CDM

environmental engineers, scientists, planners, & management consultants

CAMP DRESSER & McKEE INC.

9442 Capital of Texas Highway North
Arboretum Plaza Two, Suite 400
Austin, Texas 78759
512 345-6651

August 11, 1986

Mr. John Cochran
U.S. Environmental Protection Agency
First International Building
1201 Elm Street
Dallas, TX 75270

RE: CLP Data at South Cavalcade Street Site

Doc. Ctrl. No.: 143-TS1-EP-DCPK-1

Dear John:

Per your request (letter dated July 22, 1986), I am sending a copy of the analytical results from split samples at the South Cavalcade Site.

An extra copy of the data is included for transmission to Koppers. If you have any questions, do not hesitate to contact me.

Sincerely,

Bob Kier
Site Manager

BK:tp

002918

1012266

103

KOPPERS SOUTH CAVALCADE

CLP #	SAMPLE LOCATION
MFC 148	SCK-A01-SB07-06
187	SCK-A01-SB06-24
189	SCK-A01-SB09-07
190	SCK-A01-SB10-07
FC 896	SCK-A04-SB02-27
897	SCK-A04-SB02-05
876	SCK-A01-SB10-07
900	SCK-A01-SB09-07
FD 023	
024	SCK-A01-SB07-06
	SCK-A01-SB06-24

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
PO Box 818 Alexandria, VA 22313 – 703 557-2490 · FTS 557-2490

INORGANICS TRAFFIC REPORT

Sample Number
MFC 148

(1) **Case Number:** 5672
Sample Site Name/Code:

(2) **SAMPLE CONCENTRATION** (Check One)
- ✓ Low Concentration
- ___ Medium Concentration

(3) **SAMPLE MATRIX** (Check One)
- ___ Water
- ✓ Soil/Sediment

(4) **Ship To:** Wilson Lab
525 North Eight St
Salina, KS 67402
Attn: Ms Bernadine Lierman

Transfer Ship To:

(5) **Sampling Office:** VII

Sampling Personnel
(Name) Mike Young
(Phone) (512) 345-6651
Sampling Date: 3/14/86
(Begin) 0950 (End) 0950

(6) **Shipping Information:**
Name Of Carrier: FEC
Date Shipped: 3/14/86
Airbill Number: 110 011 893

(9) **ANALYSIS LAB:**
Recd by: Jo Peterson
Date Recd: 3/15/86

(7) **Sample Description:** (Check One)
- ___ Surface Water
- ___ Ground Water
- ___ Leachate
- ___ Mixed Media
- ✓ Solids
- ___ Other _____ (specify)

MATCHES ORGANIC SAMPLE NO. FD02

(8) **Mark Volume Level On Sample Bottle**
Check Analysis required
- ✓ Total Metals
- ✓ Cyanide

(10) **Sample Condition On Receipt:**
(eg broken, leakage, chain of custody, etc)
Satisfactory

LAB COPY FOR RETURN TO SMO

002920

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
MFC148

DATE 86/03/31

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8603-1647

CASE NO. 5672
QC REPORT NO. 5672

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM	7570	F	13.	MAGNESIUM	1190 U	F
2.	ANTIMONY	36 U R	F	14.	MANGANESE	24	F
3.	ARSENIC	6 U	F	15.	MERCURY	.12 U	
4.	BARIUM	60 U	F	16.	NICKEL	24 U	F
5.	BERYLLIUM	1.2 U	F	17.	POTASSIUM	1190 U	F
6.	CADMIUM	2.4 U	F	18.	SELENIUM	3 U R	F
7.	CALCIUM	1790 U	F	19.	SILVER	6 U	F
8.	CHROMIUM	6 U	F	20.	SODIUM	2980 U	F
9.	COBALT	24 U	F	21.	THALLIUM	6 U	F
10.	COPPER	12 U	F	22.	TIN	24 U	F
11.	IRON	3460	F	23.	VANADIUM	18 U	F
12.	LEAD	3 U R	F	24.	ZINC	12 U	F
CYANIDE		.48		PERCENT SOLIDS (%)		83	

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUST BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kath a Mitchell

002921

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 – 703 557 2490 · FTS · 557-2490

INORGANICS TRAFFIC REPORT

Sample Number
MFC 187

① Case Number: 5672
Sample Site Name/Code:

② SAMPLE CONCENTRATION
(Check One)
___ Low Concentration
✓ Medium Concentration

③ SAMPLE MATRIX
(Check One)
___ Water
✓ Soil/Sediment

④ Ship To:
WILSON
525 North Eighth Street
Salina, Ks 67402
Attn: Ms. Rosaline Siegens
Transfer
Ship To:

⑤ Sampling Office: VII
Sampling Personnel:
(Name) Mike R. Young
(Phone) (913) 345-6651
Sampling Date: 3-11-86
(Begin) 1530 (End) 1530

⑥ Shipping Information:
Name Of Carrier: FEC
Date Shipped: 3-~~15~~ 14-86
Airbill Number: 110 011 893

⑨ ANALYSIS LAB:
Recd by: J. Patterson
Date Recd: 3/15/86

⑩ Sample Condition On Receipt:
(eg. broken, leakage, chain of custody, etc.)
satisfactory

⑦ Sample Description:
(Check One)
___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids
___ Other ___ (specify)
MATCHES ORGANIC SAMPLE NO. FD024

⑧ Mark Volume Level On Sample Bottle
Check Analysis required.
✓ Total Metals
✓ Cyanide

LAB COPY FOR RETURN TO SMO

002922

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
MFC187

DATE 86/03/31

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8603-1646

CASE NO. 5672
QC REPORT NO. 5672

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM	34900	P	13.	MAGNESIUM	13900	P
2.	ANTIMONY	36 U R	P	14.	MANGANESE	549	P
3.	ARSENIC	36	F	15.	MERCURY	.12 U	
4.	BARIUM	139	P	16.	NICKEL	24 U	P
5.	BERYLLIUM	1.2 U	P	17.	POTASSIUM	5430	P
6.	CADMIUM	8.5	P	18.	SELENIUM	3 U R	F
7.	CALCIUM	48900	P	19.	SILVER	6 U	P
8.	CHROMIUM	24	P	20.	SODIUM	3020 U	P
9.	COBALT	24 U	P	21.	THALLIUM	6 U	F
10.	COPPER	12 U	P	22.	TIN	24 U	P
11.	IRON	33400	P	23.	VANADIUM	48	P
12.	LEAD	9.7 R	F	24.	ZINC	66	P
CYANIDE		.24 U		PERCENT SOLIDS (%)		82	

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUST BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi A. Mitchell

002923

ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
Alexandria, VA 703 557 2490 · FTS 557 2490

INORGANICS TRAFFIC REPORT

Sample Number: MFC 189

Case Number: 5751
Sample Site Name/Code:

(2) SAMPLE CONCENTRATION (Check One)
✓ Low Concentration
— Medium Concentration

(3) SAMPLE MATRIX (Check One)
— Water
✓ Soil/Sediment

(4) Ship To: RMAL
5530 Marshall St.
Arvada, Co 80002
(303) 421-6611
Attn: Tony Maiorana

Transfer Ship To:

(5) Sampling Office: VII
Sampling Personnel:
(Name) Mike R. Young
(Phone) (512) 345-6651
Sampling Date: 3-24-86
(Begin) 1050 (End) 1050

(6) Shipping Information:
Name Of Carrier: FEC
Date Shipped:
Airbill Number: 110 011 974

(9) ANALYSIS LAB:
Recd by: K.H.
Date Recd: 3-28-86

(10) Sample Condition On Receipt:
(eg. broken, leakage, chain of custody, etc.)
OK

(7) Sample Description: (Check One)
— Surface Water
— Ground Water
— Leachate
— Mixed Media
✓ Solids
— Other (specify)

MATCHES ORGANIC SAMPLE NO. FC 900

(8) Mark Volume Level On Sample Bottle
Check Analysis required
✓ Total Metals
✓ Cyanide

CENTRAL DISTRIBUTION LAB COPY FOR RETURN TO SMO

002924

Form I

EPA Contract Laboratory Program
ple Management Office
.O. Box 818 - Alexandria, VA 22313
/03/557-2490 FTS: 8-557-2490

EPA Sample No.
MFC139

Date 4-4-86

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5751

QC REPORT NO. 55827

Elements Identified and Measured

Concentration: Low ____ Medium X
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	16100	P	13.	MAGNESIUM	9580	P
2.	ANTIMONY	17U	P R	14.	MANGANESE	460	P
3.	ARSENIC	12	F	15.	MERCURY	0.064U	CV
4.	BARIUM	188	P	16.	NICKEL	46	P
5.	BERYLLIUM	3.3	P	17.	POTASSIUM	3340	P
6.	CADMIUM	4.3	P	18.	SELENIUM	64U	F R
7.	CALCIUM	80400	P X	19.	SILVER	2.6U	P
8.	CHROMIUM	28	P X	20.	SODIUM	[1280]	P
9.	COBALT	[31]	P	21.	THALLIUM	6.4U	F
10.	COPPER	30	P	22.	TIN	[15]	P
11.	IRON	26100	P	23.	VANADIUM	56	P
12.	LEAD	12	F	24.	ZINC	80	P X

