104	102				
21421S4	53	57	77	73				
21421S7	96	99	100	102				
21421S9	58	66	92	87				
GEA-001	71	71						
GEA-002	122	135	109	118				
GEA-003	90	96						
GEA-004	96	129						
GEA-005	102	131	87	79				
GEA-006	80	87						
GEA-007	99	111	90	100				
GEA-008	74	78						
GEA-009	130	141	131	135				
GEA-010	113	96						
GEA-011	98	100	109	117				
GEA-012	90	71						
GEA-012DL	84	61						
GEA-013	148	156 G1	140	147				
GEA-014	86	71						
GEA-015	98	79						
GEA-015DL	89	101	75	27 D				
GEA-016	103	80						
GED-001	166 D	69	141	70				
GED-002	118	65	77	63				
GED-003	96	42	57	35 D				
GED-004	124	82	118	78				
GED-005	113	104	112	117				
GED-006	120	108	118	124				
GED-007	183 G1	108	192 G1	101				

Sur 1: SS Tributylphosphate
Sur 2: SS Triphenylphospate
Sur 3: SS Tributylphosphate (confirmation)
Sur 4: SS Triphenylphospate (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ

Method: Low Soil GC Organophosphate Pesticides **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-060	112	127	105	115				
GEQ-061	61	67	55	70				
GEQ-062	73	70	79	74				
GEQ-063	118	108	123	117				
GEQ-064	72	74	60	95				
GEQ-065	31 D	49	0 D	44				
QC limits:	40 - 150	40 - 150	40-150	40-150				

Sur 1: SS Tributylphosphate
Sur 2: SS Triphenylphospate
Sur 3: SS Tributylphosphate (confirmation)
Sur 4: SS Triphenylphospate (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an exception.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GED

Method: Low Soil GC Organophosphate Pesticides **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GED-008	111	103	117	99				
GED-009	140	127	125	121				
GED-010	87	93	95	110				
GED-011	106	95	106	107				
GED-012	106	89	94	88				
GED-013	108	82	91	130				
GED-014	138	130	123	126				
GED-015	81	76	76	79				
GED-016	84	95	90	97				
GED-017	112	85	103	96				
GED-018	114	112	100	114				
GED-019	123	120	115	125				
GED-020	101	100	95	106				
GED-021	84	90	87	81				
GED-022	146	104	131	106				
GED-023	132	126	131	135				
GEQ-001	88	93	133	118				
GEQ-002	88	92	85	95				
GEQ-003	96	106	120	107				
GEQ-004	78	85	88	94				
GEQ-005	120	126	112	128				
GEQ-006	94	98	82	99				
GEQ-007	109	112	90	109				
GEQ-008	67	70	63	74				
GEQ-009	90	104	66	261 D				
GEQ-010	101	110	73	262 D				
GEQ-011	129	135	122	140				
GEQ-012	84	85	93	94				
GEQ-013	75	81	79	87				
GEQ-014	79	78	86	83				
GEQ-015	89	82	93	83				
GEQ-016	96	98	99	93				
GEQ-017	121	109	131	126				
GEQ-018	124	101	109	105				
GEQ-019	55	50	57	57				
GEQ-020	90	88	90	84				

Sur 1: SS Tributylphosphate
Sur 2: SS Triphenylphospate
Sur 3: SS Tributylphosphate (confirmation)
Sur 4: SS Triphenylphospate (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GEA, GED

Method: Low Soil GC Organophosphate Pesticides **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-021	100	94	113	106				
GEQ-021DL	119	131	73	103				
GEQ-022	96	88	87	88				
GEQ-024	103	89	97	102				
GEQ-025	98	93	95	100				
GEQ-026	144	115	102	119				
GEQ-027	105	101	118	118				
GEQ-028	112	94	105	108				
GEQ-029	114	106	111	109				
GEQ-030	108	102	117	117				
GEQ-030DL	71	81	58	78				
GEQ-031	93	92	104	94				
GEQ-031DL	51	107	65	19D				
GEQ-032	111	101	120	108				
GEQ-032DL	148	87	98	125				
GEQ-033	90	82	87	80				
GEQ-034	133	166 D	133	154 D				
GEQ-035	135	141	130	142				
GEQ-036	79	81	77	90				
GEQ-037	128	141	132	146				
GEQ-038	103	108	96	113				
GEQ-039	84	90	79	95				
GEQ-041	103	108	110	117				
GEQ-041DL	31 D	38 D	29D	36D				
GEQ-042	142	143	127	146				
GEQ-042DL	84	85	74	87				
GEQ-043	83	83	89	101				
GEQ-044	90	97	94	104				
GEQ-045	109	110	98	108				
GEQ-046	76	78	72	80				
GEQ-047	61	122	64	56				
GEQ-048	81	86	80	88				
GEQ-049	103	102	107	105				
GEQ-050	96	107	74	75				
GEQ-051	95	106	99	104				
GEQ-052	80	86	102	104				

Sur 1: SS Tributylphosphate
Sur 2: SS Triphenylphospate
Sur 3: SS Tributylphosphate (confirmation)
Sur 4: SS Triphenylphospate (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ

Method: Low Soil GC Organophosphate Pesticides **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-060	112	127	105	115				
GEQ-061	61	67	55	70				
GEQ-062	73	70	79	74				
GEQ-063	118	108	123	117				
GEQ-064	72	74	60	95				
GEQ-065	*31 D*	*49*	*0 D*	*44*				
QC limits:	40 - 150	40 - 150	40-150	40-150				

Sur 1: SS Tributylphosphate
Sur 2: SS Triphenylphospate
Sur 3: SS Tributylphosphate (confirmation)
Sur 4: SS Triphenylphospate (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

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Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21421B1

Description: Low Soil Method Blank **Episode:** GEA GEQ (GEI) **% Moisture:** n/a

Method: Low Soil GC Organophosphate Pesticides **Batch:** 21421 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 09-Mar-97 23:56 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
1912-24-9	Atrazine	1	ND		16.7
21725-46-2	Cyanazine	1	ND		16.7

2 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GEA, GED

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 21421 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Toxaphene			3300	56	59	5		41-126	50	
Toxaphene	3330	91	3300	107	106	1	41-126	41-126	50	
Toxaphene	3330	93	3300	143 *	181 *	27	41-126	41-126	50	Q1
Aldrin	17.	67	17.	231 *	184 *	23	34-132	34-132	43	Q1
Aldrin	17.	86	17.	83	84	1	34-132	34-132	43	
Aldrin	17.	81	17.	74	69	7	34-132	34-132	43	
Aldrin	17.	68	17.	54	76	34	34-132	34-132	43	
Aldrin	17.	77	17.	123	116	6	34-132	34-132	43	
gamma-BHC (Lindane)	17.	68	17.	86	75	14	46-127	46-127	50	
gamma-BHC (Lindane)	17.	71	17.	56	77	32	46-127	46-127	50	
gamma-BHC (Lindane)	17.	84	17.	84	74	13	46-127	46-127	50	
gamma-BHC (Lindane)	17.	86	17.	71	64	10	46-127	46-127	50	
gamma-BHC (Lindane)	17.	86	17.	95	96	1	46-127	46-127	50	
4,4'-DDT (p,p'-DDT)	33.	91	33.	110	111	1	23-134	23-134	50	
4,4'-DDT (p,p'-DDT)	33.	110	33.	110	87	23	23-134	23-134	50	
4,4'-DDT (p,p'-DDT)	33.	68	33.	286 *	520 *	58 *	23-134	23-134	50	Q1
4,4'-DDT (p,p'-DDT)	33.	83	33.	41	61	39	23-134	23-134	50	
4,4'-DDT (p,p'-DDT)	33.	86	33.	30	15 *	68 *	23-134	23-134	50	
Dieldrin	33.	95	33.	79	64	21	31-134	31-134	38	
Dieldrin	33.	80	33.	60	83	32	31-134	31-134	38	
Dieldrin	33.	83	33.	86	92	7	31-134	31-134	38	
Dieldrin	33.	86	33.	104	84	21	31-134	31-134	38	
Dieldrin	33.	70	33.	235 *	189 *	22	31-134	31-134	38	Q1
Endrin	33.	120	33.	116	92	23	42-139	42-139	45	
Endrin	33.	76	33.	348 *	411 *	17	42-139	42-139	45	Q1
Endrin	33.	91	33.	66	95	36	42-139	42-139	45	
Endrin	33.	97	33.	109	114	4	42-139	42-139	45	
Endrin	33.	101	33.	102	87	16	42-139	42-139	45	
Heptachlor	17.	70	17.	102	79	26	35-130	35-130	31	
Heptachlor	17.	92	17.	8 *	2 *	120 *	35-130	35-130	31	Q1
Heptachlor	17.	77	17.	87	87	0	35-130	35-130	31	
Heptachlor	17.	95	17.	69	79	14	35-130	35-130	31	
Heptachlor	17.	90	17.	68	96	34 *	35-130	35-130	31	

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEO, GEA, GED

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
21421B1	95	68	56	71				
21421B2	97	72	79	77				
21421B2A	97	72	79	77				
21421B3	97	144	79	78				
21421B4	54	56	49	56				
21421B4A	54	56	49	56				
21421B4C	54	56	49	56				
21421B5	71	70	65	71				
21421B5A	71	70	65	71				
21421B6	70	58	62	57				
21421B7	83	80	69	74				
21421B7A	83	80	69	74				
21421B8	79	69	72	72				
21421B8A	79	69	72	72				
21421S10	84	84	84	85				
21421S12	79	75	71	78				
21421S2	83	66	65	69				
21421S3	109	105	89	89				
21421S5	83	72	81	79				
21421S6	104	88	83	81				
21421S8	82	80	87	84				
GEA-001	108	107	63	70				
GEA-002	94	67	74	73				
GEA-003	74	59	59	59				
GEA-004	98	92	80	74				
GEA-005	68	625 D	56	52				
GEA-006	88	76	76	75				
GEA-007	72	59	54	53				
GEA-008	75	80	57	69				
GEA-009	80	105	74	79				
GEA-010	92	72	59	66				
GEA-011	111	68	65	75				
GEA-012	105	73	59	71				
GEA-013	91	76	73	77				
GEA-014	89	102	69	66				
GEA-015	114	86	79	76				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GEA, GED

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr Batch: 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEA-016	57	45	44	50				
GED-001	83	71	84	86				
GED-002	97	65	77	68				
GED-003	117	63	80	68				
GED-004	95	69	129	75				
GED-005	77	72	77	76				
GED-006	91	83	81	105				
GED-007	67	68	87	93				
GED-008	90	73	90	83				
GED-009	80	74	72	152 *				
GED-010	87	73	77	77				
GED-011	86	78	84	80				
GED-012	88	73	73	77				
GED-013	102	83	98	88				
GED-014	83	68	81	76				
GED-015	92	60	55	61				
GED-016	89	84	106	80				
GED-017	93	71	85	77				
GED-018	114	86	90	86				
GED-019	85	82	83	100				
GED-020	105	89	104	83				
GED-021	80	86	82	75				
GED-022	73	64	114	77				
GED-023	83	77	87	70				
GEQ-001	88	71	69	71				
GEQ-002	68	90	70	60				
GEQ-003	97	134	86	81				
GEQ-004	94	133	72	86				
GEQ-005	92	72	74	74				
GEQ-006	92	123	60	61				
GEQ-007	73	66	57	63				
GEQ-008	36	35	38	37				
GEQ-009	54	59	47	53				
GEQ-010	108	111	78	73				
GEQ-011	79	77	61	62				
GEQ-012	81	80	66	67				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, GEA, GED

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-013	66	53	68	58				
GEQ-014	71	59	62	63				
GEQ-015	96	114	78	94				
GEQ-016	99	104	77	78				
GEQ-017	63	62	48	63				
GEQ-018	77	62	59	65				
GEQ-019	53	39	38	40				
GEQ-020	70	65	62	68				
GEQ-021	59	69	62	62				
GEQ-022	78	66	62	64				
GEQ-024	58	64	54	59				
GEQ-025	79	84	77	81				
GEQ-026	86	75	70	71				
GEQ-027	50	56	50	56				
GEQ-028	53	53	50	53				
GEQ-029	59	58	71	59				
GEQ-030	63	61	61	59				
GEQ-031	51	42	45	42				
GEQ-032	54	52	48	51				
GEQ-033	74	58	80	61				
GEQ-034	69	136	58	62				
GEQ-035	53	115	42	41				
GEQ-036	72	56	57	56				
GEQ-037	68	60	60	61				
GEQ-038RE	62	54	50	55				
GEQ-039	73	99	76	120				
GEQ-041	103	109	109	101				
GEQ-042	78	76	86	78				
GEQ-043	76	77	68	65				
GEQ-044	85	132	74	94				
GEQ-045	95	123	81	85				
GEQ-046RE	51	56	37	38				
GEQ-047	50	87	55	51				
GEQ-048	80	99	73	69				
GEQ-049	77	108	72	64				
GEQ-050	83	138	89	83				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: GEQ, LEA, LED

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 21421

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
GEQ-051	65	83	64	102				
GEQ-052	69	68	62	66				
GEQ-053RE	56	59	54	59				
GEQ-054RE	77	83	72	80				
GEQ-055	62	76	70	61				
GEQ-056	35	35	40	35				
GEQ-058	84	79	77	74				
GEQ-059	65	65	59	59				
GEQ-060	77	68	59	67				
GEQ-061	50	50	51	49				
GEQ-062	65	73	51	56				
GEQ-063	68	74	65	59				
GEQ-064	68	77	78	68				
GEQ-065	56	59	49	61				
GEQ-066	113	114	113	98				
GEQ-067	102	108	97	79				
GEQ-068	89	89	98	77				
GEQ-069	105	105	105	83				
QC limits:	30 - 150	30 - 150	30 - 150	30 - 150				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 21421B2

Description: Low Soil Method Blank **Episode:** GEA, GED, GEQ **% Moisture:** n/a

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 21421 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 6:44 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
309-00-2	Aldrin	1	ND		1.70
319-84-6	alpha-BHC	1	ND		1.70
319-85-7	beta-BHC	1	ND		1.70
319-86-9	delta-BHC	1	ND		1.70
58-89-9	gamma-BHC (Lindane)	1	ND		1.70
5103-71-9	alpha-Chlordane	1	ND		1.70
5103-74-2	gamma-Chlordane	1	ND		1.70
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.30
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.30
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.30
60-57-1	Dieldrin	1	ND		3.30
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.70
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.30
1031-07-8	Endosulfan sulfate	1	ND		3.30
72-20-8	Endrin	1	ND		3.30
7421-36-3	Endrin aldehyde	1	ND		3.30
53494-70-5	Endrin ketone	1	ND		3.30
76-44-8	Heptachlor	1	ND		1.70
1024-57-3	Heptachlor epoxide	1	ND		1.70
72-43-5	Methoxychlor	1	ND		16.7
8001-35-2	Toxaphene	1	ND		160
12674-11-2	Aroclor-1016	1	ND		33.3
11104-28-2	Aroclor-1221	1	ND		67.0
11141-16-5	Aroclor-1232	1	ND		33.3
53469-21-9	Aroclor-1242	1	ND		33.3
12672-29-6	Aroclor-1248	1	ND		33.3
11097-69-1	Aroclor-1254	1	ND		33.3
1109-82-5	Aroclor-1260	1	ND		33.3

28 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Multiple Parameters - Multiple Batches

Episode: GEQ, GEA, GED

Parameter Name	Batch	Blank	Units	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Mercury	21379	ND	mg/kg	2.51	92	0.500	101	93	8	64-136	75-125	25	
Mercury	21390	ND	mg/kg	2.51	99	0.500	108	106	2	64-136	75-125	25	
Arsenic	21401	ND	mg/kg	62.7	109	400	98	98	1	70-130	75-125	25	
Arsenic	21402	ND	mg/kg	62.7	115	400	101	98	3	70-130	75-125	25	
Arsenic	21403	ND	mg/kg	62.7	107	400	98	96	2	70-130	75-125	25	
Aluminum	21404	ND	mg/kg	8570	104				4	62-138		25	
Antimony	21404	ND	mg/kg	51.2	134	100	70 *	63 *	11	24-176	75-125	25	Q2 Q2
Arsenic	21404	ND	mg/kg	62.7	85	400	91	90	2	70-130	75-125	25	
Barium	21404	ND	mg/kg	260	88	400	93	91	2	73-127	75-125	25	
Beryllium	21404	ND	mg/kg	87.2	83	10.0	92	92	1	77-123	75-125	25	
Cadmium	21404	ND	mg/kg	77.4	82	10.0	80	79	1	66-133	75-125	20	
Calcium	21404	ND	mg/kg	2760	82				2	64-136		25	
Chromium	21404	ND	mg/kg	76.9	90	40.0	82	96	9	77-123	75-125	20	
Cobalt	21404	ND	mg/kg	101	83	100	87	86	2	76-124	75-125	25	
Copper	21404	ND	mg/kg	58.2	82	50.0	87	90	1	79-121	75-125	25	
Iron	21404	ND	mg/kg	15300	141				15	58-142		25	
Lead	21404	ND	mg/kg	122	76	100	90	90	0	68-131	75-125	25	
Magnesium	21404	ND	mg/kg	1800	92				0	80-120		25	
Manganese	21404	ND	mg/kg	232	96	100	0 *	0 *	0	77-123	75-125	25	Q3 Q3
Nickel	21404	ND	mg/kg	163	80	100	88	89	0	75-125	75-125	25	
Potassium	21404	ND	mg/kg	2020	121				2	70-130		25	
Selenium	21404	ND	mg/kg	91.7	83	400	90	88	2	71-129	75-125	25	
Silver	21404	ND	mg/kg	69.6	95	10.0	98	95	3	74-126	75-125	20	
Sodium	21404	ND	mg/kg	474	88				13	64-136		25	
Thallium	21404	ND	mg/kg	50.5	78	400	86	84	3	48-152	75-125	25	
Vanadium	21404	ND	mg/kg	142	98	100	100	100	1	63-137	75-125	25	
Zinc	21404	ND	mg/kg	114	88	100	75	79	2	74-126	75-125	25	
Aluminum	21405	ND	mg/kg	8570	106				14	62-138	75-125	25	
Antimony	21405	ND	mg/kg	51.2	155	100	67 *	65 *	3	24-176	75-125	25	Q2 Q2
Arsenic	21405	ND	mg/kg	62.7	91	400	90	89	0	70-130	75-125	25	
Barium	21405	ND	mg/kg	260	92	8.00	92	92	0	73-127	75-125	25	
Beryllium	21405	ND	mg/kg	87.2	89	10.0	90	90	0	77-123	75-125	25	
Cadmium	21405	ND	mg/kg	77.4	88	10.0	90	88	1	66-133	75-125	25	
Calcium	21405	ND	mg/kg	2760	88				13	64-136		25	
Chromium	21405	ND	mg/kg	76.9	93	40.0	92	87	3	77-123	75-125	25	
Cobalt	21405	ND	mg/kg	101	90	100	86	85	0	76-124	75-125	25	
Copper	21405	ND	mg/kg	58.2	90	50.0	92	92	1	79-121	75-125	25	
Iron	21405	ND	mg/kg	15300	132				1	58-142		25	
Lead	21405	ND	mg/kg	122	84	100	87	87	0	68-131	75-125	25	
Magnesium	21405	ND	mg/kg	1800	96				11	80-120		25	
Manganese	21405	ND	mg/kg	232	99	100	132 *	34 *	14	77-123	75-125	25	Q3 Q3
[illegible]l	21405	ND	mg/kg	163	87	100	86	87	1	75-125	75-125	25	
[illegible]sium	21405	ND	mg/kg	2020	128				27 *	70-130		25	
Selenium	21405	ND	mg/kg	91.7	89	400	89	88	0	71-129	75-125	25	

* denotes recovery outside of QC limits.
Spike amounts are not corrected for moisture content of the spiked sample.

4/2/97 14:26:10

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Multiple Parameters - Multiple Batches

Episode: GEQ, GEA, GED

Parameter Name	Batch	Blank	Units	LCS Spike	LCS %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Silver	21405	ND	mg/kg	69.6	102	10.0	96	94	0	74-126	75-125	25	
Sodium	21405	ND	mg/kg	474	89				4	64-136		25	
Thallium	21405	ND	mg/kg	50.5	86	400	85	83	0	48-152	75-125	25	
Vanadium	21405	ND	mg/kg	142	103	100	97	93	2	63-137	75-125	25	
Zinc	21405	ND	mg/kg	114	93	100	85	89	3	74-126	75-125	25	

* denotes recovery outside of QC limits.
Spike amounts are not corrected for moisture content of the spiked sample.

Pace Analytical

35675

CHAIN-OF-CUSTODY RECO
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 421003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Kerkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCollum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): H. Dean Lowe
Sampler Signature: H. Dean Lowe
Date Sampled: 2/13/97

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST A	B	C					REMARKS
1	8-1-C 1 16oz Jar	1330	Soil		1	X								X					
2	8-2-C 1 16oz Jar	1330	Soil		1	X								X					
3	9-1-C 1 16oz Jar	1400	Soil		1	X								X					
4	9-2-C 1 16oz Jar	1400	Soil		1	X								X					
5	10-1-C 1 16oz Jar	1520	Soil		1	X								X					
6	10-2-C 1 16oz Jar	1520	Soil		1	X								X					
7	11-1-C 1 16oz Jar	1630	Soil		1	X								X					
8	11-2-C 1 16oz Jar	1630	Soil		1	X								X					

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
	FEX	[illegible]	[illegible]	[illegible]

Additional Comments

Temp 2.°C

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356756

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen - WC
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Greg M. Collum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): H. Dean Lowe
Sampler Signature: H. Dean Lowe
Date Sampled: 2/14/97

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA	ANALYSES REQUEST: A	B	C	REMARKS
1	12-1-A 1 16oz Jar	0800	Soil		2	X				X			
2	12-2-A 1 16oz Jar	0800	Soil		2	X				X			
3	13-1-A 1 16oz Jar	0830	Soil		2	X				X			
4	13-2-A 1 16oz Jar	0830	Soil		2	X				X			
5	[illegible] 1 16oz Jar	0900	Soil		2	X				X			
6	[illegible] 1 16oz Jar	0900	Soil		2	X				X			
7	[illegible] 40 ml				2	X				X			
8													

COOLER NOS.	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

Additional Comments

Temp 2 °C pa

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
	[illegible]	[illegible]	[illegible]	[illegible]

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356754

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Welsburg, Ms 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen-Wec
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCollum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT):
Sampler Signature
Date Sampled

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA	ANALYSES REQUEST: A	B	C	REMARKS
[illegible]	[illegible] 1 - C 1 16oz Jar	0950	Soil			X					X		
[illegible]	[illegible] 2 - C 1 16oz Jar	0950	Soil			X					X		
[illegible]	[illegible] 1 - C 1 16oz Jar	0930	Soil			X					X		
[illegible]	6-2 - C 1 16oz Jar	0930	Soil			X					X		
[illegible]	6-2 - C MS 1 16oz Jar	0930	Soil			X					X		
[illegible]	[illegible] - C MSD 1 16oz Jar	0930	Soil			X					X		
[illegible]	[illegible] 1 16oz Jar	0830	Soil			X					X		
[illegible]	[illegible] 1 16oz Jar	0830	Soil			X					X		Trip Blanks

COOLER NOS	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME
	[illegible]	[illegible]	[illegible]	[illegible]

Additional Comments

Temp 3 °C pc

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356753

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen - WCS
Bill To: Steve Bosworth
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCullum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT):
Sampler Signature
Date Sampled

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA		ANALYSES REQUEST: A	B	C				REMARKS
1	[illegible]	1200	Soil		1	X						X					
2	[illegible]	1200	Soil		1	X											
3	[illegible]	1200	Soil		1	X						X					
4	[illegible]	1200	Soil		1	X											
5	[illegible]	1045	Soil		1	X						X					
6	[illegible]	1045	Soil		1	X											
7	[illegible]	1200	Soil		1	X						X					
8	[illegible]	1200	Soil		1	X											

COOLER NOS	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

Additional Comments

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
8	[illegible]	[illegible]	[illegible]	[illegible]

3 °C
pck

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356758

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference:
Project Name / No.:

Pace Client No.:
Pace Project Manager: Craig McCollum
Pace Project No.:
*Requested Due Date:

Sampled By (PRINT): H. Dean Lowe
Sampler Signature: H. Dean Lowe
Date Sampled: 2/14/97

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST A	B	C				REMARKS
1	18-1-A 1 16oz Jar	0850	Soil		1	X						X						
2	18-2-A 1 16oz Jar	0850	Soil		1	X						X						
3	19-1-A 1 16oz Jar	0915	Soil		1	X						X						
4	19-2-A 1 16oz Jar	0915	Soil		1	X						X						
5	20-1-A 1 16oz Jar	0930	Soil		1	X						X						
6	20-2-A 1 16oz Jar	0930	Soil		1	X						X						
7	21-1-A 1 16oz Jar	1000	Soil		1	X						X						
8	21-2-A 1 16oz Jar	1000	Soil		1	X						X						Equipment Trip Blank

COOLER NOS.	BAILERS	SHIPMENT METHOD	OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME

Additional Comments

Temp 1°C per

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

256757

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Vicksburg, MS 39182-1003
Phone: (601)636-1231

Report To: Dick Karkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCollum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): H. Dean Lowe 2/13/97 and 2/14/97
Sampler Signature: H. Dean Lowe
Date Sampled

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST: A	B	C						REMARKS
1	15-1-A 1 16oz Jar	1030	Soil		2	X						X								
2	15-1-A MS 1 16oz Jar	1030	Soil		2	X						X								
3	15-1-A MSD 1 16oz Jar	1030	Soil		2	X						X								
4	15-2-A 1 16oz Jar	1030	Soil		2	X						X								
5	16-1-A 1 16oz Jar	0945	Soil		2	X						X								
6	16-2-A 1 16oz Jar	0945	Soil		2	X						X								
7	17-1-A 1 16oz Jar	0830	Soil		2	X						X								
8	17-2-A 1 16oz Jar	0830	Soil		2	X						X								

COOLER NOS.	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME

Additional Comments

Temp 1 °C
pc

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356749

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. 821003
Vicksburg, MS 34182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen-WCC
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCollum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): H. DEAN LOWE 2/12/97 (2/13/97 - A-MS/MSD)
Sampler Signature / Date Sampled: H. Dean Lowe

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA	ANALYSES REQUEST A	B	C	REMARKS
1	A-1-B 1-2oz Jar 1-16oz Jar	1600	Soil		2	X				X			
2	A-2-B 1-2oz Jar 1-16oz Jar	1600	Soil		2	X				X			
2/13/97	A-1-MS 1-2oz Jar 1-16oz Jar	1630	Soil		2	X				X			
2/13/97	A-1-MSD 1-2oz Jar 1-16oz Jar	1630	Soil		2	X				X			
5	B-1-B 1-2oz Jar 1-16oz Jar	1530	Soil		2	X				X			
6	B-2-B 1-2oz Jar 1-16oz Jar	1530	Soil		2	X				X			
7	C-1-B 1-2oz Jar 1-16oz Jar	1445	Soil		2	X				X			
8	C-2-B 1-2oz Jar 1-16oz Jar	1445	Soil		2	X				X			

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME
	48 Fed Ex	[illegible] / PSC	2/14/97	[illegible]

Additional Comments

Temp 4°C
pH

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356750

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 82 1003
Vicksburg, MS 39182-1003
Phone: (601) 636-~~1234~~ 1231

Report To: Dick Karkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference:
Project Name / No.:

Pace Client No.:
Pace Project Manager: Craig McCollum
Pace Project No.:
*Requested Due Date:

Sampled By (PRINT): H. DEAN LOWE 2/12/97
Sampler Signature: H. Dean Lowe
Date Sampled:

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST A	B	C					REMARKS
1	D-1-B 1 16oz Jar	1345	Soil		2	X						X							
2	D-2-B 1 16oz Jar	1345	Soil		2	X						X							
3	~~D-2-MS 1 16oz Jar~~		~~Soil~~		~~2~~	~~X~~						~~X~~							Not Access, 6/ for More than 1 Pick
4	~~D-2-MSD 1 16oz Jar~~		~~Soil~~		~~2~~	~~X~~						~~X~~							
5	E-1-B 1 16oz Jar	1210	Soil		2	X						X							Moved MS/MSD to C-2-B
6	E-2-B 1 16oz Jar	1210	Soil		2	X						X							
7	F-1-B 1 16oz Jar	1150	Soil		2	X						X							
8	F-2-B 1 16oz Jar	1150	Soil		2	X						X							

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME
	[illegible]	[illegible]	[illegible]	[illegible]

Additional Comments

Temp 4°C pa

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356759

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCollum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): H. Dean Lowe 2/13/97
Sampler Signature: H. Dean Lowe
Date Sampled

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST: A	B	C						REMARKS
1	C-2-BMS	1550	Soil		2	X						X								
2	C-2-B MSD	1550	Soil		2	X						X								
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

COOLER NOS.	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME

Additional Comments

Temp 4°C pcc

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356751

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box 821003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: Craig McCollum
Pace Project No.
*Requested Due Date:

Sampled By (PRINT):
Sampler Signature
Date Sampled

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST A	B	C						REMARKS
	G-1-B 1 16oz Jar	1120	Soil		2	X						X								
	G-2-B 1 16oz Jar	1120	Soil		2	X						X								
	H-1-B 1 16oz Jar	1100	Soil		2	X						X								
	H-2-B 1 16oz Jar	1100	Soil		2	X						X								
	I-1-B 1 16oz Jar	1050	Soil		2	X						X								
	I-2-B 1 16oz Jar	1050	Soil		2	X						X								
	J-1-B 1 2oz Jar	1030	Soil		2	X						X								
	J-2-B 1 16oz Jar	1030	Soil		2	X														

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE

Additional Comments

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356752

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Co.
Address: P.O. Box B21003
Vicksburg, MS 39182-1003
Phone: (601) 636-1231

Report To: Dick Karkkainen - WCC
Bill To: Steve Boswell
P.O. # / Billing Reference:
Project Name / No.:

Pace Client No.:
Pace Project Manager: Craig McCallum
Pace Project No.:
*Requested Due Date:

Sampled By (PRINT):
Sampler Signature:
Date Sampled:

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST (A) (B) (C)	REMARKS
1	K-1-A 1 2oz Jar 1 16oz Jar	1015	Soil		2	X						X	
2	K-2-A 1 2oz Jar 1 16oz Jar	1015	Soil		2	X						X	
3	L-1-A 1 2oz Jar 1 16oz Jar	1000	Soil		2	X						X	
4	L-2-A 1 2oz Jar 1 16oz Jar	1000	Soil		2	X						X	
5	M-1-B 1 2oz Jar 1 16oz Jar	0940	Soil		2	X						X	
6	M-2-B 1 2oz Jar 1 16oz Jar	0940	Soil		2	X						X	
7	N-1-B 1 2oz Jar 1 16oz Jar	0930	Soil		2	X						X	
8	N-2-B 1 2oz Jar 1 16oz Jar	0930	Soil		2	X						X	

COOLER NOS.	BAILERS	SHIPMENT METHOD CUT DATE	RETURNED DATE

Additional Comments:

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
	[illegible]	[illegible]	2/14/92	1300
	[illegible]	[illegible]		
	[illegible]	[illegible]		

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356763

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Company
Address: P.O. Box 821003
Vicksburg, MS 39180
Phone: 601-636-1231 Ext. 219

Report To: Tuomara Karkkainen
Bill To: Steve Boswell (VCC)
P.O. # / Billing Reference
Project Name / No.: 96A315

Pace Client No.
Pace Project Manager
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): Tuomara Karkkainen
Sampler Signature: [signature] Date Sampled: 2/12/97 2-13-97

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA		ANALYSES REQUEST	REMARKS
	[illegible]										A	[illegible]
	[illegible]										A	[illegible]
	[illegible]										C	2-13-97
	[illegible]										C	2-13-97
	[illegible]										A	2-13-97
	[illegible]										A	2-13-97
	[illegible]										A	2-13-97
	[illegible]										A	2-13-97

COOLER NOS	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME
2	[illegible]	[illegible]	[illegible]	[illegible]
3				
4				
5				
6				
7				

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356762

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Company

Address: P.O. Box 821003
Vicksburg, MS 39180

Phone: 601-636-1231 Ext. 219

Report To: Renard Karkkainen (VCC)

Bill To: Steve Powell (VCC)

P.O. # / Billing Reference:

Project Name / No.: PG 3/5

Pace Client No.:

Pace Project Manager:

Pace Project No.:

*Requested Due Date:

Sampled By (PRINT): Renard Karkkainen

Sampler Signature:

Date Sampled: 2-13-97

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST: A	B	C					REMARKS
1	1-C-C																		
2	2-C-C																		
3	3-C-C																		
4	4-C-C																		
5	5-C-C																		
6	6-C-C																		
7	7-C-C																		
8	7-C-C-MS/MSD																		

COOLER NOS.	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY - AFFILIATION	ACCEPTED BY - AFFILIATION	DATE	TIME
1				
2				
3				
4				
5				
6				
7				
8				

Additional Comments

Temp 10C
pH

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

356764

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Vicksburg Chemical Company
Address: P. O. Box 821003
Vicksburg, MS 39180
Phone: 601-636-1231 Ext 219

Report To: Richard Karkkainen (VCC)
Bill To: Steve Bushell (VCC)
P.O. # / Billing Reference
Project Name / No. 96B315

Pace Client No.
Pace Project Manager
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): Richard Karkkainen
Sampler Signature: [signature]
Date Sampled: 2-13-97

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	H_2SO_4	HNO_3	VOA			ANALYSES REQUEST: A	B	C	REMARKS
1	[illegible]											A			2/12/97
2	[illegible]											A			2/12/97
3	[illegible]											A			2/13/97
4	[illegible]											A			2/13/97
5	[illegible]											A			2/13/97
6	[illegible]											A			2/13/97
7	[illegible]											A			2/13/97
8															

COOLER NOS.	BAILERS	SHIPMENT METHOD: OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME

Additional Comments

Temp 1 pc.

