toxicon laboratories, inc.

April 24, 1986

USEPA
Contract Laboratory Program
SMO
P.O. Box 818
Alexandria, VA 22313

USEPA
EMSL
P.O. Box 15027
Las Vegas, NV 89114
ATTN: Data Audit Staff

USEPA Region VI
Environmental Services Div.
6608 Hornwood Drive
Monterey Park Plaza
Building C
Houston, TX 77074
ATTN: Dr. William Langley

RE: Contract No. 68-01-7026; Case No. 5672; QC Report No. 5672

Enclosed are the analytical data and quality assurance for Case No. 5672 Received from USEPA Region VI on March 15, 1986. The sample identifications and analyses requested are as follows:

Toxicon Number	USEPA Identification	Parameters Requested
3700/02	FD23 Medium Soil	Full HSL
3700/03	FD24 Medium Soil	Full HSL

All samples proved to be low level, consequently all samples were analyzed as low level.

These data were reviewed and no unusual problems were encountered with these samples.

Sincerely,

Charlie E. Westerman

Charlie E. Westerman, Ph.D.
Technical Director

CEW/cw

002421

1012251

5672061001

3213 MONTERREY BLVD., BATON ROUGE, LA 70814, TEL. (504) 925-5012

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 5672 Contractor Toxicon Laboratories, Inc. Contract No. 68-01-7026

Low Level L Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. FD23	1,1-Dichloroethene	61	0	79	130	82	134	4	22	59-172
	Trichloroethene	61	0	58	95	61	100	5	24	62-137
	Chlorobenzene	61	0	61	100	63	103	3	21	60-133
	Toluene	61	0	60	98	62	102	3	21	59-139
	Benzene	61	0	61	100	63	103	3	21	66-142
B/N SMO SAMPLE NO. FD23	1,2,4-Trichlorobenzene	2140	0	1148	54	1023	48	12	23	38-107
	Acenaphthene	2140	0	1241	55	1185	55	5	19	31-137
	2,4 Dinitrotoluene	2140	0	1201	56	1216	57	1	47	28-89
	Pyrene	2140	0	1550	72	1434	67	8	36	35-142
	N-Nitrosodi-n-Propylamine	2140	0	1159	54	1036	48	4	38	41-126
	1,4-Dichlorobenzene	2140	0	1057	49	977	46	8	27	28-104
ACID SMO SAMPLE NO. FD23	Pentachlorophenol	4281	0	1900	44	1839	43	3	47	17-109
	Phenol	4281	0	2194	51	1936	45	12	35	26-90
	2-Chlorophenol	4281	0	2366	55	2159	50	9	50	25-102
	4-Chloro-3-Methylphenol	4281	0	2436	57	2278	53	6	33	26-103
	4-Nitrophenol	4281	0	1892	44	1755	41	8	50	11-114
PEST SMO SAMPLE NO.	Lindane	32.3	0	19.4	60	21.2	66	10	50	46-127
	Heptachlor	32.3	0	37.5	116	38.9	120	3	31	35-130
	Aldrin	32.3	0	27.4	85	30.1	93	9	43	34-132
	Dieldrin	80.6	0	60.6	75	65.7	81	8	38	31-134
	Endrin	80.6	0	74.3	92	80.8	100	8	45	42-139
	4,4'-DDT	80.6	0	76.8	95	86.3	107	12	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 6 outside QC limits

RECOVERY: VOAs 0 out of 10 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 12 outside QC limits

Comments:

FOR

002422

SOIL SURROGATE PERCEI ECOVERY SUMMARY

Case No. 5672 Contract Laboratory Toxicon Laboratories, Inc. Contract No. 68-01-7026

Low ✓ Medium

	VOLATILE				SEMI-VOLATILE							PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE** (20-150)
FO23	98	102	88	55	62	73			45	44	42	119
FO23MS	99	100	91	57	51	75			57	49	62	95
FO23MSD	100	99	90	45	51	68			48	41	55	110
FO24	99	100	90	64	68	77			57	57	47	82
MBI	100	100	91	60	66	73			55	56	53	117

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 15 ; outside of QC limits

Semi-Volatiles: 0 out of 30 ; outside of QC limits

Pesticides: 0 out of 5 ; outside of QC limits

7/85

Comments:

002423

5672062002

FORM II

METHOD BLANK SUMMARY

Case No. 5672 Region VI Contractor Toxicon Laboratories, Inc. Contract No. 68-01-7026

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
VB37001	032486	VOA	Soil	Low	FINN#2	75-09-2	Methylene chloride	4J	µg/kg	5
		↓	↓	↓	↓	67-64-1	Acetone	7J	↓	10
							No TIC Found			
SV3700MB2L	041686	BNA			FINN#1	86-30-6	N-Nitrosodiphenylamine	170J		330
		↓			↓	79-34-5	1,1,2,2-Tetrachloroethane	190		None
APR3Q14	032286	Pest			Varian GC#		No Pesticide/PCBs Found			
APR3C14	032286	↓	↓	↓	Varian GC1		↓		↓	

Comments: Diphenylamine (N-Nitrosodiphenylamine) present in GC septa employed.

FORM IV 002424 7/85

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

5672

Case No. Initial Cal Contractor Toxicon Laboratories, Inc. Contract No. 68-01-7026

Instrument ID F NN01 Date 4-7-86 Time 1148

Lab ID DE040786A Data Release Authorized By: L Westerman

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.0
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	35.7
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	42.3
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.14
275	10.0 - 30.0% of mass 198	21.2
365	greater than 1.00% of mass 198	1.09
441	present, but less than mass 443	5.54
442	greater than 40.0% of mass 198	81.0
443	17.0 - 23.0% of mass 442	14.1 (17.4)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ppm SV STD	SS040786A	4-7-86	1330
120ppm SV STD	SS040786B	↓	1432
20ppm SV STD	SS040786C		1535
80ppm SV STD	SS040786D		1638
160ppm SV STD	SS040786E		1740

5672062004

002425

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. 5672 Contractor Toxicon Laboratories, Inc. Contract No. 68-01-7026

Instrument ID FINNOC Date 4-16-86 Time 1332

Lab ID DFC41686A Data Release Authorized By: C Westerman

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.1
68	less than 2.0% of mass 69	0.40 (0.12)[1]
69	mass 69 relative abundance	55.6
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	59.5
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.04
275	10.0 - 30.0% of mass 198	15.6
365	greater than 1.00% of mass 198	1.50
441	present, but less than mass 443	4.27
442	greater than 40.0% of mass 198	47.8
443	17.0 - 23.0% of mass 442	5.26 (17.3)[2]

002426

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 69.
[2]Value in parenthesis is % mass 442

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50/50ppm SVSTD	SS041686A	4-16-86	1420
50ppm Post.STD	PS041686A	↓	1529
MBZ1 C&W	SU3700 MBZL		1731
FD24	SU37003L		1834
FD23	SU37002L		1937
FD23MS	SU37002MSL		2040
FD23MSD	SU37002MSDL		2141

5672062005

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. 5672 Contractor Toxicon Laboratories, Inc Contract No. 68-01-7026

Instrument ID FINNØ2 Date 3-24-86 Time 07:53

Lab ID BFI032486A Data Release Authorized By: Warren Lukfield

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	20.6
75	30.0 - 60.0% of the base peak	40.0
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	5.95
173	Less than 1.0% of the base peak	0.09
174	Greater than 50.0% of the base peak	72.4
175	5.0 - 9.0% of mass 174	4.21 (5.8)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	72.0 (99.5)[1]
177	5.0 - 9.0% of mass 176	3.68 (5.1)[2]

002427

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 174
[2]Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50 ppb VOA STD	VS032486A	3-24-86	08:57
200 ppb VOA STD	VS032486B	↓	10:08
20 ppb VOA STD	VS032486C	↓	10:48
150 ppb VOA STD	VS032486D	↓	11:50
100 ppb VOA STD	VS032486E	↓	13:25
VOA Method Blk	VB032486A	↓	15:51
	5672062006		

FORM V 7/85

GC/MS TUNING AND MASS CALIBRATION
Bromofluorobenzene (BFB)

Case No. 5672 Contractor Toxicon Laboratories, Inc Contract No. 68-01-7026

Instrument ID FINNØ2 Date 3-24-86 Time 1735

Lab ID BFF032486B Data Release Authorized By: Warren Luckett

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	20.8
75	30.0 - 60.0% of the base peak	38.9
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	6.11
173	Less than 1.0% of the base peak	0.15
174	Greater than 50.0% of the base peak	68.1
175	5.0 - 9.0% of mass 174	4.20 (6.17)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	65.6 (96.3)[1]
177	5.0 - 9.0% of mass 176	4.02 (6.13)[2]

002428

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ppbVOASTD	VS032486F	3-24-86	2040
MB1	VB37001	↓	2119
FD24	V0370003A		2325
FD23	V0370002		0007
FD23MS	V0370002MS		0114
FD23MSD	V0370002MSD		0158

FORM V 5672062007 7/85

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

) 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:
Jacobson, Inc
3213 Monticello Blvd
Baton Rouge, LA
70814
Attn: Charles Cuestrom

Transfer Ship To:

⑤ Regional Office: VI

Sampling Personnel:
Mike Hanna
(Name)
505-345-6651
(Phone)

Sampling Date: 3/14/86
0850 (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: 03/18/86
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.) N
No Custody Seals O
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:

[illegible] 904
Airbill Number:

⑧ Sample Description

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

⑨ Sample Location
Soil Boring
SCK-HC1-SB27
10'-12'

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

5672063001

LAB COPY FOR RETURN TO SMO

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 024

① **Case Number:** 5472

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 Monterey Boulevard Baton Rouge, LA 70814

Attn: Charles Wachsman

Transfer Ship To:

⑤ **Regional Office:** VI

Sampling Personnel: [illegible] Young (Name)

[illegible] (Phone)

Sampling Date: 3-11-86

[illegible] (Begin) [illegible] (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, missing 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**

[illegible] Name of Carrier

14 [illegible] Date Shipped:

[illegible] 904 Airbill Number:

⑧ **Sample Description**

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

⑨ **Sample Location**

[illegible]

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

5672063002

LAB COPY FOR RETURN TO SMO

Sample Number
FD 23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Tovicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-02
QC Report No: 5672
Sample Matrix: Soil | Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren Lu Kidd
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 WLK

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~~ 95B
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

002431

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/PCB analyses 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

002431

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: 1.30/1
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

002432

5672063004

Laboratory Name: Toxicon Laboratories, Inc.