Cyanide 0.64U AS Percent Solids (%) 78

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

002925

NVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
ox 818, Alexandria ... 703 557-2490 · FTS 557-2490

NORGANICS TRAFFIC REPORT

Sample Number MFC 190

Number: 5751
le Site Name/Code:

(2) SAMPLE CONCENTRATION (Check One)
✓ Low Concentration
Medium Concentration

(3) SAMPLE MATRIX (Check One)
Water
✓ Soil/Sediment

(4) Ship To: RMAL
5530 Marshall St.
Arvada, Co 80002
(303) 421-6611
Attn: Tony Maiorana
Transfer Ship To:

(5) Sampling Office: VI
Sampling Personnel:
(Name) Mike R. Young
(Phone) (517) 345-6651
Sampling Date: 3/25/86
(Begin) 1010 (End) 1010

(6) Shipping Information:
Name Of Carrier: FEC
Date Shipped: 3-27-86
Airbill Number: 110 011 974

(9) ANALYSIS LAB:
Recd by: K.H.
Date Recd: 3-28-86

(10) Sample Condition On Receipt:
(eg. broken, leakage, chain of custody, etc.)
OK

(7) Sample Description: (Check One)
Surface Water
Ground Water
Leachate
Mixed Media
✓ Solids
Other (specify)
MATCHES ORGANIC SAMPLE NO. FC 876

(8) Mark Volume Level On Sample Bottle
Check Analysis required
✓ Total Metals
✓ Cyanide

LAB COPY FOR RETURN TO SMO

002926

Form I

.PA Contract Laboratory Program
.e Management Office
Box 818 - Alexandria, VA 22313
/557-2490 FTS: 8-557-2490

EPA Sample No.
MFC190

Date 4-4-86

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5751
QC REPORT NO. 55327

Elements Identified and Measured

Concentration: Low ____ Medium X
Matrix: Water ____ Soil X Sludge ____ Other ____

mg/kg dry weight

1.	ALUMINUM	15200	P	13.	MAGNESIUM	8380	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	582	P
3.	ARSENIC	11	F	15.	MERCURY	0.063U	CV
4.	BARIUM	148	P	16.	NICKEL	[24]	P
5.	BERYLLIUM	[1.2]	P	17.	POTASSIUM	3230	P
6.	CADMIUM	2.5U	P	18.	SELENIUM	3.3U	F R
7.	CALCIUM	37200	P Y	19.	SILVER	2.5U	P
8.	CHROMIUM	19	P Y	20.	SODIUM	[1260]	P
9.	COBALT	[13]	P	21.	THALLIUM	6.3U	F
10.	COPPER	21	P	22.	TIN	11U	P
11.	IRON	22400	P	23.	VANADIUM	35	P
12.	LEAD	13	F	24.	ZINC	64	P Y

Cyanide 0.63U AS Percent Solids (%) 79

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

002927

ORGANIC TRAFFIC REPORT

Sample Number
FC896

① **Case Number:** 5672

Sample Site Name/Code:

② **SAMPLE CONCENTRATION** (Check One)

___ Low Concentration
✓ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

___ Water
✓ Soil/Sediment

④ **Ship To:** 3 0002
Southwest Research
6220 Culebra Rd
San Antonio TX 78238
(512) 684-5111
Attn: David Tomany

Transfer
Ship To:

⑤ **Regional Office:** VII

Sampling Personnel:
W. Young
(Name)
(512) 345-2651
(Phone)

Sampling Date: 3/6/86
1425
(Begin) (End)

⑥ **For each sample collected specify number of containers used and mark volume level on each bottle.**

	Number of Containers	Approximate Total Volume	Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)
Water (Extractable)			
Water (VOA)			
Soil/Sediment (Extractable)	1	8 oz	Good (Vol ≈ 6 oz)
Soil/Sediment (VOA)	2	8 oz	Good
Other			

⑪ **Analysis Lab:**
Rec'd by: D.E. Conrad
Date Rec'd: 3/7/86

⑦ **Shipping Information**

Fed X
Name of Carrier

3/6/86
Date Shipped:

110 011 871
Airbill Number:

⑧ **Sample Description**

___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids
___ Other (specify) _____

⑨ **Sample Location**

Deep Boring
HC4-5B02
59'-60'

⑩ **Special Handling Instructions:**
(e.g., safety precautions, hazardous nature)

LAB COPY FOR RETURN TO SMO

SOUTHWEST RESEARCH INSTITUTE

Sample Number

FC896

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: FC896
Sample Matrix: Soil
Data Release Authorized By:

Case No: 5672
QC Report No: 5672
Contract No: 68-01-7167
Date Sample Received: 03/07/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 03/13/86
Date Analyzed: 03/13/86
Conc/Dil Factor: 5 pH 6
Percent Moisture (Not Decanted): 20

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	57U	78-87-5	1,2-Dichloropropane	29U
74-83-9	Bromomethane	57U	10061-02-6	Trans-1,3-Dichloropropene	29U
75-01-4	Vinyl Chloride	57U	79-01-6	Trichloroethene	29U
75-00-3	Chloroethane	57U	124-48-1	Dibromochloromethane	29U
75-09-2	Methylene Chloride	78	79-00-5	1,1,2-Trichloroethane	29U
67-64-1	Acetone	55	71-43-2	Benzene	29U
75-15-0	Carbon Disulfide	29U	10061-01-5	Cis-1,3-Dichloropropene	29U
75-35-4	1,1-Dichloroethene	29U	110-75-8	2-Chloroethylvinylether	57U
75-34-3	1,1-Dichloroethane	29U	75-25-2	Bromoform	29U
156-60-5	Trans-1,2-Dichloroethene	29U	591-78-6	4-Methyl-2-Pentanone	57U
67-66-3	Chloroform	29U	108-10-1	2-Hexanone	57U
107-06-2	1,2-Dichloroethane	29U	127-18-4	Tetrachloroethene	29U
78-93-3	2-Butanone	57U	79-34-5	1,1,2,2-Tetrachloroethane	29U
71-55-6	1,1,1-Trichloroethane	29U	108-88-3	Toluene	30
56-23-5	Carbon Tetrachloride	29U	108-90-7	Chlorobenzene	29U
108-05-4	Vinyl Acetate	57U	100-41-4	Ethylbenzene	29U
75-27-4	Bromodichloromethane	29U	100-42-5	Styrene	29U
				Total Xylenes	29U

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimating value. This flag is used either when estimated a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S spiked compounds

Form I

SOUTHWEST RESEARCH INSTITUTE

Sample No: FC896
Case No: 5672

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low
GPC Cleanup NO
Date Extracted/Prepared: 03/14/86
Date Analyzed: 03/19/86
Conc/Dil Factor: 1.00
Percent Moisture (Decanted): NA

CAS Number		ug/kg
108-95-2	Phenol	413U
111-44-4	bis(2-Chloroethyl)Ether	413U
95-57-8	2-Chlorophenol	413U
541-73-1	1,3-Dichlorobenzene	413U
106-46-7	1,4-Dichlorobenzene	413U
100-51-6	Benzyl Alcohol	413U
95-50-1	1,2-Dichlorobenzene	413U
95-48-7	2-Methylphenol	413U
39638-32-9	bis(2-Chloroisopropyl)Ether	413U
106-44-5	4-Methylphenol	413U
621-64-7	N-Nitroso-Di-n-Propylamine	413U
67-72-1	Hexachloroethane	413U
98-95-3	Nitrobenzene	413U
78-59-1	Isophorone	413U
88-75-5	2-Nitrophenol	413U
105-67-9	2,4-Dimethylphenol	413U
65-85-0	Benzoic Acid	2000U
111-91-1	bis(2-Chloroethoxy)Methane	413U
120-83-2	2,4-Dichlorophenol	413U
120-82-1	1,2,4-Trichlorobenzene	413U
91-20-3	Naphthalene	413U
106-47-8	4-Chloroaniline	413U
87-68-3	Hexachlorobutadiene	413U
59-50-7	4-Chloro-3-Methylphenol	413U
91-57-6	2-Methylnaphthalene	413U
77-47-4	Hexachlorocyclopentadiene	413U
88-06-2	2,4,6-Trichlorophenol	413U
95-95-4	2,4,5-Trichlorophenol	2000U
91-58-7	2-Chloronaphthalene	413U
88-74-4	2-Nitroaniline	2000U
131-11-3	Dimethyl Phthalate	413U
208-96-8	Acenaphthylene	413U
99-09-2	3-Nitroaniline	2000U