SEE REVERSE SIDE FOR INSTRUCTIONS

attachment 3b - phase 1 - analytical data

SECTION 1-1

SAMPLES A-1-B THROUGH F-2-B
VOL./SEMI-VOL.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-001
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. *The Prep Factor accounts for a non-routine sample size.*
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:10:59

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-001
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 17:41 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		393	
111-44-4	bis(2-Chloroethyl) ether	1	ND		393	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		393	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		393	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		393	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		393	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		393	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		393	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		393	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		393	
67-72-1	Hexachloroethane	1	ND		393	
98-95-3	Nitrobenzene	1	ND		393	
78-59-1	Isophorone	1	ND		393	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		393	
105-67-9	2,4-Dimethylphenol	1	ND		393	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		393	
120-83-2	2,4-Dichlorophenol	1	ND		393	
120-82-1	1,2,4-Trichlorobenzene	1	ND		393	
91-20-3	Naphthalene	1	ND		393	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		393	
87-68-3	Hexachlorobutadiene	1	ND		393	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		393	
91-57-6	2-Methylnaphthalene	1	ND		393	
77-47-4	Hexachlorocyclopentadiene	1	ND		393	
88-06-2	2,4,6-Trichlorophenol	1	ND		393	
95-95-4	2,4,5-Trichlorophenol	1	ND		983	
91-58-7	2-Chloronaphthalene	1	ND		393	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		983	
131-11-3	Dimethylphthalate	1	ND		393	
208-96-8	Acenaphthylene	1	ND		393	
606-20-2	2,6-Dinitrotoluene	1	ND		393	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		983	
83-32-9	Acenaphthene	1	ND		393	
51-28-5	2,4-Dinitrophenol	1	ND		983	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:10:59

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-001
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 18-Feb-97
Analyzed: 06-Mar-97 17:41 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		983	
132-64-9	Dibenzofuran	1	ND		393	
121-14-2	2,4-Dinitrotoluene	1	ND		393	
84-66-2	Diethylphthalate	1	ND		393	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		393	
86-73-7	Fluorene	1	ND		393	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		983	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		983	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	393	
101-55-3	4-Bromophenyl phenyl ether	1	ND		393	
118-74-1	Hexachlorobenzene	1	ND		393	
87-86-5	Pentachlorophenol	1	ND		983	
85-01-8	Phenanthrene	1	ND		393	
120-12-7	Anthracene	1	ND		393	
84-74-8	Carbazole	1	ND		393	
84-74-2	Di-n-butylphthalate	1	ND		393	
206-44-0	Fluoranthene	1	ND		393	
129-00-0	Pyrene	1	ND		393	
85-68-7	Butylbenzylphthalate	1	ND		393	
91-94-1	3,3'-Dichlorobenzidine	1	ND		787	
56-55-3	Benzo(a)anthracene	1	ND		393	
218-01-9	Chrysene	1	ND		393	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		393	
117-84-0	Di-n-octylphthalate	1	ND		393	
205-99-2	Benzo(b)fluoranthene	1	ND		393	
207-08-09	Benzo(k)fluoranthene	1	ND		393	
50-32-8	Benzo(a)pyrene	1	ND		393	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		393	
53-70-3	Dibenz(a,h)anthracene	1	ND		393	
191-24-2	Benzo(g,h,i)perylene	1	ND		393	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		393	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:10:59

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-002
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:10:59

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-002
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 20:02 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		386	
111-44-4	bis(2-Chloroethyl) ether	1	ND		386	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		386	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		386	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		386	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		386	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		386	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		386	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		386	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		386	
67-72-1	Hexachloroethane	1	ND		386	
98-95-3	Nitrobenzene	1	ND		386	
78-59-1	Isophorone	1	ND		386	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		386	
105-67-9	2,4-Dimethylphenol	1	ND		386	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		386	
120-83-2	2,4-Dichlorophenol	1	ND		386	
120-82-1	1,2,4-Trichlorobenzene	1	ND		386	
91-20-3	Naphthalene	1	ND		386	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		386	
87-68-3	Hexachlorobutadiene	1	ND		386	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		386	
91-57-6	2-Methylnaphthalene	1	ND		386	
77-47-4	Hexachlorocyclopentadiene	1	ND		386	
88-06-2	2,4,6-Trichlorophenol	1	ND		386	
95-95-4	2,4,5-Trichlorophenol	1	ND		966	
91-58-7	2-Chloronaphthalene	1	ND		386	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		966	
131-11-3	Dimethylphthalate	1	ND		386	
208-96-8	Acenaphthylene	1	ND		386	
606-20-2	2,6-Dinitrotoluene	1	ND		386	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		966	
83-32-9	Acenaphthene	1	ND		386	
51-28-5	2,4-Dinitrophenol	1	ND		966	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. *Specific qualifiers are defined at the end of the report.*
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-002
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 20:02 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		966	
132-64-9	Dibenzofuran	1	ND		386	
121-14-2	2,4-Dinitrotoluene	1	ND		386	
84-66-2	Diethylphthalate	1	ND		386	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		386	
86-73-7	Fluorene	1	ND		386	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		966	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		966	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	386	
101-55-3	4-Bromophenyl phenyl ether	1	ND		386	
118-74-1	Hexachlorobenzene	1	ND		386	
87-86-5	Pentachlorophenol	1	ND		966	
85-01-8	Phenanthrene	1	ND		386	
120-12-7	Anthracene	1	ND		386	
84-74-8	Carbazole	1	ND		386	
84-74-2	Di-n-butylphthalate	1	ND		386	
206-44-0	Fluoranthene	1	ND		386	
129-00-0	Pyrene	1	ND		386	
85-68-7	Butylbenzylphthalate	1	ND		386	
91-94-1	3,3'-Dichlorobenzidine	1	ND		774	
56-55-3	Benzo(a)anthracene	1	ND		386	
218-01-9	Chrysene	1	ND		386	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		386	
117-84-0	Di-n-octylphthalate	1	ND		386	
205-99-2	Benzo(b)fluoranthene	1	ND		386	
207-08-09	Benzo(k)fluoranthene	1	ND		386	
50-32-8	Benzo(a)pyrene	1	ND		386	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		386	
53-70-3	Dibenz(a,h)anthracene	1	ND		386	
191-24-2	Benzo(g,h,i)perylene	1	ND		386	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		386	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:00

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-003
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 12
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		11.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		11.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		11.	
75-00-3	Chloroethane	1	ND		11.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		11.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		11.	
75-15-0	Carbon disulfide	1	ND		11.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	66.		11.	
75-34-3	1,1-Dichloroethane	1	ND		11.	
540-59-0	1,2-Dichloroethene (total)	1	ND		11.	
67-66-3	Chloroform	1	ND		11.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		11.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		11.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		11.	
56-23-5	Carbon tetrachloride	1	ND		11.	
75-27-4	Bromodichloromethane	1	ND		11.	
78-87-5	1,2-Dichloropropane	1	ND		11.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		11.	
79-01-6	Trichloroethene (Trichloroethylene)	1	65.		11.	
124-48-1	Dibromochloromethane	1	ND		11.	
79-00-5	1,1,2-Trichloroethane	1	ND		11.	
71-43-2	Benzene	1	65.		11.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		11.	
75-25-2	Bromoform	1	ND		11.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		11.	
591-78-6	2-Hexanone	1	ND		11.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		11.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		11.	
108-88-3	Toluene	1	55.		11.	
108-90-7	Chlorobenzene	1	64.		11.	
100-41-4	Ethylbenzene	1	ND		11.	
100-42-5	Styrene	1	ND		11.	
1330-20-7	Xylene (total)	1	ND		11.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:00

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-003MS
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 18:20 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	1890		380	
111-44-4	bis(2-Chloroethyl) ether	1	ND		380	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	2090		380	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		380	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	1390		380	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		380	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		380	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		380	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		380	
621-64-7	N-Nitroso-di-n-propylamine	1	1070		380	
67-72-1	Hexachloroethane	1	ND		380	
98-95-3	Nitrobenzene	1	ND		380	
78-59-1	Isophorone	1	ND		380	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		380	
105-67-9	2,4-Dimethylphenol	1	ND		380	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		380	
120-83-2	2,4-Dichlorophenol	1	ND		380	
120-82-1	1,2,4-Trichlorobenzene	1	1640		380	
91-20-3	Naphthalene	1	ND		380	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		380	
87-68-3	Hexachlorobutadiene	1	ND		380	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	1900		380	
91-57-6	2-Methylnaphthalene	1	ND		380	
77-47-4	Hexachlorocyclopentadiene	1	ND		380	
88-06-2	2,4,6-Trichlorophenol	1	ND		380	
95-95-4	2,4,5-Trichlorophenol	1	ND		950	
91-58-7	2-Chloronaphthalene	1	ND		380	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		950	
131-11-3	Dimethylphthalate	1	ND		380	
208-96-8	Acenaphthylene	1	ND		380	
606-20-2	2,6-Dinitrotoluene	1	ND		380	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		950	
83-32-9	Acenaphthene	1	1480		380	
51-28-5	2,4-Dinitrophenol	1	ND		950	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-003MS
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 18:20 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	1940		950	
132-64-9	Dibenzofuran	1	ND		380	
121-14-2	2,4-Dinitrotoluene	1	1410		380	
84-66-2	Diethylphthalate	1	ND		380	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		380	
86-73-7	Fluorene	1	ND		380	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		950	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		950	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	380	
101-55-3	4-Bromophenyl phenyl ether	1	ND		380	
118-74-1	Hexachlorobenzene	1	ND		380	
87-86-5	Pentachlorophenol	1	ND		950	
85-01-8	Phenanthrene	1	ND		380	
120-12-7	Anthracene	1	ND		380	
84-74-8	Carbazole	1	ND		380	
84-74-2	Di-n-butylphthalate	1	ND		380	
206-44-0	Fluoranthene	1	ND		380	
129-00-0	Pyrene	1	1510		380	
85-68-7	Butylbenzylphthalate	1	ND		380	
91-94-1	3,3'-Dichlorobenzidine	1	ND		760	
56-55-3	Benzo(a)anthracene	1	ND		380	
218-01-9	Chrysene	1	ND		380	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		380	
117-84-0	Di-n-octylphthalate	1	ND		380	
205-99-2	Benzo(b)fluoranthene	1	ND		380	
207-08-09	Benzo(k)fluoranthene	1	ND		380	
50-32-8	Benzo(a)pyrene	1	ND		380	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		380	
53-70-3	Dibenz(a,h)anthracene	1	ND		380	
191-24-2	Benzo(g,h,i)perylene	1	ND		380	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	2020		380	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-004
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 11
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		11.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		11.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		11.	
75-00-3	Chloroethane	1	ND		11.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		11.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		11.	
75-15-0	Carbon disulfide	1	ND		11.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	69.		11.	
75-34-3	1,1-Dichloroethane	1	ND		11.	
540-59-0	1,2-Dichloroethene (total)	1	ND		11.	
67-66-3	Chloroform	1	ND		11.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		11.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		11.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		11.	
56-23-5	Carbon tetrachloride	1	ND		11.	
75-27-4	Bromodichloromethane	1	ND		11.	
78-87-5	1,2-Dichloropropane	1	ND		11.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		11.	
79-01-6	Trichloroethene (Trichloroethylene)	1	66.		11.	
124-48-1	Dibromochloromethane	1	ND		11.	
79-00-5	1,1,2-Trichloroethane	1	ND		11.	
71-43-2	Benzene	1	67.		11.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		11.	
75-25-2	Bromoform	1	ND		11.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		11.	
591-78-6	2-Hexanone	1	ND		11.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		11.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		11.	
108-88-3	Toluene	1	55.		11.	
108-90-7	Chlorobenzene	1	65.		11.	
100-41-4	Ethylbenzene	1	ND		11.	
100-42-5	Styrene	1	ND		11.	
1330-20-7	Xylene (total)	1	ND		11.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-004MSD
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 19:00 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	1770		373	
111-44-4	bis(2-Chloroethyl) ether	1	ND		373	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	2030		373	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		373	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	1380		373	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		373	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		373	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		373	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		373	
621-64-7	N-Nitroso-di-n-propylamine	1	1070		373	
67-72-1	Hexachloroethane	1	ND		373	
98-95-3	Nitrobenzene	1	ND		373	
78-59-1	Isophorone	1	ND		373	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		373	
105-67-9	2,4-Dimethylphenol	1	ND		373	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		373	
120-83-2	2,4-Dichlorophenol	1	ND		373	
120-82-1	1,2,4-Trichlorobenzene	1	1630		373	
91-20-3	Naphthalene	1	ND		373	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		373	
87-68-3	Hexachlorobutadiene	1	ND		373	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	1960		373	
91-57-6	2-Methylnaphthalene	1	ND		373	
77-47-4	Hexachlorocyclopentadiene	1	ND		373	
88-06-2	2,4,6-Trichlorophenol	1	ND		373	
95-95-4	2,4,5-Trichlorophenol	1	ND		933	
91-58-7	2-Chloronaphthalene	1	ND		373	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		933	
131-11-3	Dimethylphthalate	1	ND		373	
208-96-8	Acenaphthylene	1	ND		373	
606-20-2	2,6-Dinitrotoluene	1	ND		373	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		933	
83-32-9	Acenaphthene	1	1410		373	
51-28-5	2,4-Dinitrophenol	1	ND		933	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-004MSD
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 19:00 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	1870		933	
132-64-9	Dibenzofuran	1	ND		373	
121-14-2	2,4-Dinitrotoluene	1	1360		373	
84-66-2	Diethylphthalate	1	ND		373	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		373	
86-73-7	Fluorene	1	ND		373	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		933	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		933	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	373	
101-55-3	4-Bromophenyl phenyl ether	1	ND		373	
118-74-1	Hexachlorobenzene	1	ND		373	
87-86-5	Pentachlorophenol	1	1360		933	
85-01-8	Phenanthrene	1	ND		373	
120-12-7	Anthracene	1	ND		373	
84-74-8	Carbazole	1	ND		373	
84-74-2	Di-n-butylphthalate	1	ND		373	
206-44-0	Fluoranthene	1	ND		373	
129-00-0	Pyrene	1	1540		373	
85-68-7	Butylbenzylphthalate	1	ND		373	
91-94-1	3,3'-Dichlorobenzidine	1	ND		747	
56-55-3	Benzo(a)anthracene	1	ND		373	
218-01-9	Chrysene	1	ND		373	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		373	
117-84-0	Di-n-octylphthalate	1	ND		373	
205-99-2	Benzo(b)fluoranthene	1	ND		373	
207-08-09	Benzo(k)fluoranthene	1	ND		373	
50-32-8	Benzo(a)pyrene	1	ND		373	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		373	
53-70-3	Dibenz(a,h)anthracene	1	ND		373	
191-24-2	Benzo(g,h,i)perylene	1	ND		373	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	1770		373	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-005
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:02

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-005
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 18:44 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		400	
111-44-4	bis(2-Chloroethyl) ether	1	ND		400	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		400	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		400	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		400	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		400	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		400	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		400	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		400	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		400	
67-72-1	Hexachloroethane	1	ND		400	
98-95-3	Nitrobenzene	1	ND		400	
78-59-1	Isophorone	1	ND		400	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		400	
105-67-9	2,4-Dimethylphenol	1	ND		400	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		400	
120-83-2	2,4-Dichlorophenol	1	ND		400	
120-82-1	1,2,4-Trichlorobenzene	1	ND		400	
91-20-3	Naphthalene	1	ND		400	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		400	
87-68-3	Hexachlorobutadiene	1	ND		400	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		400	
91-57-6	2-Methylnaphthalene	1	ND		400	
77-47-4	Hexachlorocyclopentadiene	1	ND		400	
88-06-2	2,4,6-Trichlorophenol	1	ND		400	
95-95-4	2,4,5-Trichlorophenol	1	ND		1000	
91-58-7	2-Chloronaphthalene	1	ND		400	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1000	
131-11-3	Dimethylphthalate	1	ND		400	
208-96-8	Acenaphthylene	1	ND		400	
606-20-2	2,6-Dinitrotoluene	1	ND		400	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1000	
83-32-9	Acenaphthene	1	ND		400	
51-28-5	2,4-Dinitrophenol	1	ND		1000	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-005
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 18:44 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1000	
132-64-9	Dibenzofuran	1	ND		400	
121-14-2	2,4-Dinitrotoluene	1	ND		400	
84-66-2	Diethylphthalate	1	ND		400	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		400	
86-73-7	Fluorene	1	ND		400	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1000	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1000	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	400	
101-55-3	4-Bromophenyl phenyl ether	1	ND		400	
118-74-1	Hexachlorobenzene	1	ND		400	
87-86-5	Pentachlorophenol	1	ND		1000	
85-01-8	Phenanthrene	1	ND		400	
120-12-7	Anthracene	1	ND		400	
84-74-8	Carbazole	1	ND		400	
84-74-2	Di-n-butylphthalate	1	ND		400	
206-44-0	Fluoranthene	1	ND		400	
129-00-0	Pyrene	1	ND		400	
85-68-7	Butylbenzylphthalate	1	ND		400	
91-94-1	3,3'-Dichlorobenzidine	1	ND		800	
56-55-3	Benzo(a)anthracene	1	ND		400	
218-01-9	Chrysene	1	ND		400	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		400	
117-84-0	Di-n-octylphthalate	1	ND		400	
205-99-2	Benzo(b)fluoranthene	1	ND		400	
207-08-09	Benzo(k)fluoranthene	1	ND		400	
50-32-8	Benzo(a)pyrene	1	ND		400	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		400	
53-70-3	Dibenz(a,h)anthracene	1	ND		400	
191-24-2	Benzo(g,h,i)perylene	1	ND		400	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-006
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-006
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 19:23 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		396	
111-44-4	bis(2-Chloroethyl) ether	1	ND		396	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		396	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		396	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		396	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		396	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		396	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		396	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		396	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		396	
67-72-1	Hexachloroethane	1	ND		396	
98-95-3	Nitrobenzene	1	ND		396	
78-59-1	Isophorone	1	ND		396	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		396	
105-67-9	2,4-Dimethylphenol	1	ND		396	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		396	
120-83-2	2,4-Dichlorophenol	1	ND		396	
120-82-1	1,2,4-Trichlorobenzene	1	ND		396	
91-20-3	Naphthalene	1	ND		396	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		396	
87-68-3	Hexachlorobutadiene	1	ND		396	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		396	
91-57-6	2-Methylnaphthalene	1	ND		396	
77-47-4	Hexachlorocyclopentadiene	1	ND		396	
88-06-2	2,4,6-Trichlorophenol	1	ND		396	
95-95-4	2,4,5-Trichlorophenol	1	ND		991	
91-58-7	2-Chloronaphthalene	1	ND		396	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		991	
131-11-3	Dimethylphthalate	1	ND		396	
208-96-8	Acenaphthylene	1	ND		396	
606-20-2	2,6-Dinitrotoluene	1	ND		396	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		991	
83-32-9	Acenaphthene	1	ND		396	
51-28-5	2,4-Dinitrophenol	1	ND		991	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-006
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 19:23 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		991	
132-64-9	Dibenzofuran	1	ND		396	
121-14-2	2,4-Dinitrotoluene	1	ND		396	
84-66-2	Diethylphthalate	1	ND		396	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		396	
86-73-7	Fluorene	1	ND		396	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		991	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		991	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	396	
101-55-3	4-Bromophenyl phenyl ether	1	ND		396	
118-74-1	Hexachlorobenzene	1	ND		396	
87-86-5	Pentachlorophenol	1	ND		991	
85-01-8	Phenanthrene	1	ND		396	
120-12-7	Anthracene	1	ND		396	
84-74-8	Carbazole	1	ND		396	
84-74-2	Di-n-butylphthalate	1	ND		396	
206-44-0	Fluoranthene	1	ND		396	
129-00-0	Pyrene	1	ND		396	
85-68-7	Butylbenzylphthalate	1	ND		396	
91-94-1	3,3'-Dichlorobenzidine	1	ND		794	
56-55-3	Benzo(a)anthracene	1	ND		396	
218-01-9	Chrysene	1	ND		396	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		396	
117-84-0	Di-n-octylphthalate	1	ND		396	
205-99-2	Benzo(b)fluoranthene	1	ND		396	
207-08-09	Benzo(k)fluoranthene	1	ND		396	
50-32-8	Benzo(a)pyrene	1	ND		396	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		396	
53-70-3	Dibenz(a,h)anthracene	1	ND		396	
191-24-2	Benzo(g,h,i)perylene	1	ND		396	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-007
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-007
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 22:37 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		406	
111-44-4	bis(2-Chloroethyl) ether	1	ND		406	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		406	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		406	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		406	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		406	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		406	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		406	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		406	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		406	
67-72-1	Hexachloroethane	1	ND		406	
98-95-3	Nitrobenzene	1	ND		406	
78-59-1	Isophorone	1	ND		406	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		406	
105-67-9	2,4-Dimethylphenol	1	ND		406	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		406	
120-83-2	2,4-Dichlorophenol	1	ND		406	
120-82-1	1,2,4-Trichlorobenzene	1	ND		406	
91-20-3	Naphthalene	1	ND		406	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		406	
87-68-3	Hexachlorobutadiene	1	ND		406	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		406	
91-57-6	2-Methylnaphthalene	1	ND		406	
77-47-4	Hexachlorocyclopentadiene	1	ND		406	
88-06-2	2,4,6-Trichlorophenol	1	ND		406	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		406	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		406	
208-96-8	Acenaphthylene	1	ND		406	
606-20-2	2,6-Dinitrotoluene	1	ND		406	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	ND		406	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-007
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 22:37 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1020	
132-64-9	Dibenzofuran	1	ND		406	
121-14-2	2,4-Dinitrotoluene	1	ND		406	
84-66-2	Diethylphthalate	1	ND		406	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		406	
86-73-7	Fluorene	1	ND		406	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	406	
101-55-3	4-Bromophenyl phenyl ether	1	ND		406	
118-74-1	Hexachlorobenzene	1	ND		406	
87-86-5	Pentachlorophenol	1	ND		1020	
85-01-8	Phenanthrene	1	ND		406	
120-12-7	Anthracene	1	ND		406	
84-74-8	Carbazole	1	ND		406	
84-74-2	Di-n-butylphthalate	1	ND		406	
206-44-0	Fluoranthene	1	ND		406	
129-00-0	Pyrene	1	ND		406	
85-68-7	Butylbenzylphthalate	1	ND		406	
91-94-1	3,3'-Dichlorobenzidine	1	ND		814	
56-55-3	Benzo(a)anthracene	1	ND		406	
218-01-9	Chrysene	1	ND		406	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		406	
117-84-0	Di-n-octylphthalate	1	ND		406	
205-99-2	Benzo(b)fluoranthene	1	ND		406	
207-08-09	Benzo(k)fluoranthene	1	ND		406	
50-32-8	Benzo(a)pyrene	1	ND		406	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		406	
53-70-3	Dibenz(a,h)anthracene	1	ND		406	
191-24-2	Benzo(g,h,i)perylene	1	ND		406	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		406	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-008
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21418
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-008
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 20:41 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		396	
111-44-4	bis(2-Chloroethyl) ether	1	ND		396	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		396	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		396	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		396	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		396	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		396	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		396	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		396	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		396	
67-72-1	Hexachloroethane	1	ND		396	
98-95-3	Nitrobenzene	1	ND		396	
78-59-1	Isophorone	1	ND		396	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		396	
105-67-9	2,4-Dimethylphenol	1	ND		396	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		396	
120-83-2	2,4-Dichlorophenol	1	ND		396	
120-82-1	1,2,4-Trichlorobenzene	1	ND		396	
91-20-3	Naphthalene	1	ND		396	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		396	
87-68-3	Hexachlorobutadiene	1	ND		396	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		396	
91-57-6	2-Methylnaphthalene	1	ND		396	
77-47-4	Hexachlorocyclopentadiene	1	ND		396	
88-06-2	2,4,6-Trichlorophenol	1	ND		396	
95-95-4	2,4,5-Trichlorophenol	1	ND		991	
91-58-7	2-Chloronaphthalene	1	ND		396	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		991	
131-11-3	Dimethylphthalate	1	ND		396	
208-96-8	Acenaphthylene	1	ND		396	
606-20-2	2,6-Dinitrotoluene	1	ND		396	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		991	
83-32-9	Acenaphthene	1	ND		396	
51-28-5	2,4-Dinitrophenol	1	ND		991	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-008
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 20:41 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		991	
132-64-9	Dibenzofuran	1	ND		396	
121-14-2	2,4-Dinitrotoluene	1	ND		396	
84-66-2	Diethylphthalate	1	ND		396	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		396	
86-73-7	Fluorene	1	ND		396	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		991	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		991	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	396	
101-55-3	4-Bromophenyl phenyl ether	1	ND		396	
118-74-1	Hexachlorobenzene	1	ND		396	
87-86-5	Pentachlorophenol	1	ND		991	
85-01-8	Phenanthrene	1	ND		396	
120-12-7	Anthracene	1	ND		396	
84-74-8	Carbazole	1	ND		396	
84-74-2	Di-n-butylphthalate	1	ND		396	
206-44-0	Fluoranthene	1	ND		396	
129-00-0	Pyrene	1	ND		396	
85-68-7	Butylbenzylphthalate	1	ND		396	
91-94-1	3,3'-Dichlorobenzidine	1	ND		794	
56-55-3	Benzo(a)anthracene	1	ND		396	
218-01-9	Chrysene	1	ND		396	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		396	
117-84-0	Di-n-octylphthalate	1	ND		396	
205-99-2	Benzo(b)fluoranthene	1	ND		396	
207-08-09	Benzo(k)fluoranthene	1	ND		396	
50-32-8	Benzo(a)pyrene	1	ND		396	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		396	
53-70-3	Dibenz(a,h)anthracene	1	ND		396	
191-24-2	Benzo(g,h,i)perylene	1	ND		396	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-009
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	13.	A11	12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	36.	A11	12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-009
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 15-Mar-97 15:21 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	10	ND	D4	3930	
111-44-4	bis(2-Chloroethyl) ether	10	ND	D4	3930	
95-57-8	2-Chlorophenol (o-Chlorophenol)	10	ND	D4	3930	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	10	ND	D4	3930	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	10	ND	D4	3930	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	10	ND	D4	3930	
95-48-7	2-Methylphenol (o-Cresol)	10	ND	D4	3930	
108-60-1	bis(2-Chloroisopropyl) ether	10	ND	D4	3930	
106-44-5	4-Methylphenol (p-Cresol)	10	ND	D4	3930	
621-64-7	N-Nitroso-di-n-propylamine	10	ND	D4	3930	
67-72-1	Hexachloroethane	10	ND	D4	3930	
98-95-3	Nitrobenzene	10	ND	D4	3930	
78-59-1	Isophorone	10	ND	D4	3930	
88-75-5	2-Nitrophenol (o-Nitrophenol)	10	ND	D4	3930	
105-67-9	2,4-Dimethylphenol	10	ND	D4	3930	
111-91-1	bis(2-Chloroethoxy)methane	10	ND	D4	3930	
120-83-2	2,4-Dichlorophenol	10	ND	D4	3930	
120-82-1	1,2,4-Trichlorobenzene	10	ND	D4	3930	
91-20-3	Naphthalene	10	ND	D4	3930	
106-47-8	4-Chloroaniline (p-Chloroaniline)	10	ND	D4	3930	
87-68-3	Hexachlorobutadiene	10	ND	D4	3930	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	10	ND	D4	3930	
91-57-6	2-Methylnaphthalene	10	ND	D4	3930	
77-47-4	Hexachlorocyclopentadiene	10	ND	D4	3930	
88-06-2	2,4,6-Trichlorophenol	10	ND	D4	3930	
95-95-4	2,4,5-Trichlorophenol	10	ND	D4	9830	
91-58-7	2-Chloronaphthalene	10	ND	D4	3930	
88-74-4	2-Nitroaniline (o-Nitroaniline)	10	ND	D4	9830	
131-11-3	Dimethylphthalate	10	ND	D4	3930	
208-96-8	Acenaphthylene	10	ND	D4	3930	
606-20-2	2,6-Dinitrotoluene	10	ND	D4	3930	
99-09-2	3-Nitroaniline (m-Nitroaniline)	10	ND	D4	9830	
83-32-9	Acenaphthene	10	ND	D4	3930	
51-28-5	2,4-Dinitrophenol	10	ND	D4	9830	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-009
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 15-Mar-97 15:21 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	10	ND	D4	9830	
132-64-9	Dibenzofuran	10	ND	D4	3930	
121-14-2	2,4-Dinitrotoluene	10	ND	D4	3930	
84-66-2	Diethylphthalate	10	ND	D4	3930	
7005-72-3	4-Chlorophenyl phenyl ether	10	ND	D4	3930	
86-73-7	Fluorene	10	ND	D4	3930	
100-01-6	4-Nitroaniline (p-Nitroaniline)	10	ND	D4	9830	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	10	ND	D4	9830	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	10	ND	D4 A10	3930	
101-55-3	4-Bromophenyl phenyl ether	10	ND	D4	3930	
118-74-1	Hexachlorobenzene	10	ND	D4	3930	
87-86-5	Pentachlorophenol	10	ND	D4	9830	
85-01-8	Phenanthrene	10	ND	D4	3930	
120-12-7	Anthracene	10	ND	D4	3930	
84-74-8	Carbazole	10	ND	D4	3930	
84-74-2	Di-n-butylphthalate	10	ND	D4	3930	
206-44-0	Fluoranthene	10	ND	D4	3930	
129-00-0	Pyrene	10	ND	D4	3930	
85-68-7	Butylbenzylphthalate	10	ND	D4	3930	
91-94-1	3,3'-Dichlorobenzidine	10	ND	D4	7870	
56-55-3	Benzo(a)anthracene	10	ND	D4	3930	
218-01-9	Chrysene	10	ND	D4	3930	
117-81-7	bis(2-Ethylhexyl)phthalate	10	ND	D4	3930	
117-84-0	Di-n-octylphthalate	10	ND	D4	3930	
205-99-2	Benzo(b)fluoranthene	10	ND	D4	3930	
207-08-09	Benzo(k)fluoranthene	10	ND	D4	3930	
50-32-8	Benzo(a)pyrene	10	ND	D4	3930	
193-39-5	Indeno(1,2,3-cd)pyrene	10	ND	D4	3930	
53-70-3	Dibenz(a,h)anthracene	10	ND	D4	3930	
191-24-2	Benzo(g,h,i)perylene	10	ND	D4	3930	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	10	ND	D4	3930	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:05

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-010
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-010
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 15-Mar-97 15:58 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	20	ND	P2 D4	7930	
111-44-4	bis(2-Chloroethyl) ether	20	ND	P2 D4	7930	
95-57-8	2-Chlorophenol (o-Chlorophenol)	20	ND	P2 D4	7930	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	20	ND	P2 D4	7930	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	20	ND	P2 D4	7930	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	20	ND	P2 D4	7930	
95-48-7	2-Methylphenol (o-Cresol)	20	ND	P2 D4	7930	
108-60-1	bis(2-Chloroisopropyl) ether	20	ND	P2 D4	7930	
106-44-5	4-Methylphenol (p-Cresol)	20	ND	P2 D4	7930	
621-64-7	N-Nitroso-di-n-propylamine	20	ND	P2 D4	7930	
67-72-1	Hexachloroethane	20	ND	P2 D4	7930	
98-95-3	Nitrobenzene	20	ND	P2 D4	7930	
78-59-1	Isophorone	20	ND	P2 D4	7930	
88-75-5	2-Nitrophenol (o-Nitrophenol)	20	ND	P2 D4	7930	
105-67-9	2,4-Dimethylphenol	20	ND	P2 D4	7930	
111-91-1	bis(2-Chloroethoxy)methane	20	ND	P2 D4	7930	
120-83-2	2,4-Dichlorophenol	20	ND	P2 D4	7930	
120-82-1	1,2,4-Trichlorobenzene	20	ND	P2 D4	7930	
91-20-3	Naphthalene	20	ND	P2 D4	7930	
106-47-8	4-Chloroaniline (p-Chloroaniline)	20	ND	P2 D4	7930	
87-68-3	Hexachlorobutadiene	20	ND	P2 D4	7930	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	20	ND	P2 D4	7930	
91-57-6	2-Methylnaphthalene	20	ND	P2 D4	7930	
77-47-4	Hexachlorocyclopentadiene	20	ND	P2 D4	7930	
88-06-2	2,4,6-Trichlorophenol	20	ND	P2 D4	7930	
95-95-4	2,4,5-Trichlorophenol	20	ND	P2 D4	19800	
91-58-7	2-Chloronaphthalene	20	ND	P2 D4	7930	
88-74-4	2-Nitroaniline (o-Nitroaniline)	20	ND	P2 D4	19800	
131-11-3	Dimethylphthalate	20	ND	P2 D4	7930	
208-96-8	Acenaphthylene	20	ND	P2 D4	7930	
606-20-2	2,6-Dinitrotoluene	20	ND	P2 D4	7930	
99-09-2	3-Nitroaniline (m-Nitroaniline)	20	ND	P2 D4	19800	
83-32-9	Acenaphthene	20	ND	P2 D4	7930	
51-28-5	2,4-Dinitrophenol	20	ND	P2 D4	19800	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-010
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 15-Mar-97 15:58 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	20	ND	P2 D4	19800	
132-64-9	Dibenzofuran	20	ND	P2 D4	7930	
121-14-2	2,4-Dinitrotoluene	20	ND	P2 D4	7930	
84-66-2	Diethylphthalate	20	ND	P2 D4	7930	
7005-72-3	4-Chlorophenyl phenyl ether	20	ND	P2 D4	7930	
86-73-7	Fluorene	20	ND	P2 D4	7930	
100-01-6	4-Nitroaniline (p-Nitroaniline)	20	ND	P2 D4	19800	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	20	ND	P2 D4	19800	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	20	ND	P2 D4 A10	7930	
101-55-3	4-Bromophenyl phenyl ether	20	ND	P2 D4	7930	
118-74-1	Hexachlorobenzene	20	ND	P2 D4	7930	
87-86-5	Pentachlorophenol	20	ND	P2 D4	19800	
85-01-8	Phenanthrene	20	ND	P2 D4	7930	
120-12-7	Anthracene	20	ND	P2 D4	7930	
84-74-8	Carbazole	20	ND	P2 D4	7930	
84-74-2	Di-n-butylphthalate	20	ND	P2 D4	7930	
206-44-0	Fluoranthene	20	ND	P2 D4	7930	
129-00-0	Pyrene	20	ND	P2 D4	7930	
85-68-7	Butylbenzylphthalate	20	ND	P2 D4	7930	
91-94-1	3,3'-Dichlorobenzidine	20	ND	P2 D4	15900	
56-55-3	Benzo(a)anthracene	20	ND	P2 D4	7930	
218-01-9	Chrysene	20	ND	P2 D4	7930	
117-81-7	bis(2-Ethylhexyl)phthalate	20	ND	P2 D4	7930	
117-84-0	Di-n-octylphthalate	20	ND	P2 D4	7930	
205-99-2	Benzo(b)fluoranthene	20	ND	P2 D4	7930	
207-08-09	Benzo(k)fluoranthene	20	ND	P2 D4	7930	
50-32-8	Benzo(a)pyrene	20	ND	P2 D4	7930	
193-39-5	Indeno(1,2,3-cd)pyrene	20	ND	P2 D4	7930	
53-70-3	Dibenz(a,h)anthracene	20	ND	P2 D4	7930	
191-24-2	Benzo(g,h,i)perylene	20	ND	P2 D4	7930	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	P2 D4	7930	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-011
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-011
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 23:16 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		396	
111-44-4	bis(2-Chloroethyl) ether	1	ND		396	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		396	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		396	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		396	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		396	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		396	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		396	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		396	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		396	
67-72-1	Hexachloroethane	1	ND		396	
98-95-3	Nitrobenzene	1	ND		396	
78-59-1	Isophorone	1	ND		396	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		396	
105-67-9	2,4-Dimethylphenol	1	ND		396	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		396	
120-83-2	2,4-Dichlorophenol	1	ND		396	
120-82-1	1,2,4-Trichlorobenzene	1	ND		396	
91-20-3	Naphthalene	1	ND		396	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		396	
87-68-3	Hexachlorobutadiene	1	ND		396	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		396	
91-57-6	2-Methylnaphthalene	1	ND		396	
77-47-4	Hexachlorocyclopentadiene	1	ND		396	
88-06-2	2,4,6-Trichlorophenol	1	ND		396	
95-95-4	2,4,5-Trichlorophenol	1	ND		991	
91-58-7	2-Chloronaphthalene	1	ND		396	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		991	
131-11-3	Dimethylphthalate	1	ND		396	
208-96-8	Acenaphthylene	1	ND		396	
606-20-2	2,6-Dinitrotoluene	1	ND		396	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		991	
83-32-9	Acenaphthene	1	ND		396	
51-28-5	2,4-Dinitrophenol	1	ND		991	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:06

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-011
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 23:16 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		991	
132-64-9	Dibenzofuran	1	ND		396	
121-14-2	2,4-Dinitrotoluene	1	ND		396	
84-66-2	Diethylphthalate	1	ND		396	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		396	
86-73-7	Fluorene	1	ND		396	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		991	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		991	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	396	
101-55-3	4-Bromophenyl phenyl ether	1	ND		396	
118-74-1	Hexachlorobenzene	1	ND		396	
87-86-5	Pentachlorophenol	1	ND		991	
85-01-8	Phenanthrene	1	ND		396	
120-12-7	Anthracene	1	ND		396	
84-74-8	Carbazole	1	ND		396	
84-74-2	Di-n-butylphthalate	1	ND		396	
206-44-0	Fluoranthene	1	ND		396	
129-00-0	Pyrene	1	ND		396	
85-68-7	Butylbenzylphthalate	1	ND		396	
91-94-1	3,3'-Dichlorobenzidine	1	ND		794	
56-55-3	Benzo(a)anthracene	1	ND		396	
218-01-9	Chrysene	1	ND		396	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		396	
117-84-0	Di-n-octylphthalate	1	ND		396	
205-99-2	Benzo(b)fluoranthene	1	ND		396	
207-08-09	Benzo(k)fluoranthene	1	ND		396	
50-32-8	Benzo(a)pyrene	1	ND		396	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		396	
53-70-3	Dibenz(a,h)anthracene	1	ND		396	
191-24-2	Benzo(g,h,i)perylene	1	ND		396	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:07

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-012
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil CLP Volatile Organics
Batch: 21418
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	13.	A11	12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-012
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 14:41 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		406	
111-44-4	bis(2-Chloroethyl) ether	1	ND		406	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		406	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		406	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		406	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		406	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		406	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		406	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		406	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		406	
67-72-1	Hexachloroethane	1	ND		406	
98-95-3	Nitrobenzene	1	ND		406	
78-59-1	Isophorone	1	ND		406	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		406	
105-67-9	2,4-Dimethylphenol	1	ND		406	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		406	
120-83-2	2,4-Dichlorophenol	1	ND		406	
120-82-1	1,2,4-Trichlorobenzene	1	ND		406	
91-20-3	Naphthalene	1	ND		406	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		406	
87-68-3	Hexachlorobutadiene	1	ND		406	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		406	
91-57-6	2-Methylnaphthalene	1	ND		406	
77-47-4	Hexachlorocyclopentadiene	1	ND		406	
88-06-2	2,4,6-Trichlorophenol	1	ND		406	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		406	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		406	
208-96-8	Acenaphthylene	1	ND		406	
606-20-2	2,6-Dinitrotoluene	1	ND		406	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	ND		406	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-012
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 14:41 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1020	
132-64-9	Dibenzofuran	1	ND		406	
121-14-2	2,4-Dinitrotoluene	1	ND		406	
84-66-2	Diethylphthalate	1	ND		406	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		406	
86-73-7	Fluorene	1	ND		406	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	406	
101-55-3	4-Bromophenyl phenyl ether	1	ND		406	
118-74-1	Hexachlorobenzene	1	ND		406	
87-86-5	Pentachlorophenol	1	ND		1020	
85-01-8	Phenanthrene	1	ND		406	
120-12-7	Anthracene	1	ND		406	
84-74-8	Carbazole	1	ND		406	
84-74-2	Di-n-butylphthalate	1	ND		406	
206-44-0	Fluoranthene	1	ND		406	
129-00-0	Pyrene	1	ND		406	
85-68-7	Butylbenzylphthalate	1	ND		406	
91-94-1	3,3'-Dichlorobenzidine	1	ND		814	
56-55-3	Benzo(a)anthracene	1	ND		406	
218-01-9	Chrysene	1	ND		406	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		406	
117-84-0	Di-n-octylphthalate	1	ND		406	
205-99-2	Benzo(b)fluoranthene	1	ND		406	
207-08-09	Benzo(k)fluoranthene	1	ND		406	
50-32-8	Benzo(a)pyrene	1	ND		406	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		406	
53-70-3	Dibenz(a,h)anthracene	1	ND		406	
191-24-2	Benzo(g,h,i)perylene	1	ND		406	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		406	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-013
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil CLP Volatile Organics
Batch: 21418
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-013
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 15:18 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		406	
111-44-4	bis(2-Chloroethyl) ether	1	ND		406	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		406	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		406	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		406	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		406	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		406	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		406	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		406	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		406	
67-72-1	Hexachloroethane	1	ND		406	
98-95-3	Nitrobenzene	1	ND		406	
78-59-1	Isophorone	1	ND		406	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		406	
105-67-9	2,4-Dimethylphenol	1	ND		406	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		406	
120-83-2	2,4-Dichlorophenol	1	ND		406	
120-82-1	1,2,4-Trichlorobenzene	1	ND		406	
91-20-3	Naphthalene	1	ND		406	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		406	
87-68-3	Hexachlorobutadiene	1	ND		406	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		406	
91-57-6	2-Methylnaphthalene	1	ND		406	
77-47-4	Hexachlorocyclopentadiene	1	ND		406	
88-06-2	2,4,6-Trichlorophenol	1	ND		406	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		406	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		406	
208-96-8	Acenaphthylene	1	ND		406	
606-20-2	2,6-Dinitrotoluene	1	ND		406	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	ND		406	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-013
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 15:18 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1020	
132-64-9	Dibenzofuran	1	ND		406	
121-14-2	2,4-Dinitrotoluene	1	ND		406	
84-66-2	Diethylphthalate	1	ND		406	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		406	
86-73-7	Fluorene	1	ND		406	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	406	
101-55-3	4-Bromophenyl phenyl ether	1	ND		406	
118-74-1	Hexachlorobenzene	1	ND		406	
87-86-5	Pentachlorophenol	1	ND		1020	
85-01-8	Phenanthrene	1	ND		406	
120-12-7	Anthracene	1	ND		406	
84-74-8	Carbazole	1	ND		406	
84-74-2	Di-n-butylphthalate	1	ND		406	
206-44-0	Fluoranthene	1	ND		406	
129-00-0	Pyrene	1	ND		406	
85-68-7	Butylbenzylphthalate	1	ND		406	
91-94-1	3,3'-Dichlorobenzidine	1	ND		814	
56-55-3	Benzo(a)anthracene	1	ND		406	
218-01-9	Chrysene	1	ND		406	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		406	
117-84-0	Di-n-octylphthalate	1	ND		406	
205-99-2	Benzo(b)fluoranthene	1	ND		406	
207-08-09	Benzo(k)fluoranthene	1	ND		406	
50-32-8	Benzo(a)pyrene	1	ND		406	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		406	
53-70-3	Dibenz(a,h)anthracene	1	ND		406	
191-24-2	Benzo(g,h,i)perylene	1	ND		406	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		406	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-014
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil CLP Volatile Organics
Batch: 21418
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:09