Case No. 5672

Sample Number: FD23

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: 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

5672063005

Form 1 20M 7/85

002433

002433

Laboratory Name: TOX[illegible]N 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	6.05	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.

5672063006

002434

Sample Number
FD 24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Texicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-03
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren Lu Kight
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

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

3-25-86 U 10 ug

002435

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.

5672063007

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

002436

5672063008

Laboratory Name: Toxi[illegible] Laboratories, Inc.

Case No 5672

Sample Number ~~FD924~~ F024

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

002437

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

Laboratory Name: TOX 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	[illegible]	520	180
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

Sample Number

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Toxicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No:
QC Report No: 5672
Sample Matrix:
Contract No:
Data Release Authorized By: Westerman
Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 01/10/86

Conc/Dil Factor: pH:

Percent Moisture (Not Decanted):

Instrumental Detection Limit FINN ϕ2

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

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

002439

Data Reporting Qualifiers

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

Value [illegible] that greater than or equal to the detection limit reported [illegible]

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 [illegible] concentration, dilution, etc. (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 2 to 10 ng/µl 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.

5672064001

Laboratory Name TOXICON Laboratories, Inc

Case No: GC/MS SV Detection Limits

FINNØ1

Sample Number

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared _____

Date Analyzed 1/24/86

Conc/Dil Factor _____

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)
108-95-2	Phenol	4
111-44-4	bis(2-Chloroethyl)Ether	3
95-57-8	2-Chlorophenol	2
541-73-1	1,3-Dichlorobenzene	1
106-46-7	1,4-Dichlorobenzene	2
100-51-6	Benzyl Alcohol	2
95-50-1	1,2-Dichlorobenzene	2
95-48-7	2-Methylphenol	2
39638-32-9	bis(2-chloroisopropyl)Ether	2
106-44-5	4-Methylphenol	3
621-64-7	N-Nitroso-Di-n-Propylamine	1
67-72-1	Hexachloroethane	3
98-95-3	Nitrobenzene	1
78-59-1	Isophorone	2
88-75-5	2-Nitrophenol	1
105-67-9	2,4-Dimethylphenol	2
65-85-0	Benzoic Acid	6
111-91-1	bis(2-Chloroethoxy)Methane	3
120-83-2	2,4-Dichlorophenol	1
120-82-1	1,2,4-Trichlorobenzene	1
91-20-3	Naphthalene	3
106-47-8	4-Chloroaniline	10
87-68-3	Hexachlorobutadiene	2
59-50-7	4-Chloro-3-Methylphenol	2
91-57-6	2-Methylnaphthalene	3
77-47-4	Hexachlorocyclopentadiene	2
88-06-2	2,4,6-Trichlorophenol	1
95-95-4	2,4,5-Trichlorophenol	8
91-58-7	2-Chloronaphthalene	2
88-74-4	2-Nitroaniline	3
131-11-3	Dimethyl Phthalate	3
208-96-8	Acenaphthylene	4
99-09-2	3-Nitroaniline	15

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1
51-28-5	2,4-Dinitrophenol	14
100-02-7	4-Nitrophenol	11
132-64-9	Dibenzofuran	3
121-14-2	2,4-Dinitrotoluene	3
606-20-2	2,6-Dinitrotoluene	1
84-66-2	Diethylphthalate	4
7005-72-3	4-Chlorophenyl-phenylether	3
86-73-7	Fluorene	1
100-01-6	4-Nitroaniline	6
534-52-1	4,6-Dinitro-2-Methylphenol	21
86-30-6	N-Nitrosodiphenylamine (1)	5
101-55-3	4-Bromophenyl-phenylether	1
118-74-1	Hexachlorobenzene	3
87-86-5	Pentachlorophenol	8
85-01-8	Phenanthrene	2
120-12-7	Anthracene	3
84-74-2	Di-n-Butylphthalate	6
206-44-0	Fluoranthene	5
129-00-0	Pyrene	5
85-68-7	Butylbenzylphthalate	1
91-94-1	3,3'-Dichlorobenzidine	2
56-55-3	Benzo(a)Anthracene	9
117-81-7	bis(2-Ethylhexyl)Phthalate	3
218-01-9	Chrysene	2
117-84-0	Di-n-Octyl Phthalate	2
205-99-2	Benzo(b)Fluoranthene	5
207-08-9	Benzo(k)Fluoranthene	6
50-32-8	Benzo(a)Pyrene	2
193-39-5	Indeno(1,2,3-cd)Pyrene	2
53-70-3	Dibenz(a,h)Anthracene	3
191-24-2	Benzo(g,h,i)Perylene	1

(1)-Cannot be separated from diphenylamine

002440

Form 1 **5672064002** 7/85

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

Sample Number
50 ppM Pest Std
PS011686A
PS011686B
PS011686C

Organics Analysis Data Sheet
(Page 3)

Pesticide GC/MS Detection Limits
FINN ϕ1

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 50 PPM Pesticide Std 1-63-2

Date Analyzed: 1/16/86

Conc/Dil Factor: NA

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	3
319-85-7	Beta-BHC	1
319-86-8	Delta-BHC	2
58-89-9	Gamma-BHC (Lindane)	1
76-44-8	Heptachlor	2
309-00-2	Aldrin	1
1024-57-3	Heptachlor Epoxide	1
959-98-8	Endosulfan I	4
60-57-1	Dieldrin	2
72-55-9	4, 4'-DDE	4
72-20-8	Endrin	1
33213-65-9	Endosulfan II	2
72-54-8	4, 4'-DDD	1
7421-93-4	Endrin Aldehyde	3
1031-07-8	Endosulfan Sulfate	4
50-29-3	4, 4'-DDT	2
72-43-5	Methoxychlor	4
53494-70-5	Endrin Ketone	3
57-74-9	Chlordane	*
8001-35-2	Toxaphene	*
12674-11-2	Aroclor-1016	*
11104-28-2	Aroclor-1221	*
11141-16-5	Aroclor-1232	*
53469-21-9	Aroclor-1242	*
12672-29-6	Aroclor-1248	*
11097-69-1	Aroclor-1254	*
11096-82-5	Aroclor-1260	*

Detection limits multiresponse parameters are typically 25 to 50 times higher than the single component compounds.

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 _____ V_t _____ V_i _____

5672064003

002441

Form 1

4 84

Laboratory Name: Toxicon Laboratories, Inc.

Case No: VARIAN 3400 GC# 0
1.5/1.95%
SP2250/2401

Sample Number

Organics Analysis Data Sheet
(Page 3)

DETECTION LIMITS

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed January 2, 1986

Conc/Dil Factor _____

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	.00058
319-85-7	Beta-BHC	.0018
319-86-8	Delta-BHC	.00097
58-89-9	Gamma-BHC (Lindane)	.00075
76-44-8	Heptachlor	.00080
309-00-2	Aldrin	.00073
1024-57-3	Heptachlor Epoxide	.0011
959-98-8	Endosulfan I	.00064
60-57-1	Dieldrin	.00077
72-55-9	4, 4'-DDE	.0036
72-20-8	Endrin	.0051
33213-65-9	Endosulfan II	.00071
72-54-8	4, 4'-DDD	.0016
1031-07-8	Endosulfan Sulfate	.024
50-29-3	4, 4'-DDT	.009
72-43-5	Methoxychlor	.042
53494-70-5	Endrin Ketone	*
57-74-9	Chlordane	.021
8001-35-2	Toxaphene	.013
12674-11-2	Aroclor-1016	.065
11104-28-2	Aroclor-1221	.013
11141-16-5	Aroclor-1232	.060
53469-21-9	Aroclor-1242	.068
12672-29-6	Aroclor-1248	.057
11097-69-1	Aroclor-1254	.15
11096-82-5	Aroclor-1260	.10

* Coelutes with Dibutylchlorendate
Quantitated on 3% SP2401
Confirmation Column.