CAS Number		ug/
83-32-9	Acenaphthene	41
51-28-5	2,4-Dinitrophenol	200
100-02-7	4-Nitrophenol	200
132-64-9	Dibenzofuran	41
121-14-2	2,4-Dinitrotoluene	41
606-20-2	2,6-Dinitrotoluene	41
84-66-2	Diethylphthalate	41
7005-72-3	4-Chlorophenylphenylether	41
86-73-7	Fluorene	41
100-01-6	4-Nitroaniline	200
534-52-1	4,6-Dinitro-2-Methylphenol	200
86-30-6	N-Nitrosodiphenylamine(1)	41
101-55-3	4-Bromophenylphenylether	41
118-74-1	Hexachlorobenzene	41
87-86-5	Pentachlorophenol	200
85-01-8	Phenanthrene	41
120-12-7	Anthracene	41
84-74-2	Di-n-Butylphthalate	1300
206-44-0	Fluoranthene	41
129-00-0	Pyrene	41
85-68-7	Butylbenzylphthalate	41
91-94-1	3,3'-Dichlorobenzidine	82
56-55-3	Benzo(a)Anthracene	41
117-81-7	bis(2-Ethylhexyl)Phthalate	190J
218-01-9	Chrysene	41
117-84-0	Di-n-Octyl Phthalate	41
205-99-2	Benzo(b)Fluoranthene	41
207-08-9	Benzo(k)Fluoranthene	41
50-32-8	Benzo(a)Pyrene	41
193-39-5	Indeno(1,2,3-cd)Pyrene	41
53-70-3	Dibenz(a,h)Anthracene	41
191-24-2	Benzo(g,h,i)Perylene	41

(1) - Cannot be separated from diphenylamine

Form I

SOUTHWEST RESEARCH INSTITUTE

Sample No: FC896
Case No: 5672

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low
GPC Cleanup NO
Date Extracted/Prepared: 03/14/86
Date Analyzed: 04/01/86
Conc/Dil Factor: 1.00
Percent Moisture (Decanted): NA

CAS Number		ug/kg
319-84-6	Alpha-BHC	10.00U
319-85-7	Beta-BHC	10.00U
319-86-8	Delta-BHC	10.00U
58-89-9	Gamma-BHC (Lindane)	10.00U
76-44-8	Heptachlor	10.00U
309-00-2	Aldrin	10.00U
1024-57-3	Heptachlor Epoxide	10.00U
959-98-8	Endosulfan I	10.00U
60-57-1	Dieldrin	20.00U
72-55-9	4,4'-DDE	20.00U
72-20-8	Endrin	20.00U
33213-65-9	Endosulfan II	20.00U
72-54-8	4,4'-DDD	20.00U
1031-07-8	Endosulfan Sulfate	20.00U
50-29-3	4,4'-DDT	20.00U
72-43-5	Methoxychlor	100.00U
53494-70-5	Endrin Ketone	20.00U
57-74-9	Chlordane	100.00U
8001-35-2	Toxaphene	200.00U
12674-11-2	Aroclor-1016	100.00U
11104-28-2	Aroclor-1221	100.00U
11141-16-5	Aroclor-1232	100.00U
53469-21-9	Aroclor-1242	100.00U
12672-29-6	Aroclor-1248	100.00U
11097-69-1	Aroclor-1254	200.00U
11096-82-5	Aroclor-1260	200.00U

V(i) = Volume of extract injected (ul)
V(s) = Volume of water extracted (ml)
W(S) = Weight of sample extracted (g)
V(t) = Volume of total extract (ul)

V(s) or W(s) 24 V(t) 20000 V(i) 5

Form I

002931

SOUTHWEST RESEARCH INSTITUTE

3 0006

Sample No: FC896
Case No: 5672

Organics Analysis Data Sheet
(Page 4)
Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan Number	Estimated Concentration ug/kg
	UNKNOWN	BNA	438	1000J,B
74381-40-1	2-METHYLPROPANOICACID,1-(ISOBUTYL)-2-METHYL-1,3-PROPANE	BNA	1094	400J
	UNKNOWN PHTHALATE	BNA	1717	200J
	UNKNOWN	BNA	1906	300J
17851-53-5	1,2-BENZENEDICARBOXYLIC ACID, BUTYL 2-METHYLPROPYL ESTER	BNA	1298	200J
496-11-7	1H-INDENE,2,3-DIHYDRO-	VOA	989	70J

almost certainly due to carryover from FC877 VOA which was run first

AirRipper

002932

Form I, Part B

ORGANICS TRAFFIC REPORT

Sample Number
FC 897

① **Case Number:** 5672

Sample Site Name/Code:

② **SAMPLE CONCENTRATION:** (Check One)

___ Low Concentration
✓ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

___ Water
✓ Soil/Sediment

④ **Ship To:** 3 0047
Southwest Research
6220 Culebra Rd.
San Antonio, Tx 78238
(512) 684-5111
Attn: David Tamayo

Transfer
Ship To:

⑤ **Regional Office:** VI

Sampling Personnel:
Mike R Young
(Name)
(512) 345-6651
(Phone)

Sampling Date:
3-6-86
(Begin) (End)

⑥ **For each sample collected specify number of containers used and mark volume level on each bottle.**

	Number of Containers	Approximate Total Volume	Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)
Water (Extractable)			
Water (VOA)			
Soil/Sediment (Extractable)	1	8 oz	Good
Soil/Sediment (VOA)	2	8 oz	Good
Other			

⑪ **Analysis Lab:**
Rec'd by: D.E. Cannon
Date Rec'd: 3/7/86

⑦ **Shipping Information**

FEC
Name of Carrier

3-6-86
Date Shipped:

110 211 671
Airbill Number:

⑧ **Sample Description**

___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids
___ Other (specify) _____

⑨ **Sample Location**

Deep Boring
AC4-SB02
5'-10'

⑩ **Special Handling Instructions:**
(e.g., safety precautions, hazardous nature)

LAB COPY FOR RETURN TO SMO

SOUTHWEST RESEARCH INSTITUTE

ample Number

FC897

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: SwRI
Lab Sample No: FC897
Sample Matrix: Soil
Data Release Authorized By:

Case No: 5672
QC Report No: 5672
Contract No: 68-01-7167
Date Sample Received: 03/07/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 03/13/86
Date Analyzed: 03/13/86
Conc/Dil Factor: 5 pH 6
Percent Moisture (Not Decanted): 17.4

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	60U	78-87-5	1,2-Dichloropropane	30U
74-83-9	Bromomethane	60U	10061-02-6	Trans-1,3-Dichloropropene	30U
75-01-4	Vinyl Chloride	60U	79-01-6	Trichloroethene	30U
75-00-3	Chloroethane	60U	124-48-1	Dibromochloromethane	30U
75-09-2	Methylene Chloride	12J	79-00-5	1,1,2-Trichloroethane	30U
67-64-1	Acetone	120	71-43-2	Benzene	30U
75-15-0	Carbon Disulfide	30U	10061-01-5	Cis-1,3-Dichloropropene	30U
75-35-4	1,1-Dichloroethene	30U	110-75-8	2-Chloroethylvinylether	60U
75-34-3	1,1-Dichloroethane	30U	75-25-2	Bromoform	30U
156-60-5	Trans-1,2-Dichloroethene	30U	591-78-6	4-Methyl-2-Pentanone	60U
67-66-3	Chloroform	30U	108-10-1	2-Hexanone	60U
107-06-2	1,2-Dichloroethane	30U	127-18-4	Tetrachloroethene	30U
78-93-3	2-Butanone	60U	79-34-5	1,1,2,2-Tetrachloroethane	30U
71-55-6	1,1,1-Trichloroethane	30U	108-88-3	Toluene	430
56-23-5	Carbon Tetrachloride	30U	108-90-7	Chlorobenzene	30U
108-05-4	Vinyl Acetate	60U	100-41-4	Ethylbenzene	95 ~~30U~~
75-27-4	Bromodichloromethane	30U	100-42-5	Styrene	30U
				Total Xylenes	310

ALCR
GT-M

002934

Data Reporting Qualifiers

Values If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration dilution action (This is not necessarily the instrument detection limit). The footnote should be read U compound was analyzed for but not detected. The number is the minimum attainable limit for the sample.

