FILE
CASE # 6639
EPA ID # TXD981524093
NAME: SOUTH CAVALCADE

1012280

117

003265

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

992600

REGION 6
First International Bldg., 1201 Elm St.
Dallas, Texas 75270

CHAIN OF CUSTODY RECORD

PROJ. NO.: 6639
PROJECT NAME: South Cavalcade
SAMPLERS: (Signature) Michael Edgar

STA. NO.	DATE 1986	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Bio glass, Kraft	Amb glass, VOA					EPA #	Tag #
MW9	12/11	0900		✓	SCK-CDM-MW9-001	4	2	2					FD255	6-21523, 6-21524, 6-21525, 6-21526
MW9	12/11	1200		✓	SCK-CDM-MW9-099	4	2	2					FD257	6-21531, 6-21532, 6-21533, 6-21534
MW06				✓	SCK-CDM-MW06-001	4	2	2					FD256	6-21527, 6-21528, 6-21529, 6-21530

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Michael Edgar	12/11/86 1453	K. Hutchinson	K. Hutchinson	12/12/86 3:10	
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)	Date / Time	Remarks	
		Matt Helier	12-13-86 10:00	Cuyamaca GSRI FEC # 226 032 004	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

KMA Fed X #1903771236

DC-2-6-6639

6—7880

003266

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 [illegible]

ORGANICS TRAFFIC REPORT

Sample Number
FD 256

① **Case Number:** [illegible]

Sample Site Name/Code:

② **SAMPLE CONCENTRATION** (Check One)

___ Low Concentration
___ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

✓ Water
___ Soil/Sediment

④ **Ship To:** GSRI
5010 LeRoy Johnson Rd
New Orleans LA
70126

Attn: [illegible] Polazzo

Transfer
Ship To: DC-5-6-6639

⑤ **Regional Office:** [illegible]

Sampling Personnel:

(Name)

(Phone)

Sampling Date:

(Begin) (End)

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

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

⑦ **Shipping Information**

Name of Carrier

Date Shipped:

Airbill Number:

⑪ **Analysis Lab:** [illegible]
Rec'd by: [illegible]
Date Rec'd: [illegible]
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

PARAMETER:	YES	NO
ICE PRESENT?	___	✓
BOTTLES BROKEN?	___	✓
EPA TAG PRESENT?	✓	___
SHIPPING SEALS?	✓	___
CONTAINER SEALS?	✓	___
CUSTODY FORM OK?	✓	___
LABELS ACCURATE?	✓	___
NOTES/COMMENTS: (If non		

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)

[illegible]

LAB FILE COPY

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office

ORGANICS TRAFFIC REPORT

Sample Number **FD 255**

① **Case Number:** [illegible]

Sample Site Name/Code:

② **SAMPLE CONCENTRATION** (Check One)

✓ Low Concentration
___ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

✓ Water
___ Soil/Sediment

④ **Ship To:** GSRI
5010 Le Roy Johnson Rd
New Orleans LA
70126

Attn: Carla Palazzo

Transfer
Ship To:

⑤ **Regional Office:** [illegible]

Sampling Personnel:

(Name)

(Phone)

Sampling Date:

(Begin) (End)

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

	Number of Containers	Approximate Total Volume
Water (Extractable)	2	1000
Water (VOA)	2	80 ml
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑪ **Analysis Lab:**
Rec'd by: M. Albert
Date Rec'd: 12-13-[illegible]
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

PARAMETER:	YES	NO
ICE PRESENT?	___	✓
BOTTLES BROKEN?	___	✓
EPA TAG PRESENT?	✓	___
SHIPPING SEALS?	___	✓
CONTAINER SEALS?	✓	___
CUSTODY FORM OK?	✓	___
LABELS ACCURATE?	✓	___
NOTES/COMMENTS: (If none)	___	

⑦ **Shipping Information**

FFC

Name of Carrier

[illegible]

Date Shipped:

[illegible]

Airbill Number:

⑧ **Sample Description**

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

⑨ **Sample Location**

SCL-CPM-INW9-001

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

LAB FILE COPY

003268

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office

ORGANICS TRAFFIC REPORT

Sample Number **FD 257**

① **Case Number:** [illegible]

Sample Site Name/Code:

② **SAMPLE CONCENTRATION** (Check One)

✓ Low Concentration
___ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

✓ Water
___ Soil/Sediment

④ **Ship To:** GSRI
5010 LeRoy Johnson Rd
New Orleans LA 70126

Attn: [illegible]

Transfer
Ship To:

⑤ **Regional Office:** [illegible]

Sampling Personnel:

(Name)

(Phone)

Sampling Date:

(Begin) (End)

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

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

⑪ **Analysis Lab:**
Rec'd by: [illegible]
Date Rec'd: [illegible]
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

PARAMETER:	YES	NO
ICE PRESENT?		✓
BOTTLES BROKEN?		✓
EPA TAG PRESENT?	✓	
SHIPPING SEALS?		✓
CONTAINER SEALS?	✓	
CUSTODY FORM OK?	✓	
LABELS ACCURATE?	✓	
NOTES/COMMENTS: (If more)		

⑦ **Shipping Information**

TCC
Name of Carrier

[illegible]
Date Shipped:

[illegible]
Airbill Number:

⑧ **Sample Description**

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

⑨ **Sample Location**

SOIL-CON [illegible]-099

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

LAB FILE COPY

DC-7-6-6614

Sample Number
FD-255

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: E S R I
Lab Sample ID No: VOVD01
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6639
QC Report No: 236
Contract No: 68-01-6959
Date Sample Received: 12/13/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/86
Date Analyzed: 12/18/86
Conc/Dil Factor: 1. pH 7.41
Percent Moisture: (Not Decanted) NA

003270

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane	10. U	78-87-5	1,2-Dichloropropane	5.0U
74-83-9	Bromomethane	10. U	10061-02-6	Trans-1,3-Dichloropropene	5.0U
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	5.0U
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	20. B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	10. U	71-43-2	Benzene	5.0U
75-15-0	Carbon Disulfide	5.0U	10061-01-5	cis-1,3-Dichloropropene	5.0U
75-35-4	1,1-Dichloroethene	5.0U	110-75-8	2-Chloroethylvinylether	10. U
75-34-3	1,1-Dichloroethane	5.0U	75-25-2	Bromoform	5.0U
156-60-5	Trans-1,2-Dichloroethene	5.0U	108-10-1	4-Methyl-2-Pentanone	10. U
67-66-3	Chloroform	3.1BJ	591-78-6	2-Hexanone	10. U
107-06-2	1,2-Dichloroethane	5.0U	127-18-4	Tetrachloroethene	5.0U
78-93-3	2-Butanone	10. U	79-34-5	1,1,2,2-Tetrachloroethane	5.0U
71-55-6	1,1,1-Trichloroethane	5.0U	108-88-3	Toluene	5.0U
56-23-5	Carbon Tetrachloride	5.0U	108-90-7	Chlorobenzene	5.0U
108-05-4	Vinyl Acetate	10. U	100-41-4	Ethylbenzene	5.0U
75-27-4	Bromodichloromethane	5.0U	100-42-5	Styrene	5.0U
				Total Xylenes	5.0U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

Laboratory Name: G S R I
Case No: 6639

Sample Number
FD-255

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/29/86
Dil Factor: 2.000
Percent Moisture: (Decanted) NA

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

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	3.1J	83-32-9	Acenaphthene	20. U
111-44-4	bis(2-Chloroethyl)Ether	20. U	51-28-5	2,4-Dinitrophenol	100. U
95-57-8	2-Chlorophenol	20. U	100-02-7	4-Nitrophenol	100. U
541-73-1	1,3-Dichlorobenzene	20. U	132-64-9	Dibenzofuran	20. U
106-46-7	1,4-Dichlorobenzene	20. U	121-14-2	2,4-Dinitrotoluene	20. U
100-51-6	Benzyl Alcohol	20. U	606-20-2	2,6-Dinitrotoluene	20. U
95-50-1	1,2-Dichlorobenzene	20. U	84-66-2	Diethylphthalate	20. U
95-48-7	2-Methylphenol	20. U	7005-72-3	4-Chlorophenyl-phenylether	20. U
39638-32-9	bis(2-Chloroisoprop.l)Ether	20. U	86-73-7	Fluorene	20. U
106-44-5	4-Methylphenol	20. U	100-01-6	4-Nitroaniline	100. U
621-64-7	N-Nitroso-Di-n-Propylamine	20. U	534-52-1	4,6-Dinitro-2-Methylphenol	100. U
67-72-1	Hexachloroethane	20. U	86-30-6	N-Nitrosodiphenylamine (1)	20. U
98-95-3	Nitrobenzene	20. U	101-55-3	4-Bromophenyl-phenylether	20. U
78-59-1	Isophorone	20. U	118-74-1	Hexachlorobenzene	20. U
88-75-5	2-Nitrophenol	20. U	87-86-5	Pentachlorophenol	100. U
105-67-9	2,4-Dimethylphenol	20. U	85-01-8	Phenanthrene	20. U
65-85-0	Benzoic Acid	100. U	120-12-7	Anthracene	20. U
111-91-1	bis(2-Chloroethoxy)Methane	20. U	84-74-2	Di-n-Butylphthalate	20. U
120-83-2	2,4-Dichlorophenol	20. U	206-44-0	Fluoranthene	1.6J
120-82-1	1,2,4-Trichlorobenzene	20. U	129-00-0	Pyrene	1.7J
91-20-3	Naphthalene	20. U	85-68-7	Butylbenzylphthalate	20. U
106-47-8	4-Chloroaniline	20. U	91-94-1	3,3'-Dichlorobenzidine	40. U
87-68-3	Hexachlorobutadiene	20. U	56-55-3	Benzo(a)Anthracene	20. U
59-50-7	4-Chloro-3-Methylphenol	20. U	117-81-7	bis(2-Ethylhexyl)Phthalate	3.6J
91-57-6	Methylnapthalene	20. U	218-01-9	Chrysene	20. U
77-47-4	Hexachlorocyclopentadiene	20. U	117-84-0	Di-n-Octyl Phthalate	20. U
88-06-2	2,4,6-Trichlorophenol	20. U	205-99-2	Benzo(b)Fluoranthene	20. U
95-95-4	2,4,5-Trichlorophenol	100. U	207-08-9	Benzo(k)Fluoranthene	20. U
91-58-7	2-Chloronaphthalene	20. U	50-32-8	Benzo(a)Pyrene	20. U
88-74-4	2-Nitroaniline	100. U	193-39-5	Indeno(1,2,3-cd)Pyrene	20. U
131-11-3	Dimethyl Phthalate	20. U	53-70-3	Dibenz(a,h)Anthracene	20. U
208-96-8	Acenaphthylene	20. U	191-24-2	Benzo(g,h,i)Perylene	20. U
99-09-2	3-Nitroaniline	100. U			

(1) - Cannot be separated from diphenylamine

Form I

003271

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number
FD-255

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/1/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.14
319-85-7	Beta-BHC	0.14
319-86-8	Delta-BHC	0.14
58-89-9	Gamma-BHC (Lindane)	0.14
76-44-8	Heptachlor	0.14
309-00-2	Aldrin	0.14
1024-57-3	Heptachlor Epoxide	0.14
959-98-8	Endosulfan I	0.14
60-57-1	Dieldrin	0.24
72-55-9	4, 4'-DDE	0.24
72-20-8	Endrin	0.24
33213-65-9	Endosulfan II	0.24
72-54-8	4, 4'-DDD	0.24
1031-07-8	Endosulfan Sulfate	0.24
50-29-3	4, 4'-DDT	0.24
72-43-5	Methoxychlor	1.04
53494-70-5	Endrin Ketone	0.24
57-74-9	Chlordane	1.04
8001-35-2	Toxaphene	2.04
12674-11-2	Aroclor-1016	1.04
11104-28-2	Aroclor-1221	1.04
11141-16-5	Aroclor-1232	1.04
53469-21-9	Aroclor-1242	1.04
12672-29-6	Aroclor-1248	1.04
11097-69-1	Aroclor-1254	2.04
11096-82-5	Aroclor-1260	2.04