002442

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 _____ V_t _____ V_i _____

5672064004

Laboratory Name: Toxicon Laboratories, Inc.

Case No: VARIAN 3400 GC#1
3% SP2100

Sample Number

Organics Analysis Data Sheet
(Page 3)

DETECTION LIMITS

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: January 3, 1986

Conc/Dil Factor: _____

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	.003
319-85-7	Beta-BHC	.0029
319-86-8	Delta-BHC	.0029
58-89-9	Gamma-BHC (Lindane)	.0031
76-44-8	Heptachlor	.0035
309-00-2	Aldrin	.0034
1024-57-3	Heptachlor Epoxide	.0034
959-98-8	Endosulfan I	.0037
60-57-1	Dieldrin	.0068
72-55-9	4, 4'-DDE	.0058
72-20-8	Endrin	.006
33213-65-9	Endosulfan II	.0065
72-54-8	4, 4'-DDD	.0067
1031-07-8	Endosulfan Sulfate	.0080
50-29-3	4, 4'-DDT	.0089
72-43-5	Methoxychlor	.029
53494-70-5	Endrin Ketone	.0040
57-74-9	Chlordane	.055
8001-35-2	Toxaphene	.014
12674-11-2	Aroclor-1016	.22
11104-28-2	Aroclor-1221	.21
11141-16-5	Aroclor-1232	.044
53469-21-9	Aroclor-1242	.025
12672-29-6	Aroclor-1248	.07
11097-69-1	Aroclor-1254	.091
11096-82-5	Aroclor-1260	.065

002443

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 _____ V_t _____ V_i _____

5672064005

Form 1 7/85

Sample Number
MB1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: TOXICON LABORATORIES, INC. Case No: 5672

Lab Sample ID No: 3700-01 QC Report No: 5672

Sample Matrix: SOIL Contract No: 6801-7026

Data Release Authorized By: Warren Zinkell 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 NR

Percent Moisture (Not Decanted) NR

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	~~5 U~~ 4J
67-64-1	Acetone	~~10 U~~ 75
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
108-10-1	4-Methyl-2-Pentanone	10 U
591-78-6	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

002444

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.

NR - Not Required

5672065009

Form I 11/85

Laboratory Name: TOXICON
Case No: 5672

Sample Number
MB7 1

CEW

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 4-18-86 RDC
Percent Moisture: (Decanted)

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

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	330. U	83-32-9	Acenaphthene	330. U
111-44-4	bis(2-Chloroethyl)Ether	330. U	51-28-5	2,4-Dinitrophenol	1600. U
95-57-8	2-Chlorophenol	330. U	100-02-7	4-Nitrophenol	1600. U
541-73-1	1,3-Dichlorobenzene	330. U	132-64-9	Dibenzofuran	330. U
106-46-7	1,4-Dichlorobenzene	330. U	121-14-2	2,4-Dinitrotoluene	330. U
100-51-6	Benzyl Alcohol	330. U	606-20-2	2,6-Dinitrotoluene	330. U
95-50-1	1,2-Dichlorobenzene	330. U	84-66-2	Diethylphthalate	330. U
95-48-7	2-Methylphenol	330. U	7005-72-3	4-Chlorophenyl-phenylether	330. U
39638-32-9	bis(2-Chloroisopropyl)Ether	330. U	86-73-7	Fluorene	330. U
106-44-5	4-Methylphenol	330. U	100-10-6	4-Nitroaniline	1600. U
621-64-7	N-Nitroso-Di-n-Propylamine	330. U	534-52-1	4,6-Dinitro-2-Methylphenol	1600. U
67-72-1	Hexachloroethane	330. U	86-30-6	N-Nitrosodiphenylamine (1)	170. J
98-95-3	Nitrobenzene	330. U	101-55-3	4-Bromophenyl-phenylether	330. U
78-59-1	Isophorone	330. U	118-74-1	Hexachlorobenzene	330. U
88-75-5	2-Nitrophenol	330. U	87-86-5	Pentachlorophenol	1600. U
105-67-9	2,4-Dimethylphenol	330. U	85-01-8	Phenanthrene	330. U
65-85-0	Benzoic Acid	1600. U	120-12-7	Anthracene	330. U
111-91-1	bis(2-Chloroethoxy)Methane	330. U	84-74-2	Di-n-Butylphthalate	330. U
120-83-2	2,4-Dichlorophenol	330. U	206-44-0	Fluoranthene	330. U
120-82-1	1,2,4-Trichlorobenzene	330. U	129-00-0	Pyrene	330. U
91-20-3	Naphthalene	330. U	85-68-7	Butylbenzylphthalate	330. U
106-47-8	4-Chloroaniline	330. U	91-94-1	3,3'-Dichlorobenzidine	660. U
87-68-3	Hexachlorobutadiene	330. U	56-55-3	Benzo(a)Anthracene	330. U
59-50-7	4-Chloro-3-Methylphenol	330. U	117-81-7	bis(2-Ethylhexyl)Phthalate	330. U
91-57-6	2-Methylnaphthalene	330. U	218-01-9	Chrysene	330. U
77-47-4	Hexachlorocyclopentadiene	330. U	117-84-0	Di-n-Octyl Phthalate	330. U
88-06-2	2,4,6-Trichlorophenol	330. U	205-99-2	Benzo(b)Fluoranthene	330. U
95-95-4	2,4,5-Trichlorophenol	1600. U	207-08-9	Benzo(k)Fluoranthene	330. U
91-58-7	2-Chloronaphthalene	330. U	50-32-8	Benzo(a)Pyrene	330. U
88-74-4	2-Nitroaniline	1600. U	193-39-5	Indeno(1,2,3-cd)Pyrene	330. U
131-11-3	Dimethyl Phthalate	330. U	53-70-3	Dibenz(a,h)Anthracene	330. U
208-96-8	Acenaphthylene	330. U	191-24-2	Benzo(g,h,i)Perylene	330. U
99-09-2	3-Nitroaniline	1600. U			

(1) - Cannot be separated from diphenylamine

Form I

002445

5672065010

Laboratory Name: Toxicon Laboratories, Inc.

Case No. 5672

Sample Number: MB2

CEW

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: 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	8.0u
319-85-7	Beta-BHC	8.0u
319-86-8	Delta-BHC	8.0u
58-89-9	Gamma-BHC (Lindane)	8.0u
76-44-8	Heptachlor	8.0u
309-00-2	Aldrin	8.0u
1024-57-3	Heptachlor Epoxide	8.0u
959-98-8	Endosulfan I	8.0u
60-57-1	Dieldrin	16.0u
72-55-9	4, 4'-DDE	16.0u
72-20-8	Endrin	16.0u
33213-65-9	Endosulfan II	16.0u
72-54-8	4, 4'-DDD	16.0u
1031-07-8	Endosulfan Sulfate	16.0u
50-29-3	4, 4'-DDT	16.0u
72-43-5	Methoxychlor	80.0u
53494-70-5	Endrin Ketone	16.0u
57-74-9	Chlordane	80.0u
8001-35-2	Toxaphene	160.0u
12674-11-2	Aroclor-1016	80.0u
11104-28-2	Aroclor-1221	80.0u
11141-16-5	Aroclor-1232	80.0u
53469-21-9	Aroclor-1242	80.0u
12672-29-6	Aroclor-1248	80.0u
11097-69-1	Aroclor-1254	160.0u
11096-82-5	Aroclor-1260	160.0u

002446

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 1,000 V_i 3.0

5672065011

Laboratory Name TEKLAB, INC.

Case No 5672

Sample Number MB1

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 VOLATILE COMPOUNDS FOUND	VOLATILE		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9. 79-34-5	1,1,2,2-Tetrachloroethane	SEMI VOLATILE	521	190
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

002447

5672065012

toxicon laboratories, inc.

Data Summary Package

April 24, 1986

USEPA
Contract Laboratory Program
SMO
P.O. Box 818
Alexandria, VA 22313

USEPA
EMSL
P.O. Box 15027
Las Vegas, NV 89114
ATTN: Data Audit Staff

USEPA Region VI
Environmental Services Div.
6608 Hornwood Drive
Monterey Park Plaza
Building C
Houston, TX 77074
ATTN: Dr. William Langley

RE: Contract No. 68-01-7026; Case No. 5672; QC Report No. 5672

Enclosed are the analytical data and quality assurance for Case No. 5672 Received from USEPA Region VI on March 15, 1986. The sample identifications and analyses requested are as follows:

Toxicon Number	USEPA Identification	Parameters Requested
3700/02	FD23 Medium Soil	Full HSL
3700/03	FD24 Medium Soil	Full HSL

All samples proved to be low level, consequently all samples were analyzed as low level.

These data were reviewed and no unusual problems were encountered with these samples.

Sincerely,

Charlie E. Westerman

Charlie E. Westerman, Ph.D.
Technical Director

CEW/cw

002448

5672066001

3213 MONTERREY BLVD., BATON ROUGE, LA 70814, TEL. (504) 925-5012

Sample Number
FD23

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Toxicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-02
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren Lu Kidd
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) ~~15.0~~ 18.2 WLK

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
1
2
3

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

002440

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 definition attached to the data summary report.