J Indicates an estimating value. This flag is used either when estimated a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S spiked compounds

SOUTHWEST RESEARCH INSTITUTE

Sample No: FC897
Case No: 5672

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Medium GPC Cleanup NO
Date Extracted/Prepared: 03/12/86
Date Analyzed: 03/20/86
Conc/Dil Factor: 1.00
Percent Moisture (Decanted): NA

CAS Number		ug/kg
108-95-2	Phenol	23760U
111-44-4	bis(2-Chloroethyl)Ether	23760U
95-57-8	2-Chlorophenol	23760U
541-73-1	1,3-Dichlorobenzene	23760U
106-46-7	1,4-Dichlorobenzene	23760U
100-51-6	Benzyl Alcohol	23760U
95-50-1	1,2-Dichlorobenzene	23760U
95-48-7	2-Methylphenol	23760U
39638-32-9	bis(2-Chloroisopropyl)Ether	23760U
106-44-5	4-Methylphenol	23760U
621-64-7	N-Nitroso-Di-n-Propylamine	23760U
67-72-1	Hexachloroethane	23760U
98-95-3	Nitrobenzene	23760U
78-59-1	Isophorone	23760U
88-75-5	2-Nitrophenol	23760U
105-67-9	2,4-Dimethylphenol	23760U
65-85-0	Benzoic Acid	115200U
111-91-1	bis(2-Chloroethoxy)Methane	23760U
120-83-2	2,4-Dichlorophenol	23760U
120-82-1	1,2,4-Trichlorobenzene	23760U
91-20-3	Naphthalene	190000
106-47-8	4-Chloroaniline	23760U
87-68-3	Hexachlorobutadiene	23760U
59-50-7	4-Chloro-3-Methylphenol	23760U
91-57-6	2-Methylnaphthalene	73000
77-47-4	Hexachlorocyclopentadiene	23760U
88-06-2	2,4,6-Trichlorophenol	23760U
95-95-4	2,4,5-Trichlorophenol	115200U
91-58-7	2-Chloronaphthalene	23760U
88-74-4	2-Nitroaniline	115200U
131-11-3	Dimethyl Phthalate	23760U
208-96-8	Acenaphthylene	23760U
99-09-2	3-Nitroaniline	115200U

CAS Number		ug/kg
83-32-9	Acenaphthene	140000
51-28-5	2,4-Dinitrophenol	115200U
100-02-7	4-Nitrophenol	115200U
132-64-9	Dibenzofuran	91000
121-14-2	2,4-Dinitrotoluene	23760U
606-20-2	2,6-Dinitrotoluene	23760U
84-66-2	Diethylphthalate	23760U
7005-72-3	4-Chlorophenylphenylether	23760U
86-73-7	Fluorene	120000
100-01-6	4-Nitroaniline	115200U
534-52-1	4,6-Dinitro-2-Methylphenol	115200U
86-30-6	N-Nitrosodiphenylamine(1)	23760U
101-55-3	4-Bromophenylphenylether	23760U
118-74-1	Hexachlorobenzene	23760U
87-86-5	Pentachlorophenol	115200U
85-01-8	Phenanthrene	250000
120-12-7	Anthracene	40000
84-74-2	Di-n-Butylphthalate	23760U
206-44-0	Fluoranthene	160000
129-00-0	Pyrene	120000
85-68-7	Butylbenzylphthalate	23760
91-94-1	3,3'-Dichlorobenzidine	47520
56-55-3	Benzo(a)Anthracene	41000
117-81-7	bis(2-Ethylhexyl)Phthalate	23760
218-01-9	Chrysene	40000
117-84-0	Di-n-Octyl Phthalate	23760U
205-99-2	Benzo(b)Fluoranthene	21000J
207-08-9	Benzo(k)Fluoranthene	25000J
50-32-8	Benzo(a)Pyrene	20000J
193-39-5	Indeno(1,2,3-cd)Pyrene	23760U
53-70-3	Dibenz(a,h)Anthracene	23760U
191-24-2	Benzo(g,h,i)Perylene	23760U

(1) - Cannot be separated from diphenylamine

Form I

SOUTHWEST RESEARCH INSTITUTE

Sample No: FC897
Case No: 5672

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs
GPC Cleanup NO

Concentration: Medium
Date Extracted/Prepared: 03/12/86
Date Analyzed: 04/01/86
Conc/Dil Factor: 1.00
Percent Moisture (Decanted): NA

CAS Number		ug/kg
319-84-6	Alpha-BHC	144.00U
319-85-7	Beta-BHC	144.00U
319-86-8	Delta-BHC	144.00U
58-89-9	Gamma-BHC (Lindane)	144.00U
76-44-8	Heptachlor	144.00U
309-00-2	Aldrin	144.00U
1024-57-3	Heptachlor Epoxide	144.00U
959-98-8	Endosulfan I	144.00U
60-57-1	Dieldrin	288.00U
72-55-9	4,4'-DDE	288.00U
72-20-8	Endrin	288.00U
33213-65-9	Endosulfan II	288.00U
72-54-8	4,4'-DDD	288.00U
1031-07-8	Endosulfan Sulfate	288.00U
50-29-3	4,4'-DDT	288.00U
72-43-5	Methoxychlor	1440.00U
53494-70-5	Endrin Ketone	288.00U
57-74-9	Chlordane	1440.00U
8001-35-2	Toxaphene	2880.00U
12674-11-2	Aroclor-1016	1440.00U
11104-28-2	Aroclor-1221	1440.00U
11141-16-5	Aroclor-1232	144.00U
53469-21-9	Aroclor-1242	144.00U
12672-29-6	Aroclor-1248	144.00U
11097-69-1	Aroclor-1254	2880.00U
11096-82-5	Aroclor-1260	2880.00U

V(i) = Volume of extract injected (ul)
V(s) = Volume of water extracted (ml)
W(S) = Weight of sample extracted (g)
V(t) = Volume of total extract (ul)

V(s) or W(s) 0.826 V(t) 10000 V(i) 5

Form I

002936

SOUTHWEST RESEARCH INSTITUTE

Sample No: FC897
Case No: 5672

Organics Analysis Data Sheet
(Page 4)
Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan Number	Estimated Concentration ug/kg
569-41-5	NAPHTHALENE,1,8-DIMETHYL-	BNA	936	40000J
79-34-5	ETHANE, 1,1,2,2-TETRACHLORO-	BNA	423	50000J,6
2471-83-2	1H-INDENE, 1-ETHYLIDENE-	BNA	851	100000J
939-27-5	NAPHTHALENE, 2-ETHYL-	BNA	926	20000J
569-41-5	NAPHTHALENE,1,8-DIMETHYL-	BNA	949	40000J
571-58-4	NAPHTHALENE,1,4-DIMETHYL-	BNA	952	40000J
2489-86-3	NAPHTHALENE,1-(2-PROPENYL)-	BNA	1106	50000J
2489-86-3	NAPHTHALENE,1-(2-PROPENYL)-	BNA	1111	20000J
7320-53-8	DIBENZOFURAN, 4-METHYL-	BNA	1119	30000J
776-35-2	PHENANTHRENE, 9,10-DIHYDRO-	BNA	1164	20000J
1430-97-3	9H-FLUORENE, 2-METHYL-	BNA	1181	30000J
132-65-0	DIBENZOTHIOPHENE	BNA	1224	80000J
86-74-8	9H-CARBAZOLE	BNA	1286	50000J
610-48-0	ANTHRACENE, 1-METHYL-	BNA	1326	40000J
613-12-7	ANTHRACENE, 2-METHYL-	BNA	1331	50000J
203-64-5	4H-CYCLOPENTA[DEF]PHENANTHRENE	BNA	1344	100000J
612-94-2	NAPHTHALENE, 2-PHENYL-	BNA	1377	30000J
238-84-6	11H-BENZO[A]FLUORENE	BNA	1541	60000J
243-17-4	11H-DIBENZO[B]FLUORENE	BNA	1552	50000J
	UNKNOWN POLYNUCLEAR AROMATICS	BNA	1651	30000J
	UNKNOWN POLYNUCLEAR AROMATICS	BNA	1707	20000J
205-82-3	BENZO[J]FLUORANTHENE	BNA	1964	10000J
2867-05-2	BICYCLO[3.1.0]HEX-2-ENE,2-METHYL-5-(1-METHYLETHYL)-	VOA	753	3000J
514-94-3	1,3-CYCLOHEXADIENE,1,5,5,6-TETRAMETHYL-	VOA	802	40J
514-94-3	1,3-CYCLOHEXADIENE,1,5,5,6-TETRAMETHYL-	VOA	915	300J
271-89-6	BENZOFURAN	VOA	944	60J
611-15-4	BENZENE, 1-ETHENYL-2-METHYL-	VOA	984	4000J

002937

Form I, Part B

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
P.O. Box 818, Alexandria, [illegible] 703-557-2490 FTS 557-2490

ORGANICS TRAFFIC REPORT

Sample Number
FC 876

① Case Number: 5754

Sample Site Name/Code:

② SAMPLE CONCENTRATION (Check One)
___ Low Concentration
✓ Medium Concentration

③ SAMPLE MATRIX (Check One)
___ Water
✓ Soil/Sediment

④ Ship To: SWOK [illegible] Plant
[illegible] Lisa, OK 74146
(918) 465-0660
Attn: Jack [illegible]

Transfer Ship To:

⑤ Regional Office: VI
Sampling Personnel: Mike R. Young
(Name)
(Phone) 395-6851
Sampling Date: [illegible]
(Begin) (End)

⑥ For each sample collected specify number of containers used and mark volume level on each bottle.