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 500 or W_s NA V_t 10,000 V_i 1

003272

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number
FD-255

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. NA	None detected	UOA	NA	NA
2. NA	Silicone	SUOA	~~NA~~ 681	5J
3. NA	N/I	SUOA	1089	8J
4. NA	N/I	SUOA	1119	6J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003273

Sample Number
FD-256

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: E S R I
Lab Sample ID No: V0VD05
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6639
QC Report No: 236
Contract No: 68-01-6959
Date Sample Received: 12/13/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/86
Date Analyzed: 12/18/86
Dil Factor: 5.000 pH 6.65
Percent Moisture: (Not Decanted) NA

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane	50. U	78-87-5	1,2-Dichloropropane	25. U
74-83-9	Bromomethane	50. U	10061-02-6	Trans-1,3-Dichloropropene	25. U
75-01-4	Vinyl Chloride	50. U	79-01-6	Trichloroethene	25. U
75-00-3	Chloroethane	50. U	124-48-1	Dibromochloromethane	25. U
75-09-2	Methylene Chloride	94. B	79-00-5	1,1,2-Trichloroethane	25. U
67-64-1	Acetone	36. BJ	71-43-2	Benzene	710.
75-15-0	Carbon Disulfide	25. U	10061-01-5	cis-1,3-Dichloropropene	25. U
75-35-4	1,1-Dichloroethene	25. U	110-75-8	2-Chloroethylvinylether	50. U
75-34-3	1,1-Dichloroethane	25. U	75-25-2	Bromoform	25. U
156-60-5	Trans-1,2-Dichloroethene	25. U	108-10-1	4-Methyl-2-Pentanone	50. U
67-66-3	Chloroform	15. BJ	591-78-6	2-Hexanone	50. U
107-06-2	1,2-Dichloroethane	25. U	127-18-4	Tetrachloroethene	25. U
78-93-3	2-Butanone	50. U	79-34-5	1,1,2,2-Tetrachloroethane	25. U
71-55-6	1,1,1-Trichloroethane	25. U	108-88-3	Toluene	570.
56-23-5	Carbon Tetrachloride	25. U	108-90-7	Chlorobenzene	25. U
108-05-4	Vinyl Acetate	50. U	100-41-4	Ethylbenzene	110.
75-27-4	Bromodichloromethane	25. U	100-42-5	Styrene	88.
				Total Xylenes	460.

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

003274

Laboratory Name: G S R I
Case No: 6639

Sample Number
FD-256

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/29-30/86
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) NA

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

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10. U	83-32-9	Acenaphthene	~~10. U~~ 95000**
111-44-4	bis(2-Chloroethyl)Ether	10. U	51-28-5	2,4-Dinitrophenol	50. U
95-57-8	2-Chlorophenol	10. U	100-02-7	4-Nitrophenol	50. U
541-73-1	1,3-Dichlorobenzene	10. U	132-64-9	Dibenzofuran	~~10. U~~ 64000**
106-46-7	1,4-Dichlorobenzene	10. U	121-14-2	2,4-Dinitrotoluene	10. U
100-51-6	Benzyl Alcohol	10. U	606-20-2	2,6-Dinitrotoluene	10. U
95-50-1	1,2-Dichlorobenzene	10. U	84-66-2	Diethylphthalate	10. U
95-48-7	2-Methylphenol	~~10. U~~ 2200*	7005-72-3	4-Chlorophenyl-phenylether	10. U
39638-32-9	bis(2-Chloroisopropyl)Ether	10. U	86-73-7	Fluorene	~~10. U~~ 75000**
106-44-5	4-Methylphenol	~~10. U~~ 2000*	100-01-6	4-Nitroaniline	50. U
621-64-7	N-Nitroso-Di-n-Propylamine	10. U	534-52-1	4,6-Dinitro-2-Methylphenol	50. U
67-72-1	Hexachloroethane	10. U	86-30-6	N-Nitrosodiphenylamine (1)	10. U
98-95-3	Nitrobenzene	10. U	101-55-3	4-Bromophenyl-phenylether	10. U
78-59-1	Isophorone	10. U	118-74-1	Hexachlorobenzene	10. U
88-75-5	2-Nitrophenol	10. U	87-86-5	Pentachlorophenol	50. U
105-67-9	2,4-Dimethylphenol	~~10. U~~ 8600*	85-01-8	Phenanthrene	~~10. U~~ 210000**
65-85-0	Benzoic Acid	50. U	120-12-7	Anthracene	~~10. U~~ 36000*
111-91-1	bis(2-Chloroethoxy)Methane	10. U	84-74-2	Di-n-Butylphthalate	10. U
120-83-2	2,4-Dichlorophenol	10. U	206-44-0	Fluoranthene	~~10. U~~ 70000*
120-82-1	1,2,4-Trichlorobenzene	10. U	129-00-0	Pyrene	~~10. U~~ 50000*
91-20-3	Naphthalene	~~10. U~~ 430000**	85-68-7	Butylbenzylphthalate	10. U
106-47-8	4-Chloroaniline	10. U	91-94-1	3,3'-Dichlorobenzidine	20. U
87-68-3	Hexachlorobutadiene	10. U	56-55-3	Benzo(a)Anthracene	~~10. U~~ 13000*
59-50-7	4-Chloro-3-Methylphenol	10. U	117-81-7	bis(2-Ethylhexyl)Phthalate	10. U
91-57-6	Methylnapthalene	~~10. U~~ 78000**	218-01-9	Chrysene	~~10. U~~ 12000*
77-47-4	Hexachlorocyclopentadiene	10. U	117-84-0	Di-n-Octyl Phthalate	10. U
88-06-2	2,4,6-Trichlorophenol	10. U	205-99-2	Benzo(b)Fluoranthene	~~10. U~~ 4100*
95-95-4	2,4,5-Trichlorophenol	50. U	207-08-9	Benzo(k)Fluoranthene	~~10. U~~ 4100*
91-58-7	2-Chloronaphthalene	10. U	50-32-8	Benzo(a)Pyrene	~~10. U~~ 3500*
88-74-4	2-Nitroaniline	50. U	193-39-5	Indeno(1,2,3-cd)Pyrene	~~10. U~~ 1600*
131-11-3	Dimethyl Phthalate	10. U	53-70-3	Dibenz(a,h)Anthracene	~~10. U~~ 1100*
208-96-8	Acenaphthylene	~~10. U~~ 3400*	191-24-2	Benzo(g,h,i)Perylene	~~10. U~~ 1400*
99-09-2	3-Nitroaniline	50. U			

* From 1:10 dilution 12/30/86
** From 1:100 dilution 12/30/86

(SAMPLE INITIALLY RUN UNDILUTED ON 12/29/86)

(1) - Cannot be separated from diphenylamine

Form I

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number FD-256

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/2/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.05U
319-85-7	Beta-BHC	0.05U
319-86-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	0.10U
72-55-9	4, 4'-DDE	0.10U
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4, 4'-DDD	~~0.10U~~ 24 cp
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4, 4'-DDT	0.10U
72-43-5	Methoxychlor	0.5U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.5U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-28-2	Aroclor-1221	0.5U
11141-16-5	Aroclor-1232	0.5U
53469-21-9	Aroclor-1242	0.5U
12672-29-6	Aroclor-1248	0.5U
11097-69-1	Aroclor-1254	1.0U
11096-82-5	Aroclor-1260	1.0U

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 1000 or W_s NA V_t 10,000 V_i 1

003276

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-256

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.	271-89-6	Benzofuran	VOA	681	770J
2.	NA	Methyl Styrene (precise isomer			
3.		not determined)	SVOA	719	1400J
4.	NA	Phenol, Dimethyl	SVOA	696	3300J
5.	95-15-8	Benzo [B] Thiophene	SVOA	728	6500J
6.	90-12-0	Naphthalene, 1-Methyl	SVOA	826	17,000J
7.	92-52-4	1,1'-Biphenyl	SVOA	875	8200J
8.	NA	Naphthalene, Ethyl	SVOA	887	3700J
9.	NA	Naphthalene, Dimethyl	SVOA	896	4600J
10.	NA	Naphthalene, Dimethyl	SVOA	907	11,000J
11.	NA	Naphthalene, Dimethyl	SVOA	922	4000J
12.	2841-59-8	1H-Indole-1-Carboxaldehyde, 2,3-			
13.		Dihydro	SVOA	1003	7900J
14.	NA	1,1'-Biphenyl, Methyl	SVOA	1037	7400J
15.	NA	1,1'Biphenyl, Methyl	SVOA	1042	3400J
16.	NA	Dibenzofuran, Methyl	SVOA	1048	4300J
17.	NA	9H-Fluorene, Methyl	SVOA	1099	19,000J
18.	NA	Phenol, (2-phenylethenyl)-	SVOA	1122	3900J
19.	132-65-0	Dibenzothiophene	SVOA	1136	9000J
20.	86-74-8	9H-Carbazole	SVOA	1181	7000J
21.	NA	Methyl Anthracene or			
22.		Methyl phenanthracene	SVOA	1219	5600J
23.	NA	Methylanthracene or Methyl-			
24.		phenanthracene	SVOA	1223	5900J
25.	NA	Methyl phenanthracene or			
26.		Methyl Anthracene	SVOA	1235	12,000J
27.	NA	Naphthalene, phenyl	SVOA	1260	3400J
28.	NA	Pyrene, Methyl	SVOA	1399	4900J
29.	NA	Pyrene, Methyl	SVOA	1409	7300J
30.					

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003277

Sample Number
FD-257

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VOVD09
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6639
QC Report No: 236
Contract No: 68-01-6959
Date Sample Received: 12/13/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/86
Date Analyzed: 12/18/86
Conc/Dil Factor: 1. pH 6.93
Percent Moisture: (Not Decanted) NA

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane	10. U	78-87-5	1,2-Dichloropropane	5.0U
74-83-9	Bromomethane	10. U	10061-02-6	Trans-1,3-Dichloropropene	5.0U
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	5.0U
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	1. B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	10. U	71-43-2	Benzene	5.0U
75-15-0	Carbon Disulfide	5.0U	10061-01-5	cis-1,3-Dichloropropene	5.0U
75-35-4	1,1-Dichloroethene	5.0U	110-75-8	2-Chloroethylvinylether	10. U
75-34-3	1,1-Dichloroethane	5.0U	75-25-2	Bromoform	5.0U
156-60-5	Trans-1,2-Dichloroethene	5.0U	108-10-1	4-Methyl-2-Pentanone	10. U
67-66-3	Chloroform	3.4BJ	591-78-6	2-Hexanone	10. U
107-06-2	1,2-Dichloroethane	5.0U	127-18-4	Tetrachloroethene	5.0U
78-93-3	2-Butanone	10. U	79-34-5	1,1,2,2-Tetrachloroethane	5.0U
71-55-6	1,1,1-Trichloroethane	5.0U	108-88-3	Toluene	5.0U
56-23-5	Carbon Tetrachloride	5.0U	108-90-7	Chlorobenzene	5.0U
108-05-4	Vinyl Acetate	10. U	100-41-4	Ethylbenzene	5.0U
75-27-4	Bromodichloromethane	5.0U	100-42-5	Styrene	5.0U
				Total Xylenes	5.0U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

003278

Laboratory Name: G S R I
Case No: 6639

Sample Number
FD-257

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted Prepared: 12/16/86
Date Analyzed: 12/24/86
Conc/Dil Factor: 1.
Percent Moisture: (Decanted NA