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-014
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 19:04 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		400	
111-44-4	bis(2-Chloroethyl) ether	1	ND		400	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		400	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		400	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		400	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		400	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		400	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		400	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		400	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		400	
67-72-1	Hexachloroethane	1	ND		400	
98-95-3	Nitrobenzene	1	ND		400	
78-59-1	Isophorone	1	ND		400	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		400	
105-67-9	2,4-Dimethylphenol	1	ND		400	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		400	
120-83-2	2,4-Dichlorophenol	1	ND		400	
120-82-1	1,2,4-Trichlorobenzene	1	ND		400	
91-20-3	Naphthalene	1	2070		400	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		400	
87-68-3	Hexachlorobutadiene	1	ND		400	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		400	
91-57-6	2-Methylnaphthalene	5	5420	D1	2000	
77-47-4	Hexachlorocyclopentadiene	1	ND		400	
88-06-2	2,4,6-Trichlorophenol	1	ND		400	
95-95-4	2,4,5-Trichlorophenol	1	ND		1000	
91-58-7	2-Chloronaphthalene	1	ND		400	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1000	
131-11-3	Dimethylphthalate	1	ND		400	
208-96-8	Acenaphthylene	1	ND		400	
606-20-2	2,6-Dinitrotoluene	1	ND		400	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1000	
83-32-9	Acenaphthene	1	ND		400	
51-28-5	2,4-Dinitrophenol	1	ND		1000	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-014
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 19:04 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1000	
132-64-9	Dibenzofuran	1	ND		400	
121-14-2	2,4-Dinitrotoluene	1	ND		400	
84-66-2	Diethylphthalate	1	ND		400	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		400	
86-73-7	Fluorene	1	ND		400	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1000	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1000	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	400	
101-55-3	4-Bromophenyl phenyl ether	1	ND		400	
118-74-1	Hexachlorobenzene	1	ND		400	
87-86-5	Pentachlorophenol	1	ND		1000	
85-01-8	Phenanthrene	1	ND		400	
120-12-7	Anthracene	1	ND		400	
84-74-8	Carbazole	1	ND		400	
84-74-2	Di-n-butylphthalate	1	ND		400	
206-44-0	Fluoranthene	1	ND		400	
129-00-0	Pyrene	1	ND		400	
85-68-7	Butylbenzylphthalate	1	ND		400	
91-94-1	3,3'-Dichlorobenzidine	1	ND		800	
56-55-3	Benzo(a)anthracene	1	ND		400	
218-01-9	Chrysene	1	ND		400	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		400	
117-84-0	Di-n-octylphthalate	1	ND		400	
205-99-2	Benzo(b)fluoranthene	1	ND		400	
207-08-09	Benzo(k)fluoranthene	1	ND		400	
50-32-8	Benzo(a)pyrene	1	ND		400	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		400	
53-70-3	Dibenz(a,h)anthracene	1	ND		400	
191-24-2	Benzo(g,h,i)perylene	1	ND		400	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-015
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil CLP Volatile Organics
Batch: 21418
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	60.		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	63.		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	66.		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	65.		12.	
108-90-7	Chlorobenzene	1	67.		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-015MS
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 21:19 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	1650		410	
111-44-4	bis(2-Chloroethyl) ether	1	ND		410	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	1930		410	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		410	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	1330		410	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		410	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		410	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		410	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		410	
621-64-7	N-Nitroso-di-n-propylamine	1	946		410	
67-72-1	Hexachloroethane	1	ND		410	
98-95-3	Nitrobenzene	1	ND		410	
78-59-1	Isophorone	1	ND		410	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		410	
105-67-9	2,4-Dimethylphenol	1	ND		410	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		410	
120-83-2	2,4-Dichlorophenol	1	ND		410	
120-82-1	1,2,4-Trichlorobenzene	1	1680		410	
91-20-3	Naphthalene	1	ND		410	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		410	
87-68-3	Hexachlorobutadiene	1	ND		410	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	1860		410	
91-57-6	2-Methylnaphthalene	1	ND		410	
77-47-4	Hexachlorocyclopentadiene	1	ND		410	
88-06-2	2,4,6-Trichlorophenol	1	ND		410	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		410	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		410	
208-96-8	Acenaphthylene	1	ND		410	
606-20-2	2,6-Dinitrotoluene	1	ND		410	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	1440		410	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-015MS
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 19-Feb-97
Analyzed: 07-Mar-97 21:19 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	2200		1020	
132-64-9	Dibenzofuran	1	ND		410	
121-14-2	2,4-Dinitrotoluene	1	1430		410	
84-66-2	Diethylphthalate	1	ND		410	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		410	
86-73-7	Fluorene	1	ND		410	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	410	
101-55-3	4-Bromophenyl phenyl ether	1	ND		410	
118-74-1	Hexachlorobenzene	1	ND		410	
87-86-5	Pentachlorophenol	1	2170		1020	
85-01-8	Phenanthrene	1	ND		410	
120-12-7	Anthracene	1	ND		410	
84-74-8	Carbazole	1	ND		410	
84-74-2	Di-n-butylphthalate	1	ND		410	
206-44-0	Fluoranthene	1	ND		410	
129-00-0	Pyrene	1	1570		410	
85-68-7	Butylbenzylphthalate	1	ND		410	
91-94-1	3,3'-Dichlorobenzidine	1	ND		820	
56-55-3	Benzo(a)anthracene	1	ND		410	
218-01-9	Chrysene	1	ND		410	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		410	
117-84-0	Di-n-octylphthalate	1	ND		410	
205-99-2	Benzo(b)fluoranthene	1	ND		410	
207-08-09	Benzo(k)fluoranthene	1	ND		410	
50-32-8	Benzo(a)pyrene	1	ND		410	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		410	
53-70-3	Dibenz(a,h)anthracene	1	ND		410	
191-24-2	Benzo(g,h,i)perylene	1	ND		410	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	1120		410	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-016
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21418
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	60.		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	67.		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	71.		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	52.		12.	
108-90-7	Chlorobenzene	1	63.		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

3 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-016MSD
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 21:58 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	1240		396	
111-44-4	bis(2-Chloroethyl) ether	1	ND		396	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	1460		396	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		396	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	983		396	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		396	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		396	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		396	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		396	
621-64-7	N-Nitroso-di-n-propylamine	1	756		396	
67-72-1	Hexachloroethane	1	ND		396	
98-95-3	Nitrobenzene	1	ND		396	
78-59-1	Isophorone	1	ND		396	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		396	
105-67-9	2,4-Dimethylphenol	1	ND		396	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		396	
120-83-2	2,4-Dichlorophenol	1	ND		396	
120-82-1	1,2,4-Trichlorobenzene	1	1310		396	
91-20-3	Naphthalene	1	ND		396	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		396	
87-68-3	Hexachlorobutadiene	1	ND		396	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	1360		396	
91-57-6	2-Methylnaphthalene	1	ND		396	
77-47-4	Hexachlorocyclopentadiene	1	ND		396	
88-06-2	2,4,6-Trichlorophenol	1	ND		396	
95-95-4	2,4,5-Trichlorophenol	1	ND		991	
91-58-7	2-Chloronaphthalene	1	ND		396	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		991	
131-11-3	Dimethylphthalate	1	ND		396	
208-96-8	Acenaphthylene	1	ND		396	
606-20-2	2,6-Dinitrotoluene	1	ND		396	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		991	
83-32-9	Acenaphthene	1	1190		396	
51-28-5	2,4-Dinitrophenol	1	ND		991	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:11

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-016MSD
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 07-Mar-97 21:58 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	1750		991	
132-64-9	Dibenzofuran	1	ND		396	
121-14-2	2,4-Dinitrotoluene	1	1190		396	
84-66-2	Diethylphthalate	1	ND		396	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		396	
86-73-7	Fluorene	1	ND		396	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		991	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		991	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	396	
101-55-3	4-Bromophenyl phenyl ether	1	ND		396	
118-74-1	Hexachlorobenzene	1	ND		396	
87-86-5	Pentachlorophenol	1	1700		991	
85-01-8	Phenanthrene	1	ND		396	
120-12-7	Anthracene	1	ND		396	
84-74-8	Carbazole	1	ND		396	
84-74-2	Di-n-butylphthalate	1	ND		396	
206-44-0	Fluoranthene	1	ND		396	
129-00-0	Pyrene	1	1190		396	
85-68-7	Butylbenzylphthalate	1	ND		396	
91-94-1	3,3'-Dichlorobenzidine	1	ND		794	
56-55-3	Benzo(a)anthracene	1	ND		396	
218-01-9	Chrysene	1	ND		396	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		396	
117-84-0	Di-n-octylphthalate	1	ND		396	
205-99-2	Benzo(b)fluoranthene	1	ND		396	
207-08-09	Benzo(k)fluoranthene	1	ND		396	
50-32-8	Benzo(a)pyrene	1	ND		396	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		396	
53-70-3	Dibenz(a,h)anthracene	1	ND		396	
191-24-2	Benzo(g,h,i)perylene	1	ND		396	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	847		396	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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SECTION 1-2

SAMPLES A-1-B THROUGH F-2-B
ATRAZINE/CYANAZINE
PESTICIDES/PCBs

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-001
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 16-Mar-97 18:11 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.7	
21725-46-2	Cyanazine	1	ND		19.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:23

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-001
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 10-Mar-97 16:31 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.01	
319-84-6	alpha-BHC	1	ND		2.01	
319-85-7	beta-BHC	1	ND		2.01	
319-86-9	delta-BHC	1	3.66		2.01	
58-89-9	gamma-BHC (Lindane)	1	ND		2.01	
5103-71-9	alpha-Chlordane	1	ND		2.01	
5103-74-2	gamma-Chlordane	1	ND	N	4.72	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.89	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	28.3	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND	N	33.0	
60-57-1	Dieldrin	1	ND	N	9.44	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		10.8	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.89	
1031-07-8	Endosulfan sulfate	1	ND		3.89	
72-20-8	Endrin	1	ND		3.89	
7421-36-3	Endrin aldehyde	1	ND	N	14.2	
53494-70-5	Endrin ketone	1	ND		3.89	
76-44-8	Heptachlor	1	ND		2.01	
1024-57-3	Heptachlor epoxide	1	ND		2.01	
72-43-5	Methoxychlor	1	28.7		19.7	
8001-35-2	Toxaphene	1	332		189	
12674-11-2	Aroclor-1016	1	ND		39.3	
11104-28-2	Aroclor-1221	1	ND		79.1	
11141-16-5	Aroclor-1232	1	ND		39.3	
53469-21-9	Aroclor-1242	1	ND		39.3	
12672-29-6	Aroclor-1248	1	ND		39.3	
11097-69-1	Aroclor-1254	1	ND		39.3	
1109-82-5	Aroclor-1260	1	ND		39.3	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:23

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-002
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 26-Mar-97 16:17 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	22.7		19.4	
21725-46-2	Cyanazine	1	ND		19.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:24

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-002
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 9:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		1.97	
319-84-6	alpha-BHC	1	ND		1.97	
319-85-7	beta-BHC	1	ND		1.97	
319-86-9	delta-BHC	1	ND		1.97	
58-89-9	gamma-BHC (Lindane)	1	12.1		1.97	
5103-71-9	alpha-Chlordane	1	ND	N	77.7	
5103-74-2	gamma-Chlordane	1	ND	N	71.9	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.83	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	165	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND	N	88.2	
60-57-1	Dieldrin	1	ND		3.83	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.97	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.83	
1031-07-8	Endosulfan sulfate	1	ND		3.83	
72-20-8	Endrin	1	ND	N	136	
7421-36-3	Endrin aldehyde	1	ND		3.83	
53494-70-5	Endrin ketone	1	ND		3.83	
76-44-8	Heptachlor	1	ND		1.97	
1024-57-3	Heptachlor epoxide	1	ND		1.97	
72-43-5	Methoxychlor	1	39.4		19.4	
8001-35-2	Toxaphene	1	2830		186	
12674-11-2	Aroclor-1016	1	ND		38.6	
11104-28-2	Aroclor-1221	1	ND		77.7	
11141-16-5	Aroclor-1232	1	ND		38.6	
53469-21-9	Aroclor-1242	1	ND		38.6	
12672-29-6	Aroclor-1248	1	ND		38.6	
11097-69-1	Aroclor-1254	1	ND		38.6	
1109-82-5	Aroclor-1260	1	ND		38.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:24

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-003
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 15-Mar-97 3:43 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	228		19.0	
21725-46-2	Cyanazine	1	124		19.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:24

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-003
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 12
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 10-Mar-97 17:05 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	44.0		1.94	
319-84-6	alpha-BHC	1	ND		1.94	
319-85-7	beta-BHC	1	ND		1.94	
319-86-9	delta-BHC	1	6.50		1.94	
58-89-9	gamma-BHC (Lindane)	1	16.4		1.94	
5103-71-9	alpha-Chlordane	1	28.2		1.94	
5103-74-2	gamma-Chlordane	1	24.3		1.94	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.76	
72-55-9	4,4'-DDE (p,p'-DDE)	1	79.2		3.76	
50-29-3	4,4'-DDT (p,p'-DDT)	1	81.3		3.76	
60-57-1	Dieldrin	1	76.8		3.76	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.94	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.76	
1031-07-8	Endosulfan sulfate	1	ND		3.76	
72-20-8	Endrin	1	53.6		3.76	
7421-36-3	Endrin aldehyde	1	61.0		3.76	
53494-70-5	Endrin ketone	1	ND		3.76	
76-44-8	Heptachlor	1	17.0		1.94	
1024-57-3	Heptachlor epoxide	1	ND		1.94	
72-43-5	Methoxychlor	1	ND		19.0	
8001-35-2	Toxaphene	1	3510		182	
12674-11-2	Aroclor-1016	1	ND		38.0	
11104-28-2	Aroclor-1221	1	ND		76.4	
11141-16-5	Aroclor-1232	1	ND		38.0	
53469-21-9	Aroclor-1242	1	ND		38.0	
12672-29-6	Aroclor-1248	1	ND		38.0	
11097-69-1	Aroclor-1254	1	ND		38.0	
1109-82-5	Aroclor-1260	1	ND		38.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-004
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 15-Mar-97 4:13 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	148		18.7	
21725-46-2	Cyanazine	1	124		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-004
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 11
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 10-Mar-97 17:39 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	34.5		1.90	
319-84-6	alpha-BHC	1	ND		1.90	
319-85-7	beta-BHC	1	ND		1.90	
319-86-9	delta-BHC	1	4.26		1.90	
58-89-9	gamma-BHC (Lindane)	1	14.1		1.90	
5103-71-9	alpha-Chlordane	1	31.8		1.90	
5103-74-2	gamma-Chlordane	1	22.5		1.90	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.70	
72-55-9	4,4'-DDE (p,p'-DDE)	1	41.3		3.70	
50-29-3	4,4'-DDT (p,p'-DDT)	1	94.6		3.70	
60-57-1	Dieldrin	1	78.4		3.70	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.90	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.70	
1031-07-8	Endosulfan sulfate	1	ND		3.70	
72-20-8	Endrin	1	59.4		3.70	
7421-36-3	Endrin aldehyde	1	102		3.70	
53494-70-5	Endrin ketone	1	ND		3.70	
76-44-8	Heptachlor	1	14.9		1.90	
1024-57-3	Heptachlor epoxide	1	ND		1.90	
72-43-5	Methoxychlor	1	25.6		18.7	
8001-35-2	Toxaphene	1	2270		179	
12674-11-2	Aroclor-1016	1	ND		37.3	
11104-28-2	Aroclor-1221	1	ND		75.0	
11141-16-5	Aroclor-1232	1	ND		37.3	
53469-21-9	Aroclor-1242	1	ND		37.3	
12672-29-6	Aroclor-1248	1	ND		37.3	
11097-69-1	Aroclor-1254	1	ND		37.3	
1109-82-5	Aroclor-1260	1	ND		37.3	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:24

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-005
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 26-Mar-97 16:47 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:25

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-005
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 9:34 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.04	
319-84-6	alpha-BHC	1	ND		2.04	
319-85-7	beta-BHC	1	ND		2.04	
319-86-9	delta-BHC	1	ND		2.04	
58-89-9	gamma-BHC (Lindane)	1	3.00		2.04	
5103-71-9	alpha-Chlordane	1	ND		2.04	
5103-74-2	gamma-Chlordane	1	ND		2.04	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.96	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.96	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.96	
60-57-1	Dieldrin	1	ND		3.96	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.04	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.96	
1031-07-8	Endosulfan sulfate	1	ND		3.96	
72-20-8	Endrin	1	ND		3.96	
7421-36-3	Endrin aldehyde	1	ND		3.96	
53494-70-5	Endrin ketone	1	ND		3.96	
76-44-8	Heptachlor	1	ND		2.04	
1024-57-3	Heptachlor epoxide	1	ND		2.04	
72-43-5	Methoxychlor	1	ND		20.0	
8001-35-2	Toxaphene	1	ND		192	
12674-11-2	Aroclor-1016	1	ND		40.0	
11104-28-2	Aroclor-1221	1	ND		80.4	
11141-16-5	Aroclor-1232	1	ND		40.0	
53469-21-9	Aroclor-1242	1	ND		40.0	
12672-29-6	Aroclor-1248	1	ND		40.0	
11097-69-1	Aroclor-1254	1	ND		40.0	
1109-82-5	Aroclor-1260	1	ND		40.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-006
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 26-Mar-97 17:17 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: B-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-006
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 10:08 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.02	
319-84-6	alpha-BHC	1	ND		2.02	
319-85-7	beta-BHC	1	ND		2.02	
319-86-9	delta-BHC	1	ND		2.02	
58-89-9	gamma-BHC (Lindane)	1	ND		2.02	
5103-71-9	alpha-Chlordane	1	ND		2.02	
5103-74-2	gamma-Chlordane	1	ND		2.02	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.93	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.93	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.93	
60-57-1	Dieldrin	1	ND		3.93	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.02	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.93	
1031-07-8	Endosulfan sulfate	1	ND		3.93	
72-20-8	Endrin	1	ND		3.93	
7421-36-3	Endrin aldehyde	1	ND		3.93	
53494-70-5	Endrin ketone	1	ND		3.93	
76-44-8	Heptachlor	1	ND		2.02	
1024-57-3	Heptachlor epoxide	1	ND		2.02	
72-43-5	Methoxychlor	1	ND		19.9	
8001-35-2	Toxaphene	1	ND		190	
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-007
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 26-Mar-97 17:46 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-007
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 10:43 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	ND		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4.4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4.4'-DDE (p,p'-DDE)	1	ND	N	14.6	
50-29-3	4.4'-DDT (p,p'-DDT)	1	ND	N	7.32	
60-57-1	Dieldrin	1	ND	N	8.54	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	ND		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	ND		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-008
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 7:18 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.0	
319-84-6	alpha-BHC	1	ND		2.0	
319-85-7	beta-BHC	1	ND		2.0	
319-86-9	delta-BHC	1	ND		2.0	
58-89-9	gamma-BHC (Lindane)	1	ND		2.0	
5103-71-9	alpha-Chlordane	1	ND		2.0	
5103-74-2	gamma-Chlordane	1	ND		2.0	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.9	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.9	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.9	
60-57-1	Dieldrin	1	ND		3.9	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.0	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.9	
1031-07-8	Endosulfan sulfate	1	ND		3.9	
72-20-8	Endrin	1	ND		3.9	
7421-36-3	Endrin aldehyde	1	ND		3.9	
53494-70-5	Endrin ketone	1	ND		3.9	
76-44-8	Heptachlor	1	ND		2.0	
1024-57-3	Heptachlor epoxide	1	ND		2.0	
72-43-5	Methoxychlor	1	ND		20.	
8001-35-2	Toxaphene	1	ND		199	

21 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:26

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-008
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 7:18 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-008
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 26-Mar-97 18:16 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-009
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 16-Mar-97 22:37 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	8850	D2	985	
21725-46-2	Cyanazine	50	ND	D2	985	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-009
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 11:17 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.01	
319-84-6	alpha-BHC	1	ND		2.01	
319-85-7	beta-BHC	1	ND		2.01	
319-86-9	delta-BHC	1	2.12		2.01	
58-89-9	gamma-BHC (Lindane)	1	ND		2.01	
5103-71-9	alpha-Chlordane	1	ND		2.01	
5103-74-2	gamma-Chlordane	1	ND		2.01	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.89	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	4.72	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.89	
60-57-1	Dieldrin	1	ND		3.89	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.01	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.89	
1031-07-8	Endosulfan sulfate	1	ND		3.89	
72-20-8	Endrin	1	ND		3.89	
7421-36-3	Endrin aldehyde	1	ND		3.89	
53494-70-5	Endrin ketone	1	ND		3.89	
76-44-8	Heptachlor	1	ND		2.01	
1024-57-3	Heptachlor epoxide	1	ND		2.01	
72-43-5	Methoxychlor	1	ND		19.7	
8001-35-2	Toxaphene	1	195		189	
12674-11-2	Aroclor-1016	1	ND		39.3	
11104-28-2	Aroclor-1221	1	ND		79.1	
11141-16-5	Aroclor-1232	1	ND		39.3	
53469-21-9	Aroclor-1242	1	ND		39.3	
12672-29-6	Aroclor-1248	1	ND		39.3	
11097-69-1	Aroclor-1254	1	ND		39.3	
1109-82-5	Aroclor-1260	1	ND		39.3	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-010
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 17-Mar-97 1:34 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	8380	D2	990	
21725-46-2	Cyanazine	50	ND	D2	990	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-010
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 11:51 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.02	
319-84-6	alpha-BHC	1	ND		2.02	
319-85-7	beta-BHC	1	ND		2.02	
319-86-9	delta-BHC	1	ND		2.02	
58-89-9	gamma-BHC (Lindane)	1	7.62		2.02	
5103-71-9	alpha-Chlordane	1	ND		2.02	
5103-74-2	gamma-Chlordane	1	5.71		2.02	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND	N	4.76	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	46.4	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND	N	19.0	
60-57-1	Dieldrin	1	ND		3.93	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.02	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.93	
1031-07-8	Endosulfan sulfate	1	ND		3.93	
72-20-8	Endrin	1	ND		3.93	
7421-36-3	Endrin aldehyde	1	ND		3.93	
53494-70-5	Endrin ketone	1	ND		3.93	
76-44-8	Heptachlor	1	ND		2.02	
1024-57-3	Heptachlor epoxide	1	ND		2.02	
72-43-5	Methoxychlor	1	ND		19.9	
8001-35-2	Toxaphene	1	583		190	
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:26

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-011
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 26-Mar-97 18:45 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	82.2		19.9	
21725-46-2	Cyanazine	1	32.4		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-011
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 12:25 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.02	
319-84-6	alpha-BHC	1	ND		2.02	
319-85-7	beta-BHC	1	ND		2.02	
319-86-9	delta-BHC	1	ND		2.02	
58-89-9	gamma-BHC (Lindane)	1	ND		2.02	
5103-71-9	alpha-Chlordane	1	ND		2.02	
5103-74-2	gamma-Chlordane	1	ND		2.02	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.93	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.93	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.93	
60-57-1	Dieldrin	1	ND		3.93	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.02	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.93	
1031-07-8	Endosulfan sulfate	1	ND		3.93	
72-20-8	Endrin	1	ND		3.93	
7421-36-3	Endrin aldehyde	1	ND		3.93	
53494-70-5	Endrin ketone	1	ND		3.93	
76-44-8	Heptachlor	1	ND		2.02	
1024-57-3	Heptachlor epoxide	1	ND		2.02	
72-43-5	Methoxychlor	1	ND		19.9	
8001-35-2	Toxaphene	1	ND		190	
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-012
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 21:44 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: E-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-012
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 12:59 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	ND		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		4.03	
60-57-1	Dieldrin	1	ND		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	ND		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	ND		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-013
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 22:14 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-013
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 15:17 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	ND		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		4.03	
60-57-1	Dieldrin	1	ND		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	ND		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	ND		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-014
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 22:44 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: F-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-014
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 15:52 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.04	
319-84-6	alpha-BHC	1	ND		2.04	
319-85-7	beta-BHC	1	ND		2.04	
319-86-9	delta-BHC	1	ND		2.04	
58-89-9	gamma-BHC (Lindane)	1	ND		2.04	
5103-71-9	alpha-Chlordane	1	ND		2.04	
5103-74-2	gamma-Chlordane	1	ND		2.04	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.96	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.96	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.96	
60-57-1	Dieldrin	1	ND		3.96	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.04	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.96	
1031-07-8	Endosulfan sulfate	1	ND		3.96	
72-20-8	Endrin	1	ND		3.96	
7421-36-3	Endrin aldehyde	1	ND		3.96	
53494-70-5	Endrin ketone	1	ND		3.96	
76-44-8	Heptachlor	1	ND		2.04	
1024-57-3	Heptachlor epoxide	1	ND		2.04	
72-43-5	Methoxychlor	1	ND		20.0	
8001-35-2	Toxaphene	1	ND		192	
12674-11-2	Aroclor-1016	1	ND		40.0	
11104-28-2	Aroclor-1221	1	ND		80.4	
11141-16-5	Aroclor-1232	1	ND		40.0	
53469-21-9	Aroclor-1242	1	ND		40.0	
12672-29-6	Aroclor-1248	1	ND		40.0	
11097-69-1	Aroclor-1254	1	ND		40.0	
1109-82-5	Aroclor-1260	1	ND		40.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-015
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 7:52 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	25.		2.1	
319-84-6	alpha-BHC	1	ND		2.1	
319-85-7	beta-BHC	1	ND		2.1	
319-86-9	delta-BHC	1	ND		2.1	
58-89-9	gamma-BHC (Lindane)	1	18.		2.1	
5103-71-9	alpha-Chlordane	1	ND		2.1	
5103-74-2	gamma-Chlordane	1	ND		2.1	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.1	
72-55-9	4,4'-DDE (p,p'-DDE)	1	11.		4.1	
50-29-3	4,4'-DDT (p,p'-DDT)	1	45.		4.1	
60-57-1	Dieldrin	1	43.		4.1	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.1	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.1	
1031-07-8	Endosulfan sulfate	1	ND		4.1	
72-20-8	Endrin	1	47.		4.1	
7421-36-3	Endrin aldehyde	1	ND		4.1	
53494-70-5	Endrin ketone	1	ND		4.1	
76-44-8	Heptachlor	1	18.		2.1	
1024-57-3	Heptachlor epoxide	1	ND		2.1	
72-43-5	Methoxychlor	1	ND		21.	
8001-35-2	Toxaphene	1	ND		205	

21 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:28

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-015
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 7:52 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
12674-11-2	Aroclor-1016	1	ND		41.0	
11104-28-2	Aroclor-1221	1	ND		82.4	
11141-16-5	Aroclor-1232	1	ND		41.0	
53469-21-9	Aroclor-1242	1	ND		41.0	
12672-29-6	Aroclor-1248	1	ND		41.0	
11097-69-1	Aroclor-1254	1	ND		41.0	
1109-82-5	Aroclor-1260	1	ND		41.0	

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:28

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-015
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 14-Mar-97 20:49 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	189		20.5	
21725-46-2	Cyanazine	1	127		20.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:28

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-016
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 8:26 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	23.		2.0	
319-84-6	alpha-BHC	1	ND		2.0	
319-85-7	beta-BHC	1	ND		2.0	
319-86-9	delta-BHC	1	ND		2.0	
58-89-9	gamma-BHC (Lindane)	1	19.		2.0	
5103-71-9	alpha-Chlordane	1	ND		2.0	
5103-74-2	gamma-Chlordane	1	ND		2.0	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.9	
72-55-9	4,4'-DDE (p,p'-DDE)	1	5.5		3.9	
50-29-3	4,4'-DDT (p,p'-DDT)	1	35.		3.9	
60-57-1	Dieldrin	1	33.		3.9	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.0	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.9	
1031-07-8	Endosulfan sulfate	1	ND		3.9	
72-20-8	Endrin	1	37.		3.9	
7421-36-3	Endrin aldehyde	1	ND		3.9	
53494-70-5	Endrin ketone	1	ND		3.9	
76-44-8	Heptachlor	1	17.		2.0	
1024-57-3	Heptachlor epoxide	1	ND		2.0	
72-43-5	Methoxychlor	1	ND		20.	
8001-35-2	Toxaphene	1	ND		199	

21 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:28

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-016
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 8:26 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:28

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-016
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 14-Mar-97 21:18 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	201		19.9	
21725-46-2	Cyanazine	1	144		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:28

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-066
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 12
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 12-Mar-97 7:46 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		1.94	
319-84-6	alpha-BHC	1	ND		1.94	
319-85-7	beta-BHC	1	ND		1.94	
319-86-9	delta-BHC	1	7.30		1.94	
58-89-9	gamma-BHC (Lindane)	1	ND		1.94	
5103-71-9	alpha-Chlordane	1	ND	N	39.8	
5103-74-2	gamma-Chlordane	1	ND	N	36.8	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.76	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	48.6	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.76	
60-57-1	Dieldrin	1	ND		3.76	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.94	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	254	
1031-07-8	Endosulfan sulfate	1	ND		3.76	
72-20-8	Endrin	1	ND		3.76	
7421-36-3	Endrin aldehyde	1	ND		3.76	
53494-70-5	Endrin ketone	1	ND		3.76	
76-44-8	Heptachlor	1	ND		1.94	
1024-57-3	Heptachlor epoxide	1	ND		1.94	
72-43-5	Methoxychlor	1	ND		19.0	
8001-35-2	Toxaphene	1	5880		182	
12674-11-2	Aroclor-1016	1	ND		38.0	
11104-28-2	Aroclor-1221	1	ND		76.4	
11141-16-5	Aroclor-1232	1	ND		38.0	
53469-21-9	Aroclor-1242	1	ND		38.0	
12672-29-6	Aroclor-1248	1	ND		38.0	
11097-69-1	Aroclor-1254	1	ND		38.0	
1109-82-5	Aroclor-1260	1	ND		38.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-067
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 11
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 12-Mar-97 8:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		1.90	
319-84-6	alpha-BHC	1	ND		1.90	
319-85-7	beta-BHC	1	ND		1:90	
319-86-9	delta-BHC	1	6.94		1.90	
58-89-9	gamma-BHC (Lindane)	1	ND		1.90	
5103-71-9	alpha-Chlordane	1	ND	N	36.7	
5103-74-2	gamma-Chlordane	1	ND	N	52.6	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.70	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	56.6	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.70	
60-57-1	Dieldrin	1	ND		3.70	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.90	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	324	
1031-07-8	Endosulfan sulfate	1	ND		3.70	
72-20-8	Endrin	1	ND		3.70	
7421-36-3	Endrin aldehyde	1	ND		3.70	
53494-70-5	Endrin ketone	1	ND		3.70	
76-44-8	Heptachlor	1	ND	N	2.58	
1024-57-3	Heptachlor epoxide	1	ND		1.90	
72-43-5	Methoxychlor	1	129		18.7	
8001-35-2	Toxaphene	1	5770		179	
12674-11-2	Aroclor-1016	1	ND		37.3	
11104-28-2	Aroclor-1221	1	ND		75.0	
11141-16-5	Aroclor-1232	1	ND		37.3	
53469-21-9	Aroclor-1242	1	ND		37.3	
12672-29-6	Aroclor-1248	1	ND		37.3	
11097-69-1	Aroclor-1254	1	ND		37.3	
1109-82-5	Aroclor-1260	1	ND		37.3	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
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Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-068
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 19
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 12-Mar-97 10:36 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.09	
319-84-6	alpha-BHC	1	ND		2.09	
319-85-7	beta-BHC	1	ND		2.09	
319-86-9	delta-BHC	1	ND		2.09	
58-89-9	gamma-BHC (Lindane)	1	ND		2.09	
5103-71-9	alpha-Chlordane	1	ND	N	11.8	
5103-74-2	gamma-Chlordane	1	ND		2.09	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.06	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.06	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		4.06	
60-57-1	Dieldrin	1	ND		4.06	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND	N	8.36	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	122	
1031-07-8	Endosulfan sulfate	1	ND		4.06	
72-20-8	Endrin	1	ND		4.06	
7421-36-3	Endrin aldehyde	1	ND	N	140	
53494-70-5	Endrin ketone	1	ND	N	13.2	
76-44-8	Heptachlor	1	ND		2.09	
1024-57-3	Heptachlor epoxide	1	ND	N	4.06	
72-43-5	Methoxychlor	1	ND		20.5	
8001-35-2	Toxaphene	1	4540		197	
12674-11-2	Aroclor-1016	1	ND		41.0	
11104-28-2	Aroclor-1221	1	ND		82.4	
11141-16-5	Aroclor-1232	1	ND		41.0	
53469-21-9	Aroclor-1242	1	ND		41.0	
12672-29-6	Aroclor-1248	1	ND		41.0	
11097-69-1	Aroclor-1254	1	ND		41.0	
1109-82-5	Aroclor-1260	1	ND		41.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-069
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 22-Feb-97
Analyzed: 12-Mar-97 11:10 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.02	
319-84-6	alpha-BHC	1	2.14		2.02	
319-85-7	beta-BHC	1	ND		2.02	
319-86-9	delta-BHC	1	ND		2.02	
58-89-9	gamma-BHC (Lindane)	1	ND		2.02	
5103-71-9	alpha-Chlordane	1	ND	N	9.64	
5103-74-2	gamma-Chlordane	1	ND		2.02	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.93	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.93	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.93	
60-57-1	Dieldrin	1	ND		3.93	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND	N	8.57	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	131	
1031-07-8	Endosulfan sulfate	1	ND		3.93	
72-20-8	Endrin	1	ND		3.93	
7421-36-3	Endrin aldehyde	1	ND	N	144	
53494-70-5	Endrin ketone	1	ND	N	15.2	
76-44-8	Heptachlor	1	ND		2.02	
1024-57-3	Heptachlor epoxide	1	ND		2.02	
72-43-5	Methoxychlor	1	ND		19.9	
8001-35-2	Toxaphene	1	4660		190	
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

SECTION 1-3

A-1-B THROUGH F-2-B
INORGANICS

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: A-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-001
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 15

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	5750		mg/kg	47.2	21-Feb-97	07-Mar-97	17:42	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.2	21-Feb-97	07-Mar-97	17:42	KJR	
Arsenic	CLP	21404	1	11.8		mg/kg	2.36	21-Feb-97	07-Mar-97	17:42	KJR	
Barium	CLP	21404	1	95.6		mg/kg	47.2	21-Feb-97	07-Mar-97	17:42	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.18	21-Feb-97	07-Mar-97	17:42	KJR	
Cadmium	CLP	21404	1	1.96		mg/kg	1.18	21-Feb-97	07-Mar-97	17:42	KJR	
Calcium	CLP	21404	1	42300		mg/kg	1180	21-Feb-97	07-Mar-97	17:42	KJR	
Chromium	CLP	21404	1	22.9		mg/kg	2.36	21-Feb-97	07-Mar-97	17:42	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.8	21-Feb-97	07-Mar-97	17:42	KJR	
Copper	CLP	21404	1	13.6		mg/kg	5.90	21-Feb-97	07-Mar-97	17:42	KJR	
Iron	CLP	21404	1	65100		mg/kg	23.6	21-Feb-97	07-Mar-97	17:42	KJR	
Lead	CLP	21404	1	13.3		mg/kg	0.708	21-Feb-97	07-Mar-97	17:42	KJR	
Magnesium	CLP	21404	1	11300		mg/kg	1180	21-Feb-97	07-Mar-97	17:42	KJR	
Manganese	CLP	21404	1	640		mg/kg	3.54	21-Feb-97	07-Mar-97	17:42	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.118	27-Jan-97	28-Feb-97	17:53	CJH	
Nickel	CLP	21404	1	12.4		mg/kg	9.44	21-Feb-97	07-Mar-97	17:42	KJR	
Potassium	CLP	21404	1	1430		mg/kg	1180	21-Feb-97	07-Mar-97	17:42	KJR	
Selenium	CLP	21404	1	4.09		mg/kg	1.18	21-Feb-97	07-Mar-97	17:42	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.36	21-Feb-97	07-Mar-97	17:42	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1180	21-Feb-97	07-Mar-97	17:42	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.36	21-Feb-97	07-Mar-97	17:42	KJR	
Vanadium	CLP	21404	1	17.9		mg/kg	11.8	21-Feb-97	07-Mar-97	17:42	KJR	
Zinc	CLP	21404	1	95.0		mg/kg	4.72	21-Feb-97	07-Mar-97	17:42	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: A-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-002
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 14