	Number of Containers	Approximate Total Volume	
Water (Extractable)			
Water (VOA)			
Soil/Sediment (Extractable)	1	1 oz	OK
Soil/Sediment (VOA)	2	1 oz	OK
Other			

⑪ Analysis Lab:
Rec'd by: Rob Harris
Date Rec'd: 3/28/86
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

⑦ Shipping Information
Name of Carrier: FEC
Date Shipped: [illegible]
Airbill Number: [illegible]

⑧ Sample Description
Surface Water
Mixed Media
Ground Water
Solids
Leachate
Other (specify)

⑨ Sample Location

⑩ Special Handling Instructions
(e.g., Safety Precautions, Hazardous Waste)

PUBLIC RECORD

002938

Sample Number
FC 876

8468

Organics Analysis Data Sheet
(Page 1)

Lab Name SOUTHWEST LABORATORY OF OKLA.
Case No 5751
Lab Sample ID No 8468
QC Report No
Sample Matrix Soil
Contract No 68-01-7168/1A 68-01-7168/2A
Data Release Authorized By Jayant Shringarpure
Date Sample Received 3-28-86

Volatile Compounds

Concentration Low Medium (Circle One)
Date Extracted/Prepared
Date Analyzed 3-31-86
Conc/Dil Factor 1 pH 7.9
Percent Moisture (Not Decanted) 20.7

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	10.5 ~~5 U~~
67-64-1	Acetone	10 U
75-[illegible]-9	Carbon Disulfide	5 U
75-3[illegible]-4	1,1-Dichloroethene	5 U
75-34-3	1,1-Dichloroethane	5 U
156-60-5	Trans-1,2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1,2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1,1,1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	5 U
10061-02-6	Trans-1,3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1,1,2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1,3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	4-Methyl-2-Pentanone	10 U
108-10-1	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1,1,2,2-Tetrachloroethane	5 U
108-88-3	Toluene	29 ~~5 U~~
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

002939

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. (Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.)

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name SOUTHWEST L. ORATORY OF OKLA.

Case No 5751

Contract # 68-01-7168/1A 68-01-7168/2A

Sample Number
FC 876

8468

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 4-1-86

Date Analyzed 5-7-86

Conc/Dil Factor 1

Percent Moisture (Decanted) 20.7

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108 95 2	Phenol	10,000U
111-44-4	bis(2-Chloroethyl)Ether	10,000U
95 57-8	2-Chlorophenol	10,000U
541-73-1	1 3-Dichlorobenzene	10,000U
106-46-7	1 4-Dichlorobenzene	10,000U
100-51-6	Benzyl Alcohol	10,000U
95-50 1	1 2-Dichlorobenzene	10,000U
95-48-7	2-Methylphenol	10,000U
39638-32-9	bis(2-chloroisopropyl)Ether	10,000U
[illegible]44-5	4-Methylphenol	10,000U
621-64-7	N-Nitroso-Di-n-Propylamine	10,000U
67-72-1	Hexachloroethane	10,000U
98 95 3	Nitrobenzene	10,000U
78 59-1	Isophorone	10,000U
88 75 5	2-Nitrophenol	10,000U
105-67-9	2 4-Dimethylphenol	10,000U
65-85-0	Benzoic Acid	10,000U
111-91-1	bis(2-Chloroethoxy)Methane	10,000U
120-83-2	2 4-Dichlorophenol	10,000U
120-82-1	1, 2, 4-Trichlorobenzene	10,000U
91-20-3	Naphthalene	10,000U
106-47-8	4-Chloroaniline	10,000U
87-68 3	Hexachlorobutadiene	10,000U
59-50-7	4-Chloro-3-Methylphenol	10,000U
91-57-6	2-Methylnaphthalene	10,000U
77-47-4	Hexachlorocyclopentadiene	10,000U
88-06-2	2, 4, 6-Trichlorophenol	10,000U
95 95-4	2, 4, 5-Trichlorophenol	10,000U
91-58-7	2-Chloronaphthalene	10,000U
88 74-4	2-Nitroaniline	10,000U
1[illegible]1-3	Dimethyl Phthalate	10,000U
20[illegible]6-8	Acenaphthylene	10,000U
99-09-2	3-Nitroaniline	10,000U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10,000U
51-28-5	2, 4-Dinitrophenol	10,000U
100-02-7	4-Nitrophenol	10,000U
132-64 9	Dibenzofuran	10,000U
121-14-2	2 4-Dinitrotoluene	10,000U
606-20-2	2 6-Dinitrotoluene	10,000U
84-66-2	Diethylphthalate	10,000U
7005-72-3	4-Chlorophenyl-phenylether	10,000U
86-73-7	Fluorene	10,000U
100-01-6	4-Nitroaniline	10,000U
534-52-1	4, 6-Dinitro-2-Methylphenol	10,000U
86-30-6	N-Nitrosodiphenylamine (1)	10,000U
101-55-3	4-Bromophenyl-phenylether	10,000U
118-74-1	Hexachlorobenzene	10,000U
87-86-5	Pentachlorophenol	10,000U
85-01-8	Phenanthrene	10,000U
120-12-7	Anthracene	10,000U
84-74-2	Di-n-Butylphthalate	10,000U
206-44-0	Fluoranthene	10,000U
129-00-0	Pyrene	10,000U
85-68-7	Butylbenzylphthalate	10,000U
91-94-1	3 3-Dichlorobenzidine	10,000U
56-55-3	Benzo(a)Anthracene	10,000U
117-81-7	bis(2-Ethylhexyl)Phthalate	10,000U
218-01-9	Chrysene	10,000U
117-84-0	Di-n-Octyl Phthalate	10,000U
205-99-2	Benzo(b)Fluoranthene	10,000U
207-08-9	Benzo(k)Fluoranthene	10,000U
50-32-8	Benzo(a)Pyrene	10,000U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10,000U
53-70-3	Dibenz(a, h)Anthracene	10,000U
191-24-2	Benzo(g, h, i)Perylene	10,000U

(1)-Cannot be separated from diphenylamine

002940

Laboratory Name SOUTHWEST LABORATORY OF OKLAHOMA

Case No 5737

Contract # 68-01-7168/1A or 2A

Sample Number FC876

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 4-1-86

Date Analyzed 5-15-86

Conc/Dil Factor 120/100

Percent Moisture (decanted) 20.7

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	120 U
319-85-7	Beta-BHC	120 U
319-86-8	Delta-BHC	120 U
58-89-9	Gamma-BHC (Lindane)	120 U
76-44-8	Heptachlor	120 U
309-00-2	Aldrin	120 U
1024-57-3	Heptachlor Epoxide	120 U
959-98-8	Endosulfan I	120 U
60-57-1	Dieldrin	240 U
72-55-9	4,4'-DDE	240 U
72-20-8	Endrin	240 U
33213-65-9	Endosulfan II	240 U
72-54-8	4,4'-DDD	240 U
1031-07-8	Endosulfan Sulfate	240 U
50-29-3	4,4'-DDT	240 U
72-43-5	Methoxychlor	1200 U
53494-70-5	Endrin Ketone	240 U
57-74-9	Chlordane	1200 U
8001-35-2	Toxaphene	2400 U
12674-11-2	Aroclor-1016	1200 U
11104-28-2	Aroclor-1221	1200 U
11141-16-5	Aroclor-1232	1200 U
53469-21-9	Aroclor-1242	1200 U
12672-29-6	Aroclor-1248	1200 U
11097-69-1	Aroclor-1254	2400 U
11096-82-5	Aroclor-1260	2400 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_i ____ W_s 0.743 g V_t 10000 V_s 5

Dry

Form 1 7/85

002941

002941

Laboratory Name SOUTHWEST LABORATORY OF OKLA.

Case No. 5751

Sample Number FC 876

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	R.T. or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	Unknown	VOA	254	48
2	—	unknown hydrocarbon	"	312	27
3	96-14-0	Pentane, 3-methyl	"	410	54
4	—	unknown	BNA	328	36
5	—	"	"	596	9
6	541-01-5	Heptasiloxane, Hexadecamethyl	"	1730	4
7.	—	unknown	"	1844	7
8	—	" "	"	1947	11
9	—	"	"	2043	27
10	—	"	"	2132	27
11.	—	"	"	2217	26
12	—	"	"	2301	17
13	—	"	"	2403	16
14	—	"	"	2703	5
15					
16				2535 ?	
17.					
18					
19					
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21.					
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26					
27.					
28					
29					
30					

002942

not [illegible] M. 11 [illegible]

002942

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
P.O. Box 818 Alexandria, VA 703-557-2490 FTS 557-2490

ORGANICS TRAFFIC REPORT

Sample Number: FC 900

① Case Number: 5751

Sample Site Name/Code:

② SAMPLE CONCENTRATION (Check One)

Low Concentration
✓ Medium Concentration

③ SAMPLE MATRIX (Check One)

Water
✓ Soil/Sediment

④ Ship To: SWOK
10926 East 55th Place
Tulsa, OK 74146
(918) 665-0690
Attn: Jack Wright

Transfer
Ship To:

⑤ Regional Office: VI

Sampling Personnel: Mr. R. Young
(Name)
(512) 345-1451
(Phone)

Sampling Date: 3-24-86
(Begin) (End)

⑥ For each sample collected specify number of containers used and mark volume level on each bottle.