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

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

(1) - Cannot be separated from diphenylamine

Form I

003279

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number FD-257

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/1/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.05U
319-85-7	Beta-BHC	0.05U
319-86-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	0.10U
72-55-9	4, 4'-DDE	0.10U
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4, 4'-DDD	0.10U
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4, 4'-DDT	0.10U
72-43-5	Methoxychlor	0.5U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.5U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-28-2	Aroclor-1221	0.5U
11141-16-5	Aroclor-1232	0.5U
53469-21-9	Aroclor-1242	0.5U
12672-29-6	Aroclor-1248	0.5U
11097-69-1	Aroclor-1254	1.0U
11096-82-5	Aroclor-1260	1.0U

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 1000 or W_s NA V_t 10,000 V_i 1

003280

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-257

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. NA	None Detected			
2. NA	Silicone	UOA	NA	NA
3. 119-61-9	Benzophenone	SVOA	680	5J
4.		SVOA	1052	8J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
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16.				
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22.				
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25.				
26.				
27.				
28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003281

Sample Number
BLANK-1

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VB121686A
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6639
QC Report No: 236
Contract No: 68-01-6959
Date Sample Received: NA

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/86
Date Analyzed: 12/18/86
Conc/Dil Factor: 1. pH NA
Percent Moisture: (Not Decanted) NA

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane	10. U	78-87-5	1,2-Dichloropropane	5.0U
74-83-9	Bromomethane	10. U	10061-02-6	Trans-1,3-Dichloropropene	5.0U
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	5.0U
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	2.6J	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	3.1J	71-43-2	Benzene	5.0U
75-15-0	Carbon Disulfide	5.0U	10061-01-5	cis-1,3-Dichloropropene	5.0U
75-35-4	1,1-Dichloroethene	5.0U	110-75-8	2-Chloroethylvinylether	10. U
75-34-3	1,1-Dichloroethane	5.0U	75-25-2	Bromoform	5.0U
156-60-5	Trans-1,2-Dichloroethene	5.0U	108-10-1	4-Methyl-2-Pentanone	10. U
67-66-3	Chloroform	2.9J	591-78-6	2-Hexanone	10. U
107-06-2	1,2-Dichloroethane	5.0U	127-18-4	Tetrachloroethene	5.0U
78-93-3	2-Butanone	10. U	79-34-5	1,1,2,2-Tetrachloroethane	5.0U
71-55-6	1,1,1-Trichloroethane	5.0U	108-88-3	Toluene	5.0U
56-23-5	Carbon Tetrachloride	5.0U	108-90-7	Chlorobenzene	5.0U
108-05-4	Vinyl Acetate	10. U	100-41-4	Ethylbenzene	5.0U
75-27-4	Bromodichloromethane	5.0U	100-42-5	Styrene	5.0U
				Total Xylenes	5.0U

J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

003282

Laboratory Name: G S R I
Case No: 6639

Sample Number
BLANK-1

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/24/86
Conc/Dil Factor: 1.
Percent Moisture: (Decanted) NA

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

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

(1) - Cannot be separated from diphenylamine

Form I

003283

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number
VO Low Water Blk.

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 12/31/86

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.05U
319-85-7	Beta-BHC	0.05U
319-86-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	0.10U
72-55-9	4, 4'-DDE	0.10U
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4, 4'-DDD	0.10U
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4, 4'-DDT	0.10U
72-43-5	Methoxychlor	0.5U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.5U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-28-2	Aroclor-1221	0.5U
11141-16-5	Aroclor-1232	0.5U
53469-21-9	Aroclor-1242	0.5U
12672-29-6	Aroclor-1248	0.5U
11097-69-1	Aroclor-1254	1.0U
11096-82-5	Aroclor-1260	1.0U

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 1000 or W_s NA V_t 10,000 V_i 1

003284

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: BLK #1

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. NA	None Detected	VOA	NA	NA
2. NA	None Detected	SVOA	NA	NA
3.				
4.				
5.				
6.				
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UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003285

Sample Number
FD-257MS

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VOVD09MS
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6639
QC Report No: 236
Contract No: 68-01-6959
Date Sample Received: 12/13/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/86
Date Analyzed: 12/18/86
Conc/Dil Factor: 1. pH 6.93
Percent Moisture: (Not Decanted) NA

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane	10. U	78-87-5	1,2-Dichloropropane	5.0U
74-83-9	Bromomethane	10. U	10061-02-6	Trans-1,3-Dichloropropene	3.0J
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	44.MS
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	27. B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	8.6BJ	71-43-2	Benzene	48.MS
75-15-0	Carbon Disulfide	5.0U	10061-01-5	cis-1,3-Dichloropropene	5.0U
75-35-4	1,1-Dichloroethene	48.MS	110-75-8	2-Chloroethylvinylether	10. U
75-34-3	1,1-Dichloroethane	5.0U	75-25-2	Bromoform	5.0U
156-60-5	Trans-1,2-Dichloroethene	5.0U	108-10-1	4-Methyl-2-Pentanone	10. U
67-66-3	Chloroform	3.4BJ	591-78-6	2-Hexanone	10. U
107-06-2	1,2-Dichloroethane	5.0U	127-18-4	Tetrachloroethene	5.0U
78-93-3	2-Butanone	10. U	79-34-5	1,1,2,2-Tetrachloroethane	5.0U
71-55-6	1,1,1-Trichloroethane	5.0U	108-88-3	Toluene	45.MS
56-23-5	Carbon Tetrachloride	5.0U	108-90-7	Chlorobenzene	50.MS
108-05-4	Vinyl Acetate	10. U	100-41-4	Ethylbenzene	5.0U
75-27-4	Bromodichloromethane	5.0U	100-42-5	Styrene	5.0U
				Total Xylenes	5.0U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

Form I

MS = matrix spike compound.

003286

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-257MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds Analysis Not Required

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: NR

Date Analyzed: NR

Conc/Dil Factor: NR

Percent Moisture (Decanted) NR

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

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

(1)-Cannot be separated from diphenylamine

003287

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number
FO-257 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared NR

Date Analyzed NR

Conc/Dil Factor: NR

Percent Moisture (decanted) NR

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	
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
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	

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 NA or W_s NA V_t NA V_i NA

003288

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-257-MS

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. NA	Analysis Not Required	VOA	NA	NA
2. NA	Analysis Not Required	SVOA	NA	NA
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UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003289

Sample Number
FD-255-MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Gulf South Research Institute Case No: 6639

Lab Sample ID No: SVUD03MS QC Report No: 236

Sample Matrix: Water Contract No: 68-01-6959

Data Release Authorized By: [signature] Date Sample Received: 12/13/86

Volatile Compounds Analysis Not Required

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 12/16/86

Date Analyzed: 12/29/86

Conc/Dil Factor: 1. pH 7.41

Percent Moisture: (Not Decanted) NA

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

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

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 [illegible]

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

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

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

Laboratory Name: G S F I
Case No: 9639

Sample Number
FD-255MS

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/29/86
Dil Factor: 2.000
Percent Moisture: (Decanted) N/A

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

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	170.MS	83-32-9	Acenaphthene	93.MS
111-44-4	bis(2-Chloroethyl)Ether	20. U	51-28-5	2,4-Dinitrophenol	100. U
95-57-8	2-Chlorophenol	200.MS	100-02-7	4-Nitrophenol	150.MS
541-73-1	1,3-Dichlorobenzene	20. U	132-64-9	Dibenzofuran	20. U
106-46-7	1,4-Dichlorobenzene	74.MS	121-14-2	2,4-Dinitrotoluene	90.MS
100-51-6	Benzyl Alcohol	20. U	606-20-2	2,6-Dinitrotoluene	20. U
95-50-1	1,2-Dichlorobenzene	20. U	84-66-2	Diethylphthalate	20. U
95-48-7	2-Methylphenol	20. U	7005-72-3	4-Chlorophenyl-phenylether	20. U
39638-32-9	bis(2-Chloroisopropyl) Ether	20. U	86-73-7	Fluorene	20. U
106-44-5	4-Methylphenol	20. U	100-01-6	4-Nitroaniline	100. U
621-64-7	N-Nitroso-Di-n-Propylamine	97.MS	534-52-1	4,6-Dinitro-2-Methylphenol	100. U
67-72-1	Hexachloroethane	20. U	86-30-6	N-Nitrosodiphenylamine (1)	20. U
98-95-3	Nitrobenzene	20. U	101-55-3	4-Bromophenyl-phenylether	20. U
78-59-1	Isophorone	20. U	118-74-1	Hexachlorobenzene	20. U
88-75-5	2-Nitrophenol	20. U	87-86-5	Pentachlorophenol	170.MS
105-67-9	2,4-Dimethylphenol	20. U	85-01-8	Phenanthrene	20. U
65-85-0	Benzoic Acid	100. U	120-12-7	Anthracene	20. U
111-91-1	bis(2-Chloroethoxy)Methane	20. U	84-74-2	Di-n-Butylphthalate	20. U
120-83-2	2,4-Dichlorophenol	20. U	206-44-0	Fluoranthene	2.0J
120-82-1	1,2,4-Trichlorobenzene	84.MS	129-00-0	Pyrene	94.MS
91-20-3	Naphthalene	20. U	85-68-7	Butylbenzylphthalate	20. U
106-47-8	4-Chloroaniline	20. U	91-94-1	3,3'-Dichlorobenzidine	40. U
87-68-3	Hexachlorobutadiene	20. U	56-55-3	Benzo(a)Anthracene	20. U
59-50-7	4-Chloro-3-Methylphenol	160.MS	117-81-7	bis(2-Ethylhexyl)Phthalate	4.1J
91-57-6	Methylnapthalene	20. U	218-01-9	Chrysene	20. U
77-47-4	Hexachlorocyclopentadiene	20. U	117-84-0	Di-n-Octyl Phthalate	20. U
88-06-2	2,4,6-Trichlorophenol	20. U	205-99-2	Benzo(b)Fluoranthene	20. U
95-95-4	2,4,5-Trichlorophenol	100. U	207-08-9	Benzo(k)Fluoranthene	20. U
91-58-7	2-Chloronaphthalene	20. U	50-32-8	Benzo(a)Pyrene	20. U
88-74-4	2-Nitroaniline	100. U	193-39-5	Indeno(1,2,3-cd)Pyrene	20. U
131-11-3	Dimethyl Phthalate	20. U	53-70-3	Dibenz(a,h)Anthracene	20. U
208-96-8	Acenaphthylene	20. U	191-24-2	Benzo(g,h,i)Perylene	20. U
99-09-2	3-Nitroaniline	100. U			

(1) - Cannot be separated from diphenylamine

MS = matrix spike compound.