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	5540		mg/kg	46.4	21-Feb-97	07-Mar-97	18:05	KJR	
Antimony	CLP	21404	1	ND		mg/kg	13.9	21-Feb-97	07-Mar-97	18:05	KJR	
Arsenic	CLP	21404	1	5.66		mg/kg	2.32	21-Feb-97	07-Mar-97	18:05	KJR	
Barium	CLP	21404	1	81.2		mg/kg	46.4	21-Feb-97	07-Mar-97	18:05	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.16	21-Feb-97	07-Mar-97	18:05	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.16	21-Feb-97	07-Mar-97	18:05	KJR	
Calcium	CLP	21404	1	19500		mg/kg	1160	21-Feb-97	07-Mar-97	18:05	KJR	
Chromium	CLP	21404	1	37.6		mg/kg	2.32	21-Feb-97	07-Mar-97	18:05	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.6	21-Feb-97	07-Mar-97	18:05	KJR	
Copper	CLP	21404	1	11.9		mg/kg	5.80	21-Feb-97	07-Mar-97	18:05	KJR	
Iron	CLP	21404	1	13100		mg/kg	23.2	21-Feb-97	07-Mar-97	18:05	KJR	
Lead	CLP	21404	1	12.2		mg/kg	0.696	21-Feb-97	07-Mar-97	18:05	KJR	
Magnesium	CLP	21404	1	10300		mg/kg	1160	21-Feb-97	07-Mar-97	18:05	KJR	
Manganese	CLP	21404	1	408		mg/kg	3.48	21-Feb-97	07-Mar-97	18:05	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.116	27-Jan-97	28-Feb-97	18:06	CJH	
Nickel	CLP	21404	1	12.1		mg/kg	9.28	21-Feb-97	07-Mar-97	18:05	KJR	
Potassium	CLP	21404	1	ND		mg/kg	1160	21-Feb-97	07-Mar-97	18:05	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.16	21-Feb-97	07-Mar-97	18:05	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.32	21-Feb-97	07-Mar-97	18:05	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1160	21-Feb-97	07-Mar-97	18:05	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.32	21-Feb-97	07-Mar-97	18:05	KJR	
Vanadium	CLP	21404	1	18.6		mg/kg	11.6	21-Feb-97	07-Mar-97	18:05	KJR	
Zinc	CLP	21404	1	52.3		mg/kg	4.64	21-Feb-97	07-Mar-97	18:05	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: A-1-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-003MS
Episode: GEQ
Prep Factor: 1.00
Description: MATRIX SPIKE
Matrix: Soil
%Moisture: 12

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	6810		mg/kg	45.6	21-Feb-97	07-Mar-97	17:48	KJR	
Antimony	CLP	21404	1	78.6		mg/kg	13.7	21-Feb-97	07-Mar-97	17:48	KJR	
Arsenic	CLP	21404	1	423		mg/kg	2.28	21-Feb-97	07-Mar-97	17:48	KJR	
Barium	CLP	21404	1	510		mg/kg	45.6	21-Feb-97	07-Mar-97	17:48	KJR	
Beryllium	CLP	21404	1	10.4		mg/kg	1.14	21-Feb-97	07-Mar-97	17:48	KJR	
Cadmium	CLP	21404	1	10.9		mg/kg	1.14	21-Feb-97	07-Mar-97	17:48	KJR	
Calcium	CLP	21404	1	44700		mg/kg	1140	21-Feb-97	07-Mar-97	17:48	KJR	
Chromium	CLP	21404	1	59.1		mg/kg	2.28	21-Feb-97	07-Mar-97	17:48	KJR	
Cobalt	CLP	21404	1	104		mg/kg	11.4	21-Feb-97	07-Mar-97	17:48	KJR	
Copper	CLP	21404	1	62.1		mg/kg	5.70	21-Feb-97	07-Mar-97	17:48	KJR	
Iron	CLP	21404	1	15200		mg/kg	22.8	21-Feb-97	07-Mar-97	17:48	KJR	
Lead	CLP	21404	1	114		mg/kg	0.684	21-Feb-97	07-Mar-97	17:48	KJR	
Magnesium	CLP	21404	1	11400		mg/kg	1140	21-Feb-97	07-Mar-97	17:48	KJR	
Manganese	CLP	21404	1	600		mg/kg	3.42	21-Feb-97	07-Mar-97	17:48	KJR	
Mercury	CLP	21379	1	0.576		mg/kg	0.114	27-Jan-97	28-Feb-97	17:55	CJH	
Nickel	CLP	21404	1	112		mg/kg	9.12	21-Feb-97	07-Mar-97	17:48	KJR	
Potassium	CLP	21404	1	1580		mg/kg	1140	21-Feb-97	07-Mar-97	17:48	KJR	
Selenium	CLP	21404	1	409		mg/kg	1.14	21-Feb-97	07-Mar-97	17:48	KJR	
Silver	CLP	21404	1	11.5		mg/kg	2.28	21-Feb-97	07-Mar-97	17:48	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1140	21-Feb-97	07-Mar-97	17:48	KJR	
Thallium	CLP	21404	1	388		mg/kg	2.28	21-Feb-97	07-Mar-97	17:48	KJR	
Vanadium	CLP	21404	1	130		mg/kg	11.4	21-Feb-97	07-Mar-97	17:48	KJR	
Zinc	CLP	21404	1	176		mg/kg	4.56	21-Feb-97	07-Mar-97	17:48	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: A-1-MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-004MSD
Episode: GEQ
Prep Factor: 1.00
Description: MATRIX SPIKE DUP
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	6980		mg/kg	44.8	21-Feb-97	07-Mar-97	17:53	KJR	
Antimony	CLP	21404	1	69.0		mg/kg	13.4	21-Feb-97	07-Mar-97	17:53	KJR	
Arsenic	CLP	21404	1	405		mg/kg	2.24	21-Feb-97	07-Mar-97	17:53	KJR	
Barium	CLP	21404	1	491		mg/kg	44.8	21-Feb-97	07-Mar-97	17:53	KJR	
Beryllium	CLP	21404	1	10.0		mg/kg	1.12	21-Feb-97	07-Mar-97	17:53	KJR	
Cadmium	CLP	21404	1	10.5		mg/kg	1.12	21-Feb-97	07-Mar-97	17:53	KJR	
Calcium	CLP	21404	1	45100		mg/kg	1120	21-Feb-97	07-Mar-97	17:53	KJR	
Chromium	CLP	21404	1	63.9		mg/kg	2.24	21-Feb-97	07-Mar-97	17:53	KJR	
Cobalt	CLP	21404	1	100		mg/kg	11.2	21-Feb-97	07-Mar-97	17:53	KJR	
Copper	CLP	21404	1	62.1		mg/kg	5.60	21-Feb-97	07-Mar-97	17:53	KJR	
Iron	CLP	21404	1	17400		mg/kg	22.4	21-Feb-97	07-Mar-97	17:53	KJR	
Lead	CLP	21404	1	111		mg/kg	0.672	21-Feb-97	07-Mar-97	17:53	KJR	
Magnesium	CLP	21404	1	11200		mg/kg	1120	21-Feb-97	07-Mar-97	17:53	KJR	
Manganese	CLP	21404	1	586		mg/kg	3.36	21-Feb-97	07-Mar-97	17:53	KJR	
Mercury	CLP	21379	1	0.515		mg/kg	0.112	27-Jan-97	28-Feb-97	17:58	CJH	
Nickel	CLP	21404	1	109		mg/kg	8.96	21-Feb-97	07-Mar-97	17:53	KJR	
Potassium	CLP	21404	1	1600		mg/kg	1120	21-Feb-97	07-Mar-97	17:53	KJR	
Selenium	CLP	21404	1	392		mg/kg	1.12	21-Feb-97	07-Mar-97	17:53	KJR	
Silver	CLP	21404	1	10.9		mg/kg	2.24	21-Feb-97	07-Mar-97	17:53	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1120	21-Feb-97	07-Mar-97	17:53	KJR	
Thallium	CLP	21404	1	369		mg/kg	2.24	21-Feb-97	07-Mar-97	17:53	KJR	
Vanadium	CLP	21404	1	127		mg/kg	11.2	21-Feb-97	07-Mar-97	17:53	KJR	
Zinc	CLP	21404	1	177		mg/kg	4.48	21-Feb-97	07-Mar-97	17:53	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-005
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	7890		mg/kg	48.0	21-Feb-97	07-Mar-97	20:36	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.4	21-Feb-97	07-Mar-97	20:36	KJR	
Arsenic	CLP	21405	1	11.1		mg/kg	2.40	21-Feb-97	07-Mar-97	20:36	KJR	
Barium	CLP	21405	1	139		mg/kg	48.0	21-Feb-97	07-Mar-97	20:36	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	20:36	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	20:36	KJR	
Calcium	CLP	21405	1	29900		mg/kg	1200	21-Feb-97	07-Mar-97	20:36	KJR	
Chromium	CLP	21405	1	12.6		mg/kg	2.40	21-Feb-97	07-Mar-97	20:36	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	12.0	21-Feb-97	07-Mar-97	20:36	KJR	
Copper	CLP	21405	1	17.7		mg/kg	6.00	21-Feb-97	07-Mar-97	20:36	KJR	
Iron	CLP	21405	1	21900		mg/kg	24.0	21-Feb-97	07-Mar-97	20:36	KJR	
Lead	CLP	21405	1	10.9		mg/kg	0.720	21-Feb-97	07-Mar-97	20:36	KJR	
Magnesium	CLP	21405	1	18300		mg/kg	1200	21-Feb-97	07-Mar-97	20:36	KJR	
Manganese	CLP	21405	1	751		mg/kg	3.60	21-Feb-97	07-Mar-97	20:36	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.120	27-Jan-97	28-Feb-97	17:21	CJH	
Nickel	CLP	21405	1	22.5		mg/kg	9.60	21-Feb-97	07-Mar-97	20:36	KJR	
Potassium	CLP	21405	1	1850		mg/kg	1200	21-Feb-97	07-Mar-97	20:36	KJR	
Selenium	CLP	21405	1	2.40		mg/kg	1.20	21-Feb-97	07-Mar-97	20:36	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.40	21-Feb-97	07-Mar-97	20:36	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1200	21-Feb-97	07-Mar-97	20:36	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.40	21-Feb-97	07-Mar-97	20:36	KJR	
Vanadium	CLP	21405	1	28.5		mg/kg	12.0	21-Feb-97	07-Mar-97	20:36	KJR	
Zinc	CLP	21405	1	61.4		mg/kg	4.80	21-Feb-97	07-Mar-97	20:36	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-006
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	7000		mg/kg	47.6	21-Feb-97	07-Mar-97	20:41	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.3	21-Feb-97	07-Mar-97	20:41	KJR	
Arsenic	CLP	21405	1	10.3		mg/kg	2.38	21-Feb-97	07-Mar-97	20:41	KJR	
Barium	CLP	21405	1	141		mg/kg	47.6	21-Feb-97	07-Mar-97	20:41	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	20:41	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	20:41	KJR	
Calcium	CLP	21405	1	44000		mg/kg	1190	21-Feb-97	07-Mar-97	20:41	KJR	
Chromium	CLP	21405	1	11.5		mg/kg	2.38	21-Feb-97	07-Mar-97	20:41	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	11.9	21-Feb-97	07-Mar-97	20:41	KJR	
Copper	CLP	21405	1	16.2		mg/kg	5.95	21-Feb-97	07-Mar-97	20:41	KJR	
Iron	CLP	21405	1	19800		mg/kg	23.8	21-Feb-97	07-Mar-97	20:41	KJR	
Lead	CLP	21405	1	10.0		mg/kg	0.714	21-Feb-97	07-Mar-97	20:41	KJR	
Magnesium	CLP	21405	1	23300		mg/kg	1190	21-Feb-97	07-Mar-97	20:41	KJR	
Manganese	CLP	21405	1	783		mg/kg	3.57	21-Feb-97	07-Mar-97	20:41	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.119	27-Jan-97	28-Feb-97	17:23	CJH	
Nickel	CLP	21405	1	20.4		mg/kg	9.52	21-Feb-97	07-Mar-97	20:41	KJR	
Potassium	CLP	21405	1	1800		mg/kg	1190	21-Feb-97	07-Mar-97	20:41	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	20:41	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	20:41	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	20:41	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	20:41	KJR	
Vanadium	CLP	21405	1	24.4		mg/kg	11.9	21-Feb-97	07-Mar-97	20:41	KJR	
Zinc	CLP	21405	1	55.7		mg/kg	4.76	21-Feb-97	07-Mar-97	20:41	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: C-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-007
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	6160		mg/kg	48.8	21-Feb-97	07-Mar-97	20:46	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.6	21-Feb-97	07-Mar-97	20:46	KJR	
Arsenic	CLP	21405	1	5.12		mg/kg	2.44	21-Feb-97	07-Mar-97	20:46	KJR	
Barium	CLP	21405	1	67.2		mg/kg	48.8	21-Feb-97	07-Mar-97	20:46	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	20:46	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	20:46	KJR	
Calcium	CLP	21405	1	16500		mg/kg	1220	21-Feb-97	07-Mar-97	20:46	KJR	
Chromium	CLP	21405	1	12.4		mg/kg	2.44	21-Feb-97	07-Mar-97	20:46	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	12.2	21-Feb-97	07-Mar-97	20:46	KJR	
Copper	CLP	21405	1	9.48		mg/kg	6.10	21-Feb-97	07-Mar-97	20:46	KJR	
Iron	CLP	21405	1	11700		mg/kg	24.4	21-Feb-97	07-Mar-97	20:46	KJR	
Lead	CLP	21405	1	7.76		mg/kg	0.732	21-Feb-97	07-Mar-97	20:46	KJR	
Magnesium	CLP	21405	1	8980		mg/kg	1220	21-Feb-97	07-Mar-97	20:46	KJR	
Manganese	CLP	21405	1	311		mg/kg	3.66	21-Feb-97	07-Mar-97	20:46	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.122	27-Jan-97	28-Feb-97	17:25	CJH	
Nickel	CLP	21405	1	11.6		mg/kg	9.76	21-Feb-97	07-Mar-97	20:46	KJR	
Potassium	CLP	21405	1	ND		mg/kg	1220	21-Feb-97	07-Mar-97	20:46	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	20:46	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	20:46	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1220	21-Feb-97	07-Mar-97	20:46	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	20:46	KJR	
Vanadium	CLP	21405	1	20.1		mg/kg	12.2	21-Feb-97	07-Mar-97	20:46	KJR	
Zinc	CLP	21405	1	33.6		mg/kg	4.88	21-Feb-97	07-Mar-97	20:46	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: C-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-008
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	6500		mg/kg	47.6	21-Feb-97	07-Mar-97	20:15	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.3	21-Feb-97	07-Mar-97	20:15	KJR	
Arsenic	CLP	21405	1	8.47		mg/kg	2.38	21-Feb-97	07-Mar-97	20:15	KJR	
Barium	CLP	21405	1	125		mg/kg	47.6	21-Feb-97	07-Mar-97	20:15	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	20:15	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	20:15	KJR	
Calcium	CLP	21405	1	36100		mg/kg	1190	21-Feb-97	07-Mar-97	20:15	KJR	
Chromium	CLP	21405	1	10.8		mg/kg	2.38	21-Feb-97	07-Mar-97	20:15	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	11.9	21-Feb-97	07-Mar-97	20:15	KJR	
Copper	CLP	21405	1	14.2		mg/kg	5.95	21-Feb-97	07-Mar-97	20:15	KJR	
Iron	CLP	21405	1	17300		mg/kg	23.8	21-Feb-97	07-Mar-97	20:15	KJR	
Lead	CLP	21405	1	8.84		mg/kg	0.714	21-Feb-97	07-Mar-97	20:15	KJR	
Magnesium	CLP	21405	1	20100		mg/kg	1190	21-Feb-97	07-Mar-97	20:15	KJR	
Manganese	CLP	21405	1	691		mg/kg	3.57	21-Feb-97	07-Mar-97	20:15	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.119	27-Jan-97	28-Feb-97	17:13	CJH	
Nickel	CLP	21405	1	20.5		mg/kg	9.52	21-Feb-97	07-Mar-97	20:15	KJR	
Potassium	CLP	21405	1	1640		mg/kg	1190	21-Feb-97	07-Mar-97	20:15	KJR	
Selenium	CLP	21405	1	1.53		mg/kg	1.19	21-Feb-97	07-Mar-97	20:15	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	20:15	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	20:15	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	20:15	KJR	
Vanadium	CLP	21405	1	23.3		mg/kg	11.9	21-Feb-97	07-Mar-97	20:15	KJR	
Zinc	CLP	21405	1	53.2		mg/kg	4.76	21-Feb-97	07-Mar-97	20:15	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: D-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-009
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 15

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	8140		mg/kg	47.2	21-Feb-97	07-Mar-97	20:52	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.2	21-Feb-97	07-Mar-97	20:52	KJR	
Arsenic	CLP	21405	1	12.5		mg/kg	2.36	21-Feb-97	07-Mar-97	20:52	KJR	
Barium	CLP	21405	1	215		mg/kg	47.2	21-Feb-97	07-Mar-97	20:52	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.18	21-Feb-97	07-Mar-97	20:52	KJR	
Cadmium	CLP	21405	1	2.34		mg/kg	1.18	21-Feb-97	07-Mar-97	20:52	KJR	
Calcium	CLP	21405	1	56900		mg/kg	1180	21-Feb-97	07-Mar-97	20:52	KJR	
Chromium	CLP	21405	1	33.9		mg/kg	2.36	21-Feb-97	07-Mar-97	20:52	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	11.8	21-Feb-97	07-Mar-97	20:52	KJR	
Copper	CLP	21405	1	55.1		mg/kg	5.90	21-Feb-97	07-Mar-97	20:52	KJR	
Iron	CLP	21405	1	85200		mg/kg	23.6	21-Feb-97	07-Mar-97	20:52	KJR	
Lead	CLP	21405	1	39.8		mg/kg	0.708	21-Feb-97	07-Mar-97	20:52	KJR	
Magnesium	CLP	21405	1	3600		mg/kg	1180	21-Feb-97	07-Mar-97	20:52	KJR	
Manganese	CLP	21405	1	890		mg/kg	3.54	21-Feb-97	07-Mar-97	20:52	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.118	27-Jan-97	28-Feb-97	17:28	CJH	
Nickel	CLP	21405	1	33.9		mg/kg	9.44	21-Feb-97	07-Mar-97	20:52	KJR	
Potassium	CLP	21405	1	1660		mg/kg	1180	21-Feb-97	07-Mar-97	20:52	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.18	21-Feb-97	07-Mar-97	20:52	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.36	21-Feb-97	07-Mar-97	20:52	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1180	21-Feb-97	07-Mar-97	20:52	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.36	21-Feb-97	07-Mar-97	20:52	KJR	
Vanadium	CLP	21405	1	16.7		mg/kg	11.8	21-Feb-97	07-Mar-97	20:52	KJR	
Zinc	CLP	21405	1	89.0		mg/kg	4.72	21-Feb-97	07-Mar-97	20:52	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: D-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-010
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	6310		mg/kg	47.6	21-Feb-97	07-Mar-97	21:08	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.3	21-Feb-97	07-Mar-97	21:08	KJR	
Arsenic	CLP	21405	1	5.14		mg/kg	2.38	21-Feb-97	07-Mar-97	21:08	KJR	
Barium	CLP	21405	1	93.2		mg/kg	47.6	21-Feb-97	07-Mar-97	21:08	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	21:08	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	21:08	KJR	
Calcium	CLP	21405	1	20700		mg/kg	1190	21-Feb-97	07-Mar-97	21:08	KJR	
Chromium	CLP	21405	1	64.3		mg/kg	2.38	21-Feb-97	07-Mar-97	21:08	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	11.9	21-Feb-97	07-Mar-97	21:08	KJR	
Copper	CLP	21405	1	11.9		mg/kg	5.95	21-Feb-97	07-Mar-97	21:08	KJR	
Iron	CLP	21405	1	12700		mg/kg	23.8	21-Feb-97	07-Mar-97	21:08	KJR	
Lead	CLP	21405	1	16.7		mg/kg	0.714	21-Feb-97	07-Mar-97	21:08	KJR	
Magnesium	CLP	21405	1	8510		mg/kg	1190	21-Feb-97	07-Mar-97	21:08	KJR	
Manganese	CLP	21405	1	399		mg/kg	3.57	21-Feb-97	07-Mar-97	21:08	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.119	27-Jan-97	28-Feb-97	17:35	CJH	
Nickel	CLP	21405	1	16.0		mg/kg	9.52	21-Feb-97	07-Mar-97	21:08	KJR	
Potassium	CLP	21405	1	1210		mg/kg	1190	21-Feb-97	07-Mar-97	21:08	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	21:08	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	21:08	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	21:08	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	21:08	KJR	
Vanadium	CLP	21405	1	19.3		mg/kg	11.9	21-Feb-97	07-Mar-97	21:08	KJR	
Zinc	CLP	21405	1	44.4		mg/kg	4.76	21-Feb-97	07-Mar-97	21:08	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:43

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: E-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-011
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	5440		mg/kg	47.6	21-Feb-97	07-Mar-97	21:14	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.3	21-Feb-97	07-Mar-97	21:14	KJR	
Arsenic	CLP	21405	1	8.98		mg/kg	2.38	21-Feb-97	07-Mar-97	21:14	KJR	
Barium	CLP	21405	1	128		mg/kg	47.6	21-Feb-97	07-Mar-97	21:14	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	21:14	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	21:14	KJR	
Calcium	CLP	21405	1	40700		mg/kg	1190	21-Feb-97	07-Mar-97	21:14	KJR	
Chromium	CLP	21405	1	9.20		mg/kg	2.38	21-Feb-97	07-Mar-97	21:14	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	11.9	21-Feb-97	07-Mar-97	21:14	KJR	
Copper	CLP	21405	1	12.8		mg/kg	5.95	21-Feb-97	07-Mar-97	21:14	KJR	
Iron	CLP	21405	1	16600		mg/kg	23.8	21-Feb-97	07-Mar-97	21:14	KJR	
Lead	CLP	21405	1	9.09		mg/kg	0.714	21-Feb-97	07-Mar-97	21:14	KJR	
Magnesium	CLP	21405	1	20100		mg/kg	1190	21-Feb-97	07-Mar-97	21:14	KJR	
Manganese	CLP	21405	1	858		mg/kg	3.57	21-Feb-97	07-Mar-97	21:14	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.119	27-Jan-97	28-Feb-97	17:37	CJH	
Nickel	CLP	21405	1	19.7		mg/kg	9.52	21-Feb-97	07-Mar-97	21:14	KJR	
Potassium	CLP	21405	1	1280		mg/kg	1190	21-Feb-97	07-Mar-97	21:14	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	21:14	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	21:14	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	21:14	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	21:14	KJR	
Vanadium	CLP	21405	1	20.6		mg/kg	11.9	21-Feb-97	07-Mar-97	21:14	KJR	
Zinc	CLP	21405	1	50.8		mg/kg	4.76	21-Feb-97	07-Mar-97	21:14	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: E-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-012
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	7110		mg/kg	48.8	21-Feb-97	07-Mar-97	21:19	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.6	21-Feb-97	07-Mar-97	21:19	KJR	
Arsenic	CLP	21405	1	9.41		mg/kg	2.44	21-Feb-97	07-Mar-97	21:19	KJR	
Barium	CLP	21405	1	169		mg/kg	48.8	21-Feb-97	07-Mar-97	21:19	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	21:19	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	21:19	KJR	
Calcium	CLP	21405	1	34900		mg/kg	1220	21-Feb-97	07-Mar-97	21:19	KJR	
Chromium	CLP	21405	1	11.6		mg/kg	2.44	21-Feb-97	07-Mar-97	21:19	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	12.2	21-Feb-97	07-Mar-97	21:19	KJR	
Copper	CLP	21405	1	15.4		mg/kg	6.10	21-Feb-97	07-Mar-97	21:19	KJR	
Iron	CLP	21405	1	18700		mg/kg	24.4	21-Feb-97	07-Mar-97	21:19	KJR	
Lead	CLP	21405	1	8.90		mg/kg	0.732	21-Feb-97	07-Mar-97	21:19	KJR	
Magnesium	CLP	21405	1	17200		mg/kg	1220	21-Feb-97	07-Mar-97	21:19	KJR	
Manganese	CLP	21405	1	1090		mg/kg	3.66	21-Feb-97	07-Mar-97	21:19	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.122	27-Jan-97	28-Feb-97	17:40	CJH	
Nickel	CLP	21405	1	19.3		mg/kg	9.76	21-Feb-97	07-Mar-97	21:19	KJR	
Potassium	CLP	21405	1	1790		mg/kg	1220	21-Feb-97	07-Mar-97	21:19	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	21:19	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	21:19	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1220	21-Feb-97	07-Mar-97	21:19	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	21:19	KJR	
Vanadium	CLP	21405	1	29.1		mg/kg	12.2	21-Feb-97	07-Mar-97	21:19	KJR	
Zinc	CLP	21405	1	55.2		mg/kg	4.88	21-Feb-97	07-Mar-97	21:19	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:44

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: F-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-013
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	7070		mg/kg	48.8	21-Feb-97	07-Mar-97	21:25	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.6	21-Feb-97	07-Mar-97	21:25	KJR	
Arsenic	CLP	21405	1	8.82		mg/kg	2.44	21-Feb-97	07-Mar-97	21:25	KJR	
Barium	CLP	21405	1	136		mg/kg	48.8	21-Feb-97	07-Mar-97	21:25	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	21:25	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	21:25	KJR	
Calcium	CLP	21405	1	33200		mg/kg	1220	21-Feb-97	07-Mar-97	21:25	KJR	
Chromium	CLP	21405	1	12.9		mg/kg	2.44	21-Feb-97	07-Mar-97	21:25	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	12.2	21-Feb-97	07-Mar-97	21:25	KJR	
Copper	CLP	21405	1	17.5		mg/kg	6.10	21-Feb-97	07-Mar-97	21:25	KJR	
Iron	CLP	21405	1	18200		mg/kg	24.4	21-Feb-97	07-Mar-97	21:25	KJR	
Lead	CLP	21405	1	10.0		mg/kg	0.732	21-Feb-97	07-Mar-97	21:25	KJR	
Magnesium	CLP	21405	1	18300		mg/kg	1220	21-Feb-97	07-Mar-97	21:25	KJR	
Manganese	CLP	21405	1	798		mg/kg	3.66	21-Feb-97	07-Mar-97	21:25	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.122	27-Jan-97	28-Feb-97	17:42	CJH	
Nickel	CLP	21405	1	26.2		mg/kg	9.76	21-Feb-97	07-Mar-97	21:25	KJR	
Potassium	CLP	21405	1	1710		mg/kg	1220	21-Feb-97	07-Mar-97	21:25	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	21:25	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	21:25	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1220	21-Feb-97	07-Mar-97	21:25	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	21:25	KJR	
Vanadium	CLP	21405	1	25.9		mg/kg	12.2	21-Feb-97	07-Mar-97	21:25	KJR	
Zinc	CLP	21405	1	59.6		mg/kg	4.88	21-Feb-97	07-Mar-97	21:25	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: F-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-014
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	6060		mg/kg	48.0	21-Feb-97	07-Mar-97	21:31	KJR	
Antimony	CLP	21405	1	ND		mg/kg	14.4	21-Feb-97	07-Mar-97	21:31	KJR	
Arsenic	CLP	21405	1	8.58		mg/kg	2.40	21-Feb-97	07-Mar-97	21:31	KJR	
Barium	CLP	21405	1	134		mg/kg	48.0	21-Feb-97	07-Mar-97	21:31	KJR	
Beryllium	CLP	21405	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	21:31	KJR	
Cadmium	CLP	21405	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	21:31	KJR	
Calcium	CLP	21405	1	35600		mg/kg	1200	21-Feb-97	07-Mar-97	21:31	KJR	
Chromium	CLP	21405	1	9.55		mg/kg	2.40	21-Feb-97	07-Mar-97	21:31	KJR	
Cobalt	CLP	21405	1	ND		mg/kg	12.0	21-Feb-97	07-Mar-97	21:31	KJR	
Copper	CLP	21405	1	12.2		mg/kg	6.00	21-Feb-97	07-Mar-97	21:31	KJR	
Iron	CLP	21405	1	16500		mg/kg	24.0	21-Feb-97	07-Mar-97	21:31	KJR	
Lead	CLP	21405	1	8.66		mg/kg	0.720	21-Feb-97	07-Mar-97	21:31	KJR	
Magnesium	CLP	21405	1	18900		mg/kg	1200	21-Feb-97	07-Mar-97	21:31	KJR	
Manganese	CLP	21405	1	915		mg/kg	3.60	21-Feb-97	07-Mar-97	21:31	KJR	
Mercury	CLP	21390	1	ND		mg/kg	0.120	27-Jan-97	28-Feb-97	17:45	CJH	
Nickel	CLP	21405	1	20.0		mg/kg	9.60	21-Feb-97	07-Mar-97	21:31	KJR	
Potassium	CLP	21405	1	1510		mg/kg	1200	21-Feb-97	07-Mar-97	21:31	KJR	
Selenium	CLP	21405	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	21:31	KJR	
Silver	CLP	21405	1	ND		mg/kg	2.40	21-Feb-97	07-Mar-97	21:31	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1200	21-Feb-97	07-Mar-97	21:31	KJR	
Thallium	CLP	21405	1	ND		mg/kg	2.40	21-Feb-97	07-Mar-97	21:31	KJR	
Vanadium	CLP	21405	1	22.7		mg/kg	12.0	21-Feb-97	07-Mar-97	21:31	KJR	
Zinc	CLP	21405	1	50.6		mg/kg	4.80	21-Feb-97	07-Mar-97	21:31	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: C-2-B MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-015MS
Episode: GEQ
Prep Factor: 1.00
Description: MATRIX SPIKE
Matrix: Soil
%Moisture: 19

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	7870		mg/kg	49.2	21-Feb-97	07-Mar-97	20:20	KJR	
Antimony	CLP	21405	1	82.7		mg/kg	14.8	21-Feb-97	07-Mar-97	20:20	KJR	
Arsenic	CLP	21405	1	450		mg/kg	2.46	21-Feb-97	07-Mar-97	20:20	KJR	
Barium	CLP	21405	1	587		mg/kg	49.2	21-Feb-97	07-Mar-97	20:20	KJR	
Beryllium	CLP	21405	1	11.1		mg/kg	1.23	21-Feb-97	07-Mar-97	20:20	KJR	
Cadmium	CLP	21405	1	11.7		mg/kg	1.23	21-Feb-97	07-Mar-97	20:20	KJR	
Calcium	CLP	21405	1	32500		mg/kg	1230	21-Feb-97	07-Mar-97	20:20	KJR	
Chromium	CLP	21405	1	56.5		mg/kg	2.46	21-Feb-97	07-Mar-97	20:20	KJR	
Cobalt	CLP	21405	1	113		mg/kg	12.3	21-Feb-97	07-Mar-97	20:20	KJR	
Copper	CLP	21405	1	71.5		mg/kg	6.15	21-Feb-97	07-Mar-97	20:20	KJR	
Iron	CLP	21405	1	18600		mg/kg	24.6	21-Feb-97	07-Mar-97	20:20	KJR	
Lead	CLP	21405	1	117		mg/kg	0.738	21-Feb-97	07-Mar-97	20:20	KJR	
Magnesium	CLP	21405	1	18400		mg/kg	1230	21-Feb-97	07-Mar-97	20:20	KJR	
Manganese	CLP	21405	1	890		mg/kg	3.69	21-Feb-97	07-Mar-97	20:20	KJR	
Mercury	CLP	21390	1	0.664		mg/kg	0.123	27-Jan-97	28-Feb-97	17:15	CJH	
Nickel	CLP	21405	1	127		mg/kg	9.84	21-Feb-97	07-Mar-97	20:20	KJR	
Potassium	CLP	21405	1	1660		mg/kg	1230	21-Feb-97	07-Mar-97	20:20	KJR	
Selenium	CLP	21405	1	439		mg/kg	1.23	21-Feb-97	07-Mar-97	20:20	KJR	
Silver	CLP	21405	1	12.1		mg/kg	2.46	21-Feb-97	07-Mar-97	20:20	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1230	21-Feb-97	07-Mar-97	20:20	KJR	
Thallium	CLP	21405	1	416		mg/kg	2.46	21-Feb-97	07-Mar-97	20:20	KJR	
Vanadium	CLP	21405	1	143		mg/kg	12.3	21-Feb-97	07-Mar-97	20:20	KJR	
Zinc	CLP	21405	1	160		mg/kg	4.92	21-Feb-97	07-Mar-97	20:20	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: C-2-B MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-016MSD
Episode: GEQ
Prep Factor: 1.00
Description: MATRIX SPIKE DUP
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21405	1	6530		mg/kg	47.6	21-Feb-97	07-Mar-97	20:25	KJR	
Antimony	CLP	21405	1	76.8		mg/kg	14.3	21-Feb-97	07-Mar-97	20:25	KJR	
Arsenic	CLP	21405	1	431		mg/kg	2.38	21-Feb-97	07-Mar-97	20:25	KJR	
Barium	CLP	21405	1	563		mg/kg	47.6	21-Feb-97	07-Mar-97	20:25	KJR	
Beryllium	CLP	21405	1	10.7		mg/kg	1.19	21-Feb-97	07-Mar-97	20:25	KJR	
Cadmium	CLP	21405	1	11.1		mg/kg	1.19	21-Feb-97	07-Mar-97	20:25	KJR	
Calcium	CLP	21405	1	27300		mg/kg	1190	21-Feb-97	07-Mar-97	20:25	KJR	
Chromium	CLP	21405	1	52.5		mg/kg	2.38	21-Feb-97	07-Mar-97	20:25	KJR	
Cobalt	CLP	21405	1	108		mg/kg	11.9	21-Feb-97	07-Mar-97	20:25	KJR	
Copper	CLP	21405	1	69.3		mg/kg	5.95	21-Feb-97	07-Mar-97	20:25	KJR	
Iron	CLP	21405	1	18000		mg/kg	23.8	21-Feb-97	07-Mar-97	20:25	KJR	
Lead	CLP	21405	1	112		mg/kg	0.714	21-Feb-97	07-Mar-97	20:25	KJR	
Magnesium	CLP	21405	1	15800		mg/kg	1190	21-Feb-97	07-Mar-97	20:25	KJR	
Manganese	CLP	21405	1	738		mg/kg	3.57	21-Feb-97	07-Mar-97	20:25	KJR	
Mercury	CLP	21390	1	0.631		mg/kg	0.119	27-Jan-97	28-Feb-97	17:18	CJH	
Nickel	CLP	21405	1	124		mg/kg	9.52	21-Feb-97	07-Mar-97	20:25	KJR	
Potassium	CLP	21405	1	1210		mg/kg	1190	21-Feb-97	07-Mar-97	20:25	KJR	
Selenium	CLP	21405	1	419		mg/kg	1.19	21-Feb-97	07-Mar-97	20:25	KJR	
Silver	CLP	21405	1	11.5		mg/kg	2.38	21-Feb-97	07-Mar-97	20:25	KJR	
Sodium	CLP	21405	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	20:25	KJR	
Thallium	CLP	21405	1	397		mg/kg	2.38	21-Feb-97	07-Mar-97	20:25	KJR	
Vanadium	CLP	21405	1	134		mg/kg	11.9	21-Feb-97	07-Mar-97	20:25	KJR	
Zinc	CLP	21405	1	159		mg/kg	4.76	21-Feb-97	07-Mar-97	20:25	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

SECTION 2-1

G-1-B THROUGH N-2-B
VOL./SEMI-VOL. (EXCEPT FOR K AND L
WHICH ARE TOLUENE/DINOSEB)

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-001
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	110	A11	12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:18:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-001
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 19:39 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		396	
111-44-4	bis(2-Chloroethyl) ether	1	ND		396	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		396	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		396	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		396	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		396	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		396	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		396	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		396	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		396	
67-72-1	Hexachloroethane	1	ND		396	
98-95-3	Nitrobenzene	1	ND		396	
78-59-1	Isophorone	1	ND		396	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		396	
105-67-9	2,4-Dimethylphenol	1	ND		396	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		396	
120-83-2	2,4-Dichlorophenol	1	ND		396	
120-82-1	1,2,4-Trichlorobenzene	1	ND		396	
91-20-3	Naphthalene	1	ND		396	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		396	
87-68-3	Hexachlorobutadiene	1	ND		396	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		396	
91-57-6	2-Methylnaphthalene	1	ND		396	
77-47-4	Hexachlorocyclopentadiene	1	ND		396	
88-06-2	2,4,6-Trichlorophenol	1	ND		396	
95-95-4	2,4,5-Trichlorophenol	1	ND		991	
91-58-7	2-Chloronaphthalene	1	ND		396	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		991	
131-11-3	Dimethylphthalate	1	ND		396	
208-96-8	Acenaphthylene	1	ND		396	
606-20-2	2,6-Dinitrotoluene	1	ND		396	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		991	
83-32-9	Acenaphthene	1	ND		396	
51-28-5	2,4-Dinitrophenol	1	ND		991	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-001
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 18-Feb-97
Analyzed: 06-Mar-97 19:39 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		991	
132-64-9	Dibenzofuran	1	ND		396	
121-14-2	2,4-Dinitrotoluene	1	ND		396	
84-66-2	Diethylphthalate	1	ND		396	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		396	
86-73-7	Fluorene	1	ND		396	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		991	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		991	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	396	
101-55-3	4-Bromophenyl phenyl ether	1	ND		396	
118-74-1	Hexachlorobenzene	1	ND		396	
87-86-5	Pentachlorophenol	1	ND		991	
85-01-8	Phenanthrene	1	ND		396	
120-12-7	Anthracene	1	ND		396	
84-74-8	Carbazole	1	ND		396	
84-74-2	Di-n-butylphthalate	1	ND		396	
206-44-0	Fluoranthene	1	ND		396	
129-00-0	Pyrene	1	ND		396	
85-68-7	Butylbenzylphthalate	1	ND		396	
91-94-1	3,3'-Dichlorobenzidine	1	ND		794	
56-55-3	Benzo(a)anthracene	1	ND		396	
218-01-9	Chrysene	1	ND		396	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		396	
117-84-0	Di-n-octylphthalate	1	ND		396	
205-99-2	Benzo(b)fluoranthene	1	ND		396	
207-08-09	Benzo(k)fluoranthene	1	ND		396	
50-32-8	Benzo(a)pyrene	1	ND		396	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		396	
53-70-3	Dibenz(a,h)anthracene	1	ND		396	
191-24-2	Benzo(g,h,i)perylene	1	ND		396	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:18:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-002
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	22.	A11	12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