	Number of Containers	Approximate Total Volume	
Water (Extractable)			
Water (VOA)			
Soil/Sediment (Extractable)	1	1 oz	OK
Soil/Sediment (VOA)	2	1 oz	OK
Other			

⑦ Shipping Information

FEC
Name of Carrier

3-27-86
Date Shipped:

110-011-996
Airbill Number

⑪ Analysis Lab:
Rec'd by: Rob Harris
Date Rec'd: 3/28/86
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

⑧ Sample Description

Surface Water — Mixed Media
Ground Water — Solids
Leachate — Other (specify)

⑨ Sample Location

⑩ Special Handling Instructions

002943

Sample Number
FC 900

8467

Organics Analysis Data Sheet
(Page 1)

Laboratory Name SOUTHWEST LABORATORY OF OKLA.
Lab Sample ID No 8467
Sample Matrix Soil
Data Release Authorized By Jayant Shringarpure

Case No 5751
QC Report No
Contract No 68-01-7168/1A 68-01-7168/2A
Date Sample Received 3-28-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared —
Date Analyzed 3-31-86
Conc/Dil Factor 1 pH 7.9
Percent Moisture (Not Decanted) 19.9

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	52 ~~5 U~~
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethene	5 U
75-34-3	1,1-Dichloroethane	5 U
156-60-5	Trans-1,2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1,2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1,1,1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	5 U
10061-02-6	Trans-1,3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1,1,2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1,3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	4-Methyl-2-Pentanone	10 U
108-10-1	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1,1,2,2-Tetrachloroethane	5 U
108-88-3	Toluene	26 ~~5 U~~
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

002944

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

[illegible] If the result is a value greater than or equal to the detection limit, report the value.

[illegible] Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U - compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

[illegible] Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 9BJ). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

[illegible] This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. (Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.)

[illegible] This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other: Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

002944

Laboratory Name SOUTHWEST LABORATORY OF OKLA.

Case No 5751

Contract # 68-01-7168/1A 68-01-7168/2A

Sample Number FC902

8467

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration Low (Medium) (Circle One)

Date Extracted/Prepared 4-1-86

Date Analyzed 5-7-86

Conc/Dil Factor 1

Percent Moisture (Decanted) 19.9

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10,000U
111-44-4	bis(2-Chloroethyl)Ether	10,000U
95-57-8	2-Chlorophenol	10,000U
541-73-1	1,3-Dichlorobenzene	10,000U
106-46-7	1,4-Dichlorobenzene	10,000U
100-51-6	Benzyl Alcohol	10,000U
95-50-1	1,2-Dichlorobenzene	10,000U
95-48-7	2-Methylphenol	10,000U
39638-32-9	bis(2-chloroisopropyl)Ether	10,000U
[illegible]44-5	4-Methylphenol	10,000U
621-64-7	N-Nitroso-Di-n-Propylamine	10,000U
67-72-1	Hexachloroethane	10,000U
98-95-3	Nitrobenzene	10,000U
78-59-1	Isophorone	10,000U
88-75-5	2-Nitrophenol	10,000U
105-67-9	2,4-Dimethylphenol	10,000U
65-85-0	Benzoic Acid	10,000U
111-91-1	bis(2-Chloroethoxy)Methane	10,000U
120-83-2	2,4-Dichlorophenol	10,000U
120-82-1	1,2,4-Trichlorobenzene	10,000U
91-20-3	Naphthalene	10,000U
106-47-8	4-Chloroaniline	10,000U
87-68-3	Hexachlorobutadiene	10,000U
59-50-7	4-Chloro-3-Methylphenol	10,000U
91-57-6	2-Methylnaphthalene	10,000U
77-47-4	Hexachlorocyclopentadiene	10,000U
88-06-2	2,4,6-Trichlorophenol	10,000U
95-95-4	2,4,5-Trichlorophenol	10,000U
91-58-7	2-Chloronaphthalene	10,000U
88-74-4	2-Nitroaniline	10,000U
1[illegible]1-3	Dimethyl Phthalate	10,000U
2[illegible]6-8	Acenaphthylene	10,000U
99-09-2	3-Nitroaniline	10,000U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10,000U
51-28-5	2,4-Dinitrophenol	10,000U
100-02-7	4-Nitrophenol	10,000U
132-64-9	Dibenzofuran	10,000U
121-14-2	2,4-Dinitrotoluene	10,000U
606-20-2	2,6-Dinitrotoluene	10,000U
84-66-2	Diethylphthalate	10,000U
7005-72-3	4-Chlorophenyl-phenylether	10,000U
86-73-7	Fluorene	10,000U
100-01-6	4-Nitroaniline	10,000U
534-52-1	4,6-Dinitro-2-Methylphenol	10,000U
86-30-6	N-Nitrosodiphenylamine (1)	10,000U
101-55-3	4-Bromophenyl-phenylether	10,000U
118-74-1	Hexachlorobenzene	10,000U
87-86-5	Pentachlorophenol	10,000U
85-01-8	Phenanthrene	10,000U
120-12-7	Anthracene	10,000U
84-74-2	Di-n-Butylphthalate	10,000U
206-44-0	Fluoranthene	10,000U
129-00-0	Pyrene	10,000U
85-68-7	Butylbenzylphthalate	10,000U
91-94-1	3,3-Dichlorobenzidine	10,000U
56-55-3	Benzo(a)Anthracene	10,000U
117-81-7	bis(2-Ethylhexyl)Phthalate	10,000U
218-01-9	Chrysene	10,000U
117-84-0	Di-n-Octyl Phthalate	10,000U
205-99-2	Benzo(b)Fluoranthene	10,000U
207-08-9	Benzo(k)Fluoranthene	10,000U
50-32-8	Benzo(a)Pyrene	10,000U
193-39-5	Indeno(1,2,3-cd)Pyrene	10,000U
53-70-3	Dibenz(a,h)Anthracene	10,000U
191-24-2	Benzo(g,h,i)Perylene	10,000U

(1)-Cannot be separated from diphenylamine

002945

Laboratory Name SOUTHWEST LABORATORY OF OKLAHOMA

Case No 5751

Contract # 68-01-7168/1A or 2A

Sample Number FC 9U

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration Low Medium (Circle One)

Date Extracted/Prepared 4-1-86

Date Analyzed 5-15-86

Conc/Dil Factor 1236 ~~1X~~ 19.9

Percent Moisture (decanted)

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha BHC	120 U
319-85-7	Beta-BHC	120 U
319-86-8	Delta BHC	120 U
58-89-9	Gamma BHC (Lindane)	120 U
76-44-8	Heptachlor	120 U
309-00-2	Aldrin	120 U
1024-57-3	Heptachlor Epoxide	120 U
959-98-8	Endosulfan I	120 U
60-57-1	Dieldrin	240 U
72-55-9	4,4'-DDE	240 U
72-20-8	Endrin	240 U
33213-65-9	Endosulfan II	240 U
72-54-8	4,4'-DDD	240 U
1031-07-8	Endosulfan Sulfate	240 U
50-29-3	4,4'-DDT	240 U
72-43-5	Methoxychlor	1200 U
53494-70-5	Endrin Ketone	240 U
57-74-9	Chlordane	1200 U
8001-35-2	Toxaphene	3400 U
12674-11-2	Aroclor-1016	1200 U
11104-28-2	Aroclor-1221	1200 U
11141-16-5	Aroclor-1232	1200 U
53469-21-9	Aroclor-1242	1200 U
12672-29-6	Aroclor-1248	1200 U
11097-69-1	Aroclor-1254	2400 U
11096-82-5	Aroclor-1260	2400 U

002946

V_i = Volume of extract injected (ul)

V_o = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_i ____ W_s 0.81 g dry V_t 10000 V_i 5

Laboratory Name SOUTHWEST LABORATORY OF OKLA.

Case No. 5957

Sample Number FC400

8467

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	Unknown hydrocarbon	VOA	313	47
2 —	" "	"	411	53
3	Unknown	BNA	355	39 B
4	"	"	604	9 B
5	"	"	2218	11
6	"	"	2301	11
7.	"	"	2044	3
8	"	"	1439	2
9				
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002947

002947

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313—703/557-2490 • FTS/557-2490

ORGANICS TRAFFIC REPORT

Sample Number: FD 023

① Case Number: 5172

Sample Site Name/Code:

② SAMPLE CONCENTRATION (Check One)

___ Low Concentration
✓ Medium Concentration

③ SAMPLE MATRIX (Check One)

___ Water
✓ Soil/Sediment

④ Ship To:
Jacobs, Inc
3213 Monticello Blvd
Baton Rouge, LA
70814
Attn: Chris Lewis

Transfer Ship To:

⑤ Regional Office: VI

Sampling Personnel:
Mike Young
(Name)
(Phone)

Sampling Date: 3/14/86
0950 (Begin) 0950 (End)

⑥ For each sample collected specify number of containers used and mark volume level on each bottle.

	Number of Containers	Approximate Total Volume
Water (Extractable)		
Water (VOA)		
Soil/Sediment (Extractable)	1	8 oz
Soil/Sediment (VOA)	2	8 oz
Other		

⑪ Analysis Lab:
Rec'd by: E. Crouch
Date Rec'd: 03/15/86
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)
No Custody Seals Employed - 2 Bands of Strapping Tape Intact Paperwork Agrees Samples Received in Good Condition.