Form I

003291

Resubmission cp
1/26/87

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number
FD-255 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/1/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.1U	
319-85-7	Beta-BHC	0.1U	
319-86-8	Delta-BHC	0.1U	
58-89-9	Gamma-BHC (Lindane)	~~0.1U~~ cp	0.7 MS
76-44-8	Heptachlor	~~0.1U~~ cp	0.5 MS
309-00-2	Aldrin	~~0.1U~~ cp	0.3 MS
1024-57-3	Heptachlor Epoxide	0.1U	
959-98-8	Endosulfan I	0.1U	
60-57-1	Dieldrin	~~0.2U~~ cp	1.1 MS
72-55-9	4, 4'-DDE	0.2U	
72-20-8	Endrin	~~0.2U~~ cp	1.3 MS
33213-65-9	Endosulfan II	0.2U	
72-54-8	4, 4'-DDD	0.2U	
1031-07-8	Endosulfan Sulfate	0.2U	
50-29-3	4, 4'-DDT	~~0.2U~~ cp	0.7 MS
72-43-5	Methoxychlor	1.0U	
53494-70-5	Endrin Ketone	0.2U	
57-74-9	Chlordane	1.0U	
8001-35-2	Toxaphene	2.0U	
12674-11-2	Aroclor-1016	1.0U	
11104-28-2	Aroclor-1221	1.0U	
11141-16-5	Aroclor-1232	1.0U	
53469-21-9	Aroclor-1242	1.0U	
12672-29-6	Aroclor-1248	1.0U	
11097-69-1	Aroclor-1254	2.0U	
11096-82-5	Aroclor-1260	2.0U	

MS - Matrix Spike Compound

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 500 or W_s NA V_t 10,000 V_i 1

003292

003292

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number
FD-255 MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/1/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.14
319-85-7	Beta-BHC	0.14
319-86-8	Delta-BHC	0.14
58-89-9	Gamma-BHC (Lindane)	0.14
76-44-8	Heptachlor	0.14
309-00-2	Aldrin	0.14
1024-57-3	Heptachlor Epoxide	0.14
959-98-8	Endosulfan I	0.14
60-57-1	Dieldrin	0.24
72-55-9	4, 4'-DDE	0.24
72-20-8	Endrin	0.24
33213-65-9	Endosulfan II	0.24
72-54-8	4, 4'-DDD	0.24
1031-07-8	Endosulfan Sulfate	0.24
50-29-3	4, 4'-DDT	0.24
72-43-5	Methoxychlor	1.04
53494-70-5	Endrin Ketone	0.24
57-74-9	Chlordane	1.04
8001-35-2	Toxaphene	2.04
12674-11-2	Aroclor-1016	1.04
11104-28-2	Aroclor-1221	1.04
11141-16-5	Aroclor-1232	1.04
53469-21-9	Aroclor-1242	1.04
12672-29-6	Aroclor-1248	1.04
11097-69-1	Aroclor-1254	2.04
11096-82-5	Aroclor-1260	2.04

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 500 or W_s NA V_t 10,000 V_i 1

003293

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-255-MS

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. NA	Analysis Not Required	VOA	NA	NA
2. NA	Analysis Not Required	SVOA	NA	NA
3.				
4.				
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UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003294

Sample Number
FD-257MSD

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: E S R I
Lab Sample ID No: V0\D09MSD
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6639
QC Report No: 236
Contract No: 68-01-6959
Date Sample Received: 12/13/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/18/86
Date Analyzed: 12/18/86
Conc/Dil Factor: 1. pH 6.93
Percent Moisture: (Not Decanted) NA

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane	10. U	78-87-5	1,2-Dichloropropane	5.0U
74-83-9	Bromomethane	10. U	10061-02-6	Trans-1,3-Dichloropropene	3.1J
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	44.MS
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	8.9B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	10. U	71-43-2	Benzene	47.MS
75-15-0	Carbon Disulfide	5.0U	10061-01-5	cis-1,3-Dichloropropene	5.0U
75-35-4	1,1-Dichloroethene	49.MS	110-75-8	2-Chloroethylvinylether	10. U
75-34-3	1,1-Dichloroethane	5.0U	75-25-2	Bromoform	5.0U
156-60-5	Trans-1,2-Dichloroethene	5.0U	108-10-1	4-Methyl-2-Pentanone	10. U
67-66-3	Chloroform	2.9BJ	591-78-6	2-Hexanone	10. U
107-06-2	1,2-Dichloroethane	5.0U	127-18-4	Tetrachloroethene	5.0U
78-93-3	2-Butanone	10. U	79-34-5	1,1,2,2-Tetrachloroethane	5.0U
71-55-6	1,1,1-Trichloroethane	5.0U	108-88-3	Toluene	45.MS
56-23-5	Carbon Tetrachloride	5.0U	108-90-7	Chlorobenzene	51.MS
108-05-4	Vinyl Acetate	10. U	100-41-4	Ethylbenzene	5.0U
75-27-4	Bromodichloromethane	5.0U	100-42-5	Styrene	5.0U
				Total Xylenes	5.0U

B - Compound was detected in the QC blank.
J - Reported value is less than the detection limit.
U - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

See page 1A for complete definitions of the data reporting qualifiers.

MS = matrix spike compound.

Form I

003295

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-257MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NR

Date Analyzed: NR

Conc/Dil Factor: NR

Percent Moisture (Decanted) NR

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

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

(1)-Cannot be separated from diphenylamine

003296

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number
FD-257MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: NR

Date Analyzed: NR

Conc/Dil Factor: NR

Percent Moisture (decanted) NR

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	
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4, 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4, 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
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	

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 NA or W_s NA V_t NA V_i NA

003297

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-257-MSD

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. NA	Analysis Not Required	VOA	NA	NA
2. NA	Analysis Not Required	SVOA	NA	NA
3.				
4.				
5.				
6.				
7.				
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25.				
26.				
27.				
28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003298

Sample Number
FD-255-MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Gulf South Research Institute
Case No: 6639
Lab Sample ID No: SUUD03MSD
QC Report No: 236
Sample Matrix: water
Contract No: 68-01-6959
Data Release Authorized By:
Date Sample Received: 12/13/86

Volatile Compounds Analysis Not Required

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/29/86
Conc/Dil Factor: 1 pH 7.41
Percent Moisture: (Not Decanted) NA

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

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

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

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.

003299

Laboratory Name: G S R I
Case No: 6639

Sample Number
FD-255MSD

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/29/86
Dil Factor: 2.000
Percent Moisture: (Decanted) N/A

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

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	160 MS	83-32-9	Acenaphthene	85. MS
111-44-4	bis(2-Chloroethyl)Ether	20. U	51-28-5	2,4-Dinitrophenol	100. U
95-57-8	2-Chlorophenol	190. MS	100-02-7	4-Nitrophenol	140. MS
541-73-1	1,3-Dichlorobenzene	20. U	132-64-9	Dibenzofuran	20. U
106-46-7	1,4-Dichlorobenzene	67. MS	121-14-2	2,4-Dinitrotoluene	84. MS
100-51-6	Benzyl Alcohol	20. U	606-20-2	2,6-Dinitrotoluene	20. U
95-50-1	1,2-Dichlorobenzene	20. U	84-66-2	Diethylphthalate	20. U
95-48-7	2-Methylphenol	20. U	7005-72-3	4-Chlorophenyl-phenylether	20. U
39638-32-9	bis(2-Chloroisopropyl)Ether	20. U	86-73-7	Fluorene	20. U
106-44-5	4-Methylphenol	20. U	100-01-6	4-Nitroaniline	100. U
621-64-7	N-Nitroso-Di-n-Propylamine	90. MS	534-52-1	4,6-Dinitro-2-Methylphenol	100. U
67-72-1	Hexachloroethane	20. U	86-30-6	N-Nitrosodiphenylamine (1)	20. U
98-95-3	Nitrobenzene	20. U	101-55-3	4-Bromophenyl-phenylether	20. U
78-59-1	Isophorone	20. U	118-74-1	Hexachlorobenzene	20. U
88-75-5	2-Nitrophenol	20. U	87-86-5	Pentachlorophenol	160. MS
105-67-9	2,4-Dimethylphenol	20. U	85-01-8	Phenanthrene	20. U
65-85-0	Benzoic Acid	100. U	120-12-7	Anthracene	20. U
111-91-1	bis(2-Chloroethoxy)Methane	20. U	84-74-2	Di-n-Butylphthalate	20. U
120-83-2	2,4-Dichlorophenol	20. U	206-44-0	Fluoranthene	1.7J
120-82-1	1,2,4-Trichlorobenzene	76. MS	129-00-0	Pyrene	85. MS
91-20-3	Naphthalene	20. U	85-68-7	Butylbenzylphthalate	20. U
106-47-8	4-Chloroaniline	20. U	91-94-1	3,3'-Dichlorobenzidine	40. U
87-68-3	Hexachlorobutadiene	20. U	56-55-3	Benzo(a)Anthracene	20. U
59-50-7	4-Chloro-3-Methylphenol	160. MS	117-81-7	bis(2-Ethylhexyl)Phthalate	65.
91-57-6	Methylnaphthalene	20. U	218-01-9	Chrysene	20. U
77-47-4	Hexachlorocyclopentadiene	20. U	117-84-0	Di-n-Octyl Phthalate	2.3J
88-06-2	2,4,6-Trichlorophenol	20. U	205-99-2	Benzo(b)Fluoranthene	20. U
95-95-4	2,4,5-Trichlorophenol	100. U	207-08-9	Benzo(k)Fluoranthene	20. U
91-58-7	2-Chloronaphthalene	20. U	50-32-8	Benzo(a)Pyrene	20. U
88-74-4	2-Nitroaniline	100. U	193-39-5	Indeno(1,2,3-cd)Pyrene	20. U
131-11-3	Dimethyl Phthalate	20. U	53-70-3	Dibenz(a,h)Anthracene	20. U
208-96-8	Acenaphthylene	20. U	191-24-2	Benzo(g,h,i)Perylene	20. U
99-09-2	3-Nitroaniline	100. U			

(1) - Cannot be separated from diphenylamine

MS = matrix spike compound.

Form I

003300

Submission cp 1/26/87

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number
FD-255 MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/1/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.14	
319-85-7	Beta-BHC	0.14	
319-86-8	Delta-BHC	0.14	
58-89-9	Gamma-BHC (Lindane)	~~0.14~~ cp	0.8 MS
76-44-8	Heptachlor	~~0.14~~ cp	0.5 MS
309-00-2	Aldrin	~~0.14~~ cp	0.3 MS
1024-57-3	Heptachlor Epoxide	0.14	
959-98-8	Endosulfan I	0.14	
60-57-1	Dieldrin	~~0.24~~ cp	1.2 MS
72-55-9	4,4'-DDE	0.24	
72-20-8	Endrin	~~0.24~~ cp	1.3 MS
33213-65-9	Endosulfan II	0.24	
72-54-8	4,4'-DDD	0.24	
1031-07-8	Endosulfan Sulfate	0.24	
50-29-3	4,4'-DDT	~~0.24~~ cp	0.8 MS
72-43-5	Methoxychlor	1.04	
53494-70-5	Endrin Ketone	0.24	
57-74-9	Chlordane	1.04	
8001-35-2	Toxaphene	2.04	
12674-11-2	Aroclor-1016	1.04	
11104-28-2	Aroclor-1221	1.04	
11141-16-5	Aroclor-1232	1.04	
53469-21-9	Aroclor-1242	1.04	
12672-29-6	Aroclor-1248	1.04	
11097-69-1	Aroclor-1254	2.04	
11096-82-5	Aroclor-1260	2.04	

MS - Matrix Spike Compound

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 500 or W_s NA V_t 10,000 V_i 1

003301

003301

Laboratory Name Gulf South Research Institute

Case No 6639

Sample Number FD-255MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/17/86

Date Analyzed: 1/1/87

Conc/Dil Factor: 1

Percent Moisture (decanted) NA

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	0.14
319-85-7	Beta-BHC	0.14
319-86-8	Delta-BHC	0.14
58-89-9	Gamma-BHC (Lindane)	0.14
76-44-8	Heptachlor	0.14
309-00-2	Aldrin	0.14
1024-57-3	Heptachlor Epoxide	0.14
959-98-8	Endosulfan I	0.14
60-57-1	Dieldrin	0.24
72-55-9	4, 4'-DDE	0.24
72-20-8	Endrin	0.24
33213-65-9	Endosulfan II	0.24
72-54-8	4, 4'-DDD	0.24
1031-07-8	Endosulfan Sulfate	0.24
50-29-3	4, 4'-DDT	0.24
72-43-5	Methoxychlor	1.04
53494-70-5	Endrin Ketone	0.24
57-74-9	Chlordane	1.04
8001-35-2	Toxaphene	2.04
12674-11-2	Aroclor-1016	1.04
11104-28-2	Aroclor-1221	1.04
11141-16-5	Aroclor-1232	1.04
53469-21-9	Aroclor-1242	1.04
12672-29-6	Aroclor-1248	1.04
11097-69-1	Aroclor-1254	2.04
11096-82-5	Aroclor-1260	2.04