5672066002

002449

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: 1.30/1
Percent Moisture: (Decanted)

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

4-18-86
12:00

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

002450

5672066003

Laboratory Name: Toxicon Laboratories, Inc.

Case No 5672

Sample Number FD23

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 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

002451

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

5672066004

Form 1 20M 7/85

Laboratory Name: JOHNSON 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	SEMI-VOLATILE	6.05	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.

5672066005

002452

Sample Number
FD 24

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Texicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-03
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren Lu Kidd
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

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

3-26-86

0024 53

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 that 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.

5672066006

002453

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: 1:30dl
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

002454

5672066007

Laboratory Name: Toxicon Laboratories, Inc.

Case No 5672

Sample Number
~~FD927~~ F024
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

5672066008

20M

Form 1 7/85

002455

002455

Laboratory Name: TO[redacted]N 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
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.

5672066009

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 5672 Contract Laboratory Toxicon Laboratories, Inc. Contract No. 68-01-7026

Low ✓ Medium _____

EPA SAMPLE NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLOROETHANE-D4 (70-121)	SEMI-VOLATILE: NITROBENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUOROBIPHENYL (30-118)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUOROPHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMOPHENOL (19-122)	PESTICIDE: DIBUTYL CHLORENDATE** (20-150)
F023	98	102	88	55	62	73			45	44	42	119
F023MS	99	100	91	57	51	75			57	49	62	95
F023MSD	106	99	90	45	51	68			48	41	55	110
F024	99	100	90	64	68	77			57	57	47	82
MB1	100	100	91	60	66	73			55	56	53	117

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 15 ; outside of QC limits

Semi-Volatiles: 0 out of 30 ; outside of QC limits

Pesticides: 0 out of 5 ; outside of QC limits

7/85

5672066010

Comments:

002457

5672066010

FORM II

002457

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 5672 **Contractor** [illegible] Laboratories, Inc. **Contract No.** 68-01-7026

Low Level L **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. FD23	1,1-Dichloroethene	61	0	79	130	82	134	4	22	59-172
	Trichloroethene	61	0	59	95	61	100	5	24	62-137
	Chlorobenzene	61	0	61	100	63	103	3	21	60-133
	Toluene	61	0	60	98	62	102	3	21	59-139
	Benzene	61	0	61	100	63	103	3	21	66-142
B/N SMO SAMPLE NO. FD23	1,2,4-Trichlorobenzene	2140	0	1148	54	1023	48	12	23	38-107
	Acenaphthene	2140	0	1241	58	1155	55	5	19	31-137
	2,4 Dinitrotoluene	2140	0	1201	56	1216	57	1	47	28-89
	Pyrene	2140	0	1550	72	1434	67	8	36	35-142
	N-Nitrosodi-n-Propylamine	2140	0	1159	54	1036	48	4	38	41-126
	1,4-Dichlorobenzene	2140	0	1057	49	977	46	8	27	28-104
ACID SMO SAMPLE NO. FD23	Pentachlorophenol	4281	0	1900	44	1839	43	3	47	17-109
	Phenol	4281	0	2194	51	1936	45	12	35	26-90
	2-Chlorophenol	4281	0	2366	55	2159	50	9	50	25-102
	4-Chloro-3-Methylphenol	4281	0	2436	57	2278	53	6	33	26-103
	4-Nitrophenol	4281	0	1892	44	1755	41	8	50	11-114
PEST SMO SAMPLE NO.	Lindane	32.3	0	19.4	60	21.2	66	10	50	46-127
	Heptachlor	32.3	0	37.5	116	38.9	120	3	31	35-130
	Aldrin	32.3	0	27.4	85	30.1	93	9	43	34-132
	Dieldrin	80.6	0	60.6	75	65.7	81	8	38	31-134
	Endrin	80.6	0	74.3	92	80.8	100	8	45	42-139
	4,4'-DDT	80.6	0	76.8	95	86.3	107	12	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 6 outside QC limits

RECOVERY: VOAs 0 out of 10 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 12 outside QC limits

Comments: _____

002458

FORM III

56 72 20 66 01 1

METHOD BLANK SUMMARY

Case No. 5672 Region VI Contractor Toxicon Laboratories, Inc. Contract No. 68-01-7026

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (INSL.TIC OR UNKNOWN)	CONC.	UNITS	CRQL
VB37001	032486	VOA	Soil	Low	FINN02	75-09-2	Methylene chloride	4J	µg/kg	5
		↓	↓	↓	↓	67-64-1	Acetone	7J	↓	10
		↓	↓	↓	↓		No TIC Found		↓	
SV3700MB2L	041686	BNA	↓	↓	FINN01	86-30-6	N-Nitrosodiphenylamine	170J	↓	330
		↓	↓	↓	↓	79-34-5	1,1,2,2-Tetrachloroethane	190	↓	None
APR3Q14	032286	Pest	↓	↓	Varian GC φ		No Pesticide/PCBs Found		↓	
APR3C14	032286	↓	↓	↓	Varian GC1		↓		↓	

Comments: Diphenylamine (N-Nitrosodiphenylamine) present in GC septa employed.

FORM IV 002459 7/85

5672066012

Sample Number
MB1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: TOXICON LABORATORIES, INC. Case No: 5672

Lab Sample ID No: 3700-01 QC Report No: 5672

Sample Matrix: SOIL Contract No: 6801-7026

Data Release Authorized By: Warren Tufkill 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: NR

Percent Moisture (Not Decanted): NR

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	~~5 U~~ 4 J
67-64-1	Acetone	~~10 U~~ 7 J
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
108-10-1	4-Methyl-2-Pentanone	10 U
591-78-6	2-Hexanone	10 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	5 U
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

0042000

Data Reporting Qualifiers

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

Value — If the reported value is less than specified detection limit, report the detection limit followed by a dash.

U — Indicates the compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U based on the 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/Aroclor analyses 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.

NR - Not Required

5672066013

Form I 11/85

Laboratory Name: TUXICON
Case No: 5672

Sample Number
MB7 1

CEW

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
Percent Moisture: (Decanted) 30/1 4-18-86 RDC

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

CAS Number		ug/kg	CAS Number		ug/kg
108-95-2	Phenol	330. U	83-32-9	Acenaphthene	330. U
111-44-4	bis(2-Chloroethyl)Ether	330. U	51-28-5	2,4-Dinitrophenol	1600. U
95-57-8	2-Chlorophenol	330. U	100-02-7	4-Nitrophenol	1600. U
541-73-1	1,3-Dichlorobenzene	330. U	132-64-9	Dibenzofuran	330. U
106-46-7	1,4-Dichlorobenzene	330. U	121-14-2	2,4-Dinitrotoluene	330. U
100-51-6	Benzyl Alcohol	330. U	606-20-2	2,6-Dinitrotoluene	330. U
95-50-1	1,2-Dichlorobenzene	330. U	84-66-2	Diethylphthalate	330. U
95-48-7	2-Methylphenol	330. U	7005-72-3	4-Chlorophenyl-phenylether	330. U
39638-32-9	bis(2-Chloroisopropyl)Ether	330. U	86-73-7	Fluorene	330. U
106-44-5	4-Methylphenol	330. U	100-10-6	4-Nitroaniline	1600. U
621-64-7	N-Nitroso-Di-n-Propylamine	330. U	534-52-1	4,6-Dinitro-2-Methylphenol	1600. U
67-72-1	Hexachloroethane	330. U	86-30-6	N-Nitrosodiphenylamine (1)	170. J
98-95-3	Nitrobenzene	330. U	101-55-3	4-Bromophenyl-phenylether	330. U
78-59-1	Isophorone	330. U	118-74-1	Hexachlorobenzene	330. U
88-75-5	2-Nitrophenol	330. U	87-86-5	Pentachlorophenol	1600. U
105-67-9	2,4-Dimethylphenol	330. U	85-01-8	Phenanthrene	330. U
65-85-0	Benzoic Acid	1600. U	120-12-7	Anthracene	330. U
111-91-1	bis(2-Chloroethoxy)Methane	330. U	84-74-2	Di-n-Butylphthalate	330. U
120-83-2	2,4-Dichlorophenol	330. U	206-44-0	Fluoranthene	330. U
120-82-1	1,2,4-Trichlorobenzene	330. U	129-00-0	Pyrene	330. U
91-20-3	Naphthalene	330. U	85-68-7	Butylbenzylphthalate	330. U
106-47-8	4-Chloroaniline	330. U	91-94-1	3,3'-Dichlorobenzidine	660. U
87-68-3	Hexachlorobutadiene	330. U	56-55-3	Benzo(a)Anthracene	330. U
59-50-7	4-Chloro-3-Methylphenol	330. U	117-81-7	bis(2-Ethylhexyl)Phthalate	330. U
91-57-6	2-Methylnaphthalene	330. U	218-01-9	Chrysene	330. U
77-47-4	Hexachlorocyclopentadiene	330. U	117-84-0	Di-n-Octyl Phthalate	330. U
88-06-2	2,4,6-Trichlorophenol	330. U	205-99-2	Benzo(b)Fluoranthene	330. U
95-95-4	2,4,5-Trichlorophenol	1600. U	207-08-9	Benzo(k)Fluoranthene	330. U
91-58-7	2-Chloronaphthalene	330. U	50-32-8	Benzo(a)Pyrene	330. U
88-74-4	2-Nitroaniline	1600. U	193-39-5	Indeno(1,2,3-cd)Pyrene	330. U
131-11-3	Dimethyl Phthalate	330. U	53-70-3	Dibenz(a,h)Anthracene	330. U
208-96-8	Acenaphthylene	330. U	191-24-2	Benzo(g,h,i)Perylene	330. U
99-09-2	3-Nitroaniline	1600. U			

(1) - Cannot be separated from diphenylamine

Form I

002461

5672066014

Laboratory Name: Toxicon Laboratories, Inc.