⑦ Shipping Information

FEC
Name of Carrier

3/14/86
Date Shipped:

110 011 904
Airbill Number:

⑧ Sample Description

___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids
___ Other (specify) _____

⑨ Sample Location
Soil Boring
SCK-HC1-SB07
10'-12'

⑩ Special Handling Instructions:
(e.g., safety precautions, hazardous nature)

5672063001

LAB COPY FOR RETURN TO SMO

002948

Sample Number
FD 23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Texicon Laboratories, Inc.
Lab Sample ID No.: 3700-02
Sample Matrix: Soil/Sediment
Data Release Authorized By: [signature]

Case No: 5672
QC Report No: 5672
Contract No: 68-01-7026
Date Sample Received: 3-15-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 3-24-86
Date Analyzed: 3-24-86
Conc/Dil Factor: 1/1 pH 6.9
Percent Moisture: (Not Decanted) ~~18.0~~ 18.2 WCK

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12u
74-83-9	Bromomethane	12u
75-01-4	Vinyl Chloride	12u
75-00-3	Chloroethane	12u
75-09-2	Methylene Chloride	~~6u~~ 12B
67-64-1	Acetone	~~12u~~ 9JB
75-15-0	Carbon Disulfide	6u
75-35-4	1, 1-Dichloroethene	6u
75-34-3	1, 1-Dichloroethane	6u
156-60-5	Trans-1, 2-Dichloroethene	6u
67-66-3	Chloroform	6u
107-06-2	1, 2-Dichloroethane	6u
78-93-3	2-Butanone	12u
71-55-6	1, 1, 1-Trichloroethane	6u
56-23-5	Carbon Tetrachloride	6u
108-05-4	Vinyl Acetate	12u
75-27-4	Bromodichloromethane	6u

3-31-86 WCK

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6u
10061-02-6	Trans-1, 3-Dichloropropene	6u
79-01-6	Trichloroethene	6u
124-48-1	Dibromochloromethane	6u
79-00-5	1, 1, 2-Trichloroethane	6u
71-43-2	Benzene	6u
10061-01-5	cis-1, 3-Dichloropropene	6u
110-75-8	2-Chloroethylvinylether	12u
75-25-2	Bromoform	6u
108-10-1	4-Methyl-2-Pentanone	12u
591-78-6	2-Hexanone	12u
127-18-4	Tetrachloroethene	6u
79-34-5	1, 1, 2, 2-Tetrachloroethane	6u
108-88-3	Toluene	6u
108-90-7	Chlorobenzene	6u
100-41-4	Ethylbenzene	6u
100-42-5	Styrene	6u
	Total Xylenes	6u

002949

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

5672063003

002949

Laboratory Name: TOXICON
Case No: 5672

Sample Number
FD23

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 03/15/86
Date Analyzed: 04/16/86
Conc/Dil Factor: 1
Percent Moisture: (Decanted) 30 | 1

GPC Cleanup Yes (X No)
Separatory Funnel Extraction Yes
Continuous Liquid-Liquid Extraction Yes

4-18-86
RD

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	400. U	83-32-9	Acenaphthene	400. U
111-44-4	bis(2-Chloroethyl)Ether	400. U	51-28-5	2,4-Dinitrophenol	2000. U
95-57-8	2-Chlorophenol	400. U	100-02-7	4-Nitrophenol	2000. U
541-73-1	1,3-Dichlorobenzene	400. U	132-64-9	Dibenzofuran	400. U
106-46-7	1,4-Dichlorobenzene	400. U	121-14-2	2,4-Dinitrotoluene	400. U
100-51-6	Benzyl Alcohol	400. U	606-20-2	2,6-Dinitrotoluene	400. U
95-50-1	1,2-Dichlorobenzene	400. U	84-66-2	Diethylphthalate	400. U
95-48-7	2-Methylphenol	400. U	7005-72-3	4-Chlorophenyl-phenylether	400. U
39638-32-9	bis(2-Chloroisopropyl)Ether	400. U	86-73-7	Fluorene	400. U
106-44-5	4-Methylphenol	400. U	100-10-6	4-Nitroaniline	2000. U
621-64-7	N-Nitroso-Di-n-Propylamine	400. U	534-52-1	4,6-Dinitro-2-Methylphenol	2000. U
67-72-1	Hexachloroethane	400. U	86-30-6	N-Nitrosodiphenylamine (1)	400. BU
98-95-3	Nitrobenzene	400. U	101-55-3	4-Bromophenyl-phenylether	400. U
78-59-1	Isophorone	400. U	118-74-1	Hexachlorobenzene	400. U
88-75-5	2-Nitrophenol	400. U	87-86-5	Pentachlorophenol	2000. U
105-67-9	2,4-Dimethylphenol	400. U	85-01-8	Phenanthrene	400. U
65-85-0	Benzoic Acid	2000. U	120-12-7	Anthracene	400. U
111-91-1	bis(2-Chloroethoxy)Methane	400. U	84-74-2	Di-n-Butylphthalate	400. U
120-83-2	2,4-Dichlorophenol	400. U	206-44-0	Fluoranthene	400. U
120-82-1	1,2,4-Trichlorobenzene	400. U	129-00-0	Pyrene	400. U
91-20-3	Naphthalene	400. U	85-68-7	Butylbenzylphthalate	400. U
106-47-8	4-Chloroaniline	400. U	91-94-1	3,3'-Dichlorobenzidine	800. U
87-68-3	Hexachlorobutadiene	400. U	56-55-3	Benzo(a)Anthracene	400. U
59-50-7	4-Chloro-3-Methylphenol	400. U	117-81-7	bis(2-Ethylhexyl)Phthalate	400. U
91-57-6	2-Methylnaphthalene	400. U	218-01-9	Chrysene	400. U
77-47-4	Hexachlorocyclopentadiene	400. U	117-84-0	Di-n-Octyl Phthalate	400. U
88-06-2	2,4,6-Trichlorophenol	400. U	205-99-2	Benzo(b)Fluoranthene	400. U
95-95-4	2,4,5-Trichlorophenol	2000. U	207-08-9	Benzo(k)Fluoranthene	400. U
91-58-7	2-Chloronaphthalene	400. U	50-32-8	Benzo(a)Pyrene	400. U
88-74-4	2-Nitroaniline	2000. U	193-39-5	Indeno(1,2,3-cd)Pyrene	400. U
131-11-3	Dimethyl Phthalate	400. U	53-70-3	Dibenz(a,h)Anthracene	400. U
208-96-8	Acenaphthylene	400. U	191-24-2	Benzo(g,h,i)Perylene	400. U
99-09-2	3-Nitroaniline	2000. U			

(1) - Cannot be separated from diphenylamine

Form I

002950

5672063004

Laboratory Name: Toxicon Laboratories, Inc.

Case No: 5672

Sample Number: FL23

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed: 3-21 86

Conc/Dil Factor: 15/1

Percent Moisture (decanted): 0

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	10u
319-85-7	Beta-BHC	10u
319-86-8	Delta-BHC	10u
58-89 9	Gamma-BHC (Lindane)	10u
76-44-8	Heptachlor	10u
309-00-2	Aldrin	10u
1024-57-3	Heptachlor Epoxide	10u
959-98-8	Endosulfan I	10u
60-57-1	Dieldrin	20u
72-55-9	4, 4'-DDE	20u
72-20-8	Endrin	20u
33213-65-9	Endosulfan II	20u
72-54-8	4, 4'-DDD	20u
1031-07-8	Endosulfan Sulfate	20u
50-29-3	4, 4'-DDT	20u
72-43-5	Methoxychlor	100u
53494-70-5	Endrin Ketone	20u
57-74-9	Chlordane	100u
8001-35-2	Toxaphene	200u
12674-11-2	Aroclor-1016	100u
11104-28-2	Aroclor-1221	100u
11141-16-5	Aroclor-1232	100u
53469-21-9	Aroclor-1242	100u
12672-29-6	Aroclor-1248	100u
11097-69-1	Aroclor-1254	200u
11096-82-5	Aroclor-1260	200u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 1.5 V_t 1000 V_i 3.0

5672063005

Form 1 20M 7/85

002951

002951

Laboratory Name: TOXIC LABORATORIES, INC

Case No: 5672

Sample Number: FD23

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No VOAs found.	VOLATILE		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.	UNKNOWN	SEMIVOLATILE	605	173
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Unk denotes unknown.

Mol wt denotes probable molecular weight.