3 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-002
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 20:18 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		396	
111-44-4	bis(2-Chloroethyl) ether	1	ND		396	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		396	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		396	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		396	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		396	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		396	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		396	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		396	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		396	
67-72-1	Hexachloroethane	1	ND		396	
98-95-3	Nitrobenzene	1	ND		396	
78-59-1	Isophorone	1	ND		396	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		396	
105-67-9	2,4-Dimethylphenol	1	ND		396	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		396	
120-83-2	2,4-Dichlorophenol	1	ND		396	
120-82-1	1,2,4-Trichlorobenzene	1	ND		396	
91-20-3	Naphthalene	1	ND		396	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		396	
87-68-3	Hexachlorobutadiene	1	ND		396	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		396	
91-57-6	2-Methylnaphthalene	1	ND		396	
77-47-4	Hexachlorocyclopentadiene	1	ND		396	
88-06-2	2,4,6-Trichlorophenol	1	ND		396	
95-95-4	2,4,5-Trichlorophenol	1	ND		991	
91-58-7	2-Chloronaphthalene	1	ND		396	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		991	
131-11-3	Dimethylphthalate	1	ND		396	
208-96-8	Acenaphthylene	1	ND		396	
606-20-2	2,6-Dinitrotoluene	1	ND		396	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		991	
83-32-9	Acenaphthene	1	ND		396	
51-28-5	2,4-Dinitrophenol	1	ND		991	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:18:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-002
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 20:18 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		991	
132-64-9	Dibenzofuran	1	ND		396	
121-14-2	2,4-Dinitrotoluene	1	ND		396	
84-66-2	Diethylphthalate	1	ND		396	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		396	
86-73-7	Fluorene	1	ND		396	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		991	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		991	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	396	
101-55-3	4-Bromophenyl phenyl ether	1	ND		396	
118-74-1	Hexachlorobenzene	1	ND		396	
87-86-5	Pentachlorophenol	1	ND		991	
85-01-8	Phenanthrene	1	ND		396	
120-12-7	Anthracene	1	ND		396	
84-74-8	Carbazole	1	ND		396	
84-74-2	Di-n-butylphthalate	1	ND		396	
206-44-0	Fluoranthene	1	ND		396	
129-00-0	Pyrene	1	ND		396	
85-68-7	Butylbenzylphthalate	1	ND		396	
91-94-1	3,3'-Dichlorobenzidine	1	ND		794	
56-55-3	Benzo(a)anthracene	1	ND		396	
218-01-9	Chrysene	1	ND		396	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		396	
117-84-0	Di-n-octylphthalate	1	ND		396	
205-99-2	Benzo(b)fluoranthene	1	ND		396	
207-08-09	Benzo(k)fluoranthene	1	ND		396	
50-32-8	Benzo(a)pyrene	1	ND		396	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		396	
53-70-3	Dibenz(a,h)anthracene	1	ND		396	
191-24-2	Benzo(g,h,i)perylene	1	ND		396	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-003
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		11.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		11.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		11.	
75-00-3	Chloroethane	1	ND		11.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		11.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		11.	
75-15-0	Carbon disulfide	1	ND		11.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		11.	
75-34-3	1,1-Dichloroethane	1	ND		11.	
540-59-0	1,2-Dichloroethene (total)	1	ND		11.	
67-66-3	Chloroform	1	ND		11.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		11.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		11.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		11.	
56-23-5	Carbon tetrachloride	1	ND		11.	
75-27-4	Bromodichloromethane	1	ND		11.	
78-87-5	1,2-Dichloropropane	1	ND		11.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		11.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		11.	
124-48-1	Dibromochloromethane	1	ND		11.	
79-00-5	1,1,2-Trichloroethane	1	ND		11.	
71-43-2	Benzene	1	ND		11.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		11.	
75-25-2	Bromoform	1	ND		11.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		11.	
591-78-6	2-Hexanone	1	ND		11.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		11.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		11.	
108-88-3	Toluene	1	ND		11.	
108-90-7	Chlorobenzene	1	ND		11.	
100-41-4	Ethylbenzene	1	ND		11.	
100-42-5	Styrene	1	ND		11.	
1330-20-7	Xylene (total)	1	ND		11.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-003
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 20:57 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		363	
111-44-4	bis(2-Chloroethyl) ether	1	ND		363	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		363	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		363	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		363	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		363	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		363	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		363	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		363	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		363	
67-72-1	Hexachloroethane	1	ND		363	
98-95-3	Nitrobenzene	1	ND		363	
78-59-1	Isophorone	1	ND		363	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		363	
105-67-9	2,4-Dimethylphenol	1	ND		363	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		363	
120-83-2	2,4-Dichlorophenol	1	ND		363	
120-82-1	1,2,4-Trichlorobenzene	1	ND		363	
91-20-3	Naphthalene	1	ND		363	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		363	
87-68-3	Hexachlorobutadiene	1	ND		363	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		363	
91-57-6	2-Methylnaphthalene	1	ND		363	
77-47-4	Hexachlorocyclopentadiene	1	ND		363	
88-06-2	2,4,6-Trichlorophenol	1	ND		363	
95-95-4	2,4,5-Trichlorophenol	1	ND		908	
91-58-7	2-Chloronaphthalene	1	ND		363	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		908	
131-11-3	Dimethylphthalate	1	ND		363	
208-96-8	Acenaphthylene	1	ND		363	
606-20-2	2,6-Dinitrotoluene	1	ND		363	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		908	
83-32-9	Acenaphthene	1	ND		363	
51-28-5	2,4-Dinitrophenol	1	ND		908	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-003
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 20:57 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		908	
132-64-9	Dibenzofuran	1	ND		363	
121-14-2	2,4-Dinitrotoluene	1	ND		363	
84-66-2	Diethylphthalate	1	ND		363	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		363	
86-73-7	Fluorene	1	ND		363	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		908	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		908	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	363	
101-55-3	4-Bromophenyl phenyl ether	1	ND		363	
118-74-1	Hexachlorobenzene	1	ND		363	
87-86-5	Pentachlorophenol	1	ND		908	
85-01-8	Phenanthrene	1	ND		363	
120-12-7	Anthracene	1	ND		363	
84-74-8	Carbazole	1	ND		363	
84-74-2	Di-n-butylphthalate	1	ND		363	
206-44-0	Fluoranthene	1	ND		363	
129-00-0	Pyrene	1	ND		363	
85-68-7	Butylbenzylphthalate	1	ND		363	
91-94-1	3,3'-Dichlorobenzidine	1	ND		727	
56-55-3	Benzo(a)anthracene	1	ND		363	
218-01-9	Chrysene	1	ND		363	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		363	
117-84-0	Di-n-octylphthalate	1	ND		363	
205-99-2	Benzo(b)fluoranthene	1	ND		363	
207-08-09	Benzo(k)fluoranthene	1	ND		363	
50-32-8	Benzo(a)pyrene	1	ND		363	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		363	
53-70-3	Dibenz(a,h)anthracene	1	ND		363	
191-24-2	Benzo(g,h,i)perylene	1	ND		363	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		363	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-004
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	43.	A11	12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-004
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 21:36 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		393	
111-44-4	bis(2-Chloroethyl) ether	1	ND		393	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		393	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		393	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		393	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		393	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		393	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		393	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		393	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		393	
67-72-1	Hexachloroethane	1	ND		393	
98-95-3	Nitrobenzene	1	ND		393	
78-59-1	Isophorone	1	ND		393	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		393	
105-67-9	2,4-Dimethylphenol	1	ND		393	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		393	
120-83-2	2,4-Dichlorophenol	1	ND		393	
120-82-1	1,2,4-Trichlorobenzene	1	ND		393	
91-20-3	Naphthalene	1	ND		393	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		393	
87-68-3	Hexachlorobutadiene	1	ND		393	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		393	
91-57-6	2-Methylnaphthalene	1	ND		393	
77-47-4	Hexachlorocyclopentadiene	1	ND		393	
88-06-2	2,4,6-Trichlorophenol	1	ND		393	
95-95-4	2,4,5-Trichlorophenol	1	ND		983	
91-58-7	2-Chloronaphthalene	1	ND		393	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		983	
131-11-3	Dimethylphthalate	1	ND		393	
208-96-8	Acenaphthylene	1	ND		393	
606-20-2	2,6-Dinitrotoluene	1	ND		393	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		983	
83-32-9	Acenaphthene	1	ND		393	
51-28-5	2,4-Dinitrophenol	1	ND		983	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-004
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 21:36 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		983	
132-64-9	Dibenzofuran	1	ND		393	
121-14-2	2,4-Dinitrotoluene	1	ND		393	
84-66-2	Diethylphthalate	1	ND		393	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		393	
86-73-7	Fluorene	1	ND		393	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		983	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		983	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	*A10*	393	
101-55-3	4-Bromophenyl phenyl ether	1	ND		393	
118-74-1	Hexachlorobenzene	1	ND		393	
87-86-5	Pentachlorophenol	1	ND		983	
85-01-8	Phenanthrene	1	ND		393	
120-12-7	Anthracene	1	ND		393	
84-74-8	Carbazole	1	ND		393	
84-74-2	Di-n-butylphthalate	1	ND		393	
206-44-0	Fluoranthene	1	ND		393	
129-00-0	Pyrene	1	ND		393	
85-68-7	Butylbenzylphthalate	1	ND		393	
91-94-1	3,3'-Dichlorobenzidine	1	ND		787	
56-55-3	Benzo(a)anthracene	1	ND		393	
218-01-9	Chrysene	1	ND		393	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		393	
117-84-0	Di-n-octylphthalate	1	ND		393	
205-99-2	Benzo(b)fluoranthene	1	ND		393	
207-08-09	Benzo(k)fluoranthene	1	ND		393	
50-32-8	Benzo(a)pyrene	1	ND		393	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		393	
53-70-3	Dibenz(a,h)anthracene	1	ND		393	
191-24-2	Benzo(g,h,i)perylene	1	ND		393	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		393	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-005
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		11.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		11.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		11.	
75-00-3	Chloroethane	1	ND		11.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		11.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		11.	
75-15-0	Carbon disulfide	1	ND		11.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		11.	
75-34-3	1,1-Dichloroethane	1	ND		11.	
540-59-0	1,2-Dichloroethene (total)	1	ND		11.	
67-66-3	Chloroform	1	ND		11.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		11.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		11.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		11.	
56-23-5	Carbon tetrachloride	1	ND		11.	
75-27-4	Bromodichloromethane	1	ND		11.	
78-87-5	1,2-Dichloropropane	1	ND		11.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		11.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		11.	
124-48-1	Dibromochloromethane	1	ND		11.	
79-00-5	1,1,2-Trichloroethane	1	ND		11.	
71-43-2	Benzene	1	ND		11.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		11.	
75-25-2	Bromoform	1	ND		11.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		11.	
591-78-6	2-Hexanone	1	ND		11.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		11.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		11.	
108-88-3	Toluene	1	ND		11.	
108-90-7	Chlorobenzene	1	ND		11.	
100-41-4	Ethylbenzene	1	ND		11.	
100-42-5	Styrene	1	ND		11.	
1330-20-7	Xylene (total)	1	ND		11.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-005
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 22:15 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND	M7	380	
111-44-4	bis(2-Chloroethyl) ether	1	ND	M7	380	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND	M7	380	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND	M7	380	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND	M7	380	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND	M7	380	
95-48-7	2-Methylphenol (o-Cresol)	1	ND	M7	380	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND	M7	380	
106-44-5	4-Methylphenol (p-Cresol)	1	ND	M7	380	
621-64-7	N-Nitroso-di-n-propylamine	1	ND	M7	380	
67-72-1	Hexachloroethane	1	ND	M7	380	
98-95-3	Nitrobenzene	1	ND	M7	380	
78-59-1	Isophorone	1	ND	M7	380	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND	M7	380	
105-67-9	2,4-Dimethylphenol	1	ND	M7	380	
111-91-1	bis(2-Chloroethoxy)methane	1	ND	M7	380	
120-83-2	2,4-Dichlorophenol	1	ND	M7	380	
120-82-1	1,2,4-Trichlorobenzene	1	ND	M7	380	
91-20-3	Naphthalene	1	ND	M7	380	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND	M7	380	
87-68-3	Hexachlorobutadiene	1	ND	M7	380	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND	M7	380	
91-57-6	2-Methylnaphthalene	1	ND	M7	380	
77-47-4	Hexachlorocyclopentadiene	1	ND	M7	380	
88-06-2	2,4,6-Trichlorophenol	1	ND	M7	380	
95-95-4	2,4,5-Trichlorophenol	1	ND	M7	950	
91-58-7	2-Chloronaphthalene	1	ND	M7	380	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND	M7	950	
131-11-3	Dimethylphthalate	1	ND	M7	380	
208-96-8	Acenaphthylene	1	ND	M7	380	
606-20-2	2,6-Dinitrotoluene	1	ND	M7	380	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND	M7	950	
83-32-9	Acenaphthene	1	ND	M7	380	
51-28-5	2,4-Dinitrophenol	1	ND	M7	950	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:18:53

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-005
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 22:15 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND	M7	950	
132-64-9	Dibenzofuran	1	ND	M7	380	
121-14-2	2,4-Dinitrotoluene	1	ND	M7	380	
84-66-2	Diethylphthalate	1	ND	M7	380	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND	M7	380	
86-73-7	Fluorene	1	ND	M7	380	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND	M7	950	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND	M7	950	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	M7 A10	380	
101-55-3	4-Bromophenyl phenyl ether	1	ND	M7	380	
118-74-1	Hexachlorobenzene	1	ND	M7	380	
87-86-5	Pentachlorophenol	1	ND	M7	950	
85-01-8	Phenanthrene	1	ND	M7	380	
120-12-7	Anthracene	1	ND	M7	380	
84-74-8	Carbazole	1	ND	M7	380	
84-74-2	Di-n-butylphthalate	1	ND	M7	380	
206-44-0	Fluoranthene	1	ND	M7	380	
129-00-0	Pyrene	1	ND	M7	380	
85-68-7	Butylbenzylphthalate	1	ND	M7	380	
91-94-1	3,3'-Dichlorobenzidine	1	ND	M7	760	
56-55-3	Benzo(a)anthracene	1	ND	M7	380	
218-01-9	Chrysene	1	ND	M7	380	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND	M7	380	
117-84-0	Di-n-octylphthalate	1	ND	M7	380	
205-99-2	Benzo(b)fluoranthene	1	ND	M7	380	
207-08-09	Benzo(k)fluoranthene	1	ND	M7	380	
50-32-8	Benzo(a)pyrene	1	ND	M7	380	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND	M7	380	
53-70-3	Dibenz(a,h)anthracene	1	ND	M7	380	
191-24-2	Benzo(g,h,i)perylene	1	ND	M7	380	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND	M7	380	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-006
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	33.	A11	12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

3 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-006
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 13:36 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		386	
111-44-4	bis(2-Chloroethyl) ether	1	ND		386	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		386	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		386	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		386	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		386	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		386	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		386	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		386	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		386	
67-72-1	Hexachloroethane	1	ND		386	
98-95-3	Nitrobenzene	1	ND		386	
78-59-1	Isophorone	1	ND		386	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		386	
105-67-9	2,4-Dimethylphenol	1	ND		386	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		386	
120-83-2	2,4-Dichlorophenol	1	ND		386	
120-82-1	1,2,4-Trichlorobenzene	1	ND		386	
91-20-3	Naphthalene	1	ND		386	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		386	
87-68-3	Hexachlorobutadiene	1	ND		386	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		386	
91-57-6	2-Methylnaphthalene	1	ND		386	
77-47-4	Hexachlorocyclopentadiene	1	ND		386	
88-06-2	2,4,6-Trichlorophenol	1	ND		386	
95-95-4	2,4,5-Trichlorophenol	1	ND		966	
91-58-7	2-Chloronaphthalene	1	ND		386	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		966	
131-11-3	Dimethylphthalate	1	ND		386	
208-96-8	Acenaphthylene	1	ND		386	
606-20-2	2,6-Dinitrotoluene	1	ND		386	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		966	
83-32-9	Acenaphthene	1	ND		386	
51-28-5	2,4-Dinitrophenol	1	ND		966	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-006
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 13:36 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		966	
132-64-9	Dibenzofuran	1	ND		386	
121-14-2	2,4-Dinitrotoluene	1	ND		386	
84-66-2	Diethylphthalate	1	ND		386	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		386	
86-73-7	Fluorene	1	ND		386	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		966	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		966	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	386	
101-55-3	4-Bromophenyl phenyl ether	1	ND		386	
118-74-1	Hexachlorobenzene	1	ND		386	
87-86-5	Pentachlorophenol	1	ND		966	
85-01-8	Phenanthrene	1	ND		386	
120-12-7	Anthracene	1	ND		386	
84-74-8	Carbazole	1	ND		386	
84-74-2	Di-n-butylphthalate	1	ND		386	
206-44-0	Fluoranthene	1	ND		386	
129-00-0	Pyrene	1	ND		386	
85-68-7	Butylbenzylphthalate	1	ND		386	
91-94-1	3,3'-Dichlorobenzidine	1	ND		774	
56-55-3	Benzo(a)anthracene	1	ND		386	
218-01-9	Chrysene	1	ND		386	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		386	
117-84-0	Di-n-octylphthalate	1	ND		386	
205-99-2	Benzo(b)fluoranthene	1	ND		386	
207-08-09	Benzo(k)fluoranthene	1	ND		386	
50-32-8	Benzo(a)pyrene	1	ND		386	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		386	
53-70-3	Dibenz(a,h)anthracene	1	ND		386	
191-24-2	Benzo(g,h,i)perylene	1	ND		386	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		386	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-007
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		11.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		11.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		11.	
75-00-3	Chloroethane	1	ND		11.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		11.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		11.	
75-15-0	Carbon disulfide	1	ND		11.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		11.	
75-34-3	1,1-Dichloroethane	1	ND		11.	
540-59-0	1,2-Dichloroethene (total)	1	ND		11.	
67-66-3	Chloroform	1	ND		11.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		11.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		11.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		11.	
56-23-5	Carbon tetrachloride	1	ND		11.	
75-27-4	Bromodichloromethane	1	ND		11.	
78-87-5	1,2-Dichloropropane	1	ND		11.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		11.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		11.	
124-48-1	Dibromochloromethane	1	ND		11.	
79-00-5	1,1,2-Trichloroethane	1	ND		11.	
71-43-2	Benzene	1	ND		11.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		11.	
75-25-2	Bromoform	1	ND		11.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		11.	
591-78-6	2-Hexanone	1	ND		11.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		11.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		11.	
108-88-3	Toluene	1	ND		11.	
108-90-7	Chlorobenzene	1	ND		11.	
100-41-4	Ethylbenzene	1	ND		11.	
100-42-5	Styrene	1	ND		11.	
1330-20-7	Xylene (total)	1	ND		11.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-007
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 23:33 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		370	
111-44-4	bis(2-Chloroethyl) ether	1	ND		370	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		370	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		370	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		370	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		370	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		370	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		370	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		370	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		370	
67-72-1	Hexachloroethane	1	ND		370	
98-95-3	Nitrobenzene	1	ND		370	
78-59-1	Isophorone	1	ND		370	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		370	
105-67-9	2,4-Dimethylphenol	1	ND		370	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		370	
120-83-2	2,4-Dichlorophenol	1	ND		370	
120-82-1	1,2,4-Trichlorobenzene	1	ND		370	
91-20-3	Naphthalene	1	ND		370	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		370	
87-68-3	Hexachlorobutadiene	1	ND		370	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		370	
91-57-6	2-Methylnaphthalene	1	ND		370	
77-47-4	Hexachlorocyclopentadiene	1	ND		370	
88-06-2	2,4,6-Trichlorophenol	1	ND		370	
95-95-4	2,4,5-Trichlorophenol	1	ND		925	
91-58-7	2-Chloronaphthalene	1	ND		370	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		925	
131-11-3	Dimethylphthalate	1	ND		370	
208-96-8	Acenaphthylene	1	ND		370	
606-20-2	2,6-Dinitrotoluene	1	ND		370	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		925	
83-32-9	Acenaphthene	1	ND		370	
51-28-5	2,4-Dinitrophenol	1	ND		925	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-007
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 06-Mar-97 23:33 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		925	
132-64-9	Dibenzofuran	1	ND		370	
121-14-2	2,4-Dinitrotoluene	1	ND		370	
84-66-2	Diethylphthalate	1	ND		370	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		370	
86-73-7	Fluorene	1	ND		370	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		925	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		925	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	370	
101-55-3	4-Bromophenyl phenyl ether	1	ND		370	
118-74-1	Hexachlorobenzene	1	ND		370	
87-86-5	Pentachlorophenol	1	ND		925	
85-01-8	Phenanthrene	1	ND		370	
120-12-7	Anthracene	1	ND		370	
84-74-8	Carbazole	1	ND		370	
84-74-2	Di-n-butylphthalate	1	ND		370	
206-44-0	Fluoranthene	1	ND		370	
129-00-0	Pyrene	1	ND		370	
85-68-7	Butylbenzylphthalate	1	ND		370	
91-94-1	3,3'-Dichlorobenzidine	1	ND		740	
56-55-3	Benzo(a)anthracene	1	ND		370	
218-01-9	Chrysene	1	ND		370	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		370	
117-84-0	Di-n-octylphthalate	1	ND		370	
205-99-2	Benzo(b)fluoranthene	1	ND		370	
207-08-09	Benzo(k)fluoranthene	1	ND		370	
50-32-8	Benzo(a)pyrene	1	ND		370	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		370	
53-70-3	Dibenz(a,h)anthracene	1	ND		370	
191-24-2	Benzo(g,h,i)perylene	1	ND		370	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		370	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-008
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	22.	A11	12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-008
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 0:12 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		410	
111-44-4	bis(2-Chloroethyl) ether	1	ND		410	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		410	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		410	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		410	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		410	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		410	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		410	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		410	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		410	
67-72-1	Hexachloroethane	1	ND		410	
98-95-3	Nitrobenzene	1	ND		410	
78-59-1	Isophorone	1	ND		410	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		410	
105-67-9	2,4-Dimethylphenol	1	ND		410	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		410	
120-83-2	2,4-Dichlorophenol	1	ND		410	
120-82-1	1,2,4-Trichlorobenzene	1	ND		410	
91-20-3	Naphthalene	1	ND		410	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		410	
87-68-3	Hexachlorobutadiene	1	ND		410	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		410	
91-57-6	2-Methylnaphthalene	1	ND		410	
77-47-4	Hexachlorocyclopentadiene	1	ND		410	
88-06-2	2,4,6-Trichlorophenol	1	ND		410	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		410	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		410	
208-96-8	Acenaphthylene	1	ND		410	
606-20-2	2,6-Dinitrotoluene	1	ND		410	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	ND		410	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-008
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 0:12 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1020	
132-64-9	Dibenzofuran	1	ND		410	
121-14-2	2,4-Dinitrotoluene	1	ND		410	
84-66-2	Diethylphthalate	1	ND		410	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		410	
86-73-7	Fluorene	1	ND		410	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	410	
101-55-3	4-Bromophenyl phenyl ether	1	ND		410	
118-74-1	Hexachlorobenzene	1	ND		410	
87-86-5	Pentachlorophenol	1	ND		1020	
85-01-8	Phenanthrene	1	ND		410	
120-12-7	Anthracene	1	ND		410	
84-74-8	Carbazole	1	ND		410	
84-74-2	Di-n-butylphthalate	1	ND		410	
206-44-0	Fluoranthene	1	ND		410	
129-00-0	Pyrene	1	ND		410	
85-68-7	Butylbenzylphthalate	1	ND		410	
91-94-1	3,3'-Dichlorobenzidine	1	ND		820	
56-55-3	Benzo(a)anthracene	1	ND		410	
218-01-9	Chrysene	1	ND		410	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		410	
117-84-0	Di-n-octylphthalate	1	ND		410	
205-99-2	Benzo(b)fluoranthene	1	ND		410	
207-08-09	Benzo(k)fluoranthene	1	ND		410	
50-32-8	Benzo(a)pyrene	1	ND		410	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		410	
53-70-3	Dibenz(a,h)anthracene	1	ND		410	
191-24-2	Benzo(g,h,i)perylene	1	ND		410	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		410	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-009
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21391
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 19:23 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		61.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-009
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 0:51 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-010
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21391
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 16:27 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		60.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-010
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 1:30 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-011
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21391
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 16:46 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		60.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-011
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 14:14 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-012
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21391
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 19-Feb-97 17:06 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		60.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-012
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 14:52 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-013
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:18:56

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-013
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 15:31 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		410	
111-44-4	bis(2-Chloroethyl) ether	1	ND		410	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		410	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		410	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		410	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		410	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		410	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		410	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		410	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		410	
67-72-1	Hexachloroethane	1	ND		410	
98-95-3	Nitrobenzene	1	ND		410	
78-59-1	Isophorone	1	ND		410	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		410	
105-67-9	2,4-Dimethylphenol	1	ND		410	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		410	
120-83-2	2,4-Dichlorophenol	1	ND		410	
120-82-1	1,2,4-Trichlorobenzene	1	ND		410	
91-20-3	Naphthalene	1	ND		410	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		410	
87-68-3	Hexachlorobutadiene	1	ND		410	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		410	
91-57-6	2-Methylnaphthalene	1	ND		410	
77-47-4	Hexachlorocyclopentadiene	1	ND		410	
88-06-2	2,4,6-Trichlorophenol	1	ND		410	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		410	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		410	
208-96-8	Acenaphthylene	1	ND		410	
606-20-2	2,6-Dinitrotoluene	1	ND		410	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	ND		410	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-013
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 15:31 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1020	
132-64-9	Dibenzofuran	1	ND		410	
121-14-2	2,4-Dinitrotoluene	1	ND		410	
84-66-2	Diethylphthalate	1	ND		410	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		410	
86-73-7	Fluorene	1	ND		410	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	410	
101-55-3	4-Bromophenyl phenyl ether	1	ND		410	
118-74-1	Hexachlorobenzene	1	ND		410	
87-86-5	Pentachlorophenol	1	ND		1020	
85-01-8	Phenanthrene	1	ND		410	
120-12-7	Anthracene	1	ND		410	
84-74-8	Carbazole	1	ND		410	
84-74-2	Di-n-butylphthalate	1	ND		410	
206-44-0	Fluoranthene	1	ND		410	
129-00-0	Pyrene	1	ND		410	
85-68-7	Butylbenzylphthalate	1	ND		410	
91-94-1	3,3'-Dichlorobenzidine	1	ND		820	
56-55-3	Benzo(a)anthracene	1	ND		410	
218-01-9	Chrysene	1	ND		410	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		410	
117-84-0	Di-n-octylphthalate	1	ND		410	
205-99-2	Benzo(b)fluoranthene	1	ND		410	
207-08-09	Benzo(k)fluoranthene	1	ND		410	
50-32-8	Benzo(a)pyrene	1	ND		410	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		410	
53-70-3	Dibenz(a,h)anthracene	1	ND		410	
191-24-2	Benzo(g,h,i)perylene	1	ND		410	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		410	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-014
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-014
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 16:10 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		406	
111-44-4	bis(2-Chloroethyl) ether	1	ND		406	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		406	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		406	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		406	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		406	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		406	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		406	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		406	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		406	
67-72-1	Hexachloroethane	1	ND		406	
98-95-3	Nitrobenzene	1	ND		406	
78-59-1	Isophorone	1	ND		406	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		406	
105-67-9	2,4-Dimethylphenol	1	ND		406	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		406	
120-83-2	2,4-Dichlorophenol	1	ND		406	
120-82-1	1,2,4-Trichlorobenzene	1	ND		406	
91-20-3	Naphthalene	1	ND		406	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		406	
87-68-3	Hexachlorobutadiene	1	ND		406	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		406	
91-57-6	2-Methylnaphthalene	1	ND		406	
77-47-4	Hexachlorocyclopentadiene	1	ND		406	
88-06-2	2,4,6-Trichlorophenol	1	ND		406	
95-95-4	2,4,5-Trichlorophenol	1	ND		1020	
91-58-7	2-Chloronaphthalene	1	ND		406	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1020	
131-11-3	Dimethylphthalate	1	ND		406	
208-96-8	Acenaphthylene	1	ND		406	
606-20-2	2,6-Dinitrotoluene	1	ND		406	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1020	
83-32-9	Acenaphthene	1	ND		406	
51-28-5	2,4-Dinitrophenol	1	ND		1020	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-014
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 16:10 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1020	
132-64-9	Dibenzofuran	1	ND		406	
121-14-2	2,4-Dinitrotoluene	1	ND		406	
84-66-2	Diethylphthalate	1	ND		406	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		406	
86-73-7	Fluorene	1	ND		406	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1020	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1020	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	406	
101-55-3	4-Bromophenyl phenyl ether	1	ND		406	
118-74-1	Hexachlorobenzene	1	ND		406	
87-86-5	Pentachlorophenol	1	ND		1020	
85-01-8	Phenanthrene	1	ND		406	
120-12-7	Anthracene	1	ND		406	
84-74-8	Carbazole	1	ND		406	
84-74-2	Di-n-butylphthalate	1	ND		406	
206-44-0	Fluoranthene	1	ND		406	
129-00-0	Pyrene	1	ND		406	
85-68-7	Butylbenzylphthalate	1	ND		406	
91-94-1	3,3'-Dichlorobenzidine	1	ND		814	
56-55-3	Benzo(a)anthracene	1	ND		406	
218-01-9	Chrysene	1	ND		406	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		406	
117-84-0	Di-n-octylphthalate	1	ND		406	
205-99-2	Benzo(b)fluoranthene	1	ND		406	
207-08-09	Benzo(k)fluoranthene	1	ND		406	
50-32-8	Benzo(a)pyrene	1	ND		406	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		406	
53-70-3	Dibenz(a,h)anthracene	1	ND		406	
191-24-2	Benzo(g,h,i)perylene	1	ND		406	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		406	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-015
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		11.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		11.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		11.	
75-00-3	Chloroethane	1	ND		11.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		11.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		11.	
75-15-0	Carbon disulfide	1	ND		11.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		11.	
75-34-3	1,1-Dichloroethane	1	ND		11.	
540-59-0	1,2-Dichloroethene (total)	1	ND		11.	
67-66-3	Chloroform	1	ND		11.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		11.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		11.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		11.	
56-23-5	Carbon tetrachloride	1	ND		11.	
75-27-4	Bromodichloromethane	1	ND		11.	
78-87-5	1,2-Dichloropropane	1	ND		11.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		11.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		11.	
124-48-1	Dibromochloromethane	1	ND		11.	
79-00-5	1,1,2-Trichloroethane	1	ND		11.	
71-43-2	Benzene	1	ND		11.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		11.	
75-25-2	Bromoform	1	ND		11.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		11.	
591-78-6	2-Hexanone	1	ND		11.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		11.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		11.	
108-88-3	Toluene	1	ND		11.	
108-90-7	Chlorobenzene	1	ND		11.	
100-41-4	Ethylbenzene	1	ND		11.	
100-42-5	Styrene	1	ND		11.	
1330-20-7	Xylene (total)	1	ND		11.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-015
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 17:27 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		373	
111-44-4	bis(2-Chloroethyl) ether	1	ND		373	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		373	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		373	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		373	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		373	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		373	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		373	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		373	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		373	
67-72-1	Hexachloroethane	1	ND		373	
98-95-3	Nitrobenzene	1	ND		373	
78-59-1	Isophorone	1	ND		373	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		373	
105-67-9	2,4-Dimethylphenol	1	ND		373	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		373	
120-83-2	2,4-Dichlorophenol	1	ND		373	
120-82-1	1,2,4-Trichlorobenzene	1	ND		373	
91-20-3	Naphthalene	1	ND		373	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		373	
87-68-3	Hexachlorobutadiene	1	ND		373	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		373	
91-57-6	2-Methylnaphthalene	1	ND		373	
77-47-4	Hexachlorocyclopentadiene	1	ND		373	
88-06-2	2,4,6-Trichlorophenol	1	ND		373	
95-95-4	2,4,5-Trichlorophenol	1	ND		933	
91-58-7	2-Chloronaphthalene	1	ND		373	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		933	
131-11-3	Dimethylphthalate	1	ND		373	
208-96-8	Acenaphthylene	1	ND		373	
606-20-2	2,6-Dinitrotoluene	1	ND		373	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		933	
83-32-9	Acenaphthene	1	ND		373	
51-28-5	2,4-Dinitrophenol	1	ND		933	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-015
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 17:27 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		933	
132-64-9	Dibenzofuran	1	ND		373	
121-14-2	2,4-Dinitrotoluene	1	ND		373	
84-66-2	Diethylphthalate	1	ND		373	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		373	
86-73-7	Fluorene	1	ND		373	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		933	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		933	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	373	
101-55-3	4-Bromophenyl phenyl ether	1	ND		373	
118-74-1	Hexachlorobenzene	1	ND		373	
87-86-5	Pentachlorophenol	1	ND		933	
85-01-8	Phenanthrene	1	ND		373	
120-12-7	Anthracene	1	ND		373	
84-74-8	Carbazole	1	ND		373	
84-74-2	Di-n-butylphthalate	1	ND		373	
206-44-0	Fluoranthene	1	ND		373	
129-00-0	Pyrene	1	ND		373	
85-68-7	Butylbenzylphthalate	1	ND		373	
91-94-1	3,3'-Dichlorobenzidine	1	ND		747	
56-55-3	Benzo(a)anthracene	1	ND		373	
218-01-9	Chrysene	1	ND		373	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		373	
117-84-0	Di-n-octylphthalate	1	ND		373	
205-99-2	Benzo(b)fluoranthene	1	ND		373	
207-08-09	Benzo(k)fluoranthene	1	ND		373	
50-32-8	Benzo(a)pyrene	1	ND		373	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		373	
53-70-3	Dibenz(a,h)anthracene	1	ND		373	
191-24-2	Benzo(g,h,i)perylene	1	ND		373	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		373	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:18:58

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-016
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil CLP Volatile Organics
Batch: 21393
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 18-Feb-97 MS

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
74-87-3	Chloromethane (Methyl chloride)	1	ND		12.	
74-83-9	Bromomethane (Methyl bromide)	1	ND		12.	
75-01-4	Vinyl chloride (Chloroethene)	1	ND		12.	
75-00-3	Chloroethane	1	ND		12.	
75-09-2	Methylene chloride (Dichloromethane)	1	ND		12.	
67-64-1	Acetone (2-Propanone, Dimethyl ketone)	1	ND		12.	
75-15-0	Carbon disulfide	1	ND		12.	
75-35-4	1,1-Dichloroethene (Dichloroethylene)	1	ND		12.	
75-34-3	1,1-Dichloroethane	1	ND		12.	
540-59-0	1,2-Dichloroethene (total)	1	ND		12.	
67-66-3	Chloroform	1	ND		12.	
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	1	ND		12.	
78-93-3	2-Butanone (Methyl ethyl ketone)	1	ND		12.	
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)	1	ND		12.	
56-23-5	Carbon tetrachloride	1	ND		12.	
75-27-4	Bromodichloromethane	1	ND		12.	
78-87-5	1,2-Dichloropropane	1	ND		12.	
10061-01-5	cis-1,3-Dichloropropene	1	ND		12.	
79-01-6	Trichloroethene (Trichloroethylene)	1	ND		12.	
124-48-1	Dibromochloromethane	1	ND		12.	
79-00-5	1,1,2-Trichloroethane	1	ND		12.	
71-43-2	Benzene	1	ND		12.	
10061-02-6	trans-1,3-Dichloropropene	1	ND		12.	
75-25-2	Bromoform	1	ND		12.	
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		12.	
591-78-6	2-Hexanone	1	ND		12.	
127-18-4	Tetrachloroethene (Perchloroethylene)	1	ND		12.	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		12.	
108-88-3	Toluene	1	ND		12.	
108-90-7	Chlorobenzene	1	ND		12.	
100-41-4	Ethylbenzene	1	ND		12.	
100-42-5	Styrene	1	ND		12.	
1330-20-7	Xylene (total)	1	ND		12.	