Case No. 5672

Sample Number: MB2'

CEW

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: 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	8.0u
319-85-7	Beta-BHC	8.0u
319-86-8	Delta-BHC	8.0u
58-89-9	Gamma-BHC (Lindane)	8.0u
76-44-8	Heptachlor	8.0u
309-00-2	Aldrin	8.0u
1024-57-3	Heptachlor Epoxide	8.0u
959-98-8	Endosulfan I	8.0u
60-57-1	Dieldrin	16.0u
72-55-9	4, 4'-DDE	16.0u
72-20-8	Endrin	16.0u
33213-65-9	Endosulfan II	16.0u
72-54-8	4, 4'-DDD	16.0u
1031-07-8	Endosulfan Sulfate	16.0u
50-29-3	4, 4'-DDT	16.0u
72-43-5	Methoxychlor	80.0u
53494-70-5	Endrin Ketone	16.0u
57-74-9	Chlordane	80.0u
8001-35-2	Toxaphene	160.0u
12674-11-2	Aroclor-1016	80.0u
11104-28-2	Aroclor-1221	80.0u
11141-16-5	Aroclor-1232	80.0u
53469-21-9	Aroclor-1242	80.0u
12672-29-6	Aroclor-1248	80.0u
11097-69-1	Aroclor-1254	160.0u
11096-82-5	Aroclor-1260	160.0u

002462

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 1,000 V_i 3.0

5672066015

Laboratory Name: TOXICON LABS INC

Case No 5672

Sample Number: MB1

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 VOLATILE COMPOUNDS FOUND	VOLATILE		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9. 79-34-5	1,1,2,2-Tetrachloroethane	SEMI VOLATILE	521	190
10.				
11.				
12.				
13.				
15.				
16.				
17.				
18.				
19.				
20.				
21				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

002463

5672066016

PESTICIDE/PCB SUMMARY

Case No. 5672 Laboratory Toxicon Laboratories, Inc.
Contract No. 68-01-7026 GC Column SP2250/SP2401 GC Instrument ID Varian GC#0

DATE OF ANALYSIS 3-22-86
TIME OF ANALYSIS 0134
LABORATORY ID - 3700/2 1 S

Concentration soil (ug/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (ml)	V_i (ml)	$W_s D$ (g)	Concentration ug/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	30.87	30.65-31.12	5879686	1.65E7	20 000	30	wet	ug/g

002464

5672067311

PESTICIDE QC SUMMARY

Case No. 5672 Laboratory Toxicon Laboratories, Inc.
Contract No. 68-01-7026 GC Column SP2250/SP2401 GC Instrument ID Varian GC#0

DATE OF ANALYSIS 3-22-86
TIME OF ANALYSIS 0337
LABORATORY ID 37001 3 CS

Concentration Soil (µg/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (mL)	V_i (mL)	W_sD (g)	Concentration µg/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	30.80	30.65-31.12	403'948	1.65 E7	2000	2 4	650	245	66.6

5672 0673 12

PESTICIDE/PCB SUMMARY

Case No. F672 Laboratory Toxicon Laboratories, Inc.
Contract No. 68-01-7026 GC Column SP2250/SP2401 GC Instrument ID Varian GC#0

DATE OF ANALYSIS 3-22-86
TIME OF ANALYSIS 0053
LABORATORY ID 3700MB2 LS EPA

Concentration soil (mg/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (mL)	V_i (mL)	$W_s D$ (g)	Concentration mg/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	30.87	30.65-31.12	5821152	165E7	20,000	1.0	30.0	78

002466

5672067313

PESTICIDE/PCB SUMMARY

Case No. 5672 Laboratory Toxicon Laboratories, Inc.
Contract No. 68-01-7026 GC Column SP2250/SP2401 GC Instrument ID Varian 3400GC#0

DATE OF ANALYSIS 3-22-86
TIME OF ANALYSIS 0215
LABORATORY ID -3700/2MS LS

Concentration soil (mg/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (ml)	V_i (ml)	W_sD (g)	Concentration mg/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC	2.75	2.74-2.80	1057621	2.19 E7	20,000	3.0	24.8	~~14.0~~ 13.0
Heptachlor	3.40	3.38-3.44	1923300	2.08 E7	20,000	3.0	24.8	24.9
Aldrin	4.02	4.08-4.17	3837957	2.17 E7	20,000	3.0	24.8	47.5
Heptachlor Epoxide								
Endosulfan I								
Dieldrin	9.67	9.63-9.73	4153659	2.22 E7	20,000	3.0	24.8	50.3
4,4'-DDE								
Endrin	11.77	11.10-11.85	3265637	1.48 E7	20,000	3.0	24.8	59.3
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT	17.15	17.10-17.25	3445043	1.51 E7	20,000	3.0	24.8	61.3
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	30.83	30.65-31.12	4688091	1.65 E7	20,000	3.0	24.8	[illegible]

002467

PESTICIDE/PCB SUMMARY

Case No. 5672 Laboratory Toxicon Laboratories, Inc.

Contract No. 68-01-7026 GC Column SP 2100 3% GC Instrument ID Varian 3400 GC#1

DATE OF ANALYSIS 3-22-86

TIME OF ANALYSIS 2208

LABORATORY ID 3700/2MS

Concentration Soil (mg/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (mL)	V_i (mL)	W_sD (g)	Concentration mg/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC	2.92	2.85-2.95	2717978	3.77E7	20,000	3.0	24.8	19.4
Heptachlor	4.65	4.57-4.72	5016581	3.60E7	20,000	3.0	24.8	37.5
Aldrin	5.77	5.64-5.83	4144287	4.07E7	20,000	3.0	24.8	27.4
Heptachlor Epoxide								
Endosulfan I								
Dieldrin	10.20	9.97-10.33	8768413	3.89E7	20,000	3.0	24.8	60.6
4,4'-DDE								
Endrin	11.38	11.10-11.51	6494409	2.35E7	20,000	3.0	24.8	77.3
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT	16.75	16.39-16.96	6574374	2.30E7	20,000	3.0	24.8	76.8
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	34.22	33.50-34.55	10718759	3.33E7	20,000	24.8	24.8	~~175~~ 86.5

SC 2 0 6 2 3 1

Case No 5672 Laboratory Toxicon Laboratories, Inc.

Contract No. 68-01-7026 GC Column SP2250/SP2401 GC Instrument ID Varian 3400 GC#0

DATE OF ANALYSIS 3-22-86

TIME OF ANALYSIS 0256

LABORATORY ID -3700/2MSD LS

Concentration soil (µg/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (ml)	V_i (ml)	W_sD (g)	Concentration µg/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC	2.77	2.74-2.80	1230183	2.19 E7	20,000	3.0	24.8	15.1
Heptachlor	3.40	3.38-3.44	2251908	2.08 E7	20,000	3.0	24.8	29.1
Aldrin	4.08	4.08-4.17	4196502	2.17 E7	20,000	3.0	24.8	52.0
Heptachlor Epoxide								
Endosulfan I								
Dieldrin	9.67	9.63-9.73	4803366	2.22 E7	20,000	3.0	24.8	58.2
4,4'-DDE								
Endrin	11.78	11.70-11.85	3735566	1.48 E7	20,000	3.0	24.8	67.9
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT	17.17	17.10-17.25	4040769	1.51 E7	20,000	3.0	24.8	71.9
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	30.83	30.65-31.12	5439110	1.65 E7	20,0204	6390	24.8	88.6

5672067316

002469

Case No. _____ Laboratory Toxicon Laboratories, Inc.