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 500 or W_s NA V_t 10,000 V_i 1

003302

Laboratory Name: Gulf South Research Institute

Case No: 6639

Sample Number: FD-255-MSD

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. NA	Analysis Not Required	UOA	NA	NA
2. NA	Analysis Not Required	SVOA	NA	NA
3.				
4.				
5.				
6.				
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30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003303

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 6639 **Contract Laboratory** Gulf South Research Institute **Contract No.** 68-01- 6959

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (88-110)	VOLATILE: BFB (86-115)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (76-114)	SEMI-VOLATILE: NITRO-BENZENE-D5 (35-114)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (43-116)	SEMI-VOLATILE: TERPHENYL-D14 (33-141)			SEMI-VOLATILE: PHENOL-D5 (10-94)	SEMI-VOLATILE: 2-FLUORO-PHENOL (21-100)	SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (10-123)	PESTICIDE: DIBUTYL-CHLORENDATE** (24-154)
Blank #1	102	102	96	88	75	100			83	92	91	96
FD-255	110	109	104	101	91	64			87	103*	96	115
FD-257	107	107	106	80	71	99			94	94	91	Interference
FD-256	99	104	105	~~35~~ 134*	71	70			~~35~~ 94	100 ~~107~~	91	Interference
FD-257 MS	105	101	109	NR	NR	NR			NR	NR	NR	NR
FD-257 MSD	103	101	107	NR	NR	NR			NR	NR	NR	NR
FD-255 MS	NR	NR	NR	96	89	75			94	97	103	102
FD-255 MSD	NR	NR	NR	83	80	60			90	91	94	102
FD-256 dil	NA	NA	NA	dil out	dil out	dil out			dil out	dil out	dil out	Interference
FD-256 dil.	NA	NA	NA	dil out	dil out	dil out			dil out	dil out	dil out	NR

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 18 ; outside of QC limits
Semi-Volatiles: 2 out of 36 ; outside of QC limits
Pesticides: 3 out of 7 ; outside of QC limits

Comments: NR = NOT REQUIRED

FORM II 7/85

METHOD BLANK SUMMARY

Case No. 6639 Region VI Contractor Gulf South Research Institute Contract No. 68-01- 6959

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRQL
VB121886A	12-18-86	VOA	W	L	A	75-09-2	Methylene Chloride	3	ug/L	5
						67-64-1	acetone	3	ug/L	10
						67-66-3	Chloroform	3	ug/L	5
~~1216~~ SVMBLK ~~1234 SW881~~	12-24-86	SV	W	L	B	NA	~~TIC AA~~ None Detected	NA	NA	NA
4216A18	12-31-86	Pest.	W	L	4	NA	None detected	NA	NA	NA
3401A14	1-3-87	Pest	W	L	3	NA	None detected	NA	NA	NA

Comments:

FORM IV 7/85

003305

Pesticide Evaluation Standards Summary
(Page 1)

Case No: 6639 Region: 6
Contract No: 68-01- 6959
Date of Analysis: 12/31/86-1/1/87

Laboratory: Gulf South Research Institute
GC Column: 1.5% SP.2250/1.95% SP.2401
Instrument ID: 4

Evaluation Check for Linearity

Laboratory ID	4216A1	4216A2	4216A3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	6,665,750	6,540,333	7,184,517	5.0
Endrin	3,631,200	3,520,050	3,551,945	1.6
4,4'- DDT(1)	4,346,517	4,569,967	4,750,123	4.4
Dibutyl Chlorendate	5,923,400	6,162,950	6,548,250	5.1

003306

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour	4216A2	10:39	0	0	NA
Eval Mix B	4216A20	00:40	0	0	NA
Eval Mix B	~~4216A33~~	~~10:45~~			
Eval Mix B	4216A46	20:50	0	0	NA
Eval Mix B	4216A67	13:22	0	3.9	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4
(2) See Exhibit E, Section 7.3.1.2.2.1

Gulf South Research Inst.

Case: 6639

Pesticide Evaluation Standards Summary
(Page 2)

Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No.	Lab I.D.	Time of Analysis	Percent Diff.	SMO Sample No.	Lab I.D.	Time of Analysis	Percent Diff.
	Eval A	09:52	0		4216A1		
	Eval B	10:39	0.1		4216A2		
	Eval C	11:25	0.2		4216A3		
	Pest A	12:12	Interference		4216A4		
	Pest B	12:58	0.5		4216A5		
	Tox	13:47	1.2		4216A6		
	Chlor	14:34	0.6		4216A7		
	PCB 1221	15:21	0.7		4216A8		
	PCB 1232	16:07	0.8		4216A9		
	PCB 1242	16:54	0.9		4216A10		
	PCB 1248	17:41	0.9		4216A11		
	PCB 1254	18:27	0.9		4216A12		
	PCB 1016/1260	19:14	0.9		4216A13		
	VD Extra BLK	23:07	1.0		4216A18		
	Eval B	00:40	0.7		4216A20		
	Pest A	15:24	Interference		4216A39		
	Pest B	16:10	0.9		4216A40		
FD-255	VD-04	19:16	1.0		4216A44		
FD-255	VD-04 MS	20:03	1.0		4216A45		
	Eval B	20:50	0.7		4216A46		
FD-255	VD-04MSD	21:36	0.9		4216A47		
FD-256	VD-07	22:23	diluted out		4216A48		
FD-257	VD-11	23:10	1.3		4216A49		
	Pest A	23:56	Interference		4216A50		
	Pest B	00:43	0.9		4216A51		
FD-256	VD-07	07:42	1.3		4216A60		
	Eval B	13:22	0.9		4216A67		
	Pest A	14:08	Interference		4216A68		
	Pest B	14:55	0.9		4216A69		

003307

Pesticide Evaluation Standards Summary

(Page 1)

Case No: 6639 Region: 6

Contract No: 68-01-6959

Date of Analysis: 1/3/87 - 1/4/87

Laboratory: Gulf South Research Institute

GC Column: 390 SP-2100

Instrument ID: 3

Evaluation Check for Linearity

Laboratory ID	3401A1	3401A2	3401A3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	9,825,333	9,274,222	9,777,300	3.2
Endrin	7,145,525	7,693,183	8,165,475	6.7
4,4'- DDT(1)	1,328,100	2,508,650	3,335,103	42.2
Dibutyl Chlorendate	10,132,720	10,155,530	10,399,780	1.4

003308

Evaluation Check for 4,4'- DDT/Endrin Breakdown

(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour	3401A2	9:27	NA	NA	1.5
Eval Mix B	3401A16	20:19	NA	NA	0
Eval Mix B	3401A26	04:05	NA	NA	1.2
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7.5.4

(2) See Exhibit E, Section 7.3.1.2.2.1

Gulf South Research Inst.

Case: 6639

Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No.	Lab I.D.	Time of Analysis	Percent Diff.	SMO Sample No.	Lab I.D.	Time of Analysis	Percent Diff.
	Eval A	8:40	0		3401A1		
	Eval B	9:27	0.05		3401A2		
	Eval C	10:13	0.1		3401A3		
	Pest A	11:00	0.3		3401A4		
	Pest B	11:47	0.4		3401A5		
	Chlor	12:33	0.4		3401A6		
	Tox	13:20	0.3		3401A7		
	PCB 1254	14:06	0.5		3401A8		
	PCB 1016/1260	14:53	1.6		3401A9		
	VD water blk.	18:46	0.5		3401A14		
	Eval B	20:19	0.6		3401A16		
FD-255	VD-04	23:26	0.6		3401A20		
	Pest A	00:59	0.7		3401A22		
	Pest B	01:45	0.8		3401A23		
~~FD-257~~	~~VD-11~~	~~02:32~~			~~3401A24~~		
	Eval B	04:05	0.9		3401A26		
FD-256	VD-07	04:51	0.3		3401A27		
	Pest A	08:44	1.2		3401A32		
	Pest B	09:31	1.2		3401A33		
	Chlor	10:17	1.3		3401A34		
	Tox	11:04	1.2		3401A35		
	PCB 1254	11:51	1.3		3401A36		
	PCB 1016/1260	12:37	Interference		3401A37		

003309

PESTICIDE/PCB STANDARDS SUMMARY

Case Number: 6641/6639 Laboratory: Gulf South Research Institute

Contract Number: 68-01-6959 GC Column: 1.5% SP-2250/1.95% SP-2401 GC Instrument 4

	Initial Calibration Series				Continuing Calibration Series			
	Date of Analysis: 12-31-86				Date of Analysis: 01-01-87			
	Time of Analysis: 12:12-19:14				Time of Analysis: 15:24-16:10			
	Laboratory I.D.: 4216A4-A13				Laboratory I.D.: 4216A39-A40			
Compound	Retention Time	Retention Time Window	Calib. Factor	Conf. or Quan.	Retention Time	Calib. Factor	Conf. or Quan.	Percent Diff.
alpha-BHC	2.77	2.63-2.91	6,406,600	PRIM	2.78	6,738,467	PRIM	5.0
beta-BHC	3.97	3.81-4.13	4,291,500	PRIM	4.00	4,620,100	PRIM	7.4
delta-BHC	4.62	4.46-4.76	6,674,640	PRIM	4.65	7,021,080	PRIM	5.1
gamma-BHC	3.48	3.32-3.64	7,184,750	PRIM	3.52	7,622,300	PRIM	5.9
Heptachlor	4.27	4.10-4.44	7,769,367	PRIM	4.30	8,397,900	PRIM	7.8
Aldrin	5.13	4.98-5.28	6,861,343	PRIM	5.18	7,309,571	PRIM	6.3
Heptachlor Epoxide	7.75	7.57-7.93	7,629,320	PRIM	7.80	8,124,420	PRIM	6.3
Endosulfan I	9.75	9.57-9.93	6,547,000	PRIM	9.82	7,046,877	PRIM	7.4
Dieldrin	11.90	11.71-12.09	6,166,971	PRIM	11.97	6,552,729	PRIM	6.1
4,4'-DDE	11.13	10.95-11.31	5,887,657	PRIM	11.22	6,257,271	PRIM	6.1
Endrin	14.43	14.21-14.65	3,719,168	PRIM	14.53	4,108,776	PRIM	10.0
Endosulfan II	17.52	17.27-17.77	12,372,550	PRIM	17.60	13,337,450	PRIM	7.5
4,4'-DDD	17.08	16.86-17.30	4,637,200	PRIM	17.20	4,889,760	PRIM	5.3
Endosulfan Sulfate	28.07	27.79-28.35	6,343,511	PRIM	28.22	7,128,502	PRIM	11.7
4,4'-DDT	20.53	20.22-20.84	6,256,315	PRIM	20.67	6,895,390	PRIM	9.7
Methoxychlor	39.30	38.51-40.09	3,486,784	PRIM	39.52	3,937,448	PRIM	12.1
Endrin Ketone	37.78	37.02-38.54	12,738,590	PRIM	38.00	13,934,340	PRIM	9.0
Tech. Chlordane	8.60	8.39-8.82	1,460,717	PRIM			PRIM	200.0
alpha-Chlordane } NR CP								
gamma-Chlordane } NR CP								
Toxaphene	17.82	17.53-18.11	348,722	PRIM			PRIM	200.0
Aroclor-1016	4.22	4.05-4.39	800,925	PRIM			PRIM	200.0
Aroclor-1221	2.55	2.40-2.70	276,448	PRIM			PRIM	200.0
Aroclor-1232	4.22	4.04-4.40	278,267	PRIM			PRIM	200.0
Aroclor-1242	4.22	4.04-4.40	624,320	PRIM			PRIM	200.0
Aroclor-1248	4.22	4.11-4.33	444,708	PRIM			PRIM	200.0
Aroclor-1254	14.02	13.84-14.20	693,188	PRIM			PRIM	200.0
Aroclor-1260	20.20	20.00-20.40	791,981	PRIM			PRIM	200.0