33 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-016
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 16:48 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-95-2	Phenol	1	ND		400	
111-44-4	bis(2-Chloroethyl) ether	1	ND		400	
95-57-8	2-Chlorophenol (o-Chlorophenol)	1	ND		400	
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND		400	
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)	1	ND		400	
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND		400	
95-48-7	2-Methylphenol (o-Cresol)	1	ND		400	
108-60-1	bis(2-Chloroisopropyl) ether	1	ND		400	
106-44-5	4-Methylphenol (p-Cresol)	1	ND		400	
621-64-7	N-Nitroso-di-n-propylamine	1	ND		400	
67-72-1	Hexachloroethane	1	ND		400	
98-95-3	Nitrobenzene	1	ND		400	
78-59-1	Isophorone	1	ND		400	
88-75-5	2-Nitrophenol (o-Nitrophenol)	1	ND		400	
105-67-9	2,4-Dimethylphenol	1	ND		400	
111-91-1	bis(2-Chloroethoxy)methane	1	ND		400	
120-83-2	2,4-Dichlorophenol	1	ND		400	
120-82-1	1,2,4-Trichlorobenzene	1	ND		400	
91-20-3	Naphthalene	1	ND		400	
106-47-8	4-Chloroaniline (p-Chloroaniline)	1	ND		400	
87-68-3	Hexachlorobutadiene	1	ND		400	
59-50-7	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND		400	
91-57-6	2-Methylnaphthalene	1	ND		400	
77-47-4	Hexachlorocyclopentadiene	1	ND		400	
88-06-2	2,4,6-Trichlorophenol	1	ND		400	
95-95-4	2,4,5-Trichlorophenol	1	ND		1000	
91-58-7	2-Chloronaphthalene	1	ND		400	
88-74-4	2-Nitroaniline (o-Nitroaniline)	1	ND		1000	
131-11-3	Dimethylphthalate	1	ND		400	
208-96-8	Acenaphthylene	1	ND		400	
606-20-2	2,6-Dinitrotoluene	1	ND		400	
99-09-2	3-Nitroaniline (m-Nitroaniline)	1	ND		1000	
83-32-9	Acenaphthene	1	ND		400	
51-28-5	2,4-Dinitrophenol	1	ND		1000	

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-016
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 18-Feb-97 **Analyzed:** 07-Mar-97 16:48 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
100-02-7	4-Nitrophenol (p-Nitrophenol)	1	ND		1000	
132-64-9	Dibenzofuran	1	ND		400	
121-14-2	2,4-Dinitrotoluene	1	ND		400	
84-66-2	Diethylphthalate	1	ND		400	
7005-72-3	4-Chlorophenyl phenyl ether	1	ND		400	
86-73-7	Fluorene	1	ND		400	
100-01-6	4-Nitroaniline (p-Nitroaniline)	1	ND		1000	
534-52-1	4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	1	ND		1000	
86-30-6	N-Nitrosodiphenylamine (Diphenylamine)	1	ND	A10	400	
101-55-3	4-Bromophenyl phenyl ether	1	ND		400	
118-74-1	Hexachlorobenzene	1	ND		400	
87-86-5	Pentachlorophenol	1	ND		1000	
85-01-8	Phenanthrene	1	ND		400	
120-12-7	Anthracene	1	ND		400	
84-74-8	Carbazole	1	ND		400	
84-74-2	Di-n-butylphthalate	1	ND		400	
206-44-0	Fluoranthene	1	ND		400	
129-00-0	Pyrene	1	ND		400	
85-68-7	Butylbenzylphthalate	1	ND		400	
91-94-1	3,3'-Dichlorobenzidine	1	ND		800	
56-55-3	Benzo(a)anthracene	1	ND		400	
218-01-9	Chrysene	1	ND		400	
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		400	
117-84-0	Di-n-octylphthalate	1	ND		400	
205-99-2	Benzo(b)fluoranthene	1	ND		400	
207-08-09	Benzo(k)fluoranthene	1	ND		400	
50-32-8	Benzo(a)pyrene	1	ND		400	
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		400	
53-70-3	Dibenz(a,h)anthracene	1	ND		400	
191-24-2	Benzo(g,h,i)perylene	1	ND		400	
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

65 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: TRIP BLANK
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-017
Episode: GEA
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SW 8020 Aromatic Volatile Organics
Batch: 21360
Units: ug/l

Prep Factor: 1.00 **Leached:** n/a **Prepared:** **Analyzed:** 17-Feb-97 13:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		0.500	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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SECTION 2-2

G-1-B THROUGH N-2-B
ATRAZINE/CYANAZINE
PESTICIDES/PCBS (EXCEPT FOR K
AND L WHICH IS TOXAPHENE)

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-001
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 21-Feb-97
Analyzed: 10-Mar-97 18:13 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.02	
319-84-6	alpha-BHC	1	ND		2.02	
319-85-7	beta-BHC	1	ND		2.02	
319-86-9	delta-BHC	1	ND		2.02	
58-89-9	gamma-BHC (Lindane)	1	ND		2.02	
5103-71-9	alpha-Chlordane	1	2.92		2.02	
5103-74-2	gamma-Chlordane	1	ND		2.02	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.93	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.93	
50-29-3	4,4'-DDT (p,p'-DDT)	1	4.28		3.93	
60-57-1	Dieldrin	1	ND		3.93	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.02	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.93	
1031-07-8	Endosulfan sulfate	1	ND		3.93	
72-20-8	Endrin	1	ND		3.93	
7421-36-3	Endrin aldehyde	1	ND		3.93	
53494-70-5	Endrin ketone	1	ND		3.93	
76-44-8	Heptachlor	1	ND		2.02	
1024-57-3	Heptachlor epoxide	1	ND		2.02	
72-43-5	Methoxychlor	1	ND		19.9	
8001-35-2	Toxaphene	1	ND		190	
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-001
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 0:54 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-002
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 18:48 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.02	
319-84-6	alpha-BHC	1	ND		2.02	
319-85-7	beta-BHC	1	ND		2.02	
319-86-9	delta-BHC	1	ND		2.02	
58-89-9	gamma-BHC (Lindane)	1	ND		2.02	
5103-71-9	alpha-Chlordane	1	ND		2.02	
5103-74-2	gamma-Chlordane	1	ND		2.02	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.93	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.93	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.93	
60-57-1	Dieldrin	1	ND		3.93	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.02	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.93	
1031-07-8	Endosulfan sulfate	1	ND		3.93	
72-20-8	Endrin	1	ND		3.93	
7421-36-3	Endrin aldehyde	1	ND		3.93	
53494-70-5	Endrin ketone	1	ND		3.93	
76-44-8	Heptachlor	1	ND		2.02	
1024-57-3	Heptachlor epoxide	1	ND		2.02	
72-43-5	Methoxychlor	1	ND		19.9	
8001-35-2	Toxaphene	1	ND		190	
12674-11-2	Aroclor-1016	1	ND		39.6	
11104-28-2	Aroclor-1221	1	ND		79.7	
11141-16-5	Aroclor-1232	1	ND		39.6	
53469-21-9	Aroclor-1242	1	ND		39.6	
12672-29-6	Aroclor-1248	1	ND		39.6	
11097-69-1	Aroclor-1254	1	ND		39.6	
1109-82-5	Aroclor-1260	1	ND		39.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:17

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: G-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-002
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 0:27 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-003
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 19:22 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		1.85	
319-84-6	alpha-BHC	1	ND		1.85	
319-85-7	beta-BHC	1	ND		1.85	
319-86-9	delta-BHC	1	ND		1.85	
58-89-9	gamma-BHC (Lindane)	1	ND		1.85	
5103-71-9	alpha-Chlordane	1	ND	N	6.76	
5103-74-2	gamma-Chlordane	1	ND	N	10.0	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.60	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	8.94	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND	N	17.9	
60-57-1	Dieldrin	1	ND		3.60	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.85	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	46.8	
1031-07-8	Endosulfan sulfate	1	ND		3.60	
72-20-8	Endrin	1	ND	N	23.3	
7421-36-3	Endrin aldehyde	1	ND	N	40.3	
53494-70-5	Endrin ketone	1	ND		3.60	
76-44-8	Heptachlor	1	ND		1.85	
1024-57-3	Heptachlor epoxide	1	ND		1.85	
72-43-5	Methoxychlor	1	ND		18.2	
8001-35-2	Toxaphene	1	732		174	
12674-11-2	Aroclor-1016	1	ND		36.3	
11104-28-2	Aroclor-1221	1	ND		73.0	
11141-16-5	Aroclor-1232	1	ND		36.3	
53469-21-9	Aroclor-1242	1	ND		36.3	
12672-29-6	Aroclor-1248	1	ND		36.3	
11097-69-1	Aroclor-1254	1	ND		36.3	
1109-82-5	Aroclor-1260	1	ND		36.3	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-003
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 1:53 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		18.2	
21725-46-2	Cyanazine	1	ND		18.2	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-004
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 19:56 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.01	
319-84-6	alpha-BHC	1	ND		2.01	
319-85-7	beta-BHC	1	ND		2.01	
319-86-9	delta-BHC	1	ND		2.01	
58-89-9	gamma-BHC (Lindane)	1	ND		2.01	
5103-71-9	alpha-Chlordane	1	ND		2.01	
5103-74-2	gamma-Chlordane	1	ND		2.01	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.89	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.89	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.89	
60-57-1	Dieldrin	1	ND		3.89	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.01	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.89	
1031-07-8	Endosulfan sulfate	1	ND		3.89	
72-20-8	Endrin	1	ND		3.89	
7421-36-3	Endrin aldehyde	1	ND		3.89	
53494-70-5	Endrin ketone	1	ND		3.89	
76-44-8	Heptachlor	1	ND		2.01	
1024-57-3	Heptachlor epoxide	1	ND		2.01	
72-43-5	Methoxychlor	1	ND		19.7	
8001-35-2	Toxaphene	1	ND		189	
12674-11-2	Aroclor-1016	1	ND		39.3	
11104-28-2	Aroclor-1221	1	ND		79.1	
11141-16-5	Aroclor-1232	1	ND		39.3	
53469-21-9	Aroclor-1242	1	ND		39.3	
12672-29-6	Aroclor-1248	1	ND		39.3	
11097-69-1	Aroclor-1254	1	ND		39.3	
1109-82-5	Aroclor-1260	1	ND		39.3	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:18

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: H-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-004
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 2:21 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.7	
21725-46-2	Cyanazine	1	ND		19.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-005
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 20:30 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	10	ND	D2	19.4	
319-84-6	alpha-BHC	10	ND	D2	19.4	
319-85-7	beta-BHC	10	ND	D2	19.4	
319-86-9	delta-BHC	10	ND	D2	19.4	
58-89-9	gamma-BHC (Lindane)	10	ND	D2	19.4	
5103-71-9	alpha-Chlordane	10	ND	N D2	277	
5103-74-2	gamma-Chlordane	10	ND	D2	19.4	
72-54-9	4,4'-DDD (p,p'-DDD)	10	ND	D2	37.6	
72-55-9	4,4'-DDE (p,p'-DDE)	10	ND	D2	37.6	
50-29-3	4,4'-DDT (p,p'-DDT)	10	ND	N D2	637	
60-57-1	Dieldrin	10	ND	D2	37.6	
959-98-8	Endosulfan I (alpha-Endosulfan)	10	ND	D2	19.4	
33213-65-9	Endosulfan II (beta-Endosulfan)	10	ND	N D2	1690	
1031-07-8	Endosulfan sulfate	10	ND	D2	37.6	
72-20-8	Endrin	10	ND	N D2	860	
7421-36-3	Endrin aldehyde	10	ND	D2	37.6	
53494-70-5	Endrin ketone	10	ND	D2	37.6	
76-44-8	Heptachlor	10	ND	D2	19.4	
1024-57-3	Heptachlor epoxide	10	ND	N D2	89.1	
72-43-5	Methoxychlor	10	ND	N D2	564	
8001-35-2	Toxaphene	10	31700	D1	1820	
12674-11-2	Aroclor-1016	10	ND	D2	380	
11104-28-2	Aroclor-1221	10	ND	D2	764	
11141-16-5	Aroclor-1232	10	ND	D2	380	
53469-21-9	Aroclor-1242	10	ND	D2	380	
12672-29-6	Aroclor-1248	10	ND	D2	380	
11097-69-1	Aroclor-1254	10	ND	D2	380	
1109-82-5	Aroclor-1260	10	ND	D2	380	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:18

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-005
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 1:27 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	ND	D2	190	
21725-46-2	Cyanazine	10	898	D2	190	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-006
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 21:38 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		1.97	
319-84-6	alpha-BHC	1	ND		1.97	
319-85-7	beta-BHC	1	ND		1.97	
319-86-9	delta-BHC	1	ND		1.97	
58-89-9	gamma-BHC (Lindane)	1	ND		1.97	
5103-71-9	alpha-Chlordane	1	ND	N	3.13	
5103-74-2	gamma-Chlordane	1	ND	N	2.32	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.83	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.83	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND	N	10.4	
60-57-1	Dieldrin	1	ND	N	4.29	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.97	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	20.9	
1031-07-8	Endosulfan sulfate	1	ND		3.83	
72-20-8	Endrin	1	ND	N	13.0	
7421-36-3	Endrin aldehyde	1	ND	N	19.3	
53494-70-5	Endrin ketone	1	ND		3.83	
76-44-8	Heptachlor	1	ND		1.97	
1024-57-3	Heptachlor epoxide	1	ND		1.97	
72-43-5	Methoxychlor	1	ND		19.4	
8001-35-2	Toxaphene	1	343		186	
12674-11-2	Aroclor-1016	1	ND		38.6	
11104-28-2	Aroclor-1221	1	ND		77.7	
11141-16-5	Aroclor-1232	1	ND		38.6	
53469-21-9	Aroclor-1242	1	ND		38.6	
12672-29-6	Aroclor-1248	1	ND		38.6	
11097-69-1	Aroclor-1254	1	ND		38.6	
1109-82-5	Aroclor-1260	1	ND		38.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: I-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-006
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 3:20 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.4	
21725-46-2	Cyanazine	1	ND		19.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-007
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 22:12 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		1.89	
319-84-6	alpha-BHC	1	ND		1.89	
319-85-7	beta-BHC	1	ND		1.89	
319-86-9	delta-BHC	1	ND		1.89	
58-89-9	gamma-BHC (Lindane)	1	ND		1.89	
5103-71-9	alpha-Chlordane	1	ND	N	2.22	
5103-74-2	gamma-Chlordane	1	ND	N	4.00	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.66	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND	N	9.32	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.66	
60-57-1	Dieldrin	1	ND		3.66	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		1.89	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND	N	20.8	
1031-07-8	Endosulfan sulfate	1	ND		3.66	
72-20-8	Endrin	1	ND		3.66	
7421-36-3	Endrin aldehyde	1	ND	N	4.55	
53494-70-5	Endrin ketone	1	ND		3.66	
76-44-8	Heptachlor	1	ND		1.89	
1024-57-3	Heptachlor epoxide	1	ND		1.89	
72-43-5	Methoxychlor	1	ND		18.5	
8001-35-2	Toxaphene	1	372		178	
12674-11-2	Aroclor-1016	1	ND		37.0	
11104-28-2	Aroclor-1221	1	ND		74.4	
11141-16-5	Aroclor-1232	1	ND		37.0	
53469-21-9	Aroclor-1242	1	ND		37.0	
12672-29-6	Aroclor-1248	1	ND		37.0	
11097-69-1	Aroclor-1254	1	ND		37.0	
1109-82-5	Aroclor-1260	1	ND		37.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-022
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 20:18 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		393	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-024
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 17:50 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-025MS
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 18:27 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	1780		406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-026MSD
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 19:05 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	5000		406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-027
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 19:42 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	446		410	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-028
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 20:19 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-029
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 20:56 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-030
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 21:33 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		373	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-031
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 11:33 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-032
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 22:47 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		380	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-033
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 21
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 15-Mar-97 23:25 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		423	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-034
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 16-Mar-97 0:02 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		370	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-035
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 12:10 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		373	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-036
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 12:48 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		380	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-037
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 13:25 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		373	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-038
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 14:02 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		363	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-039
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 14:39 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

SECTION 4-2

12-1-A THROUGH 21-2-A
TOLUENE
ATRAZINE/CYANAZINE
TOXAPHENE

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-017
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 12:40 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		58.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-017
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 16:26 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		186	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-017
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** 2/18/97 **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 23:14 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	21.6		19.4	
21725-46-2	Cyanazine	1	20.9		19.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/31/97 14:06:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-018
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 4:22 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		200	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-018
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 23:45 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.9	
21725-46-2	Cyanazine	1	ND		20.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-018
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 12:59 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		62.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-019
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 4:56 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		179	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-019
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 13:19 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		56.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-019
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 12-Mar-97 0:15 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	249		18.7	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-020
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 12-Mar-97 0:45 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	50.1		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-020
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 5:30 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		190	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-020
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 14:17 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		59.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-021
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 17-Mar-97 2:04 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	6820	D1	960	
21725-46-2	Cyanazine	1	ND		19.2	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-021
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 14:37 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		57.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-021
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 0:35 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		184	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-022
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 12-Mar-97 1:15 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	212	D2	197	
21725-46-2	Cyanazine	10	ND	D2	197	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-022
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 6:04 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		189	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2 TRIP BLANK
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-023
Episode: GEO
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SW 8020 Aromatic Volatile Organics
Batch: 21360
Units: ug/l

Prep Factor: 1.00 **Leached:** n/a **Prepared:** **Analyzed:** 25-Feb-97 12:40 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		0.500	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-022
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 14:57 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	118		59.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-024
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 12-Mar-97 5:17 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID:	15-1-A	**Client:**	Woodward-Clyde Consultants-B.R.
Project:	RCRA INVESTIGATION	**Site:**	VICKSBURG
Lab ID:	GEO-024	**Episode:**	GEO **Sample Qu:**
Description:	None	**Matrix:**	Soil **% Moisture:** 17
Method:	Low Soil SR429 CLP Pesticides	**Batch:**	21421 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 2:17 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-025
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 15-Mar-97 1:15 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	187		20.4	
21725-46-2	Cyanazine	1	176		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-024
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 16:15 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		60.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-025
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 16:34 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	1920		61.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-025
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 1:09 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	14.5		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	17.2		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	34.8		4.03	
60-57-1	Dieldrin	1	34.6		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	37.8		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	19.8		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-026
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 16:54 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	1920		61.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. *Specific qualifiers are defined at the end of the report.*
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-026
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 15-Mar-97 1:45 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	201		20.4	
21725-46-2	Cyanazine	1	205		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-027
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 2:51 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		197	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-1-A MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-026
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 1:43 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	12.8		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	15.0		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	27.8		4.03	
60-57-1	Dieldrin	1	30.3		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	33.2		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	20.3		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:31

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-007
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 0:57 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		18.5	
21725-46-2	Cyanazine	1	ND		18.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-008
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 21-Feb-97
Analyzed: 10-Mar-97 22:46 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.09	
319-84-6	alpha-BHC	1	ND		2.09	
319-85-7	beta-BHC	1	ND		2.09	
319-86-9	delta-BHC	1	ND		2.09	
58-89-9	gamma-BHC (Lindane)	1	ND		2.09	
5103-71-9	alpha-Chlordane	1	ND		2.09	
5103-74-2	gamma-Chlordane	1	ND		2.09	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.06	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.06	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		4.06	
60-57-1	Dieldrin	1	ND		4.06	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.09	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.06	
1031-07-8	Endosulfan sulfate	1	ND		4.06	
72-20-8	Endrin	1	ND		4.06	
7421-36-3	Endrin aldehyde	1	ND		4.06	
53494-70-5	Endrin ketone	1	ND		4.06	
76-44-8	Heptachlor	1	ND		2.09	
1024-57-3	Heptachlor epoxide	1	ND		2.09	
72-43-5	Methoxychlor	1	ND		20.5	
8001-35-2	Toxaphene	1	ND		197	
12674-11-2	Aroclor-1016	1	ND		41.0	
11104-28-2	Aroclor-1221	1	ND		82.4	
11141-16-5	Aroclor-1232	1	ND		41.0	
53469-21-9	Aroclor-1242	1	ND		41.0	
12672-29-6	Aroclor-1248	1	ND		41.0	
11097-69-1	Aroclor-1254	1	ND		41.0	
1109-82-5	Aroclor-1260	1	ND		41.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: J-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-008
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 4:18 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.5	
21725-46-2	Cyanazine	1	ND		20.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-009
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 22-Feb-97
Analyzed: 10-Mar-97 23:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		195	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-009
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 1:58 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-010
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 10-Mar-97 23:54 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: K-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-010
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 7:43 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-011
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 0:28 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-011
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 2:28 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	265		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-012
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 22-Feb-97 **Analyzed:** 11-Mar-97 1:03 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: L-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-012
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 8:41 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	10	263	D1	200	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-013
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 21-Feb-97
Analyzed: 11-Mar-97 1:37 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.09	
319-84-6	alpha-BHC	1	ND		2.09	
319-85-7	beta-BHC	1	ND		2.09	
319-86-9	delta-BHC	1	ND		2.09	
58-89-9	gamma-BHC (Lindane)	1	ND		2.09	
5103-71-9	alpha-Chlordane	1	ND		2.09	
5103-74-2	gamma-Chlordane	1	ND		2.09	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.06	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.06	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		4.06	
60-57-1	Dieldrin	1	ND		4.06	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.09	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.06	
1031-07-8	Endosulfan sulfate	1	ND		4.06	
72-20-8	Endrin	1	ND		4.06	
7421-36-3	Endrin aldehyde	1	ND		4.06	
53494-70-5	Endrin ketone	1	ND		4.06	
76-44-8	Heptachlor	1	ND		2.09	
1024-57-3	Heptachlor epoxide	1	ND		2.09	
72-43-5	Methoxychlor	1	ND		20.5	
8001-35-2	Toxaphene	1	ND		197	
12674-11-2	Aroclor-1016	1	ND		41.0	
11104-28-2	Aroclor-1221	1	ND		82.4	
11141-16-5	Aroclor-1232	1	ND		41.0	
53469-21-9	Aroclor-1242	1	ND		41.0	
12672-29-6	Aroclor-1248	1	ND		41.0	
11097-69-1	Aroclor-1254	1	ND		41.0	
1109-82-5	Aroclor-1260	1	ND		41.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-013
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 2:58 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	74.2		20.5	
21725-46-2	Cyanazine	1	ND		20.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-014
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 2:11 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	ND		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.44	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		4.03	
60-57-1	Dieldrin	1	ND		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	ND		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	ND		2.20	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:33:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: M-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-014
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 9:40 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:52

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-015
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 5:35 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	10	ND	D2	19.0	
319-84-6	alpha-BHC	10	ND	D2	19.0	
319-85-7	beta-BHC	10	ND	D2	19.0	
319-86-9	delta-BHC	10	ND	D2	19.0	
58-89-9	gamma-BHC (Lindane)	10	ND	D2	19.0	
5103-71-9	alpha-Chlordane	10	ND	D2	19.0	
5103-74-2	gamma-Chlordane	10	ND	D2	19.0	
72-54-9	4,4'-DDD (p,p'-DDD)	10	ND	D2	37.0	
72-55-9	4,4'-DDE (p,p'-DDE)	10	ND	D2	37.0	
50-29-3	4,4'-DDT (p,p'-DDT)	10	ND	D2	37.0	
60-57-1	Dieldrin	10	ND	D2	37.0	
959-98-8	Endosulfan I (alpha-Endosulfan)	10	ND	D2	19.0	
33213-65-9	Endosulfan II (beta-Endosulfan)	10	ND	D2	37.0	
1031-07-8	Endosulfan sulfate	10	ND	D2	37.0	
72-20-8	Endrin	10	ND	D2	37.0	
7421-36-3	Endrin aldehyde	10	ND	D2	37.0	
53494-70-5	Endrin ketone	10	ND	D2	37.0	
76-44-8	Heptachlor	10	ND	D2	19.0	
1024-57-3	Heptachlor epoxide	10	ND	D2	19.0	
72-43-5	Methoxychlor	10	ND	D2	187	
8001-35-2	Toxaphene	10	ND	D2	1790	
12674-11-2	Aroclor-1016	10	ND	D2	373	
11104-28-2	Aroclor-1221	10	ND	D2	750	
11141-16-5	Aroclor-1232	10	ND	D2	373	
53469-21-9	Aroclor-1242	10	ND	D2	373	
12672-29-6	Aroclor-1248	10	ND	D2	373	
11097-69-1	Aroclor-1254	10	ND	D2	373	
1109-82-5	Aroclor-1260	10	ND	D2	373	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:33:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-015
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 3:58 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	819	D1	187	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:52

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-016
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 11-Mar-97 6:09 SF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	ND		2.04	
319-84-6	alpha-BHC	1	ND		2.04	
319-85-7	beta-BHC	1	ND		2.04	
319-86-9	delta-BHC	1	ND		2.04	
58-89-9	gamma-BHC (Lindane)	1	ND		2.04	
5103-71-9	alpha-Chlordane	1	ND		2.04	
5103-74-2	gamma-Chlordane	1	ND		2.04	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		3.96	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		3.96	
50-29-3	4,4'-DDT (p,p'-DDT)	1	ND		3.96	
60-57-1	Dieldrin	1	ND		3.96	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.04	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		3.96	
1031-07-8	Endosulfan sulfate	1	ND		3.96	
72-20-8	Endrin	1	ND		3.96	
7421-36-3	Endrin aldehyde	1	ND		3.96	
53494-70-5	Endrin ketone	1	ND		3.96	
76-44-8	Heptachlor	1	ND		2.04	
1024-57-3	Heptachlor epoxide	1	ND		2.04	
72-43-5	Methoxychlor	1	ND		20.0	
8001-35-2	Toxaphene	1	ND		192	
12674-11-2	Aroclor-1016	1	ND		40.0	
11104-28-2	Aroclor-1221	1	ND		80.4	
11141-16-5	Aroclor-1232	1	ND		40.0	
53469-21-9	Aroclor-1242	1	ND		40.0	
12672-29-6	Aroclor-1248	1	ND		40.0	
11097-69-1	Aroclor-1254	1	ND		40.0	
1109-82-5	Aroclor-1260	1	ND		40.0	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:21:20

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: N-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-016
Episode: GEA
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 21-Feb-97 **Analyzed:** 10-Mar-97 11:07 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 11:47:52

SECTION 2-3

G-1-B THROUGH N-2-B
INORGANICS (EXCEPT FOR K
AND L WHICH IS ARSENIC)

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: G-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-001
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	6330		mg/kg	47.6	21-Feb-97	07-Mar-97	18:10	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.3	21-Feb-97	07-Mar-97	18:10	KJR	
Arsenic	CLP	21404	1	7.73		mg/kg	2.38	21-Feb-97	07-Mar-97	18:10	KJR	
Barium	CLP	21404	1	159		mg/kg	47.6	21-Feb-97	07-Mar-97	18:10	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	18:10	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	18:10	KJR	
Calcium	CLP	21404	1	37500		mg/kg	1190	21-Feb-97	07-Mar-97	18:10	KJR	
Chromium	CLP	21404	1	16.6		mg/kg	2.38	21-Feb-97	07-Mar-97	18:10	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.9	21-Feb-97	07-Mar-97	18:10	KJR	
Copper	CLP	21404	1	14.5		mg/kg	5.95	21-Feb-97	07-Mar-97	18:10	KJR	
Iron	CLP	21404	1	17200		mg/kg	23.8	21-Feb-97	07-Mar-97	18:10	KJR	
Lead	CLP	21404	1	9.06		mg/kg	0.714	21-Feb-97	07-Mar-97	18:10	KJR	
Magnesium	CLP	21404	1	18700		mg/kg	1190	21-Feb-97	07-Mar-97	18:10	KJR	
Manganese	CLP	21404	1	814		mg/kg	3.57	21-Feb-97	07-Mar-97	18:10	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.119	17-Feb-97	17-Feb-97	16:46	WRS	
Nickel	CLP	21404	1	16.1		mg/kg	9.52	21-Feb-97	07-Mar-97	18:10	KJR	
Potassium	CLP	21404	1	1480		mg/kg	1190	21-Feb-97	07-Mar-97	18:10	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	18:10	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	18:10	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	18:10	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	18:10	KJR	
Vanadium	CLP	21404	1	23.4		mg/kg	11.9	21-Feb-97	07-Mar-97	18:10	KJR	
Zinc	CLP	21404	1	54.1		mg/kg	4.76	21-Feb-97	07-Mar-97	18:10	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:23:29

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: G-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-002
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	6260		mg/kg	47.6	21-Feb-97	07-Mar-97	18:16	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.3	21-Feb-97	07-Mar-97	18:16	KJR	
Arsenic	CLP	21404	1	8.46		mg/kg	2.38	21-Feb-97	07-Mar-97	18:16	KJR	
Barium	CLP	21404	1	138		mg/kg	47.6	21-Feb-97	07-Mar-97	18:16	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	18:16	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.19	21-Feb-97	07-Mar-97	18:16	KJR	
Calcium	CLP	21404	1	42200		mg/kg	1190	21-Feb-97	07-Mar-97	18:16	KJR	
Chromium	CLP	21404	1	10.0		mg/kg	2.38	21-Feb-97	07-Mar-97	18:16	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.9	21-Feb-97	07-Mar-97	18:16	KJR	
Copper	CLP	21404	1	15.5		mg/kg	5.95	21-Feb-97	07-Mar-97	18:16	KJR	
Iron	CLP	21404	1	17800		mg/kg	23.8	21-Feb-97	07-Mar-97	18:16	KJR	
Lead	CLP	21404	1	8.82		mg/kg	0.714	21-Feb-97	07-Mar-97	18:16	KJR	
Magnesium	CLP	21404	1	22400		mg/kg	1190	21-Feb-97	07-Mar-97	18:16	KJR	
Manganese	CLP	21404	1	646		mg/kg	3.57	21-Feb-97	07-Mar-97	18:16	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.119	17-Feb-97	17-Feb-97	16:53	WRS	
Nickel	CLP	21404	1	15.0		mg/kg	9.52	21-Feb-97	07-Mar-97	18:16	KJR	
Potassium	CLP	21404	1	1570		mg/kg	1190	21-Feb-97	07-Mar-97	18:16	KJR	
Selenium	CLP	21404	1	1.27		mg/kg	1.19	21-Feb-97	07-Mar-97	18:16	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	18:16	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1190	21-Feb-97	07-Mar-97	18:16	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.38	21-Feb-97	07-Mar-97	18:16	KJR	
Vanadium	CLP	21404	1	24.2		mg/kg	11.9	21-Feb-97	07-Mar-97	18:16	KJR	
Zinc	CLP	21404	1	49.3		mg/kg	4.76	21-Feb-97	07-Mar-97	18:16	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:23:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: H-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-003
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 8

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	5020		mg/kg	43.6	21-Feb-97	07-Mar-97	18:22	KJR	
Antimony	CLP	21404	1	ND		mg/kg	13.1	21-Feb-97	07-Mar-97	18:22	KJR	
Arsenic	CLP	21404	1	3.14		mg/kg	2.18	21-Feb-97	07-Mar-97	18:22	KJR	
Barium	CLP	21404	1	ND		mg/kg	43.6	21-Feb-97	07-Mar-97	18:22	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.09	21-Feb-97	07-Mar-97	18:22	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.09	21-Feb-97	07-Mar-97	18:22	KJR	
Calcium	CLP	21404	1	2230		mg/kg	1090	21-Feb-97	07-Mar-97	18:22	KJR	
Chromium	CLP	21404	1	9.94		mg/kg	2.18	21-Feb-97	07-Mar-97	18:22	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	10.9	21-Feb-97	07-Mar-97	18:22	KJR	
Copper	CLP	21404	1	ND		mg/kg	5.45	21-Feb-97	07-Mar-97	18:22	KJR	
Iron	CLP	21404	1	6500		mg/kg	21.8	21-Feb-97	07-Mar-97	18:22	KJR	
Lead	CLP	21404	1	4.98		mg/kg	0.654	21-Feb-97	07-Mar-97	18:22	KJR	
Magnesium	CLP	21404	1	ND		mg/kg	1090	21-Feb-97	07-Mar-97	18:22	KJR	
Manganese	CLP	21404	1	16.5		mg/kg	3.27	21-Feb-97	07-Mar-97	18:22	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.109	17-Feb-97	17-Feb-97	16:55	WRS	
Nickel	CLP	21404	1	ND		mg/kg	8.72	21-Feb-97	07-Mar-97	18:22	KJR	
Potassium	CLP	21404	1	1740		mg/kg	1090	21-Feb-97	07-Mar-97	18:22	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.09	21-Feb-97	07-Mar-97	18:22	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.18	21-Feb-97	07-Mar-97	18:22	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1090	21-Feb-97	07-Mar-97	18:22	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.18	21-Feb-97	07-Mar-97	18:22	KJR	
Vanadium	CLP	21404	1	15.0		mg/kg	10.9	21-Feb-97	07-Mar-97	18:22	KJR	
Zinc	CLP	21404	1	10.2		mg/kg	4.36	21-Feb-97	07-Mar-97	18:22	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: H-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-004
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 15

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	7480		mg/kg	47.2	21-Feb-97	07-Mar-97	18:37	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.2	21-Feb-97	07-Mar-97	18:37	KJR	
Arsenic	CLP	21404	1	7.30		mg/kg	2.36	21-Feb-97	07-Mar-97	18:37	KJR	
Barium	CLP	21404	1	191		mg/kg	47.2	21-Feb-97	07-Mar-97	18:37	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.18	21-Feb-97	07-Mar-97	18:37	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.18	21-Feb-97	07-Mar-97	18:37	KJR	
Calcium	CLP	21404	1	20700		mg/kg	1180	21-Feb-97	07-Mar-97	18:37	KJR	
Chromium	CLP	21404	1	14.9		mg/kg	2.36	21-Feb-97	07-Mar-97	18:37	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.8	21-Feb-97	07-Mar-97	18:37	KJR	
Copper	CLP	21404	1	17.9		mg/kg	5.90	21-Feb-97	07-Mar-97	18:37	KJR	
Iron	CLP	21404	1	18900		mg/kg	23.6	21-Feb-97	07-Mar-97	18:37	KJR	
Lead	CLP	21404	1	11.6		mg/kg	0.708	21-Feb-97	07-Mar-97	18:37	KJR	
Magnesium	CLP	21404	1	12800		mg/kg	1180	21-Feb-97	07-Mar-97	18:37	KJR	
Manganese	CLP	21404	1	743		mg/kg	3.54	21-Feb-97	07-Mar-97	18:37	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.118	17-Feb-97	17-Feb-97	16:57	WRS	
Nickel	CLP	21404	1	21.4		mg/kg	9.44	21-Feb-97	07-Mar-97	18:37	KJR	
Potassium	CLP	21404	1	1610		mg/kg	1180	21-Feb-97	07-Mar-97	18:37	KJR	
Selenium	CLP	21404	1	1.41		mg/kg	1.18	21-Feb-97	07-Mar-97	18:37	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.36	21-Feb-97	07-Mar-97	18:37	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1180	21-Feb-97	07-Mar-97	18:37	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.36	21-Feb-97	07-Mar-97	18:37	KJR	
Vanadium	CLP	21404	1	28.3		mg/kg	11.8	21-Feb-97	07-Mar-97	18:37	KJR	
Zinc	CLP	21404	1	59.8		mg/kg	4.72	21-Feb-97	07-Mar-97	18:37	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:23:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: I-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-005
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 12

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	13900		mg/kg	45.6	21-Feb-97	07-Mar-97	18:42	KJR	
Antimony	CLP	21404	1	ND		mg/kg	13.7	21-Feb-97	07-Mar-97	18:42	KJR	
Arsenic	CLP	21404	1	27.0		mg/kg	2.28	21-Feb-97	07-Mar-97	18:42	KJR	
Barium	CLP	21404	1	230		mg/kg	45.6	21-Feb-97	07-Mar-97	18:42	KJR	
Beryllium	CLP	21404	1	1.68		mg/kg	1.14	21-Feb-97	07-Mar-97	18:42	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.14	21-Feb-97	07-Mar-97	18:42	KJR	
Calcium	CLP	21404	1	81300		mg/kg	1140	21-Feb-97	07-Mar-97	18:42	KJR	
Chromium	CLP	21404	1	306		mg/kg	2.28	21-Feb-97	07-Mar-97	18:42	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.4	21-Feb-97	07-Mar-97	18:42	KJR	
Copper	CLP	21404	1	13.1		mg/kg	5.70	21-Feb-97	07-Mar-97	18:42	KJR	
Iron	CLP	21404	1	8500		mg/kg	22.8	21-Feb-97	07-Mar-97	18:42	KJR	
Lead	CLP	21404	1	32.4		mg/kg	0.684	21-Feb-97	07-Mar-97	18:42	KJR	
Magnesium	CLP	21404	1	15300		mg/kg	1140	21-Feb-97	07-Mar-97	18:42	KJR	
Manganese	CLP	21404	1	932		mg/kg	3.42	21-Feb-97	07-Mar-97	18:42	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.114	17-Feb-97	17-Feb-97	17:00	WRS	
Nickel	CLP	21404	1	13.5		mg/kg	9.12	21-Feb-97	07-Mar-97	18:42	KJR	
Potassium	CLP	21404	1	ND		mg/kg	1140	21-Feb-97	31-Dec-69	16:00	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.14	21-Feb-97	07-Mar-97	18:42	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.28	21-Feb-97	07-Mar-97	18:42	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1140	21-Feb-97	07-Mar-97	18:42	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.28	21-Feb-97	07-Mar-97	18:42	KJR	
Vanadium	CLP	21404	1	16.7		mg/kg	11.4	21-Feb-97	07-Mar-97	18:42	KJR	
Zinc	CLP	21404	1	65.8		mg/kg	4.56	21-Feb-97	07-Mar-97	18:42	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 09:23:30

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: I-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-006
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 14

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	6110		mg/kg	46.4	21-Feb-97	07-Mar-97	18:49	KJR	
Antimony	CLP	21404	1	ND		mg/kg	13.9	21-Feb-97	07-Mar-97	18:49	KJR	
Arsenic	CLP	21404	1	7.86		mg/kg	2.32	21-Feb-97	07-Mar-97	18:49	KJR	
Barium	CLP	21404	1	132		mg/kg	46.4	21-Feb-97	07-Mar-97	18:49	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.16	21-Feb-97	07-Mar-97	18:49	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.16	21-Feb-97	07-Mar-97	18:49	KJR	
Calcium	CLP	21404	1	30200		mg/kg	1160	21-Feb-97	07-Mar-97	18:49	KJR	
Chromium	CLP	21404	1	12.7		mg/kg	2.32	21-Feb-97	07-Mar-97	18:49	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.6	21-Feb-97	07-Mar-97	18:49	KJR	
Copper	CLP	21404	1	13.5		mg/kg	5.80	21-Feb-97	07-Mar-97	18:49	KJR	
Iron	CLP	21404	1	16700		mg/kg	23.2	21-Feb-97	07-Mar-97	18:49	KJR	
Lead	CLP	21404	1	8.68		mg/kg	0.696	21-Feb-97	07-Mar-97	18:49	KJR	
Magnesium	CLP	21404	1	16500		mg/kg	1160	21-Feb-97	07-Mar-97	18:49	KJR	
Manganese	CLP	21404	1	735		mg/kg	3.48	21-Feb-97	07-Mar-97	18:49	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.116	17-Feb-97	17-Feb-97	17:02	WRS	
Nickel	CLP	21404	1	16.4		mg/kg	9.28	21-Feb-97	07-Mar-97	18:49	KJR	
Potassium	CLP	21404	1	1510		mg/kg	1160	21-Feb-97	07-Mar-97	18:49	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.16	21-Feb-97	07-Mar-97	18:49	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.32	21-Feb-97	07-Mar-97	18:49	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1160	21-Feb-97	07-Mar-97	18:49	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.32	21-Feb-97	07-Mar-97	18:49	KJR	
Vanadium	CLP	21404	1	21.6		mg/kg	11.6	21-Feb-97	07-Mar-97	18:49	KJR	
Zinc	CLP	21404	1	47.8		mg/kg	4.64	21-Feb-97	07-Mar-97	18:49	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: J-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-007
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 10