Contract No. 68-01-7026 GC Column SP 2100 3% GC Instrument ID Varian 3400 GC#1

DATE OF ANALYSIS 3-22-86
TIME OF ANALYSIS 2249
LABORATORY ID 3700/2MSD

Concentration soil (mg/kg) = $\frac{A_x I_s V_t}{A_s V_i W_s D} = \left(\frac{A_x}{CF}\right)\left(\frac{1}{\text{Fraction Injected}}\right) / \text{Dry Sample Weight}$

$A_s/I_s = CF$

COMPOUND	RT	RETENTION TIME WINDOW	Area	CALIBRATION FACTOR	V_t (ml)	V_i (ml)	W_sD (g)	Concentration mg/kg
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC	2.92	2.85-2.95	2977252	3.77E7	20,000	3.0	24.8	21.2
Heptachlor	4.65	4.57-4.62	5205591	3.60E7	20,000	3.0	24.8	38.9
Aldrin	5.77	5.64-5.83	4562952	4.07E7	20,000	3.0	24.8	30.1
Heptachlor Epoxide								
Endosulfan I								
Dieldrin	10.20	9.97-10.33	9509468	3.89E7	20,000	3.0	24.8	65.7
4,4'-DDE								
Endrin	11.38	11.10-11.51	7061245	2.35E7	20,000	3.0	24.8	80.8
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT	16.73	16.39-16.96	7384546	2.30E7	20,000	3.0	24.8	86.3
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								
Dibutylchlorendate	34.18	33.50-34.55	11134001	3.33E7	20,000	3.0	24.8	94.7

002470

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office

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:** [illegible]
[illegible]
[illegible]
Attn: [illegible]

Transfer
Ship To:

(5) **Regional Office:** [illegible]

Sampling Personnel:
Mike Lanno
(Name)
612 245-6651
(Phone)

Sampling Date: 3/14/96
0450 (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: 03/15/96
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)
No Custody Seals
Samples sealed - 2 Bottles
or wrapping tape
Intact upon arrival
Aqueous samples received in good condition.

(7) **Shipping Information**

FEC
Name of Carrier

3/14/96
Date Shipped:

[illegible] 704
Airbill Number:

(8) **Sample Description**

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

(9) **Sample Location**
[illegible]
[illegible]

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

5672068001

LAB FILE COPY

U.S. ENVIRONMENTAL PROTECTION AGENCY, HWI Sample Management Office

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 Highway Boulevard Baton Rouge, LA 70814

Attn: Charles Lowterman

Transfer
Ship To:

(5) Regional Office: VI

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

Sampling Date: 3-11-96
1430 (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)			No custody seals Employed & Bands of strapping tape Intact - Paperwork Address - Samples Received in Good Condition.
Water (VOA)			
Soil/Sediment (Extractable)	1	[illegible]	
Soil/Sediment (VOA)	2	[illegible]	
Other			

(7) Shipping Information

FEC
Name of Carrier

14 JRS
Date Shipped:

110 011 [illegible]
Airbill Number:

(11) Analysis Lab:
Rec'd by: E. Crouch
Date Rec'd: 03/18/96
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

(8) Sample Description

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

(9) Sample Location

SCE-001 - SB06

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

5672068002

LAB FILE COPY

ENVIRONMENT PROTECTION AGENCY
Office Enforcement

CLP Organic

REGION
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: 5672
PROJECT NAME: South Cavalcade/Koppers
SAMPLERS: (Signature) Mike R Young

STA. NO. SCK-A01	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz. glass, Ext. org, Soil	40z glass, VOA, Soil				REMARKS: Sample #	REMARKS: Tag #
~~SB05-24~~	~~3-10-86~~	~~1405~~ TRS		✓	~~Area 1, Boring 5 54'-56'~~ TRS	~~3~~ TRS	~~1~~ TRS	~~2~~ TRS				~~FD 025~~ TRS	~~6-04487, 6-04488, 6-04489~~ TRS
SB06-24	3-11-86	1530		✓	Area 1, Boring 6 58'-60'	3	1	2				FD 024	6-04484, 6-04485, 6-04486
SB07-06	3/14/86	0950		✓	Area 1, Boring 7 10'-12'	3	1	2				FD023	6-20256, 6-20257, 6-20258

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mike R Young	3-13-86 0800	Tony Tillar	Tony Tillar	3/14/86 1238	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) E. Crouch	Date / Time 03/15/86 0850	Remarks FEC# 110 011 904	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

002473

toxicon

Sample Log

FD 023 - Soil/Sediment (VOA)

FD 023 - Soil/Sediment (VOA)

FD 023 - Soil/Sediment (Extractable)

FD 024 - Soil/Sediment (VOA)

FD 024 - Soil/Sediment (VOA)

FD 024 - Soil/Sediment (Extractable)

002474

5672068401

LABORATORY RESPONSE TO RESULTS OF CONTRACT COMPLIANCE SCREENING (CCS)

Laboratory Name: Toxicon Laboratories, Inc.

Response Date: 05/22/86

EPA Contract No.: 68-01-7026

Date Screening Results Received at Laboratory: 05/~~22~~ 19/86 clw

Case No.: 5672

Sample Nos.*:
FD023
FD024

*Only list sample numbers that require reconciliation.

This form is used to identify materials sent in response to results of Contract Compliance Screening (CCS). A separate form must accompany the response for each Case. Please indicate (on the attached continuation form) which fractions and which criteria correspond with your resubmission. Response materials sent to CCS should also be copied to the Region and to EMSL/LV, each with the blue identification form.

5672069401

002475

LABORATORY RESPONSE TO RESULTS OF CCS (Continued)

Sample	Fraction	Criterion	Comments
FD023	VOA	H	Sample number corrected.
			On sample workup and screening the sample proved to
			be low level.
	BNA	C	Date of extraction corrected.
			Sample number corrected.
	Pesticide	K	Date of sample analysis corrected.
FD024	VOA	A	Sample number corrected.
			On sample workup and screening the sample proved
			to be low level.
	BNA		Sample number corrected.
	Pesticide	K	Date of sample analysis corrected.

002476

5672069402

toxicon laboratories, inc.

Resubmitted Data
C Westerman
05/22/86

April 24, 1986

USEPA
Contract Laboratory Program
SMO
P.O. Box 818
Alexandria, VA 22313

USEPA
EMSL
P.O. Box 15027
Las Vegas, NV 89114
ATTN: Data Audit Staff

USEPA Region VI
Environmental Services Div.
6608 Hornwood Drive
Monterey Park Plaza
Building C
Houston TX 77074
ATTN: Dr. William Langley

RE: Contract No. 68-01-7026; Case No. 5672; QC Report No. 5672

Enclosed are the analytical data and quality assurance for Case No. 5672 Received from USEPA Region VI on March 15, 1986. The sample identifications and analyses requested are as follows:

Toxicon Number	USEPA Identification	Parameters Requested
3700/02	FD023 ~~FD23~~ Medium Soil cew	Full HSL
3700/03	FD024 ~~FD24~~ Medium Soil	Full HSL

All samples proved to be low level, consequently all samples were analyzed as low level.

These data were reviewed and no unusual problems were encountered with these samples.

Sincerely,

Charlie E. Westerman

Charlie E. Westerman, Ph.D.
Technical Director

CEW/cw

5672069403

5672061001

3213 MONTERREY BLVD., BATON ROUGE, LA 70814, TEL. (504) 925-5012

SOIL SURROGATE PERCEI ECOVERY SUMMARY

Case No. 672 Contract Laboratory Toxicon Laboratories, Inc. Contract No. 68-01-7026

Low ✓ Medium _____

	VOLATILE								SEMI-VOLATILE			PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-116)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	** DIBUTYL-CHLORENDATE (20-150)
FD23	98	102	88	55	62	73			45	44	42	119
FD23MS	99	100	91	57	51	75			57	49	62	95
FD23MSD	106	99	90	45	51	68			48	41	55	110
FD24	99	100	90	64	68	77			57	57	47	82
MB1	100	100	91	60	66	73			55	56	53	117

FD023
FD023MS cem
FD023MSD 05/22/86
FD024 cem

Resubmitted Data
L N Lehman 05/22/86

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 15 ; outside of QC limits
Semi-Volatiles: 0 out of 30 ; outside of QC limits
Pesticides: 0 out of 5 ; outside of QC limits

7/85

Comments:

5672062002

5672069404

FORM II

002478

002478

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 5672 Contractor Toxicon Laboratories, Inc. Contract No. 68-01-7026

Low Level L Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. FD023 ~~FD23~~	1,1-Dichloroethene	61	0	79	130	82	134	4	22	59-172
	Trichloroethene	61	0	58	95	61	100	5	24	62-137
	Chlorobenzene	61	0	61	100	63	103	3	21	60-133
	Toluene	61	0	60	98	62	102	3	21	59-139
	Benzene	61	0	61	100	63	103	3	21	66-142
B/N SMO SAMPLE NO. FD023 ~~FD23~~	1,2,4-Trichlorobenzene	2140	0	1148	54	1023	48	12	23	38-107
	Acenaphthene	2140	0	1241	58	1185	55	5	19	31-137
	2,4 Dinitrotoluene	2140	0	1201	56	1216	57	1	47	28-89
	Pyrene	2140	0	1550	72	1434	67	8	36	35-142
	N-Nitrosodi-n-Propylamine	2140	0	1159	54	1036	48	11	38	41-126
	1,4-Dichlorobenzene	2140	0	1057	49	977	46	8	27	28-104
ACID SMO SAMPLE NO. FD023 ~~FD23~~	Pentachlorophenol	4281	0	1900	44	1839	43	3	47	17-109
	Phenol	4281	0	2194	51	1936	45	12	35	26-90
	2-Chlorophenol	4281	0	2366	55	2159	50	9	50	25-102
	4-Chloro-3-Methylphenol	4281	0	2436	57	2278	53	6	33	26-103
	4-Nitrophenol	4281	0	1892	44	1755	41	8	50	11-114
PEST SMO SAMPLE NO. FD023	Lindane	32.3	0	19.4	60	21.2	66	10	50	46-127
	Heptachlor	32.3	0	37.5	116	38.9	120	3	31	35-130
	Aldrin	32.3	0	27.4	85	30.1	93	9	43	34-132
	Dieldrin	80.6	0	60.6	75	65.7	81	8	38	31-134
	Endrin	80.6	0	74.3	92	80.8	100	8	45	42-139
	4,4'-DDT	80.6	0	76.8	95	86.3	107	12	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 6 outside QC limits

RECOVERY: VOAs 0 out of 10 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 12 outside QC limits

Comments:

Resubm. H.M. Data
L. Westerman
05/22/86

FD023 5672016200 1

5672069405

FORM III 002479

Resubmitted T
G Westerman
05/22/86

Sample Number
~~FD23~~
FD023 cew

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Toxicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-02
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren L. Kidd
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) ~~15~~ 18.2 WLK

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

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

002480

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 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.