FORM IX

003310

PESTICIDE/PCB STANDARDS SUMMARY

Case Number: 6641/6639 Laboratory: Gulf South Research Institute

Contract Number: 68-01-6939 GC Column: 1.5% SP-2250/1.95% SP-2401 GC Instrument 4

	Initial Calibration Series				Continuing Calibration Series			
	Date of Analysis: 12-31-86				Date of Analysis: 01-01&02-87			
	Time of Analysis: 12:12-19:14				Time of Analysis: 23:56-00:43			
	Laboratory I.D.: 421604-A13				Laboratory I.D.: 421605~~1-082~~ A50-A51 CP			
Compound	Retention Time	Retention Time Window	Calib. Factor	Conf. or Quan.	Retention Time	Calib. Factor	Conf. or Quan.	Percent Diff.
alpha-BHC	2.77	2.63-2.91	6,406,600	PRIM	2.77	6,587,333	PRIM	2.8
beta-BHC	3.97	3.81-4.13	4,291,500	PRIM	3.98	4,326,420	PRIM	0.8
delta-BHC	4.62	4.48-4.76	6,674,640	PRIM	4.65	6,512,320	PRIM	2.5
gamma-BHC	3.48	3.32-3.64	7,184,750	PRIM	3.52	7,613,800	PRIM	5.8
Heptachlor	4.27	4.10-4.44	7,769,367	PRIM	4.30	8,355,567	PRIM	7.3
Aldrin	5.13	4.98-5.28	6,861,343	PRIM	5.17	6,854,286	PRIM	0.1
Heptachlor Epoxide	7.75	7.57-7.93	7,629,320	PRIM	7.78	7,925,160	PRIM	3.8
Endosulfan I	9.75	9.57-9.93	6,547,000	PRIM	9.78	6,806,600	PRIM	3.9
Dieldrin	11.90	11.71-12.09	6,166,971	PRIM	11.97	6,536,943	PRIM	5.8
4,4'-DDE	11.13	10.95-11.31	5,887,657	PRIM	11.18	5,996,000	PRIM	1.8
Endrin	14.43	14.21-14.65	3,719,168	PRIM	14.50	4,681,296	PRIM	22.9
Endosulfan II	17.52	17.27-17.77	12,372,550	PRIM	17.58	13,365,400	PRIM	7.7
4,4'-DDD	17.08	16.86-17.30	4,637,300	PRIM	17.17	4,850,040	PRIM	4.5
Endosulfan Sulfate	28.07	27.79-28.35	6,343,511	PRIM	28.17	7,144,093	PRIM	11.9
4,4'-DDT	20.53	20.22-20.84	6,256,315	PRIM	20.63	6,889,900	PRIM	9.6
Methoxychlor	39.30	38.51-40.09	3,486,784	PRIM	39.50	3,973,980	PRIM	13.1
Endrin Ketone	37.78	37.02-38.54	12,738,590	PRIM	38.95	13,736,000	PRIM	7.5
Tech. Chlordane	8.60	8.39-8.82	1,460,717	PRIM			PRIM	200.0
alpha-Chlordane } NR CP								
gamma-Chlordane } NR CP								
Toxaphene	17.82	17.53-18.11	348,722	PRIM			PRIM	200.0
Aroclor-1016	4.22	4.05-4.39	800,925	PRIM			PRIM	200.0
Aroclor-1221	2.55	2.40-2.70	276,448	PRIM			PRIM	200.0
Aroclor-1232	4.22	4.04-4.40	278,267	PRIM			PRIM	200.0
Aroclor-1242	4.22	4.04-4.40	624,320	PRIM			PRIM	200.0
Aroclor-1248	4.22	4.11-4.33	444,708	PRIM			PRIM	200.0
Aroclor-1254	14.02	13.84-14.20	693,188	PRIM			PRIM	200.0
Aroclor-1260	20.20	20.00-20.40	791,981	PRIM			PRIM	200.0

003311

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case Number: 6641/6639 Laboratory: Gulf South Research Institute

Contract Number: 68-01-6959 GC Column: 1.5% SP-2250/1.95% SP-2401 GC Instrument 4

	Initial Calibration Series				Continuing Calibration Series			
	Date of Analysis: 12-31-86				Date of Analysis: 01-02-87			
	Time of Analysis: 12:12-19:14				Time of Analysis: 14:08-14:55			
	Laboratory I.D.: 4216A4-A13				Laboratory I.D.: 4216A68-A69			
Compound	Retention Time	Retention Time Window	Calib. Factor	Conf. or Quan.	Retention Time	Calib. Factor	Conf. or Quan.	Percent Diff.
alpha-BHC	2.77	2.63-2.91	6,406,600	PRIM	2.77	6,336,267	PRIM	1.1
beta-BHC	3.97	3.81-4.13	4,291,500	PRIM	3.98	3,677,520	PRIM	15.4
delta-BHC	4.62	4.48-4.76	6,674,640	PRIM	4.63	6,578,800	PRIM	1.4
gamma-BHC	3.48	3.32-3.64	7,184,750	PRIM	3.50	6,850,300	PRIM	4.8
Heptachlor	4.27	4.10-4.44	7,769,367	PRIM	4.28	7,802,233	PRIM	0.4
Aldrin	5.13	4.98-5.28	6,861,343	PRIM	5.17	6,430,629	PRIM	6.5
Heptachlor Epoxide	7.75	7.57-7.93	7,629,320	PRIM	7.78	6,664,560	PRIM	13.5
Endosulfan I	9.75	9.57-9.93	6,547,000	PRIM	9.80	5,934,985	PRIM	9.8
Dieldrin	11.90	11.71-12.09	6,166,971	PRIM	11.93	8,537,029	PRIM	32.2
4,4'-DDE	11.13	10.95-11.31	5,887,657	PRIM	11.20	5,721,286	PRIM	2.9
Endrin	14.43	14.21-14.65	3,719,168	PRIM	14.52	4,890,216	PRIM	27.2
Endosulfan II	17.52	17.27-17.77	12,372,550	PRIM	17.55	8,250,063	PRIM	40.0
4,4'-DDD	17.08	16.86-17.30	4,637,200	PRIM	17.20	7,323,580	PRIM	44.9
Endosulfan Sulfate	28.07	27.79-28.35	6,343,511	PRIM	28.17	5,284,902	PRIM	18.2
4,4'-DDT	20.53	20.22-20.84	6,256,315	PRIM	20.67	4,764,485	PRIM	27.1
Methoxychlor	39.30	38.51-40.09	3,486,784	PRIM	39.53	807,027	PRIM	124.8
Endrin Ketone	37.78	37.02-38.54	12,738,590	PRIM	38.03	13,024,530	PRIM	2.2
Tech. Chlordane	8.60	8.39-8.82	1,460,717	PRIM			PRIM	200.0
alpha-Chlordane } NR								
gamma-Chlordane } NR								
Toxaphene	17.82	17.53-18.11	348,722	PRIM			PRIM	200.0
Aroclor-1016	4.22	4.05-4.39	800,925	PRIM			PRIM	200.0
Aroclor-1221	2.55	2.40-2.70	276,448	PRIM			PRIM	200.0
Aroclor-1232	4.22	4.04-4.40	278,267	PRIM			PRIM	200.0
Aroclor-1242	4.22	4.04-4.40	624,320	PRIM			PRIM	200.0
Aroclor-1248	4.22	4.11-4.33	444,708	PRIM			PRIM	200.0
Aroclor-1254	14.02	13.84-14.20	693,188	PRIM			PRIM	200.0
Aroclor-1260	20.20	20.00-20.40	791,981	PRIM			PRIM	200.0

003312

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case Number: 6641/6639 Laboratory: Gulf South Research Institute

Contract Number: 68-01-6959 GC Column: 3% SP-2100 GC Instrument 3

	Initial Calibration Series				Continuing Calibration Series			
	Date of Analysis: 01-03-87				Date of Analysis: 01-04-86			
	Time of Analysis: 11:00-14:53				Time of Analysis: 00:59-01:45			
	Laboratory I.D.: 3401A4-A9				Laboratory I.D.: 3401A22-A23			
Compound	Retention Time	Retention Time Window	Calib. Factor	Conf. or Quan.	Retention Time	Calib. Factor	Conf. or Quan.	Percent Diff.
alpha-BHC	2.05	2.01-2.09	7,150,600	CONF	2.07	7,261,000	CONF	1.5
beta-BHC	2.22	2.18-2.26	6,695,740	CONF	2.23	6,981,380	CONF	4.2
delta-BHC	2.53	2.49-2.57	7,365,000	CONF	2.55	7,440,800	CONF	1.0
gamma-BHC	2.47	2.43-2.51	9,312,050	CONF	2.48	9,360,050	CONF	0.5
Heptachlor	4.20	4.16-4.24	11,884,133	CONF	4.22	12,136,800	CONF	2.1
Aldrin	5.28	5.20-5.36	9,381,257	CONF	5.30	9,102,857	CONF	3.0
Heptachlor Epoxide	6.60	6.52-6.68	12,294,040	CONF	6.63	12,612,040	CONF	2.6
Endosulfan I	8.35	8.27-8.43	10,380,062	CONF	8.38	10,509,954	CONF	1.2
Dieldrin	9.92	9.84-10.00	9,198,657	CONF	9.95	9,316,229	CONF	1.3
4,4'-DDE	10.18	10.06-10.30	8,564,857	CONF	10.23	8,759,614	CONF	2.2
Endrin	11.10	10.98-11.22	8,672,904	CONF	11.15	9,184,112	CONF	5.7
Endosulfan II	11.37	11.25-11.49	20,093,050	CONF	11.42	20,497,588	CONF	2.0
4,4'-DDD	13.05	12.84-13.26	8,637,620	CONF	13.12	8,321,670	CONF	3.7
Endosulfan Sulfate	15.02	14.90-15.14	8,883,382	CONF	15.10	9,234,707	CONF	3.9
4,4'-DDT	17.55	17.43-17.67	4,970,865	CONF	17.65	5,484,355	CONF	9.8
Methoxychlor	27.60	27.40-27.80	4,154,492	CONF	27.72	4,609,255	CONF	10.4
Endrin Ketone	19.45	19.33-19.57	17,178,820	CONF	19.55	17,804,180	CONF	3.6
Tech. Chlordane	7.65	7.42-7.88	2,088,911	CONF			CONF	200.0
alpha-Chlordane } NR	CP							
gamma-Chlordane } NR								
Toxaphene	12.28	12.01-12.55	8,003,892	CONF			CONF	200.0
Aroclor-1016	3.67	3.50-3.84	1,545,015	CONF			CONF	200.0
~~Aroclor-1221~~				~~CONF~~			~~CONF~~	
~~Aroclor-1232~~			CP	~~CONF~~			~~CONF~~	
~~Aroclor-1242~~				~~CONF~~			~~CONF~~	
~~Aroclor-1248~~				~~CONF~~			~~CONF~~	
Aroclor-1254	12.70	12.45-12.95	1,630,359	CONF			CONF	200.0
Aroclor-1260	15.28	15.02-15.54	1,454,394	CONF			CONF	200.0

003313

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case Number: 6641/6639 Laboratory: Gulf South Research Institute