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	4300		mg/kg	44.4	21-Feb-97	07-Mar-97	18:54	KJR	
Antimony	CLP	21404	1	ND		mg/kg	13.3	21-Feb-97	07-Mar-97	18:54	KJR	
Arsenic	CLP	21404	1	3.89		mg/kg	2.22	21-Feb-97	07-Mar-97	18:54	KJR	
Barium	CLP	21404	1	ND		mg/kg	44.4	21-Feb-97	07-Mar-97	18:54	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.11	21-Feb-97	07-Mar-97	18:54	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.11	21-Feb-97	07-Mar-97	18:54	KJR	
Calcium	CLP	21404	1	4380		mg/kg	1110	21-Feb-97	07-Mar-97	18:54	KJR	
Chromium	CLP	21404	1	9.61		mg/kg	2.22	21-Feb-97	07-Mar-97	18:54	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.1	21-Feb-97	07-Mar-97	18:54	KJR	
Copper	CLP	21404	1	ND		mg/kg	5.55	21-Feb-97	07-Mar-97	18:54	KJR	
Iron	CLP	21404	1	6630		mg/kg	22.2	21-Feb-97	07-Mar-97	18:54	KJR	
Lead	CLP	21404	1	7.65		mg/kg	0.666	21-Feb-97	07-Mar-97	18:54	KJR	
Magnesium	CLP	21404	1	1760		mg/kg	1110	21-Feb-97	07-Mar-97	18:54	KJR	
Manganese	CLP	21404	1	62.4		mg/kg	3.33	21-Feb-97	07-Mar-97	18:54	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.111	17-Feb-97	17-Feb-97	17:09	WRS	
Nickel	CLP	21404	1	ND		mg/kg	8.88	21-Feb-97	07-Mar-97	18:54	KJR	
Potassium	CLP	21404	1	ND		mg/kg	1110	21-Feb-97	07-Mar-97	18:54	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.11	21-Feb-97	07-Mar-97	18:54	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.22	21-Feb-97	07-Mar-97	18:54	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1110	21-Feb-97	07-Mar-97	18:54	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.22	21-Feb-97	07-Mar-97	18:54	KJR	
Vanadium	CLP	21404	1	13.4		mg/kg	11.1	21-Feb-97	07-Mar-97	18:54	KJR	
Zinc	CLP	21404	1	14.8		mg/kg	4.44	21-Feb-97	07-Mar-97	18:54	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
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Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: J-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-008
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 19

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	5970		mg/kg	49.2	21-Feb-97	07-Mar-97	19:00	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.8	21-Feb-97	07-Mar-97	19:00	KJR	
Arsenic	CLP	21404	1	4.72		mg/kg	2.46	21-Feb-97	07-Mar-97	19:00	KJR	
Barium	CLP	21404	1	76.7		mg/kg	49.2	21-Feb-97	07-Mar-97	19:00	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.23	21-Feb-97	07-Mar-97	19:00	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.23	21-Feb-97	07-Mar-97	19:00	KJR	
Calcium	CLP	21404	1	11900		mg/kg	1230	21-Feb-97	07-Mar-97	19:00	KJR	
Chromium	CLP	21404	1	19.2		mg/kg	2.46	21-Feb-97	07-Mar-97	19:00	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	12.3	21-Feb-97	07-Mar-97	19:00	KJR	
Copper	CLP	21404	1	11.6		mg/kg	6.15	21-Feb-97	07-Mar-97	19:00	KJR	
Iron	CLP	21404	1	12500		mg/kg	24.6	21-Feb-97	07-Mar-97	19:00	KJR	
Lead	CLP	21404	1	9.39		mg/kg	0.738	21-Feb-97	07-Mar-97	19:00	KJR	
Magnesium	CLP	21404	1	7040		mg/kg	1230	21-Feb-97	07-Mar-97	19:00	KJR	
Manganese	CLP	21404	1	161		mg/kg	3.69	21-Feb-97	07-Mar-97	19:00	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.123	17-Feb-97	17-Feb-97	17:11	WRS	
Nickel	CLP	21404	1	10.2		mg/kg	9.84	21-Feb-97	07-Mar-97	19:00	KJR	
Potassium	CLP	21404	1	1260		mg/kg	1230	21-Feb-97	07-Mar-97	19:00	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.23	21-Feb-97	07-Mar-97	19:00	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.46	21-Feb-97	07-Mar-97	19:00	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1230	21-Feb-97	07-Mar-97	19:00	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.46	21-Feb-97	07-Mar-97	19:00	KJR	
Vanadium	CLP	21404	1	22.4		mg/kg	12.3	21-Feb-97	07-Mar-97	19:00	KJR	
Zinc	CLP	21404	1	41.5		mg/kg	4.92	21-Feb-97	07-Mar-97	19:00	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: K-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-009
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	10.5		mg/kg	1.22	26-Feb-97	27-Feb-97	22:55	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: K-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-010
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	11.3		mg/kg	1.20	26-Feb-97	27-Feb-97	23:01	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: L-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-011
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	14.5		mg/kg	1.20	26-Feb-97	27-Feb-97	23:06	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: L-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-012
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	*Method*	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	8.55		mg/kg	1.20	26-Feb-97	27-Feb-97	23:21	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: M-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-013
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 19

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	8560		mg/kg	49.2	21-Feb-97	07-Mar-97	19:05	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.8	21-Feb-97	07-Mar-97	19:05	KJR	
Arsenic	CLP	21404	1	8.44		mg/kg	2.46	21-Feb-97	07-Mar-97	19:05	KJR	
Barium	CLP	21404	1	118		mg/kg	49.2	21-Feb-97	07-Mar-97	19:05	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.23	21-Feb-97	07-Mar-97	19:05	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.23	21-Feb-97	07-Mar-97	19:05	KJR	
Calcium	CLP	21404	1	31000		mg/kg	1230	21-Feb-97	07-Mar-97	19:05	KJR	
Chromium	CLP	21404	1	13.6		mg/kg	2.46	21-Feb-97	07-Mar-97	19:05	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	12.3	21-Feb-97	07-Mar-97	19:05	KJR	
Copper	CLP	21404	1	13.3		mg/kg	6.15	21-Feb-97	07-Mar-97	19:05	KJR	
Iron	CLP	21404	1	18100		mg/kg	24.6	21-Feb-97	07-Mar-97	19:05	KJR	
Lead	CLP	21404	1	11.0		mg/kg	0.738	21-Feb-97	07-Mar-97	19:05	KJR	
Magnesium	CLP	21404	1	12900		mg/kg	1230	21-Feb-97	07-Mar-97	19:05	KJR	
Manganese	CLP	21404	1	610		mg/kg	3.69	21-Feb-97	07-Mar-97	19:05	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.123	17-Feb-97	17-Feb-97	17:13	WRS	
Nickel	CLP	21404	1	16.0		mg/kg	9.84	21-Feb-97	07-Mar-97	19:05	KJR	
Potassium	CLP	21404	1	1790		mg/kg	1230	21-Feb-97	07-Mar-97	19:05	KJR	
Selenium	CLP	21404	1	1.42		mg/kg	1.23	21-Feb-97	07-Mar-97	19:05	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.46	21-Feb-97	07-Mar-97	19:05	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1230	21-Feb-97	07-Mar-97	19:05	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.46	21-Feb-97	07-Mar-97	19:05	KJR	
Vanadium	CLP	21404	1	26.3		mg/kg	12.3	21-Feb-97	07-Mar-97	19:05	KJR	
Zinc	CLP	21404	1	50.3		mg/kg	4.92	21-Feb-97	07-Mar-97	19:05	KJR	

23 parameter(s) reported

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: M-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-014
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	6980		mg/kg	48.8	21-Feb-97	07-Mar-97	19:11	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.6	21-Feb-97	07-Mar-97	19:11	KJR	
Arsenic	CLP	21404	1	7.53		mg/kg	2.44	21-Feb-97	07-Mar-97	19:11	KJR	
Barium	CLP	21404	1	116		mg/kg	48.8	21-Feb-97	07-Mar-97	19:11	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	19:11	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	19:11	KJR	
Calcium	CLP	21404	1	28700		mg/kg	1220	21-Feb-97	07-Mar-97	19:11	KJR	
Chromium	CLP	21404	1	12.8		mg/kg	2.44	21-Feb-97	07-Mar-97	19:11	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	12.2	21-Feb-97	07-Mar-97	19:11	KJR	
Copper	CLP	21404	1	12.2		mg/kg	6.10	21-Feb-97	07-Mar-97	19:11	KJR	
Iron	CLP	21404	1	16000		mg/kg	24.4	21-Feb-97	07-Mar-97	19:11	KJR	
Lead	CLP	21404	1	11.0		mg/kg	0.732	21-Feb-97	07-Mar-97	19:11	KJR	
Magnesium	CLP	21404	1	14500		mg/kg	1220	21-Feb-97	07-Mar-97	19:11	KJR	
Manganese	CLP	21404	1	600		mg/kg	3.66	21-Feb-97	07-Mar-97	19:11	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.122	17-Feb-97	17-Feb-97	17:16	WRS	
Nickel	CLP	21404	1	14.2		mg/kg	9.76	21-Feb-97	07-Mar-97	19:11	KJR	
Potassium	CLP	21404	1	1580		mg/kg	1220	21-Feb-97	07-Mar-97	19:11	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.22	21-Feb-97	07-Mar-97	19:11	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	19:11	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1220	21-Feb-97	07-Mar-97	19:11	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.44	21-Feb-97	07-Mar-97	19:11	KJR	
Vanadium	CLP	21404	1	22.6		mg/kg	12.2	21-Feb-97	07-Mar-97	19:11	KJR	
Zinc	CLP	21404	1	45.8		mg/kg	4.88	21-Feb-97	07-Mar-97	19:11	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: N-1-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-015
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	8530		mg/kg	44.8	21-Feb-97	07-Mar-97	19:17	KJR	
Antimony	CLP	21404	1	ND		mg/kg	13.4	21-Feb-97	07-Mar-97	19:17	KJR	
Arsenic	CLP	21404	1	6.32		mg/kg	2.24	21-Feb-97	07-Mar-97	19:17	KJR	
Barium	CLP	21404	1	131		mg/kg	44.8	21-Feb-97	07-Mar-97	19:17	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.12	21-Feb-97	07-Mar-97	19:17	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.12	21-Feb-97	07-Mar-97	19:17	KJR	
Calcium	CLP	21404	1	38700		mg/kg	1120	21-Feb-97	07-Mar-97	19:17	KJR	
Chromium	CLP	21404	1	14.9		mg/kg	2.24	21-Feb-97	07-Mar-97	19:17	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	11.2	21-Feb-97	07-Mar-97	19:17	KJR	
Copper	CLP	21404	1	274		mg/kg	5.60	21-Feb-97	07-Mar-97	19:17	KJR	
Iron	CLP	21404	1	16000		mg/kg	22.4	21-Feb-97	07-Mar-97	19:17	KJR	
Lead	CLP	21404	1	81.5		mg/kg	0.672	21-Feb-97	07-Mar-97	19:17	KJR	
Magnesium	CLP	21404	1	7660		mg/kg	1120	21-Feb-97	07-Mar-97	19:17	KJR	
Manganese	CLP	21404	1	512		mg/kg	3.36	21-Feb-97	07-Mar-97	19:17	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.112	17-Feb-97	17-Feb-97	17:18	WRS	
Nickel	CLP	21404	1	11.9		mg/kg	8.96	21-Feb-97	07-Mar-97	19:17	KJR	
Potassium	CLP	21404	1	1700		mg/kg	1120	21-Feb-97	07-Mar-97	19:17	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.12	21-Feb-97	07-Mar-97	19:17	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.24	21-Feb-97	07-Mar-97	19:17	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1120	21-Feb-97	07-Mar-97	19:17	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.24	21-Feb-97	07-Mar-97	19:17	KJR	
Vanadium	CLP	21404	1	21.5		mg/kg	11.2	21-Feb-97	07-Mar-97	19:17	KJR	
Zinc	CLP	21404	1	81.3		mg/kg	4.48	21-Feb-97	07-Mar-97	19:17	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: N-2-B
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEA-016
Episode: GEA
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Aluminum	CLP	21404	1	5650		mg/kg	48.0	21-Feb-97	07-Mar-97	19:22	KJR	
Antimony	CLP	21404	1	ND		mg/kg	14.4	21-Feb-97	07-Mar-97	19:22	KJR	
Arsenic	CLP	21404	1	6.09		mg/kg	2.40	21-Feb-97	07-Mar-97	19:22	KJR	
Barium	CLP	21404	1	94.9		mg/kg	48.0	21-Feb-97	07-Mar-97	19:22	KJR	
Beryllium	CLP	21404	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	19:22	KJR	
Cadmium	CLP	21404	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	19:22	KJR	
Calcium	CLP	21404	1	33300		mg/kg	1200	21-Feb-97	07-Mar-97	19:22	KJR	
Chromium	CLP	21404	1	9.86		mg/kg	2.40	21-Feb-97	07-Mar-97	19:22	KJR	
Cobalt	CLP	21404	1	ND		mg/kg	12.0	21-Feb-97	07-Mar-97	19:22	KJR	
Copper	CLP	21404	1	12.4		mg/kg	6.00	21-Feb-97	07-Mar-97	19:22	KJR	
Iron	CLP	21404	1	14600		mg/kg	24.0	21-Feb-97	07-Mar-97	19:22	KJR	
Lead	CLP	21404	1	7.78		mg/kg	0.720	21-Feb-97	07-Mar-97	19:22	KJR	
Magnesium	CLP	21404	1	17400		mg/kg	1200	21-Feb-97	07-Mar-97	19:22	KJR	
Manganese	CLP	21404	1	418		mg/kg	3.60	21-Feb-97	07-Mar-97	19:22	KJR	
Mercury	CLP	21379	1	ND		mg/kg	0.120	17-Feb-97	17-Feb-97	17:20	WRS	
Nickel	CLP	21404	1	12.9		mg/kg	9.60	21-Feb-97	07-Mar-97	19:22	KJR	
Potassium	CLP	21404	1	1390		mg/kg	1200	21-Feb-97	07-Mar-97	19:22	KJR	
Selenium	CLP	21404	1	ND		mg/kg	1.20	21-Feb-97	07-Mar-97	19:22	KJR	
Silver	CLP	21404	1	ND		mg/kg	2.40	21-Feb-97	07-Mar-97	19:22	KJR	
Sodium	CLP	21404	1	ND		mg/kg	1200	21-Feb-97	07-Mar-97	19:22	KJR	
Thallium	CLP	21404	1	ND		mg/kg	2.40	21-Feb-97	07-Mar-97	19:22	KJR	
Vanadium	CLP	21404	1	19.9		mg/kg	12.0	21-Feb-97	07-Mar-97	19:22	KJR	
Zinc	CLP	21404	1	39.5		mg/kg	4.80	21-Feb-97	07-Mar-97	19:22	KJR	

23 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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SECTION 3-1

1-1-C THROUGH 11-2-C
DINOSEB

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-041
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 15:17 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND	N	406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-042
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 15:54 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-043
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 16:31 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	644	N	406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-044
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 17:08 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		393	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-045
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 17:45 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND	N	373	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-046
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 18:23 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND	N	383	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-047
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 16:39 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND	N	396	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:14

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-048
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 17:16 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		386	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-049
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 17:53 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND	N	406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-050
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 18:30 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		386	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-051
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 11:05 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		370	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-052
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 20:14 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-053MS
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 25-Feb-97
Analyzed: 17-Mar-97 20:51 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	2710		406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-056
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 11:42 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		400	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-058
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 12:19 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		373	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-059
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 12:56 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		393	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-060
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 13:33 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		383	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-061
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 14:10 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		380	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-062
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 19:44 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		363	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-063
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 14:48 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		370	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-064
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 9
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 15:25 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		366	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-065
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 16:02 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		370	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-054
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 15-Mar-97 2:44 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	201		20.4	
21725-46-2	Cyanazine	1	156		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:38

SECTION 3-2

1-1-C THROUGH 11-2-C
ATRAZINE/CYANAZINE
TOXAPHENE

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-041
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 9:40 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		195	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-054MSD
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 17-Mar-97 21:28 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	2720		406	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-055
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 18-Mar-97 19:07 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		370	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-041
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 28-Mar-97 12:00 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	726	DI	204	
21725-46-2	Cyanazine	1	22.7		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-042
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 2142
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 12:30 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-042
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 20:59 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	272	D1	200	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-043
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 13:04 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	1680		195	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-043
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 15:33 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	94.8		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-044
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 13:38 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	4050		189	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-044
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 16:32 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	29.3		19.7	
21725-46-2	Cyanazine	1	ND		19.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-045
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Pesticides
Batch: 2142
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 9:16 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	3970		179	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-045
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 17:02 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		18.7	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-046
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 17:32 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.2	
21725-46-2	Cyanazine	1	ND		19.2	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-046RE
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 08-Mar-97 **Analyzed:** 19-Mar-97 3:52 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		184	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-047
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 14:45 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		190	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-047
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 18:01 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	10100	D2	990	
21725-46-2	Cyanazine	50	ND	D2	990	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-048
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 15:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		186	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-048
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 18:31 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	327		19.4	
21725-46-2	Cyanazine	1	ND		19.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. *Specific qualifiers are defined at the end of the report.*
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-049
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 15:54 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		195	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-049
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 16-Mar-97 19:10 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	3200	D2	204	
21725-46-2	Cyanazine	10	ND	D2	204	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-050
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 16:28 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		186	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-050
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 25-Mar-97 15:01 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	69.4		19.4	
21725-46-2	Cyanazine	1	ND		19.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-051
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 17:02 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		178	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-051
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 17-Mar-97 3:03 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		18.5	
21725-46-2	Cyanazine	1	ND		18.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-052
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 16-Mar-97 18:40 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.4	
21725-46-2	Cyanazine	1	ND		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-052
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 14:12 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		195	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 15:48:21

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-053
Episode: GEQ
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 15-Mar-97 2:14 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	192		20.4	
21725-46-2	Cyanazine	1	151		20.4	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-053RE
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 6:43 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	10.5		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	11.1		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	21.6		4.03	
60-57-1	Dieldrin	1	23.5		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	26.0		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	11.7		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-2-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-054RE
Episode: GEO
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Soil
% Moisture: 18
Method: Low Soil SR437 CLP Pesticides/PCBs
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 5:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
309-00-2	Aldrin	1	14.5		2.07	
319-84-6	alpha-BHC	1	ND		2.07	
319-85-7	beta-BHC	1	ND		2.07	
319-86-9	delta-BHC	1	ND		2.07	
58-89-9	gamma-BHC (Lindane)	1	15.0		2.07	
5103-71-9	alpha-Chlordane	1	ND		2.07	
5103-74-2	gamma-Chlordane	1	ND		2.07	
72-54-9	4,4'-DDD (p,p'-DDD)	1	ND		4.03	
72-55-9	4,4'-DDE (p,p'-DDE)	1	ND		4.03	
50-29-3	4,4'-DDT (p,p'-DDT)	1	30.7		4.03	
60-57-1	Dieldrin	1	33.4		4.03	
959-98-8	Endosulfan I (alpha-Endosulfan)	1	ND		2.07	
33213-65-9	Endosulfan II (beta-Endosulfan)	1	ND		4.03	
1031-07-8	Endosulfan sulfate	1	ND		4.03	
72-20-8	Endrin	1	35.1		4.03	
7421-36-3	Endrin aldehyde	1	ND		4.03	
53494-70-5	Endrin ketone	1	ND		4.03	
76-44-8	Heptachlor	1	16.5		2.07	
1024-57-3	Heptachlor epoxide	1	ND		2.07	
72-43-5	Methoxychlor	1	ND		20.4	
8001-35-2	Toxaphene	1	ND		195	
12674-11-2	Aroclor-1016	1	ND		40.6	
11104-28-2	Aroclor-1221	1	ND		81.7	
11141-16-5	Aroclor-1232	1	ND		40.6	
53469-21-9	Aroclor-1242	1	ND		40.6	
12672-29-6	Aroclor-1248	1	ND		40.6	
11097-69-1	Aroclor-1254	1	ND		40.6	
1109-82-5	Aroclor-1260	1	ND		40.6	

28 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-055
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 17:36 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		178	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-1-C
Project: RCRA INVESTIGATION
Lab ID: GEQ-055
Description: None
Method: Low Soil SR429 Triazine Pesticides

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GEQ **Sample Qu:**
Matrix: Soil **% Moisture:** 10
Batch: 21421 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 17-Mar-97 3:33 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		18.5	
21725-46-2	Cyanazine	1	ND		18.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-2-C
Project: RCRA INVESTIGATION
Lab ID: GEO-056
Description: None
Method: Low Soil SR429 CLP Pesticides

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GEO **Sample Qu:**
Matrix: Soil **% Moisture:** 17
Batch: 21421 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 18:10 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-2-C
Project: RCRA INVESTIGATION
Lab ID: GEO-056
Description: None
Method: Low Soil SR429 Triazine Pesticides

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GEO **Sample Qu:**
Matrix: Soil **% Moisture:** 17
Batch: 21421 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 17-Mar-97 4:02 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: TRIP BLANK
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-057
Episode: GEO
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SW 8020 Aromatic Volatile Organics
Batch: 21360
Units: ug/l

Prep Factor: 1.00 **Leached:** n/a **Prepared:** **Analyzed:** 25-Feb-97 13:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		0.500	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-1-C
Project: RCRA INVESTIGATION
Lab ID: GEQ-058
Description: None
Method: Low Soil SR429 CLP Pesticides

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GEQ **Sample Qu:**
Matrix: Soil **% Moisture:** 11
Batch: 21421 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 22:45 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		179	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-058
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 25-Mar-97 15:31 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		18.7	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-059
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 23:19 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		189	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-059
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 15
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 17-Mar-97 4:32 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.7	
21725-46-2	Cyanazine	1	ND		19.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-060
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 23:53 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		184	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-060
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 17-Mar-97 5:01 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.2	
21725-46-2	Cyanazine	1	ND		19.2	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-061
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 0:27 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		182	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-061
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 27-Mar-97 19:01 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.0	
21725-46-2	Cyanazine	1	ND		19.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-062
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 1:01 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		174	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-062
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00
Leached: n/a
Prepared: 27-Feb-97
Analyzed: 16-Mar-97 20:39 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	18.9		18.2	
21725-46-2	Cyanazine	1	ND		18.2	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-063
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 1:35 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		178	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-063
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 16-Mar-97 21:08 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	89.5		18.5	
21725-46-2	Cyanazine	1	ND		18.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-064
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 9
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 2:10 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		176	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-064
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 9
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 16-Mar-97 21:38 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	5510	D2	919	
21725-46-2	Cyanazine	50	ND	D2	919	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-065
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 2:44 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		178	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-065
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 27-Feb-97 **Analyzed:** 16-Mar-97 22:07 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	3850	D2	927	
21725-46-2	Cyanazine	50	ND	D2	927	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

SECTION 3-3

1-1-C THROUGH 11-2-C

ARSENIC

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 1-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-041
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22402	1	5.71		mg/kg	1.22	26-Feb-97	28-Feb-97	0:46	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 1-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-042
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	7.89		mg/kg	1.20	26-Feb-97	28-Feb-97	0:52	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-043
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	7.27		mg/kg	1.22	26-Feb-97	28-Feb-97	0:57	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-044
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 15

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	7.22		mg/kg	1.18	26-Feb-97	28-Feb-97	1:02	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 3-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-045
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	5.02		mg/kg	1.12	26-Feb-97	28-Feb-97	1:07	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 3-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-046
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 13

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	5.05		mg/kg	1.15	26-Feb-97	28-Feb-97	1:12	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 4-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-047
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	7.07		mg/kg	1.19	26-Feb-97	28-Feb-97	1:27	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 4-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-048
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 14

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	6.52		mg/kg	1.16	26-Feb-97	28-Feb-97	1:32	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 5-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-049
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	8.94		mg/kg	1.22	26-Feb-97	28-Feb-97	2:09	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 5-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-050
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 14

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	4.98		mg/kg	1.16	26-Feb-97	28-Feb-97	2:15	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 6-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-051
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 10

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	3.41		mg/kg	1.11	26-Feb-97	28-Feb-97	2:30	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 6-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-052
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	4.99		mg/kg	1.22	26-Feb-97	28-Feb-97	1:47	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 6-2-C MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-053S
Episode: GEQ
Prep Factor: 1.00
Description: MATRIX SPIKE
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	484		mg/kg	1.22	26-Feb-97	28-Feb-97	1:53	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 6-2-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-054SD
Episode: GEO
Prep Factor: 1.00
Description: MATRIX SPIKE DUP
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	472		mg/kg	1.22	26-Feb-97	28-Feb-97	1:58	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 7-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-055
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 10

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	4.28		mg/kg	1.11	26-Feb-97	28-Feb-97	2:36	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 7-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-056
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	4.67		mg/kg	1.20	26-Feb-97	28-Feb-97	2:41	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 8-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-058
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	4.07		mg/kg	1.12	26-Feb-97	28-Feb-97	2:47	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 8-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-059
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 15

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	5.68		mg/kg	1.18	26-Feb-97	28-Feb-97	2:52	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 9-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-060
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 13

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	2.38		mg/kg	1.15	26-Feb-97	28-Feb-97	2:58	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 9-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-061
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 12

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	3.26		mg/kg	1.14	26-Feb-97	28-Feb-97	3:04	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 10-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-062
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 8

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	2.10		mg/kg	1.09	26-Feb-97	28-Feb-97	3:09	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 10-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-063
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 10

Parameter Name	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	1.80		mg/kg	1.11	26-Feb-97	28-Feb-97	3:14	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 11-1-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-064
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 9

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	3.29		mg/kg	1.10	26-Feb-97	28-Feb-97	3:20	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 11-2-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-065
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 10

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21403	1	3.45		mg/kg	1.11	26-Feb-97	28-Feb-97	3:35	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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SECTION 4-1

12-1-A THROUGH 21-2-A
DINOSEB

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-017
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 14
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 15:56 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		386	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-018
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 17:49 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		416	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-019
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 18:26 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		373	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-020
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 14-Mar-97 16:34 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		396	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-021
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 19-Feb-97 **Analyzed:** 15-Mar-97 14:44 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	10	14300	D1	3830	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:11:12

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-027
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 15:16 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		61.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-027
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 12-Mar-97 5:47 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.5	
21725-46-2	Cyanazine	1	ND		20.5	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-028
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 15:36 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		59.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-028
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 3:25 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		190	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-029
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 4:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		190	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-028
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 12-Mar-97 6:18 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	21.4		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-029
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 18:12 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		59.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-029
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 16
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 12-Mar-97 6:48 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		19.9	
21725-46-2	Cyanazine	1	ND		19.9	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-030
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 11:07 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	1030	D1	187	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-030
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 4:34 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		179	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:32

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-031
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 5:08 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-030
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 18:31 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		56.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-031
Episode: GEQ
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 18:51 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	*Toluene*	1	ND		60.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-031
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 15-Mar-97 3:14 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	10	726	D1	200	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:33

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-032
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 17-Mar-97 2:33 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	7320	D1	952	
21725-46-2	Cyanazine	1	ND		19.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-032
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 5:42 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		182	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:33

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-033
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 21
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 6:16 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		203	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:33

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-1-A **Client:** Woodward-Clyde Consultants-B.R.

Project: RCRA INVESTIGATION **Site:** VICKSBURG

Lab ID: GEO-032 **Episode:** GEO **Sample Qu:**

Description: None **Matrix:** Soil **% Moisture:** 12

Method: Med Soil SW 8020 Aromatic Volatile Organics **Batch:** 21482 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 19:10 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		57.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:33

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-033
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 21
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 19:30 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		63.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-033
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 21
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 12-Mar-97 8:49 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	191		21.2	
21725-46-2	Cyanazine	1	ND		21.2	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:33

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-034
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 28-Mar-97 11:09 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	2	405	D2	37.1	
21725-46-2	Cyanazine	2	ND	D2	37.1	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-034
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 6:50 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		178	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-035
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 7:24 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		179	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-034
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 10
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 19:49 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		55.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-035
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 20:09 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		56.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-035
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 12:06 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	203		18.7	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-036
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 12:36 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	189		19.0	
21725-46-2	Cyanazine	1	ND		19.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-036
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 7:58 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		182	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-037
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 8:32 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		179	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-036
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 12
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Feb-97 20:28 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		57.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:34

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-038
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 28-Feb-97 11:40 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		54.5	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-037
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 11
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 13:05 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	36.0		18.7	
21725-46-2	Cyanazine	1	ND		18.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-039
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 18-Mar-97 9:06 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-038RE
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 8
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 19-Mar-97 6:08 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		174	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-039
Episode: GEO
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21482
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 28-Feb-97 11:59 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		60.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID:	21-2-A	**Client:**	Woodward-Clyde Consultants-B.R.
Project:	RCRA INVESTIGATION	**Site:**	VICKSBURG
Lab ID:	GEO-039	**Episode:**	GEO
Sample Qu:			
Description:	None	**Matrix:**	Soil
% Moisture:	17		
Method:	Low Soil SR429 Triazine Pesticides	**Batch:**	21421
Units:	ug/kg		

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 26-Feb-97 **Analyzed:** 27-Mar-97 14:04 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		20.0	
21725-46-2	Cyanazine	1	ND		20.0	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: TRIP BLANK
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-040
Episode: GEO
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SW 8020 Aromatic Volatile Organics
Batch: 21360
Units: ug/l

Prep Factor: 1.00 **Leached:** n/a **Prepared:** **Analyzed:** 25-Feb-97 13:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		0.500	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:13:35

SECTION 4-3

12-1-A THROUGH 21-2-A
ARSENIC

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 12-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-017
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 14

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	4.69		mg/kg	1.16	26-Feb-97	27-Feb-97	21:46	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 12-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-018
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 20

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	13.3		mg/kg	1.25	26-Feb-97	27-Feb-97	21:51	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 13-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-019
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	8.98		mg/kg	1.12	26-Feb-97	27-Feb-97	21:57	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 13-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-020
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	8.13		mg/kg	1.19	26-Feb-97	27-Feb-97	22:02	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 14-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-021
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 13

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	5.36		mg/kg	1.15	26-Feb-97	27-Feb-97	22:17	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 14-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-022
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 15

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	8.00		mg/kg	1.18	26-Feb-97	27-Feb-97	22:23	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 15-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-024
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	7.76		mg/kg	1.20	26-Feb-97	27-Feb-97	21:23	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 15-1-A MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-026SD
Episode: GEO
Prep Factor: 1.00
Description: MATRIX SPIKE DUP
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	488		mg/kg	1.22	26-Feb-97	27-Feb-97	21:34	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 15-1-A MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-025S
Episode: GEO
Prep Factor: 1.00
Description: MATRIX SPIKE
Matrix: Soil
%Moisture: 18

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	484		mg/kg	1.22	26-Feb-97	27-Feb-97	21:29	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 15-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-027
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 19

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	12.9		mg/kg	1.23	26-Feb-97	27-Feb-97	22:28	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 16-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-028
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	8.00		mg/kg	1.19	26-Feb-97	27-Feb-97	22:33	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 16-2-A **Client:** Woodward-Clyde Consultants-B.R.

Project: RCRA INVESTIGATION **Site:** VICKSBURG

Lab ID: GEO-029 **Episode:** GEQ **Prep Factor:** 1.00

Description: None **Matrix:** Soil **%Moisture:** 16

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	6.76		mg/kg	1.19	26-Feb-97	27-Feb-97	22:39	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 17-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEQ-030
Episode: GEQ
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21401	1	4.39		mg/kg	1.12	26-Feb-97	27-Feb-97	22:45	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 18-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-033
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 21

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	9.66		mg/kg	1.27	26-Feb-97	27-Feb-97	23:58	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 19-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-034
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 10

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	4.40		mg/kg	1.11	26-Feb-97	28-Feb-97	0:03	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 19-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-035
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	4.16		mg/kg	1.12	26-Feb-97	28-Feb-97	0:09	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 20-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-036
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 12

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	3.76		mg/kg	1.14	26-Feb-97	28-Feb-97	0:24	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 20-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-037
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 11

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	4.09		mg/kg	1.12	26-Feb-97	28-Feb-97	0:30	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 21-1-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-038
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 8

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	3.60		mg/kg	1.09	26-Feb-97	28-Feb-97	0:35	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 21-2-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GEO-039
Episode: GEO
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21402	1	2.59		mg/kg	1.20	26-Feb-97	28-Feb-97	0:41	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

4/2/97 14:15:47

SECTION 5-1

1-C-C THROUGH 21-C-A
DINOSEB

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-001
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 11:51 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:15

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-002
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 12:29 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-003
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 13:06 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-004
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 13:43 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:16

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-005
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 14:20 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:17

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-006
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 14:57 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:17

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-007
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 10:00 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-008MS
Episode: GED
Sample Qu:
Description: MATRIX SPIKE
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 10:37 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:18

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-009MSD
Episode: GED
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 11:14 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:18

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-010
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 15:34 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:18

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-011
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 16:11 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - *Organic Protocol*

Client ID: 10-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-012
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 16:49 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-013
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 17:25 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-014
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 18:03 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:19

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-015
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 18:40 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:20

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-016
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 19:17 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	8970	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:20

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-C-A
Project: RCRA INVESTIGATION
Lab ID: GED-017
Description: None
Method: Low Soil SR430 CLP Semivolatile Organics

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Sample Qu:
Matrix: Other
% Moisture: n/a
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 20-Mar-97 19:54 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-018
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 21-Mar-97 9:44 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:21

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-019
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 21-Mar-97 10:21 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:21

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-020
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 21-Mar-97 10:58 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	100	97500	D4	33300	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:21

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-021
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 21-Mar-97 13:27 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	15700	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-022
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 21-Mar-97 12:13 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-023
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 21398
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 23-Feb-97 **Analyzed:** 21-Mar-97 12:50 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	20	ND	D4	6660	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:55:22

SECTION 5-2

1-C-C THROUGH 21-C-A
TOLUENE
ATRAZINE/CYANAZINE
TOXAPHENE

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-001
Description: None
Method: Low Soil SR429 CLP Pesticides

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Sample Qu:
Matrix: Other
% Moisture: n/c
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 14:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:43

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-001
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 16:36 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	8090	D2	835	
21725-46-2	Cyanazine	50	ND	D2	835	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:44

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-C-C
Client: Woodward-Clyde Consultants-B.R
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-002
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 14:34 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	554		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:44

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-002
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 17:07 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	1150	D2	835	
21725-46-2	Cyanazine	50	ND	D2	835	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:44

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-003
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 15:08 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	980		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:44

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 3-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-003
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 17:37 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	2210	D2	835	
21725-46-2	Cyanazine	50	ND	D2	835	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-004
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 20:48 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	920		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 4-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-004
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 10:51 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	180		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:45

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-005
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 21:22 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 5-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-005
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 18:36 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-006
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 21:56 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:46

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 6-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-006
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 19:06 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-007
Description: None
Method: Low Soil SR429 CLP Pesticides

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED **Sample Qu:**
Matrix: Other **% Moisture:** n/a
Batch: 21421 **Units:** ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 11:44 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-007
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 17-Mar-97 5:31 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:47

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-008
Episode: GED
Sample Qu:
Description: MATRIX SPIKE
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 12:52 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-008
Episode: GED
Sample Qu:
Description: MATRIX SPIKE
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 14-Mar-97 21:48 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	172		16.7	
21725-46-2	Cyanazine	1	142		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-009
Episode: GED
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 13:26 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:48

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 7-C-C MSD
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-009
Episode: GED
Sample Qu:
Description: MATRIX SPIKE DUP
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 14-Mar-97 **Analyzed:** 14-Mar-97 22:18 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	208		16.7	
21725-46-2	Cyanazine	1	166		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-010
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 22:30 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 8-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-010
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 19:35 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	2110	D2	835	
21725-46-2	Cyanazine	50	ND	D2	835	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-011
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 23:04 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:49

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 9-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-011
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 25-Mar-97 22:33 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-012
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 23:38 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 10-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-012
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 11:21 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	30.4		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:50

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-013
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 0:12 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 11-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-013
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 11:50 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	100	52800	D2	1670	
21725-46-2	Cyanazine	100	ND	D2	1670	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-014
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 0:46 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:51

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-014
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 12:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	132		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:52

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 12-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-014
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 25-Feb-97 16:47 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:52

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-015
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 1:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:52

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-015
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 0:31 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:53

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 13-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-015
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 26-Feb-97 16:06 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:53

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-016
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 1:54 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	479		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:53

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-016
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 1:01 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	50	5920	D2	835	
21725-46-2	Cyanazine	50	ND	D2	835	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:53

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 14-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-016
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 26-Feb-97 16:26 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	278		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:54

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-017
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 2:28 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 10:31:13

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-017
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 1:30 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:54

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 15-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-017
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 26-Feb-97 16:45 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	54.3		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:54

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-018
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 3:02 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	545		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 10:32:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-018
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 12:50 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	145		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:55

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 16-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-018
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 26-Feb-97 17:05 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:55

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-019
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 3:36 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	237		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 10:26:24

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-019
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 13:19 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	17.8		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:55

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 17-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-019
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 26-Feb-97 21:38 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:56

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-020
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 2142
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 6:26 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 10:26:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-020
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 13:49 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	20.2		16.7	
21725-46-2	Cyanazine	1	85.8		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:56

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-020
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 27-Feb-97 11:22 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:56

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-021
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 7:00 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	636		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 10:26:57

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-021
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 14:18 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	19.7		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:57

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 19-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-021
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 27-Feb-97 11:41 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:57

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-022
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 13-Mar-97 7:34 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	506		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 10:27:20

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-022
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 4:28 SLY

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:57

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 20-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-022
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 27-Feb-97 12:01 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:57

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-023
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 CLP Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 12-Mar-97 6:38 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		160	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:58

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-023
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR429 Triazine Pesticides
Batch: 21421
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 24-Feb-97 **Analyzed:** 26-Mar-97 14:48 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
1912-24-9	Atrazine	1	ND		16.7	
21725-46-2	Cyanazine	1	ND		16.7	

2 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:58

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 21-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-023
Episode: GED
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Med Soil SW 8020 Aromatic Volatile Organics
Batch: 21488
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 25-Feb-97 **Analyzed:** 27-Feb-97 12:20 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
108-88-3	Toluene	1	ND		50.0	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/28/97 09:23:58

SECTION 5-3

1-C-C THROUGH 21-C-A
ARSENIC

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 1-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-001
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	2.65		mg/kg	1.00	05-Mar-97	06-Mar-97	20:00	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-002
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	36.0		mg/kg	1.00	05-Mar-97	06-Mar-97	20:05	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 3-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-003
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	3.22		mg/kg	1.00	05-Mar-97	06-Mar-97	20:10	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:36

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 4-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-004
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	9.56		mg/kg	1.00	05-Mar-97	06-Mar-97	20:16	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 5-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-005
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	3.89		mg/kg	1.00	05-Mar-97	06-Mar-97	20:31	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 6-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-006
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	3.83		mg/kg	1.00	05-Mar-97	06-Mar-97	20:36	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 7-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-007
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	3.91		mg/kg	1.00	05-Mar-97	06-Mar-97	19:38	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:37

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 7-C-C-MS
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-008S
Episode: GED
Prep Factor: 1.00
Description: MATRIX SPIKE
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	365		mg/kg	1.00	05-Mar-97	06-Mar-97	19:43	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 7-C-C MSD
Project: RCRA INVESTIGATION
Lab ID: GED-009SD
Description: MATRIX SPIKE DUP

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	377		mg/kg	1.00	05-Mar-97	06-Mar-97	19:49	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 8-C-C
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-010
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	6.94		mg/kg	1.00	05-Mar-97	06-Mar-97	20:41	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:38

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 9-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-011
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	2.71		mg/kg	1.00	05-Mar-97	06-Mar-97	20:47	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 10-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-012
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	10.1		mg/kg	1.00	05-Mar-97	06-Mar-97	20:54	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 11-C-C
Project: RCRA INVESTIGATION
Lab ID: GED-013
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21399	1	7.14		mg/kg	1.00	05-Mar-97	06-Mar-97	20:59	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:39

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 12-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-014
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	3.34		mg/kg	1.00	05-Mar-97	06-Mar-97	21:15	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 13-C-A
Project: RCRA INVESTIGATION
Lab ID: GED-015
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	6.27		mg/kg	1.00	05-Mar-97	06-Mar-97	21:47	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 14-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-016
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	5.59		mg/kg	1.00	05-Mar-97	06-Mar-97	21:53	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:40

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 15-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-017
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	4.67		mg/kg	1.00	05-Mar-97	06-Mar-97	21:58	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 16-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-018
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	13.7		mg/kg	1.00	05-Mar-97	06-Mar-97	22:04	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 17-C-A
Project: RCRA INVESTIGATION
Lab ID: GED-019
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED **Prep Factor:** 1.00
Matrix: Other **%Moisture:** n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	3.66		mg/kg	1.00	05-Mar-97	06-Mar-97	22:09	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 18-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-020
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	27.0		mg/kg	1.00	05-Mar-97	06-Mar-97	22:14	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:41

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 19-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-021
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	18.8		mg/kg	1.00	05-Mar-97	06-Mar-97	22:20	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:42

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 20-C-A
Client: Woodward-Clyde Consultants-B.R.
Project: RCRA INVESTIGATION
Site: VICKSBURG
Lab ID: GED-022
Episode: GED
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	8.33		mg/kg	1.00	05-Mar-97	06-Mar-97	22:25	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:42

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 21-C-A
Project: RCRA INVESTIGATION
Lab ID: GED-023
Description: None

Client: Woodward-Clyde Consultants-B.R.
Site: VICKSBURG
Episode: GED
Prep Factor: 1.00
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	21400	1	2.05		mg/kg	1.00	05-Mar-97	06-Mar-97	22:40	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

3/26/97 10:58:42

attachment 3c - phase 2 quality control data, chain of custody documents, and analytical data - Pace episode HGT

Pace Analytical

Pace Analytical Services, Inc.
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Tel: 504-469-0333
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Richard Karkkainen
Woodward-Clyde Consultants-B.R.
2822 O'Neal Lane
Baton Rouge, LA 70816

Project: RCRA-PHASE II
Site: VICKSBURG
Episode: HGT

To: Richard Karkkainen

Enclosed please find the analytical results for sample(s) received by Pace Analytical Services, Inc. - New Orleans.