5672063003

Form I — 20 — 11/85

5672069406

Resubmitted Dat
6 Weisman
05/22/86

Laboratory Name: TOXICON
Case No: 5672

Sample Number
~~FB23~~ FD023

cem

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: ~~03/15/86~~ 03/18/86
Date Analyzed: 04/16/86
Conc/Dil Factor: 1.30/1 cem
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

002481

5672063004

5672069407

Resubmitted Data
L Westerman 05/2

Laboratory Name: Toxicon Laboratories, Inc.

Case No. 5672

Sample Number
~~FD23~~ FD023
Clw

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed: ~~3-21-86~~ 03/22/86

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

002482

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

5672069408

Laboratory Name: TO [illegible] LABORATORIES, INC

Case No: 5672

Sample Number
FD023
~~FD23~~

Cem

Resubmitted Data
L Westerman 05/22/86

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	SEMI-VOLATILE	6.05	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.

5672063006

5672069409

Form 1, Part B 1/85

002483

002483

Resubmitted Data:
6 Westerman 05/22/86

Organics Analysis Data Sheet
(Page 1)

Sample Number
FD024
~~FD-24~~
cen

Laboratory Name: Texicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-03
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren Lu Kirk
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

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

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 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, etc. (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

Form I 20 11/85

5672069410

002484

002484

Resubmitted Data.
L Westerman - 9/22/86

Laboratory Name: TOXICON
Case No: 5672

Sample Number
~~FB24~~ FD024

CEW

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

002485

5672063008

5672069411

Laboratory Name: Toxicon Laboratories, Inc.

Case No. 5672

FD024 clw

Sample Number ~~FD924~~ ~~F024~~

WLK 4/23/86

Resubmitted Data
L Westerman 05/22/86

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed ~~3-21-86~~ 03/22/86

Conc/Dil Factor 1.5/1 clw

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	100u
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

002486

V_t = 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

5672069412

002486

Laboratory Name: IG [illegible]N LABORATORIES, INC

Case No: 5672

Sample Number
FD024
~~FD24~~
Clw

Resubmitted Data
b Westerman 05/22/86

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-	[illegible]	520	1.80
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

Form 1, Part B 1/85

5672069413

002487

002487

Resubmitted Data
L Dvoterman
05/22/86

Laboratory Name: Toxicon Laboratories, Inc.
Case No 5672

Sample Number
MB2'

CEW

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 3-18-86
Date Analyzed: ~~3-21-86~~ 03/22/86 CEW
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	8.0u
319-85-7	Beta-BHC	8.0u
319-86-8	Delta-BHC	8.0u
58-89-9	Gamma-BHC (Lindane)	8.0u
76-44-8	Heptachlor	8.0u
309-00-2	Aldrin	8.0u
1024-57-3	Heptachlor Epoxide	8.0u
959-98-8	Endosulfan I	8.0u
60-57-1	Dieldrin	16.0u
72-55-9	4, 4'-DDE	16.0u
72-20-8	Endrin	16.0u
33213-65-9	Endosulfan II	16.0u
72-54-8	4, 4'-DDD	16.0u
1031-07-8	Endosulfan Sulfate	16.0u
50-29-3	4, 4'-DDT	16.0u
72-43-5	Methoxychlor	80.0u
53494-70-5	Endrin Ketone	16.0u
57-74-9	Chlordane	80.0u
8001-35-2	Toxaphene	160.0u
12674-11-2	Aroclor-1016	80.0u
11104-28-2	Aroclor-1221	80.0u
11141-16-5	Aroclor-1232	80.0u
53469-21-9	Aroclor-1242	80.0u
12672-29-6	Aroclor-1248	80.0u
11097-69-1	Aroclor-1254	160.0u
11096-82-5	Aroclor-1260	160.0u

002488

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 1,000 V_i 3.0

5672065011
5672069414

Form 1 7/85

Laboratory Name: Toxicr Laboratories, Inc.

Case No: 5672

Sample Number: ~~FD 23MS~~ FD 023 MS cem

Resubmitted Data
L Westerman 05/22/86

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed: ~~3-21-86~~ 03/22/86 cem

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)	MS
76-44-8	Heptachlor	MS
309-00-2	Aldrin	MS
1024-57-3	Heptachlor Epoxide	10u
959-98-8	Endosulfan I	10u
60-57-1	Dieldrin	MS
72-55-9	4, 4'-DDE	20u
72-20-8	Endrin	MS
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	MS
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

002489

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)

5672069415

V_s _____ or W_s 1.5 V_t 1000 V_i 30

5672065030

Laboratory Name: Toxic Laboratories, Inc.

Case No: 5672

Resubmitted Data

L Westerman 05/22/86

Sample Number

~~FD23MSD~~

FD023MSD

cen

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed: ~~3-21-86~~ 03/22/86

Conc/Dil Factor: 1.5/1 cen

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)	MS
76-44-8	Heptachlor	MS
309-00-2	Aldrin	MS
1024-57-3	Heptachlor Epoxide	10u
959-98-8	Endosulfan I	10u
60-57-1	Dieldrin	MS
72-55-9	4, 4'-DDE	20u
72-20-8	Endrin	MS
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	MS
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

002490

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)

5672069416

V_s _____ or W_s 1.5 V_t 1000 V_i 5.0

5672065040

toxicon laboratories, inc.

Data Summary Package

Resubmitted Data
C Westerman 05/22/86

April 24, 1986

USEPA
Contract Laboratory Program
SMO
P.O. Box 818
Alexandria, VA 22313

USEPA
EMSL
P.O. Box 15027
Las Vegas, NV 89114
ATTN: Data Audit Staff

USEPA Region VI
Environmental Services Div.
6608 Hornwood Drive
Monterey Park Plaza
Building C
Houston, TX 77074
ATTN: Dr. William Langley

RE: Contract No. 68-01-7026; Case No. 5672; QC Report No. 5672

Enclosed are the analytical data and quality assurance for Case No. 5672 Received from USEPA Region VI on March 15, 1986. The sample identifications and analyses requested are as follows:

Toxicon Number	USEPA Identification	Parameters Requested
3700/02	FD023 ~~HD23~~ Medium Soil	Full HSL
3700/03	FD023 ~~HD24~~ Medium Soil	Full HSL

All samples proved to be low level, consequently all samples were analyzed as low level.

These data were reviewed and no unusual problems were encountered with these samples.

Sincerely,

Charlie E. Westerman

Charlie E. Westerman, Ph.D.
Technical Director

CEW/cw

002491

5672066001

3213 MONTERREY BLVD., BATON ROUGE, LA 70814, TEL. (504) 926-6012

5672069417

Resubmitted Dat
6 Westerman
05/22/86

Sample Number
~~FD23~~
FD023
cem

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Texicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-02
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Wesson Lu Kidd
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) ~~15.0~~ 18.2 WLK

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

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

002492

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 added.

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

U — Indicates the 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/ml 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.

5672066002

5672069418

Resubmitted D
G Westerman 05/22/86

Laboratory Name: TOXICON
Case No: 5672

Sample Number
~~FD23~~ FD023

Cen

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: ~~03/15/86~~ 03/18/86
Date Analyzed: 04/16/86 cew
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

002493

5672066003

5672069419

Laboratory Name: Toxicon Laboratories, Inc.

Case No. 5672

Resubmitted Data
L Westerman
05/22/86

Sample Number
~~FD23~~ FD023

clw

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed ~~3-21-86~~ 03/22/86 clw

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

002494

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

5672066004

Form 1 20M 7/85

~~5672069420~~

Laboratory Name: IC[redacted]N LABORATORIES, INC

Case No: 5672

Sample Number
FD023
~~FD23~~
cen

Resubmitted Data
L Westerman
05/22/86

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.	N. 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.				

002495

Unk denotes unknown.

Mol wt denotes probable molecular weight.

5672066005

Form I, Part B 1/85

5672069421

Resubmitted Dat
G Westerman
05/22/86

Sample Number
FD024
~~FO-24~~
Cen

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Toxicon Laboratories, Inc.
Case No: 5672
Lab Sample ID No: 3700-03
QC Report No: 5672
Sample Matrix: Soil/Sediment
Contract No: 68-01-7026
Data Release Authorized By: Warren Luckett
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

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

3-25-86

002496

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 — Data that 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 indicate 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.