Contract Number: 68-01-6959 GC Column: 3% SP-2100 GC Instrument 3

	Initial Calibration Series				Continuing Calibration Series			
	Date of Analysis: 01-03-87				Date of Analysis: 01-01-87			
	Time of Analysis: 11:00-14:53				Time of Analysis: 08:44-12:37			
	Laboratory I.D.: 340104-09				Laboratory I.D.: 340102-037			
Compound	Retention Time	Retention Time Window	Calib. Factor	Conf. or Quan.	Retention Time	Calib. Factor	Conf. or Quan.	Percent Diff.
alpha-BHC	2.05	2.01-2.09	7,150,600	CONF	2.07	7,256,267	CONF	1.5
beta-BHC	2.22	2.18-2.26	6,695,740	CONF	2.23	6,845,600	CONF	2.2
delta-BHC	2.53	2.49-2.57	7,365,000	CONF	2.57	7,528,160	CONF	2.2
gamma-BHC	2.47	2.43-2.51	9,312,050	CONF	2.48	9,277,250	CONF	0.4
Heptachlor	4.20	4.16-4.24	11,884,133	CONF	4.23	12,066,000	CONF	1.5
Aldrin	5.28	5.20-5.36	9,381,257	CONF	5.33	9,364,657	CONF	0.2
Heptachlor Epoxide	6.60	6.52-6.68	12,294,040	CONF	6.67	12,467,560	CONF	1.4
Endosulfan I	8.35	8.27-8.43	10,380,062	CONF	8.43	10,261,985	CONF	1.1
Dieldrin	9.92	9.84-10.00	9,198,657	CONF	9.98	9,431,814	CONF	2.5
4,4'-DDE	10.18	10.06-10.30	8,564,857	CONF	10.28	9,528,986	CONF	10.7
Endrin	11.10	10.98-11.22	8,672,904	CONF	11.20	8,753,280	CONF	0.9
Endosulfan II	11.37	11.25-11.49	20,093,050	CONF	11.47	20,684,313	CONF	2.9
4,4'-DDD	13.05	12.84-13.26	8,637,620	CONF	13.17	7,925,350	CONF	8.6
Endosulfan Sulfate	15.02	14.90-15.14	6,883,382	CONF	15.17	8,761,444	CONF	1.4
4,4'-DDT	17.55	17.43-17.67	4,970,865	CONF	17.72	5,331,170	CONF	7.0
Methoxychlor	27.60	27.40-27.80	4,154,492	CONF	27.83	4,719,767	CONF	12.7
Endrin Ketone	19.45	19.33-19.57	17,178,820	CONF	19.63	17,027,180	CONF	0.9
Tech. Chlordane	7.65	7.42-7.88	2,088,911	CONF	7.73	2,027,846	CONF	3.0
alpha-Chlordane } NR								
gamma-Chlordane }								
Toxaphene	12.28	12.01-12.55	800,392	CONF	12.40	797,108	CONF	0.4
Aroclor-1016	3.67	3.50-3.84	1,545,015	CONF	3.70	1,591,428	CONF	3.0
~~Aroclor-1221~~				~~CONF~~			~~CONF~~	
~~Aroclor-1232~~				~~CONF~~			~~CONF~~	
~~Aroclor-1242~~				~~CONF~~			~~CONF~~	
~~Aroclor-1248~~				~~CONF~~			~~CONF~~	
Aroclor-1254	12.70	12.45-12.95	1,630,359	CONF	12.82	1,691,198	CONF	3.7
Aroclor-1260	15.28	15.02-15.54	1,454,394	CONF	15.43	1,583,547	CONF	8.5

NR

CP

FORM IX

003314

Pesticide/PCB Identification

Case No. 6639

Laboratory Gulf South Research Institute

Contract No. 68-01- 6959

SAMPLE ID	PRIMARY COLUMN	PESTICIDE/ PCB	RT OF TENTATIVE ID	RT WINDOW OF APPROPRIATE STANDARD	CONFIRMATION COLUMN	RT ON CONFIRMATORY COLUMN	RT WINDOW OF APPROPRIATE STANDARD	GC/MS CONFIRMED (Y or N)
FD-256	1.59, 22DD 1.95, 24DD	4,4'-DDD	17.07	16.86-17.30	3% SP-2100	12.95	12.84-13.26	N

4/84

FORM X 003315

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 6639 **Contractor** Gulf South Research Inst. **Contract No.** 68-01-6959

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. FD-257	1,1-Dichloroethene	50	0	48	96	49	98	2	14	61-145
	Trichloroethene			45	90	44	88	2	14	71-120
	Chlorobenzene			50	100	51	102	2	13	75-130
	Toluene			45	90	45	90	0	13	76-125
	Benzene			48	96	47	94	2	11	76-127
B/N SMO SAMPLE NO. FD-255	1,2,4-Trichlorobenzene	100	0	84	84	76	76	8	28	39-98
	Acenaphthene			93	93	85	85	8	31	46-118
	2,4 Dinitrotoluene			90	90	84	84	6	38	24-96
	Pyrene			94	93	85	84	9	31	26-127
	N-Nitroso-Di-n-Propylamine		0	97	97	90	90	7	38	41-116
	1,4-Dichlorobenzene			74	74	67	67	7	28	36-97
ACID SMO SAMPLE NO. FD-255	Pentachlorophenol	200		173	87	158	79	8	50	9-103
	Phenol		2	169	84	159	*79	5	42	12-89
	2-Chlorophenol		0	195	98	188	94	4	40	27-123
	4-Chloro-3-Methylphenol			185	93	175	88	5	42	23-97
	4-Nitrophenol			148	74	142	71	3	50	10-80
PEST SMO SAMPLE NO. FD-255	Lindane	0.40	0.30	0.73	107	0.77	117	5.35 spec	15	56-123
	Heptachlor	0.40	0.00	0.50	125	0.50	125	0.0	20	40-131
	Aldrin	0.40	0.00	0.27	67	0.29	72	7	22	40-120
	Dieldrin	1.00	0.00	1.09	109	1.20	120	10	18	52-126
	Endrin	1.00	0.00	1.32	132	1.34	134	1	21	56-121
	4,4'-DDT	1.00	0.00	0.78	78	0.77	77	1	27	38-127

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID 0 out of 5; 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 2 out of 12; outside QC limits

Comments:

DC-12-6-6639

7/85

FORM III

003316

DC-15-6-6639

GULF SOUTH RESEARCH INSTITUTE
Post Office Box 26518 New Orleans, Louisiana 70186 Telephone (504) 283-4223

December 15, 1986

Ms. Linda Boynton, Group Leader
U.S. Environmental Protection Agency
CLP Sample Management Office
P.O. Box 818
Alexandria, VA 22313

Subject: EPA Contract No. 68-01-6959
GSRI Project No. 3280-3008

Dear Ms. Boynton:

Please find enclosed all original "Organic Traffic Reports (OTR)" and copies of the chain-of-custody forms for the recent shipments of samples as outlined below.

Case Number	Region	Date Rec'd	Number Samples
6641	10	12/10/86	5
6641	10	12/11/86	3
6641	10	12/12/86	3
6641	10	12/13/86	7
6639	6	12/13/86	3

Please do not hesitate to call if you have any questions.

Sincerely,

Cindy Palazzo

Cindy Palazzo
Report Center Manager

CP:my
Enclosures

003317

c.P

In Reference to Case No(s): 6639

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 12/30

Laboratory Name: GSRI

Lab Contact: RICH WAITNEY

Region: VI - Houston

Regional Contact: MEL RITTER

Call Initiated By: ✓ Laboratory ___ Region

In reference to data for the following sample number(s):

CASE 6639 SAMPLE FD 256

Summary of Questions/Issues Discussed:

HIGH LEVEL OF CREOSOTE/PNAS IN WATER SAMPLE. FURTHER DILUTIONS WILL MAKE SUROGATES NOT RECOVERABLE
25 ML OF WATER SAMPLE EXTRACTED & DILUTED 1:10 AFTERWARD STILL GIVES V. HIGH PEAKS — WHAT DO TO NOW?

Summary of Resolution:

REG VI RESPONSE TO LAB (1) DILUTE SAMPLE FURTHER AS REQUIRED TO 1:100
(2) INCLUDE DATA FROM 1:10 DILUTION AS WELL
(3) EXPLAIN ALL ACTIONS IN NARRATIVE
(4) WISHED LAB HAPPY NEW YEAR

Signature: Mel Ritter Date: 12/30/86

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

003318

In Reference to Case No(s): 6639

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 12/30/86

Laboratory Name: GSRI

Lab Contact: RR Whitney

Region: VI

Regional Contact: Dr M. Ritter

Call Initiated By: ✓ Laboratory ___ Region

In reference to data for the following sample number(s):
FD-256

Summary of Questions/Issues Discussed:
Water sample - should be high-very contaminated. should we reextract or redilute?

Summary of Resolution:
Dilute 1:100 and include 1:10 and 1:100 dilutions in the data package.

Signature: [illegible] Date: 12/30/86

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy
Henderson, Whitney, ~~Kowalski, Troost~~, Palazzo, Contracts
DOSS, SPIERS,

003319

DC-16-6-6639

Gulf South Research Institute
Case 6639

EPA Contract No. 68-01-6959

NARRATIVE

Case 6639 consisted of three (3) water samples which were received by Gulf South Research laboratory on December 13, 1986, and logged in as GSRI Episode VD. The samples were identified as follows:

FD-255 FD-256 FD-257

The samples were analyzed for Volatile organics, Semivolatile organics, and Pesticide/PCB's.

Samples FD-255 and FD-257 were analyzed with no problems. Sample FD-256 was highly contaminated and problems were encountered in the analysis of all fractions as discussed below.

- The volatiles fraction was run at 1:5 dilution. No problems were encountered, but carryover of naphthalene was noted in several blanks after the original analysis.

- The pesticides fraction showed numerous peaks and extreme carryover (late eluting peaks for over 2 hours after the run). Substantial DBC interference was encountered.

- A 25 ml portion of the sample was extracted for the semivolatiles analysis. The corresponding extract was run undiluted and at 1:10 and 1:100 dilutions. High concentrations of numerous HSL and non-HSL PNA's were encountered.

This case was used to try new protocol (10/86) designations for standards, blanks, etc. In all instances, the standards and blanks were identified by the long (old) notations as well as the coded (new) notations, so no confusion should arise in data evaluation.