This report contains a summary of the quality control data associated with the analyses as well as copies of the chain-of-custody documents.

You may direct any inquires concerning this report to your Project Manager, or any one of the Project Managers listed below:

Ms. Karen H. Brown, Manager, Ext. 325
Mr. Craig McCollum, Ext. 326
Ms. Cindy Olavesen, Ext. 327

Sincerely,

C McCollum
Project Manager

5-21-97
Date

Enclosures

Narrative for Episode HGT

Semivolatile Organics

Sample HGT-002 was extracted and analyzed according to the low level procedure: the sample required a 1:5 dilution prior to analysis due to the presence of matrix interferences. Matrix spikes performed with this sample were also diluted prior to analysis. The surrogate and matrix spiking standards were therefore diluted to a concentration near their respective reporting limits. Poor acid surrogate recoveries were observed in this sample. Analysis of the sample, MS, and MSD yielded similar results, as well as poor recoveries of the acid matrix spike compounds, indicating a sample matrix effect. Poor recovery of the target analyte Dinoseb was noted in the matrix spikes. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery. No further corrective action was taken.

Pesticide Analysis

A limited amount of sample HGT-001 was available for analysis. Some of the extract was accidentally lost during the concentration step. The analytical process was continued since no additional sample was available for reextraction. The surrogate recoveries were uniformly low (in the range of 10%). The chromatogram was evaluated for hits below the 5.0 ug/l reporting limit in order to partially compensate for the loss of sample. No hits for toxaphene were observed above the laboratory MDL of 1.5 ug/l. The data for this sample should be considered an estimate.

Pace Analytical Services, Inc. - New Orleans
Sample Cross Reference Summary

Episode: HGT Client: Woodward-Clyde Consultants-B.R.

Project: RCRA-PHASE II

Site: VICKSBURG

Lab ID	Client ID	Description	Matrix	Collected	Received
HGT-001	D-W-T		Water	05/02/97	05/06/97
HGT-002	18-C-DA		Other	05/02/97	05/06/97

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 18-C-DA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGT-002
Episode: HGT
Sample Qu:
Description: None
Matrix: Other
% Moisture: n/a
Method: Low Soil SR430 CLP Semivolatile Organics
Batch: 22355
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 07-May-97 **Analyzed:** 20-May-97 13:25 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	5	ND	N	1670	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/20/97 17:10:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-W-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGT-001
Episode: HGT
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SR429 CLP Pesticides
Batch: 22345
Units: ug/l

Prep Factor: 1.50 **Leached:** n/a **Prepared:** 08-May-97 **Analyzed:** 16-May-97 6:17 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		7.50	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/20/97 17:12:35

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 18-C-DA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGT-002
Episode: HGT
Prep Factor: 1.00
Description: None
Matrix: Other
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22320	1	7.84		mg/kg	1.00	07-May-97	08-May-97	2:00	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/20/97 17:14:45

Pace Analytical Services, Inc. - New Orleans
Laboratory Quality Control Definitions

Our laboratory employs quality control (QC) measures to ensure the quality of our analytical data by defining its accuracy and precision. Presentation of the QC data with the report allows the data user the opportunity to evaluate these results and to gauge the method performance. In order to assist the understanding of these data, routine components of our QC program are defined below.

BATCH - A batch is a group of 20 samples or less of a given matrix and analysis by a specific protocol or analytical method.

BLANK - A method blank is a "clean" laboratory sample carried through the entire analytical process. One or more method blanks are prepared with each batch of samples. The analysis of method blanks demonstrates that method interferences caused by contaminants, reagents and glassware are known and minimized. A method blank should not contain any analytes of interest above the reporting limit. There are method allowances for common laboratory artifacts such as methylene chloride, acetone and bis-2-ethylhexyl phthalate.

LABORATORY CONTROL SPIKE - A laboratory control spike (LCS or blank spike) is a blank which has been spiked with known concentrations of target analytes. The LCS is carried through the entire analytical process. One or more LCS are prepared with each batch of samples. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the absence of matrix effects.

MATRIX SPIKE - A matrix spike (MS) is a client sample which is spiked with known concentrations of target analytes. The MS is carried through the entire analytical process. One or more matrix spikes are prepared with every batch of samples. For organic methods, a matrix spike duplicate (MSD) is also prepared. The percent recovery of the spiked analytes provides a measure of the method accuracy in the selected sample and matrix.

DUPLICATE - A duplicate is a sample for which replicate aliquouts are carried through the entire analytical process. Comparison of the original results to those of the duplicate results provides a measure of the method precision in the sample and matrix. By convention, precision is measured for inorganic analyses using a sample and a sample duplicate, whereas for organics analyses, an MS/MSD are used.

SURROGATE - A surrogate is a non-target analyte which is added to all samples and QC samples prior to extraction or analysis. The percent recovery of the surrogate provides a measure of the method accuracy in each sample tested. Surrogates are used for organics methods only.

QC LIMITS - QC limits specify the expected percent recovery range for a spiked compound. QC limits may be set by method criteria or calculated from laboratory generated data. For many methods, these limits are advisory and do not require corrective action if exceeded.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGT

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 22355 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Phenol	2500	81		2500	52	43	19	26-90	26-90	35	
2-Chlorophenol (o-Chlorophenol)	2500	75		2500	17 *	17 *	0	25-102	25-102	50	N
1,4-Dichlorobenzene (p-Dichlorobenzene)	1660	75		1660	68	49	33 *	28-104	28-104	27	
N-Nitroso-di-n-propylamine	1660	78		1660	72	57	23	41-126	41-126	38	
1,2,4-Trichlorobenzene	1660	80		1660	73	56	27 *	39-98	39-98	23	
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	2500	81		2500	43	36	18	26-103	26-103	33	
Acenaphthene	1660	74		1660	75	58	26 *	31-137	31-137	19	
4-Nitrophenol (p-Nitrophenol)	2500	73		2500	0 *	0 *	0	11-114	11-114	50	N
2,4-Dinitrotoluene	1660	74		1660	59	50	17	28-89	28-89	47	
Pentachlorophenol	2500	78		2500	0 *	0 *	0	17-109	17-109	47	N
Pyrene	1660	84		1660	76	56	30	35-142	35-142	36	
2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	2500	112		2500	0 *	3	150 *	1-200	1-200	50	N

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGT

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 22355

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
22355B1	95	79	86	81	74	62	73	78
22355MS	78	74	79	54	13 D	0 D	17 D	78
22355MSD	62	55	60	47	12 D	0 D	18 D	58
22355S1	88	75	84	78	74	62	74	77
HGT-002	76	72	72	58	14 D	0 D	13 D	70
QC limits:	23 - 120	30 - 115	18 - 137	24 - 113	25 - 121	19 - 122	20 - 130	20 - 130

Sur 1: SS Nitrobenzene-d5
Sur 2: SS 2-Fluorobiphenyl
Sur 3: SS Terphenyl-d14
Sur 4: SS Phenol-d5
Sur 5: SS 2-Fluorophenol
Sur 6: SS 2,4,6-Tribromophenol
Sur 7: SS 2-Chlorophenol-d4
Sur 8: SS 1,2-Dichlorobenzene-d4

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 22355B1

Description: Low Soil Method Blank **Episode:** HGT **% Moisture:** n/a

Method: Low Soil GC/MS Semivolatile Organics **Batch:** 22355 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 07-May-97 **Analyzed:** 20-May-97 12:07 JM

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
88-85-7	2-sec-Butyl-4-6-dinitrophenol (Dinoseb)	1	ND		333

1 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGT

Method: Water GC Pesticides/PCBs and Chlorinated Hydroca **Batch:** 22345 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Toxaphene	25.0	93 *	93 *	126				95-126		-	Q5

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGT

Method: Water GC Pesticides/PCBs and Chlorinated Hydroca **Batch:** 22345

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
22345B1	95	72	68	72				
22345S1	125	95	95	95				
22345S2	120	95	95	95				
HGK-016	150 *	59	82	55				
HGK-017	129	50	87	40				
HGK-018	132 *	43	79	17 G1				
HGT-001	33	11 *	12 *	8 *				
QC limits:	30 - 130	30 - 150	30 - 130	30 - 150				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 22345B1

Description: Water Method Blank **Episode:** HGT **% Moisture:** n/a

Method: Water GC Pesticides/PCBs and Chlorinated Hydroca **Batch:** 22345 **Units:** ug/l

Prep Factor: 1 **Leached:** n/a **Prepared:** 08-May-97 **Analyzed:** 16-May-97 2:53 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
8001-35-2	Toxaphene	1	ND		5.00

1 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Multiple Parameters - Multiple Batches

Episode: HGT

Parameter Name	Batch	Blank	Units	LCS Spike	LCS %Rec	LCSD %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Antimony	22320	ND	mg/kg	51.2	114		100	22 *		0	24-176	75-125	100	Q1
Arsenic	22320	ND	mg/kg	62.7	91		400	82		14	70-130	75-125	29	
Barium	22320	ND	mg/kg	260	90		400	82		3	73-127	75-125	20	
Beryllium	22320	ND	mg/kg	87.2	93		10.0	84		0	77-123	75-125	100	
Cadmium	22320	ND	mg/kg	77.4	88		10.0	81		22	66-133	75-125	85	
Chromium	22320	ND	mg/kg	76.9	81		40.0	82		3	77-123	75-125	20	
Lead	22320	ND	mg/kg	122	86		100	87		16	68-131	75-125	20	
Nickel	22320	ND	mg/kg	163	88		100	82		7	75-125	75-125	30	
Selenium	22320	ND	mg/kg	91.7	88		400	78		38 *	71-129	75-125	33	
Silver	22320	ND	mg/kg	69.6	94		10.0	76		0	74-126	75-125	100	
Thallium	22320	ND	mg/kg	50.5	83		400	74 *		0	48-152	75-125	100	Q1

* denotes recovery outside of QC limits.
Spike amounts are not corrected for moisture content of the spiked sample.

Report Qualifiers

Pace Analytical Services, Inc. - New Orleans

Single Episode

Episode: HGT

Qualifier	Qualifier Description
D4	The sample was analyzed at a dilution due to the presence of matrix interferences.
N	See narrative for a detailed explanation.
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: WOODWARD-CLYDE	Report To: DICK KARKKAINEN	Turn around Time: EXPEDITE	Pace Client No.
Address: PO BOX 66317	Bill To: ABOVE	☐ 24 Hours	Pace Project Manager
BATON ROUGE LA 70816	P.O. # / Billing Reference	☐ 48 Hours	Pace Project No.
Phone: 504) 751-1873	Project Name / No. Vicksburg Chemical	☐ 3-5 Days	*Requested Due Date:
		☐ 1 Week 2 Weeks	
		☐ Normal 14 Days	

Sampled By (PRINT): [signature] 02MAY97
Sampler Signature — Date Sampled
BARRY CHAMBERLAIN

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$	ANALYSES REQUEST: DNOSEL	REMARKS
1	DW-T	1345	WATER		1	✓							
2	18-C-DA	1315	Concrete		1	✓						✓	WRAPPED in Al foil
3													
4													
5													
6													
7													
8													

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT/DATE	RETURNED/DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature] / TERRA TECH	5/5/97	1100	Airborne Exp		
	Airborne EX			Carol Dominick / PACE	5/7/97	0820

Additional Comments
1) EPEDITE ANAYSIS PER Job ORDERS
Temp 1°C
2) Via Airborne Express
Airbill # 3570333841

SAMPLE CONDITION

Temp: _____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH _

ORIGINAL

SEE REVERSE SIDE FOR INSTRUCTIONS

attachment 3d - phase 2 quality control data, chain of custody documents, and analytical data - Pace episode HGK

Pace Analytical

Pace Analytical Services, Inc.
James Drive West, Suite 100
St. Rose, LA 70087
Tel: 504-469-0333
Fax: 504-469-0555

Richard Karkkainen
Woodward-Clyde Consultants-B.R.
2822 O'Neal Lane
Baton Rouge, LA 70816

Project: RCRA-PHASE II
Site: VICKSBURG
Episode: HGK

To: Richard Karkkainen

Enclosed please find the analytical results for sample(s) received by Pace Analytical Services, Inc. - New Orleans.

This report contains a summary of the quality control data associated with the analyses as well as copies of the chain-of-custody documents.

You may direct any inquires concerning this report to your Project Manager, or any one of the Project Managers listed below:

Ms. Karen H. Brown, Manager, Ext. 325
Mr. Craig McCollum, Ext. 326
Ms. Cindy Olavesen, Ext. 327

Sincerely,

G McCoy
Project Manager

5-23-97
Date

Enclosures

Pace Analytical Services, Inc. - New Orleans
Sample Cross Reference Summary

Episode: HGK Client: Woodward-Clyde Consultants-B.R.

Project: RCRA-PHASE II

Site: VICKSBURG

Lab ID	Client ID	Description	Matrix	Collected	Received
HGK-001	A-2,4-T		Soil	05/01/97	05/05/97
HGK-002	A-4,8-T		Soil	05/01/97	05/05/97
HGK-003	A-8,12-T		Soil	05/01/97	05/05/97
HGK-004	2-2,4-TA		Soil	05/01/97	05/05/97
HGK-005	2-4,8-TA		Soil	05/01/97	05/05/97
HGK-006	2-8,12-TA		Soil	05/01/97	05/05/97
HGK-007	1-2,4-T		Soil	05/01/97	05/05/97
HGK-008	1-4,8-T		Soil	05/01/97	05/05/97
HGK-009	1-8,12-T		Soil	05/01/97	05/05/97
HGK-010	B1-0.2-A		Soil	05/01/97	05/05/97
HGK-011	B2-0.2-A		Soil	05/01/97	05/05/97
HGK-012	B3-0.2-A		Soil	05/01/97	05/05/97
HGK-013	B4-0.2-A		Soil	05/01/97	05/05/97
HGK-014	B5-0.2-A		Soil	05/01/97	05/05/97
HGK-015	B6-0.2-A		Soil	05/01/97	05/05/97
HGK-016	A-W-T		Water	05/02/97	05/05/97
HGK-017	1-W-T		Water	05/02/97	05/05/97
HGK-018	2-W-TA		Water	05/02/97	05/05/97
HGK-019	D-2,4-T		Soil	05/02/97	05/05/97
HGK-020	D-4,8-T		Soil	05/02/97	05/05/97
HGK-021	D-8,12-T		Soil	05/02/97	05/05/97

Pace Analytical

Pace Analytical Services, Inc.
James Drive West, Suite 100
St. Rose, LA 70087
Tel: 504-469-0333
Fax: 504-469-0555

Narrative for episode HGK

Pesticide Analysis

Samples HGK-001, 002, 004 and 005 contained interferences due to the probable presence of an Aroclor that elutes across the same range as does toxaphene. Due to the presence of these interferences, the evaluation for the presence of toxaphene was greatly complicated in the aforementioned samples. It was necessary to analyze samples 01, 002 and 005 at a 1:5 dilution to bring the sample contents within the linear calibrated range of the instrument. Of these dilutions, toxaphene is reported in sample 001 and a non-detect at an elevated reporting limit given for samples 002 and 005.

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-2,4-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-001
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 13:33 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	5	4510	N D2	1000	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:21

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-4,8-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-002
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 14:07 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	5	ND	N D2	976	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-8.12-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-003
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 18
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 20-May-97 20:59 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		195	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-2,4-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-004
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 13
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 20-May-97 21:33 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	1530	N	184	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-4,8-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-005
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 15:15 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	5	ND	N D2	960	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. *Specific qualifiers are defined at the end of the report.*
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-8,12-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-006
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 20-May-97 22:41 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		200	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-2,4-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-007
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 20
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 20-May-97 23:15 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		200	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-4.8-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-008
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 17
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 20-May-97 23:49 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		192	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-8.12-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-009
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 23
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 0:23 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		208	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: A-W-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-016
Episode: HGK
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SR429 CLP Pesticides
Batch: 22345
Units: ug/l

Prep Factor: 1.10 **Leached:** n/a **Prepared:** 08-May-97 **Analyzed:** 16-May-97 4:35 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		5.50	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 1-W-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-017
Episode: HGK
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SR429 CLP Pesticides
Batch: 22345
Units: ug/l

Prep Factor: 1.20 **Leached:** n/a **Prepared:** 08-May-97 **Analyzed:** 16-May-97 5:09 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		6.00	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:22

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: 2-W-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-018
Episode: HGK
Sample Qu:
Description: None
Matrix: Water
% Moisture: n/a
Method: Water SR429 CLP Pesticides
Batch: 22345
Units: ug/l

Prep Factor: 1.40 **Leached:** n/a **Prepared:** 08-May-97 **Analyzed:** 16-May-97 5:43 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		7.00	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:23

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-2,4-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-019
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 0:57 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		197	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:23

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-4,8-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-020
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 21
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 1:32 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		203	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:23

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Organic Protocol

Client ID: D-8,12-T
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-021
Episode: HGK
Sample Qu:
Description: None
Matrix: Soil
% Moisture: 19
Method: Low Soil SR429 CLP Pesticides
Batch: 22383
Units: ug/kg

Prep Factor: 1.00 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 21-May-97 2:06 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit	Reg. Limit
8001-35-2	Toxaphene	1	ND		197	

1 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of extract. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:46:23

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-2,4-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-004
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 13

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	9.21		mg/kg	1.15	15-May-97	16-May-97	18:11	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:26

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-4,8-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-005
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 17

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	8.05		mg/kg	1.20	15-May-97	16-May-97	18:29	KJR	5.00

1 parameter(s) reported

D denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
r moisture results. wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-8,12-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-006
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 20

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	10.2		mg/kg	1.25	15-May-97	16-May-97	18:33	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B1-0.2-A
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-010
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 19

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	9.38		mg/kg	1.23	15-May-97	16-May-97	18:37	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B2-0.2-A
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-011
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 21

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	7.47		mg/kg	1.27	15-May-97	16-May-97	18:42	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu ints qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B3-0.2-A
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-012
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 21

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	7.27		mg/kg	1.27	15-May-97	16-May-97	18:55	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B4-0.2-A
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-013
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 19

Parameter Name	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	10.8		mg/kg	1.23	15-May-97	16-May-97	18:59	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B5-0.2-A
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-014
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 20

Parameter Name	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	11.7		mg/kg	1.25	15-May-97	16-May-97	19:03	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: B6-0.2-A
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-015
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Soil
%Moisture: 19

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22431	1	11.8		mg/kg	1.23	15-May-97	16-May-97	19:07	KJR	5.00

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Report of Laboratory Analysis

Pace Analytical Services, Inc. - New Orleans

Single Sample - Inorganic Parameters

Client ID: 2-W-TA
Client: WOODWARD-CLYDE CONSULTANTS-B.R.
Project: RCRA-PHASE II
Site: VICKSBURG
Lab ID: HGK-018
Episode: HGK
Prep Factor: 1.00
Description: None
Matrix: Water
%Moisture: n/a

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis			Reg. Limit
Arsenic	SW 6010	22382	1	538		ug/l	10.0	09-May-97	12-May-97	14:43	KJR	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. The Prep Factor accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

5/22/97 17:48:27

Pace Analytical Services, Inc. - New Orleans
Laboratory Quality Control Definitions

Our laboratory employs quality control (QC) measures to ensure the quality of our analytical data by defining its accuracy and precision. Presentation of the QC data with the report allows the data user the opportunity to evaluate these results and to gauge the method performance. In order to assist the understanding of these data, routine components of our QC program are defined below.

BATCH - A batch is a group of 20 samples or less of a given matrix and analysis by a specific protocol or analytical method.

BLANK - A method blank is a "clean" laboratory sample carried through the entire analytical process. One or more method blanks are prepared with each batch of samples. The analysis of method blanks demonstrates that method interferences caused by contaminants, reagents and glassware are known and minimized. A method blank should not contain any analytes of interest above the reporting limit. There are method allowances for common laboratory artifacts such as methylene chloride, acetone and bis-2-ethylhexyl phthalate.

LABORATORY CONTROL SPIKE - A laboratory control spike (LCS or blank spike) is a blank which has been spiked with known concentrations of target analytes. The LCS is carried through the entire analytical process. One or more LCS are prepared with each batch of samples. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the absence of matrix effects.

MATRIX SPIKE - A matrix spike (MS) is a client sample which is spiked with known concentrations of target analytes. The MS is carried through the entire analytical process. One or more matrix spikes are prepared with every batch of samples. For organic methods, a matrix spike duplicate (MSD) is also prepared. The percent recovery of the spiked analytes provides a measure of the method accuracy in the selected sample and matrix.

DUPLICATE - A duplicate is a sample for which replicate aliquouts are carried through the entire analytical process. Comparison of the original results to those of the duplicate results provides a measure of the method precision in the sample and matrix. By convention, precision is measured for inorganic analyses using a sample and a sample duplicate, whereas for organics analyses, an MS/MSD are used.

SURROGATE - A surrogate is a non-target analyte which is added to all samples and QC samples prior to extraction or analysis. The percent recovery of the surrogate provides a measure of the method accuracy in each sample tested. Surrogates are used for organics methods only.

QC LIMITS - QC limits specify the expected percent recovery range for a spiked compound. QC limits may be set by method criteria or calculated from laboratory generated data. For many methods, these limits are advisory and do not require corrective action if exceeded.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGK

Method: Water GC Pesticides/PCBs and Chlorinated Hydroca **Batch:** 22345 **Units:** ug/l

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Toxaphene	25.0	93	93					41-126			Q5

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGK

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 22383 **Units:** ug/kg

Parameter Name	LCS Spike	LCS %Rec	LCSD %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Toxaphene	833	106		833	0 *	0 *	0	41-126	41-126	50	Q2

* denotes recovery outside of QC limits.
MS spike concentrations are not corrected for moisture content of the spiked sample.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGK

Method: Water GC Pesticides/PCBs and Chlorinated Hydroca **Batch:** 22345

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
22345B1	95	72	68	72				
22345S1	125	95	95	95				
22345S2	120	95	95	95				
HGK-016	150 *	59	82	55				
HGK-017	129	50	87	40				
HGK-018	132 *	43	79	*17 GI*				
HGT-001	33	11 *	12 *	8 *				
QC limits	30 - 130	30 - 150	30 - 130	30 - 150				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Batch Surrogate Recovery

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Episode: HGK

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 22383

Lab ID	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
22383B1	114	83	77	74				
22383MS	99	98	87	66				
22383MSD	130	123	111	94				
22383S1	103	79	70	71				
HGK-001	98	165 D	87	135				
HGK-002	71	116	59	82				
HGK-003	114	77	75	76				
HGK-004	172 *	125	178 *	89				
HGK-005	139	114	79	100				
HGK-006	61	59	44	54				
HGK-007	98	62	72	53				
HGK-008	108	84	79	75				
HGK-009	72	53	43	49				
HGK-019	100	134	78	80				
HGK-020	78	92	66	74				
HGK-021	86	120	69	89				
QC limits:	30 - 150	30 - 150	30 - 150	30 - 150				

Sur 1: SS Tetrachloro-m-xylene
Sur 2: SS Decachlorobiphenyl
Sur 3: SS Tetrachloro-m-xylene (confirmation)
Sur 4: SS Decachlorobiphenyl (confirmation)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.
A Lab ID consisting of a batch number with a B suffix is a method blank.
A Lab ID consisting of a batch number with a S suffix is an LCS.
A Lab ID with a MS suffix is a matrix spike.
A Lab ID with a MSD suffix is a matrix spike duplicate.

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 22345BI

Description: Water Method Blank **Episode:** HGK **% Moisture:** n/a

Method: Water GC Pesticides/PCBs and Chlorinated Hydroca **Batch:** 22345 **Units:** ug/l

Prep Factor: 1 **Leached:** n/a **Prepared:** 08-May-97 **Analyzed:** 16-May-97 2:53 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
8001-35-2	Toxaphene	1	ND		5.00

1 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

5/22/97 17:51:11

Report of Method Blank

Pace Analytical Services, Inc. - New Orleans

Organic Protocol - Single Batch

Lab ID: 22383B1

Description: Low Soil Method Blank **Episode:** HGK **% Moisture:** n/a

Method: Low Soil GC Pesticides/PCBs and Chlorinated Hydr **Batch:** 22383 **Units:** ug/kg

Prep Factor: 1 **Leached:** n/a **Prepared:** 09-May-97 **Analyzed:** 20-May-97 17:35 SLF

CAS Number	Parameter	Dilution	Result	Qu	Reporting Limit
8001-35-2	Toxaphene	1	ND		160

1 compound(s) reported

ND denotes Not Detected at or above the reporting limit.
DF denotes Dilution Factor.
RL denotes sample Reporting Limit.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Report of Quality Control

Pace Analytical Services, Inc. - New Orleans

Multiple Parameters - Multiple Batches

Episode: HGK

Parameter Name	Batch	Blank	Units	LCS Spike	LCS %Rec	LCSD %Rec	MS Spike	MS %Rec	MSD %Rec	Dup %RPD	QC Limits LCS	QC Limits MS/MSD	RPD Max	Qu
Aluminum	22382	ND	ug/l	1000	104		2000	79		12	80-120	75-125	20	
Antimony	22382	ND	ug/l	1000	88		500	81		0	80-120	75-125	100	
Arsenic	22382	ND	ug/l	1000	89		2000	84		36	80-120	75-125	57	
Barium	22382	ND	ug/l	1000	92		2000	82		3	80-120	75-125	20	
Beryllium	22382	ND	ug/l	1000	89		50.0	78		0	80-120	75-125	100	
Boron	22382	ND	ug/l	1000	90		1000	87		6	80-120	75-125	20	
Cadmium	22382	ND	ug/l	1000	95		50.0	86		0	80-120	75-125	100	
Calcium	22382	ND	ug/l	2000	94					3	80-120		20	
Chromium	22382	ND	ug/l	1000	89		200	79		0	80-120	75-125	100	
Cobalt	22382	ND	ug/l	1000	93		500	82		1	80-120	75-125	20	
Copper	22382	ND	ug/l	1000	86		250	80		0	80-120	75-125	100	
Iron	22382	ND	ug/l	1000	91		1000	86		0	80-120	75-125	100	
Lead	22382	ND	ug/l	1000	93		500	82		0	80-120	75-125	100	
Magnesium	22382	ND	ug/l	2000	92					2	80-120		20	
Manganese	22382	ND	ug/l	1000	92		500	83		15	80-120	75-125	20	
Molybdenum	22382	ND	ug/l	1000	93		1000	85		2	80-120	75-125	20	
Nickel	22382	ND	ug/l	1000	88		500	79		1	80-120	75-125	20	
Selenium	22382	ND	ug/l	1000	87		2000	80		15	80-120	75-125	100	
Silver	22382	ND	ug/l	200	87		50.0	77		0	80-120	75-125	100	
Thallium	22382	ND	ug/l	1000	87		2000	76		15	80-120	75-125	68	
Tin	22382	ND	ug/l	1000	94		1000	83		191 *	80-120	75-125	2	
Titanium	22382	ND	ug/l				1000	82		0	80-120	75-125	100	
Vanadium	22382	ND	ug/l	1000	92		500	84		1	80-120	75-125	20	
Zinc	22382	ND	ug/l	1000	91		500	87		36 *	80-120	75-125	18	
Arsenic	22431	ND	mg/kg	62.7	94		400	81		18	70-130	75-125	20	
Barium	22431	ND	mg/kg	260	89		400	79		24	73-127	75-125	34	
Cadmium	22431	ND	mg/kg	77.4	88		10.0	76		1	66-133	75-125	93	
Chromium	22431	ND	mg/kg	76.9	94		40.0	84		11	77-123	75-125	20	
Lead	22431	ND	mg/kg	122	83		100	78		17	68-131	75-125	20	
Selenium	22431	ND	mg/kg	91.7	84		400	76		0	71-129	75-125	100	
Silver	22431	ND	mg/kg	69.6	98		10.0	84		0	74-126	75-125	100	

* denotes recovery outside of QC limits.
Spike amounts are not corrected for moisture content of the spiked sample.

Report Qualifiers

Pace Analytical Services, Inc. - New Orleans

Single Episode

Episode: HGK

Qualifier	Qualifier Description
D2	The value for this analyte was based upon analysis at a dilution due to the presence of matrix interferences.
G1	Interferences are present which caused poor surrogate recovery.
N	See narrative for a detailed explanation.
Q2	The matrix spike recoveries are poor due to the presence of matrix interferences. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client [illegible]	Report To: [illegible]	Turn around Time	Pace Client No.
Address [illegible] 66317	Bill To: [illegible]	☐ 24 Hours	Pace Project Manager
[illegible]	P.O. # / Billing Reference	☐ 48 Hours	Pace Project No.
Phone [illegible]	Project Name / No.	☐ 3-5 Days	*Requested Due Date:
		☐ 1 Week 2 Weeks	
		☒ Normal 14 Days	

Sampled By (PRINT): [illegible]

Sampler Signature: [illegible] Date Sampled: [illegible]

ITEM NO	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$	ANALYSES REQUEST	[illegible]	[illegible]								REMARKS
1	A-2,4-T	[illegible]	SO4		1	✓							✓									
2	A-4,6-T	[illegible]			1	✓							✓									
3	A-8,12-T	1345			1	✓							✓									
4	2-2,4-TA	[illegible]			2	✓							✓	✓								
5	2-4,8-TA	1435			2	✓							✓	✓								
6	2-8,12-TA	1445			2	✓							✓	✓								
7	1-2,4-T	[illegible]			1	✓							✓									
8	1-4,8-T	1555			1	✓							✓									

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT/DATE	RETURNED/DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[illegible]	[illegible]	1300	[illegible]	3/2	1300
	[illegible]			[illegible]	[illegible]	[illegible]

Additional Comments

[illegible] Job Order

SAMPLE CONDITION

Temp: _____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH _

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: Woodward [illegible]	Report To: [illegible]	Turn around Time: ☐ 24 Hours ☐ 48 Hours ☐ 3-5 Days ☐ 1 Week 2 Weeks ☒ Normal 14 Days	Pace Client No.
Address: [illegible]	Bill To: [illegible]		Pace Project Manager
[illegible] CA [illegible]	P.O. # / Billing Reference		Pace Project No.
Phone: [illegible]	Project Name / No.		*Requested Due Date:

Sampled By (PRINT): Barry Chamberlain

Sampler Signature: [illegible] Date Sampled: 01 MAY 97

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$	ANALYSES REQUEST	[illegible]	[illegible]								REMARKS
1	1-812-T	1000	Soil		1	✓							✓									
2	B1-0,2-A	1805			1	✓								✓								
3	B2-0,2-A	1810			1	✓								✓								
4	B3-0,2-A	1815			1	✓								✓								
5	B4-0,2-A	1825			1	✓								✓								
6	B5-0,2-A	1830			1	✓								✓								
7	B6-0,2-A	1835			1	✓								✓								
8																						

COOLER NOS.	BAILERS	SHIPMENT METHOD CUT/DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[illegible]	[illegible]	1300	[illegible] VCC	5/2	1300
	[illegible]			[illegible]	[illegible]	[illegible]

Additional Comments

[illegible]

SAMPLE CONDITION

Temp: _____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH _

SEE REVERSE SIDE FOR INSTRUCTIONS

Pace Analytical

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: [illegible]	Report To: [illegible]	Turn around Time	Pace Client No.
Address: [illegible]	Bill To: [illegible]	☐ 24 Hours	Pace Project Manager
[illegible]	P.O. # / Billing Reference	☐ 48 Hours	Pace Project No.
Phone: [illegible]	Project Name / No. [illegible]	☐ 3-5 Days	*Requested Due Date:
		☐ 1 Week 2 Weeks	
		☒ Normal 14 Days	

Sampled By (PRINT): [illegible]

Sampler Signature: [illegible]

Date Sampled: [illegible]

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA (HCL)	NaOH	$Na_2S_2O_3$	ANALYSES REQUEST									REMARKS
1	A-W-T	[illegible]	[illegible]		1	✓						✓									
2	[illegible]-W-T	[illegible]			1	✓						✓									
3	2-W-TA	0110			2	✓		✓				✓	✓								
4	D-W-T											✓									
5	D-2,4-T	[illegible]	[illegible]		1	✓						✓									
6	D-4,8-T	1000			1	✓						✓									
7	D-8,12-T	[illegible]			1	✓						✓									
8																					

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[illegible]	[illegible]	1300	[illegible]	3/2	1300
				[illegible]	[illegible]	[illegible]

Additional Comments

[illegible]

SAMPLE CONDITION

Temp: _____ °C	Received on Ice: Y / N	Sealed Cooler: Y / N	Samples Intact: Y / N	pH

SEE REVERSE SIDE FOR INSTRUCTIONS