5672066006

Form I — 20 — 11/85

5672069422

002496

Laboratory Name: TOXICON
Case No: 5672

Sample Number
~~FB24~~ FD024

) Resubmitted Data
G Westerman
05/22/86

Clw

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

002497

5672066007

5672069423

Laboratory Name: Tox-Con Laboratories, Inc.

Case No: 5672

Resubmitted Data
L Westerman
05/22/86

Sample Number
~~FD924~~ ~~FD024~~
WLK 4/23/86
FD024 clear 05/22/86

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 3-18-86

Date Analyzed ~~3-21-86~~ 03/22/86 clear

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	10u
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

002498

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

5672066008

Form 1 20M 7/85

5672069424

Laboratory Name: IC[redacted]N LABORATORIES, INC [redacted]

Case No: 5672

Sample Number
FD024
~~FD24~~
Clw

Resubmitted Data
G Westerman
05/22/86

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
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.

002499

5672066009

Form 1, Part B 1/85

5672069425

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 5672 Contract Laboratory Ionicon Laboratories, Inc. Contract No. 68-01-7026

Low ✓ Medium _____

	VOLATILE				SEMI-VOLATILE							PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE** (20-150)
FD23	98	102	88	55	62	73			45	44	42	119
FD23MS	99	100	91	57	51	75			57	49	62	95
FD23MSD	100	99	90	45	51	68			48	41	55	110
FD24	99	100	90	64	68	77			57	57	47	92
MB1	100	100	91	60	66	73			55	56	53	117

FD023
FD023MS
FD023MSD
FD024

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS
**ADVISORY LIMITS ONLY

Volatiles: 0 out of 15 ; outside of QC limits
Semi-Volatiles: 0 out of 30 ; outside of QC limits
Pesticides: 0 out of 5 ; outside of QC limits

7/85

Comments: 5672066010

Resubmitted to Waterman 8/22/86

5672066010

FORM II

002500

5672066010

5672069426

002500

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 5672 Contractor [illegible] Laboratories, Inc. Contract No. 68-01-7026

Low Level L Medium Level

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. FD023 ~~FD023~~	1,1-Dichloroethene	61	0	76	120	72	134	4	22	59-172
	Trichloroethene	61	0	58	95	61	100	5	24	62-137
	Chlorobenzene	61	0	61	100	63	103	3	21	60-133
	Toluene	61	0	60	98	62	102	3	21	59-139
	Benzene	61	0	61	100	63	103	3	21	66-142
B/N SMO SAMPLE NO. FD023 ~~FD023~~	1,2,4-Trichlorobenzene	2140	0	1148	54	1023	48	12	23	38-107
	Acenaphthene	2140	0	1241	58	1155	55	5	19	31-137
	2,4 Dinitrotoluene	2140	0	1201	56	1216	57	1	47	28-89
	Pyrene	2140	0	1550	72	1434	67	8	36	35-142
	N-Nitrosodi-n-Propylamine	2140	0	1159	54	1036	48	11	38	41-126
	1,4-Dichlorobenzene	2140	0	1057	49	977	46	8	27	28-104
ACID SMO SAMPLE NO. FD023 ~~FD023~~	Pentachlorophenol	4281	0	1900	44	1839	43	3	47	17-109
	Phenol	4281	0	2194	51	1936	45	12	35	28-90
	2-Chlorophenol	4281	0	2366	55	2159	50	9	50	25-102
	4-Chloro-3-Methylphenol	4281	0	2436	57	2275	53	6	33	26-103
	4-Nitrophenol	4281	0	1842	44	1755	41	5	50	11-114
PEST SMO SAMPLE NO. FD023	Lindane	32.3	0	19.4	60	21.2	66	10	50	46-127
	Heptachlor	32.3	0	37.5	116	38.9	120	3	31	35-130
	Aldrin	32.3	0	27.4	85	30.1	93	9	43	34-132
	Dieldrin	32.3	0	30.6	95	29.7	91	3	38	31-134
	Endrin	80.6	0	60.6	75	80.6	100	8	45	42-139
	4,4'-DDT	80.6	0	74.3	92	86.3	107	12	50	23-134
		80.6	0	76.8	95					

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 6 outside QC limits

RECOVERY: VOAs 0 out of 10 outside QC limits
B/N 0 out of 12 outside QC limits
ACID 0 out of 10 outside QC limits
PEST 0 out of 12 outside QC limits

Comments:

Resubmitted Data
L Whatterman 05/22/86

cen 05/22/86

5672066011

5672069427

FORM III

002501

002501

United Parc. ervice
PICKUP RECORD

DATE 05/22/86

RECD FROM

TOXICON LABORATORIES, INC.
3213 MONTERREY BLVD.
BATON ROUGE, LA 70814

PICKUP RECORD NO. 638355323

4 LBS. LA 704-445

STAMP YOUR UPS SHIPPER NUMBER HERE

EACH PACKAGE ON A SEPARATE LINE. IF RECORD IS VOIDED, PLEASE GIVE TO DRIVER.
INCREASE FRACTIONS OF A POUND TO NEXT FULL POUND.

NO.	NAME	STREET	CITY	STATE	ZIP CODE	TYPE SERVICE: GROUND ZONE In State	GROUND ZONE Out of State	GROUND LBS	AIR ZONE	AIR LBS	(✓) OS*	DECLARED VALUE**IF IN EXCESS OF $100.00	COD*** AMOUNT	(✓) ADD	(✓) CALL	FOR SHIPPER'S USE TO RECORD PACKAGE DELIVERY CHARGES
R567	[illegible]	[illegible] Westbrooke Dr.	Houston	TX	77074				L	L						
R567	[illegible]	[illegible] Lee St.	Alexandria	VA	223113				L	L						
R567	[illegible]	[illegible] E. Harmon	Las Vegas	NV	89109				L	L						
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

NEXT DAY AIR SHIPPER RECEIPT TRACKING NO 1000 2809 821
NEXT DAY AIR SHIPPER RECEIPT TRACKING NO 1000 2809 830
NEXT DAY AIR SHIPPER RECEIPT TRACKING NO 1000 3646 077

SHIPPER'S COPY

TOTAL	PICKUP TIME	NO. PKGS.	NO. CALLS
4	4:45	3	0

*OS (Oversize) applies if less than 25 lbs. and more than 84 inches in length and girth combined.
**Unless a greater value is declared in writing on this receipt, the shipper hereby declares and agrees that the released value of each package or article not enclosed in a package covered by this receipt is $100, which is a reasonable value under the circumstances surrounding the transportation. The entry of a C.O.D. amount is not a declaration of value. In addition, the maximum value for an air service package is $25,000 and the maximum carrier liability is $25,000. Claims not made to carrier within 9 months of shipment date are waived.
***Customer's check accepted at shipper's risk unless otherwise noted on C.O.D. Tag.

FORM BKS 2-86 A

002502

5 6 7 2 0 8 8 0 4 0

ENVIRONMENTAL PROTECTION AGENC
Contract Laboratory Program

ree 05/27/86

SAMPLE MANAGEMENT OFFICE

RESOLUTION OF CONTRACT COMPLIANCE SCREENING (CCS) RESULT

Laboratory Name Texi

Case No. 5672

Region VI

Lab Response Date 5/22/86

Reconciliation Date 5/23/86

Reconciled by Sherah Jand

Attached are copies of CCS Summaries which show the status of the relevant samples after incorporation of Laboratory response to screening. Problem codes which no longer apply are highlighted in green. Note that any non-highlighted codes are still in effect.

Comments:

Sample	Fraction	Criterion	Comments

002503

P.O. Box 818, Alexandria, Virginia 22313. Phone: (703) 557-2490/FTS-8-557-2490

Attachments

5.6

002504

SAS 1:40 WEDNESDAY, MAY 7, 1986

CONTRACT COMPLIANCE SCREENING SUMMARY FOR ORGANICS PAGE 1 OF

CASE: 5672 SAMPLES: 2 + 2 DATE: 5/13/86 LOG NO. 30

LAB NAME: TOXI REGION: 6 PREPARED BY: Sherl

SAMPLE	VOA A HOLD	VOA B TUNE	VOA C BLKS	VOA D CALIB INIT	VOA E CALIB CONT	VOA F SUR	VOA G MS/D	VOA H COMP	SNA A HOLD	SNA A1 HOLD	SNA B TUNE	SNA C BLKS	SNA D CALIB INIT	SNA E CALIB CONT	SNA F SUR	SNA G MS/C	SNA H COMP	PESTICIDES A HOLD	PESTICIDES A1 HOLD	PESTICIDES B BLKS	PESTICIDES C DOT	PESTICIDES D RT	PESTICIDES E ANAL	PESTICIDES F DEG	PESTICIDES G DBC	PESTICIDES H MS/D	PESTICIDES I CALIB INIT	PESTICIDES J CALIB CONT	PESTICIDES K COMP
FD023-01								RS																					
FD024-01	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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PROBLEM CODE: EX = EXPLAIN, RS = RESUBMIT, SU = SUBMIT, NC = NONCOMPLIANT

RECONCILIATION DATES

Rec'd (1) 5/23/85 Corr. _____

Rec'd (2) _____ Corr. _____

Rec'd (3) _____ Corr. _____

5672069502

002504