002952

5672063006

Sample Number
FD 24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Toxicon Laboratories, Inc.
Lab Sample ID No: 3700-03
Sample Matrix: Soil/Sediment
Data Release Authorized By: Warren Lee Wright

Case No: 5672
QC Report No: 5672
Contract No: 68-01-7026
Date Sample Received: 3-15-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 3-24-86
Date Analyzed: 3-24-86
Conc/Dil Factor: 1/1 pH 7.1
Percent Moisture: (Not Decanted) 17.5

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12u
74-83-9	Bromomethane	12u
75-01-4	Vinyl Chloride	12u
75-00-3	Chloroethane	12u
75-09-2	Methylene Chloride	~~6u~~ 6 B
67-64-1	Acetone	~~12u~~ 6 JB
75-15-0	Carbon Disulfide	6u
75-35-4	1, 1-Dichloroethene	6u
75-34-3	1, 1-Dichloroethane	6u
156-60-5	Trans-1, 2-Dichloroethene	6u
67-66-3	Chloroform	6u
107-06-2	1, 2-Dichloroethane	6u
78-93-3	2-Butanone	12u
71-55-6	1, 1, 1-Trichloroethane	6u
56-23-5	Carbon Tetrachloride	6u
108-05-4	Vinyl Acetate	12u
75-27-4	Bromodichloromethane	6u

3-31-86

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6u
10061-02-6	Trans-1, 3-Dichloropropene	6u
79-01-6	Trichloroethene	6u
124-48-1	Dibromochloromethane	6u
79-00-5	1, 1, 2-Trichloroethane	6u
71-43-2	Benzene	6u
10061-01-5	cis-1, 3-Dichloropropene	6u
110-75-8	2-Chloroethylvinylether	12u
75-25-2	Bromoform	6u
108-10-1	4-Methyl-2-Pentanone	12u
591-78-6	2-Hexanone	12u
127-18-4	Tetrachloroethene	6u
79-34-5	1, 1, 2, 2-Tetrachloroethane	6u
108-88-3	Toluene	6u
108-90-7	Chlorobenzene	6u
100-41-4	Ethylbenzene	6u
100-42-5	Styrene	6u
	Total Xylenes	6u

002954

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration, dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

5672063007

002953

Laboratory Name: TOXICON
Case No: 5672

Sample Number
FD24

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 03/18/86
Date Analyzed: 04/16/86
Conc/Dil Factor: 1.30/1
Percent Moisture: (Decanted)

GPC Cleanup Yes X (No)
Separatory Funnel Extraction Yes
Continuous Liquid-Liquid Extraction Yes

4-18-86
RDC

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	400. U	83-32-9	Acenaphthene	400. U
111-44-4	bis(2-Chloroethyl)Ether	400. U	51-28-5	2,4-Dinitrophenol	2000. U
95-57-8	2-Chlorophenol	400. U	100-02-7	4-Nitrophenol	2000. U
541-73-1	1,3-Dichlorobenzene	400. U	132-64-9	Dibenzofuran	400. U
106-46-7	1,4-Dichlorobenzene	400. U	121-14-2	2,4-Dinitrotoluene	400. U
100-51-6	Benzyl Alcohol	400. U	606-20-2	2,6-Dinitrotoluene	400. U
95-50-1	1,2-Dichlorobenzene	400. U	84-66-2	Diethylphthalate	400. U
95-48-7	2-Methylphenol	400. U	7005-72-3	4-Chlorophenyl-phenylether	400. U
39638-32-9	bis(2-Chloroisopropyl)Ether	400. U	86-73-7	Fluorene	400. U
106-44-5	4-Methylphenol	400. U	100-10-6	4-Nitroaniline	2000. U
621-64-7	N-Nitroso-Di-n-Propylamine	400. U	534-52-1	4,6-Dinitro-2-Methylphenol	2000. U
67-72-1	Hexachloroethane	400. U	86-30-6	N-Nitrosodiphenylamine (1)	400. BU
98-95-3	Nitrobenzene	400. U	101-55-3	4-Bromophenyl-phenylether	400. U
78-59-1	Isophorone	400. U	118-74-1	Hexachlorobenzene	400. U
88-75-5	2-Nitrophenol	400. U	87-86-5	Pentachlorophenol	2000. U
105-67-9	2,4-Dimethylphenol	400. U	85-01-8	Phenanthrene	400. U
65-85-0	Benzoic Acid	2000. U	120-12-7	Anthracene	400. U
111-91-1	bis(2-Chloroethoxy)Methane	400. U	84-74-2	Di-n-Butylphthalate	400. U
120-83-2	2,4-Dichlorophenol	400. U	206-44-0	Fluoranthene	400. U
120-82-1	1,2,4-Trichlorobenzene	400. U	129-00-0	Pyrene	400. U
91-20-3	Naphthalene	400. U	85-68-7	Butylbenzylphthalate	400. U
106-47-8	4-Chloroaniline	400. U	91-94-1	3,3'-Dichlorobenzidine	800. U
87-68-3	Hexachlorobutadiene	400. U	56-55-3	Benzo(a)Anthracene	400. U
59-50-7	4-Chloro-3-Methylphenol	400. U	117-81-7	bis(2-Ethylhexyl)Phthalate	400. U
91-57-6	2-Methylnaphthalene	400. U	218-01-9	Chrysene	400. U
77-47-4	Hexachlorocyclopentadiene	400. U	117-84-0	Di-n-Octyl Phthalate	400. U
88-06-2	2,4,6-Trichlorophenol	400. U	205-99-2	Benzo(b)Fluoranthene	400. U
95-95-4	2,4,5-Trichlorophenol	2000. U	207-08-9	Benzo(k)Fluoranthene	400. U
91-58-7	2-Chloronaphthalene	400. U	50-32-8	Benzo(a)Pyrene	400. U
88-74-4	2-Nitroaniline	2000. U	193-39-5	Indeno(1,2,3-cd)Pyrene	400. U
131-11-3	Dimethyl Phthalate	400. U	53-70-3	Dibenz(a,h)Anthracene	400. U
208-96-8	Acenaphthylene	400. U	191-24-2	Benzo(g,h,i)Perylene	400. U
99-09-2	3-Nitroaniline	2000. U			

(1) - Cannot be separated from diphenylamine

Form I

002955

5672063008

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 – 703 557-2490 • FTS 557-2490

ORGANICS TRAFFIC REPORT

Sample Number: FD 024

① Case Number: 5672

Sample Site Name/Code:

② SAMPLE CONCENTRATION (Check One)
- ___ Low Concentration
- ✓ Medium Concentration

③ SAMPLE MATRIX (Check One)
- ___ Water
- ✓ Soil/Sediment

④ Ship To:
TOXICON, Inc
3213 Military Road
Baton Rouge, LA 70814
Attn: Charles [illegible]

Transfer Ship To:

⑤ Regional Office: VI

Sampling Personnel:
[illegible] Young (Name)
[illegible] (Phone)

Sampling Date: 3-11-86
1030 (Begin) 1530 (End)

⑥ For each sample collected specify number of containers used and mark volume level on each bottle.

	Number of Containers	Approximate Total Volume
Water (Extractable)		
Water (VOA)		
Soil/Sediment (Extractable)	1	[illegible]
Soil/Sediment (VOA)	2	[illegible]
Other		

⑪ Analysis Lab:
Rec'd by: E. Crouch
Date Rec'd: 03/15/86
Sample Condition on Receipt (e.g., broken, ice, Chain-of-Custody, etc.): No Custody Seals Employed 2 Bands of Strapping Tape Intact - Paperwork Agrees - Samples Received in Good Condition.

⑦ Shipping Information

Name of Carrier: [illegible]

Date Shipped: 14 MAR 86

Airbill Number: [illegible] 904

⑧ Sample Description
- ___ Surface Water
- ___ Ground Water
- ___ Leachate
- ___ Mixed Media
- ✓ Solids
- ___ Other (specify) ___

⑨ Sample Location
[illegible]
SC1-A01 - SE06
[illegible]

⑩ Special Handling Instructions:
(e.g., safety precautions, hazardous nature)

5672063002

LAB COPY FOR RETURN TO SMO

Laboratory Name: Toxic Laboratories, Inc.

Case No 5672

Sample Number
~~FD924~~ FC24

WLK
4/23/86

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 3-18-86

Date Analyzed 3-21-80

Conc/Dil Factor 1.5/1

Percent Moisture (decanted) 0

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	10u
319-85-7	Beta-BHC	10u
319-86-8	Delta-BHC	10u
58-89-9	Gamma-BHC (Lindane)	10u
76-44-8	Heptachlor	10u
309-00-2	Aldrin	10u
1024-57-3	Heptachlor Epoxide	10u
959-98-8	Endosulfan I	10u
60-57-1	Dieldrin	20u
72-55-9	4, 4'-DDE	20u
72-20-8	Endrin	20u
33213-65-9	Endosulfan II	20u
72-54-8	4, 4'-DDD	20u
1031-07-8	Endosulfan Sulfate	20u
50-29-3	4, 4'-DDT	20u
72-43-5	Methoxychlor	100u
53494-70-5	Endrin Ketone	20u
57-74-9	Chlordane	100u
8001-35-2	Toxaphene	200u
12674-11-2	Aroclor-1016	100u
11104-28-2	Aroclor-1221	100u
11141-16-5	Aroclor-1232	100u
53469-21-9	Aroclor-1242	100u
12672-29-6	Aroclor-1248	100u
11097-69-1	Aroclor-1254	200u
11096-82-5	Aroclor-1260	200u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 1.5 V_t 1000 V_i 3.0

5672063009

Form 1 20M 7/85

002956

002956

Laboratory Name: TOXI LABORATORIES, INC

Case No: 5672

Sample Number: FD24

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No VOAs found.	VOLATILE		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11. 79-34-5	ETHANE, 1,1,2,2-TETRACHLORO	SEMIVOLATILE	520	180 J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Unk denotes unknown.

Mol wt denotes probable molecular weight.

5672063010

56200-1

Form 1, Part B 1/85