Richard R. Whitney, Ph.D.
GC/MS Laboratory Manager

003320

ANALYTICAL CHEMISTRY DEPARTMENT

PERSONNEL SIGNATURE RECORD

NAME	POSITION	DATE	SIGNATURE	INITIALS
James Henderson	Project Manager	8/29/86	James E. Henderson	JEH
Richard Whitney	GC/MS Lab Manager	8/29/86	Richard Whitney	RW
K.M. Bagawandoss	Senior Research Chemist	8/29/86	K.M. Bagawandoss	KMB
Cindy Palazzo	Report Center Manager	8/29/86	Cindy Palazzo	CP
Maude Young	Administrative Assistant	8/29/86	Maude Young	MY
Valerie Ybarzabal	Administrative Assistant	8/29/86	Valerie Ybarzabal	VY
Steve Ruiz	GC Operator	8/29/86	Stephen B. Ruiz	SBR
Sylvia Leibe	Chemist	8/29/86	Sylvia Leibe	SL
Glynn E. Kron	Laboratory Technician	9/02/86	Glynn E. Kron	G.K.
Matthew Hebert	Laboratory Technician	8/29/86	Matt Hebert	MJH
Chris Schenk	Laboratory Technician	8/29/86	Chris J. Schenk	CS
Michael D. Stoehr	Laboratory Technician	9/29/86	Michael D. Stoehr	MDS

003321

GSRI-69b

ACD 1 R1 9/84
UPDATED: 8/29/86

Volatile Compounds

INSTRUMENT DETECTION LIMITS

(Page 1)

Laboratory Name: Gulf South Research Institute Case No: 6639

Data Release Authorized By: [signature] QC Report No: 236

Contract No: 68-01-6959

CAS Number		WATER (UG/L)	LOW SOIL (UG/KG)	MED SOIL (UG/KG)	HIGH LEVEL PROTOCOL (UG/KG)	NG ON-COLUMN
74-87-3	Chloromethane	4.0	4.0	500	2000	20
74-83-9	Bromomethane	4.0	4.0	500	2000	20
75-01-4	Vinyl Chloride	5.1	5.1	640	2600	26
75-00-3	Chloroethane	1.3	1.3	160	600	6
75-09-2	Methylene Chloride	2.0	2.0	250	1000	10
67-64-1	Acetone	3.7	3.7	460	1800	18
75-15-0	Carbon Disulfide	1.0	1.0	130	500	5
75-35-4	1, 1-Dichloroethene	1.0	1.0	130	500	5
75-34-3	1, 1-Dichloroethane	1.9	1.9	240	1000	10
156-60-5	Trans-1, 2-Dichloroethene	1.0	1.0	130	500	5
67-66-3	Chloroform	2.4	2.4	300	1200	12
107-06-2	1, 2-Dichloroethane	4.4	4.4	550	2200	22
78-93-3	2-Butanone	3.6	3.6	450	1800	18
71-55-6	1, 1, 1-Trichloroethane	1.1	1.1	140	600	6
56-23-5	Carbon Tetrachloride	0.5	0.5	63	200	2
108-05-4	Vinyl Acetate	5.9	5.9	740	3000	30
75-27-4	Bromodichloromethane	4.0	4.0	500	2000	20
78-87-5	1, 2-Dichloropropane	2.8	2.8	350	1400	14
10061-02-6	Trans-1, 3-Dichloropropene	2.5	2.5	310	1200	12
79-01-6	Trichloroethene	1.3	1.3	160	600	6
124-48-1	Dibromochloromethane	3.0	3.0	380	1500	15
79-00-5	1, 1, 2-Trichloroethane	3.0	3.0	380	1500	15
71-43-2	Benzene	1.7	1.7	210	800	8
10061-01-5	cis-1, 3-Dichloropropene	2.1	2.1	260	1000	10
110-75-8	2-Chloroethylvinylether	8.7	8.7	1100	4400	44
75-25-2	Bromoform	1.9	1.9	240	1000	10
591-78-6	4-Methyl-2-Pentanone	3.9	3.9	490	2000	20
108-10-1	2-Hexanone	5.0	5.0	630	2500	25
127-18-4	Tetrachloroethene	0.7	0.7	88	400	4
79-34-5	1, 1, 2, 2-Tetrachloroethane	2.0	2.0	250	1000	10
108-88-3	Toluene	1.1	1.1	140	600	6
108-90-7	Chlorobenzene	1.4	1.4	130	700	7
100-41-4	Ethylbenzene	0.8	0.8	100	400	4
100-42-5	Styrene	0.8	0.8	100	400	4
	o+p Xylenes	1.3	1.3	160	600	6
	m-Xylene	1.0	1.0	130	500	5

003322

Laboratory Name: Gulf South Research Institute

Case No: 4639

Semivolatile Compounds

INSTRUMENT DETECTION LIMITS

(Page 2) A

CAS Number		WATER (UG/L)	LOW SOIL (UG/KG)	MED SOIL (UG/KG)	HIGH LEVEL PROTOCOL (UG/KG)	NG ON-COLUMN
108-95-2	Phenol	1.3	22	1300	2600	1.3
111-44-4	bis(-2-Chloroethyl)Ether	2.3	40	2300	4600	2.3
95-57-8	2-Chlorophenol	0.4	7.4	420	840	0.4
541-73-1	1 3-Dichlorobenzene	0.8	13	760	1500	0.8
106-46-7	1 4-Dichlorobenzene	1.2	20	1200	2400	1.2
100-51-6	Benzyl Alcohol	1.9	34	1900	3800	1.9
95-50-1	1 2-Dichlorobenzene	0.8	14	800	1600	0.8
95-48-7	2-Methylphenol	1.6	28	1600	3200	1.6
39638-32-9	bis(2-chloroisopropyl)Ether	0.8	14	780	1600	0.8
106-44-5	4-Methylpheno	0.5	8.4	480	960	0.5
621-64-7	N-Nitroso-Di-n-Propylamine	3.0	52	3000	6000	3.0
67-72-1	Hexachloroethane	1.6	27	1600	3200	1.6
98-95-3	Nitrobenzene	12	210	12,000	24000	12
78-59-1	Isophorone	11	180	11,000	22000	11
88-75-5	2-Nitrophenol	8.8	160	8800	18000	8.8
105-67-9	2, 4-Dimethylphenol	8.3	150	8300	17000	8.3
65-85-0	Benzoic Acid	23	400	23,000	46000	23
111-91-1	bis(-2-Chloroethoxyl)Methane	9.8	170	9800	20000	9.8
120-83-2	2, 4-Dichlorophenol	9.8	170	9800	20000	9.8
120-82-1	1, 2, 4-Trichlorobenzene	9.8	170	9800	20000	9.8
91-20-3	Naphthalene	10	180	10,000	20000	10
106-47-8	4-Chloroaniline	40	700	40,000	80000	40
87-68-3	Hexachlorobutadiene	8.8	150	8800	18000	8.8
59-50-7	4-Chloro-3-Methylphenol	9.6	170	9600	19000	9.6
91-57-6	2-Methylnaphthalene	10	180	10,000	20000	10
77-47-4	Hexachlorocyclopentadiene	4.9	85	4900	9800	4.9
88-06-2	2, 4, 6-Trichlorophenol	1.7	29	1700	3400	1.7
95-95-4	2, 4, 5-Trichlorophenol	1.2	22	1200	2400	1.2
91-58-7	2-Chloronaphthalene	1.2	22	1200	2400	1.2
88-74-4	2-Nitroaniline	28	480	28,000	56000	28
131-11-3	Dimethyl Phthalate	0.9	16	900	1800	0.9
208-96-8	Acenaphthylene	1.5	27	1500	3000	1.5
99-09-2	3-Nitroaniline	19	330	19,000	38000	19

003323

Laboratory Name: Gulf South Research Institute

Case No: 4639

Semivolatile Compounds

INSTRUMENT DETECTION LIMITS

(Page 2) B

CAS Number		WATER (UG/L)	LOW SOIL UG/KG)	MED SOIL (UG/KG)	HIGH LEVEL PROTOCOL (UG/KG)	NG ON-COLUMN
83-32-9	Acenaphthene	0.5	9.0	520	1000	0.5
51-28-5	2, 4-Dinitrophenol	26	460	26,000	52000	26
100-02-7	4-Nitrophenol	28	480	28,000	56000	28
132-64-9	Dibenzofuran	0.12	2.1	120	240	0.12
121-14-2	2 4-Dinitrotoluene	4.7	82	4700	9400	4.7
606-20-2	2 6-Dinitrotoluene	2.5	44	2500	5000	2.5
84-66-2	Diethylphthalate	3.3	58	3300	6600	3.3
7005-72-3	4-Chlorophenyl-phenylether	1.1	19	1100	2200	1.1
86-73-7	Fluorene	0.4	7.0	400	800	0.4
100-01-6	4-Nitroaniline	16	270	16,000	32000	16
534-52-1	4, 6-Dinitro-2-Methylphenol	2.7	47	2700	5400	2.7
86-30-6	N-Nitrosodiphenylamine (1)	5.5	96	5500	11000	5.5
101-55-3	4-Bromophenyl-phenylether	2.8	48	2800	5600	2.8
118-74-1	Hexachlorobenzene	1.3	22	1300	2600	1.3
87-86-5	Pentachlorophenol	32	570	32,000	64000	32
85-01-8	Phenanthrene	1.4	24	1400	2800	1.4
120-12-7	Anthracene	1.1	19	1100	2200	1.1
84-74-2	Di-n-Butylphthalate	2.7	47	2700	5400	2.7
206-44-0	Fluoranthene	1.1	20	1100	2200	1.1
129-00-0	Pyrene	1.7	29	1700	3400	1.7
85-68-7	Butylbenzylphthalate	0.9	15	860	1700	0.9
91-94-1	3, 3'-Dichlorobenzidine	10	180	10,000	20000	10
56-55-3	Benzo(a)Anthracene	1.3	23	1300	2600	1.3
117-81-7	bis(2-Ethylhexyl)Phthalate	1.6	28	1600	3200	1.6
218-01-9	Chrysene	1.9	34	1900	3800	1.9
117-84-0	Di-n-Octyl Phthalate	9.1	160	9100	18000	9.1
205-99-2	Benzo(b)Fluoranthene	3.5	61	3500	7000	3.5
207-08-9	Benzo(k)Fluoranthene	3.8	66	3800	7600	3.8
50-32-8	Benzo(a)Pyrene	0.9	15	880	1800	0.9
193-39-5	Indeno(1, 2, 3-cd)Pyrene	4.7	83	4700	9400	4.7
53-70-3	Dibenz(a, h)Anthracene	8.0	140	8000	16000	8.0
191-24-2	Benzo(g, h, i)Perylene	8.6	150	8600	17000	8.6

003324

Laboratory Name Gulf South Research Institute

Case No 6639

Pesticide/PCBs

INSTRUMENT DETECTION LIMITS (GC/EC)

(Page 3)

CAS Number		WATER (ug/1)	LOW SOIL (ug/kg)	MED SOIL (ug/kg)	NG ON-COLUMN
319-84-6	Alpha-BHC	0.011	0.73	11	0.0028
319-85-7	Beta-BHC	0.002	0.16	2.4	0.0006
319-86-8	Delta-BHC	0.002	0.16	2.4	0.0006
58-89-9	Gamma-BHC (Lindane)	0.002	0.16	2.4	0.0006
76-44-8	Heptachlor	0.005	0.31	4.6	0.0012
309-00-2	Aldrin	0.013	0.86	13	0.0033
1024-57-3	Heptachlor Epoxide	0.029	2.00	29	0.0075
959-98-8	Endosulfan I	0.036	2.40	36	0.0093
60-57-1	Dieldrin	0.005	0.34	5.1	0.0013
72-55-9	4,4'-DDE	0.005	0.34	5.1	0.0013
72-20-8	Endrin	0.049	3.30	49	0.013
33213-65-9	Endosulfan II	0.009	0.58	8.7	0.0022
72-54-8	4,4'-DDD	0.062	4.10	36	0.0158
1031-07-8	Endosulfan Sulfate	0.091	6.10	92	0.232
50-29-3	4,4'-DDT	0.070	4.70	70	0.018
72-43-5	Methoxychlor	0.130	8.50	130	0.033
53494-70-5	Endrin Ketone	0.072	4.80	72	0.018
57-74-9	Chlordane	0.210	14.0	200	0.052
8001-35-2	Toxaphene	0.450	30.0	440	0.11
12674-11-2	Aroclor-1016	0.089	5.90	88	0.023
11104-28-2	Aroclor-1221	0.220	15.0	220	0.056
11141-16-5	Aroclor-1232	0.140	9.40	140	0.036
53469-21-9	Aroclor-1242	0.130	8.40	130	0.032
12672-29-6	Aroclor-1248	0.150	10.0	150	0.039
11097-69-1	Aroclor-1254	0.230	16.0	230	0.059
11096-82-5	Aroclor-1260	0.130	8.50	130	0.033

003325

Episode VD

Case 6639

Contract No. 68-01-6959

Date Received 12-13-86

VOLATILES CONTROL LOG

Extraction Date: 12-18-86

Extractor (s) M Khan

GSRI ID	CLIENT ID	MATRIX SOLID [11]	MATRIX WATER [12]	MATRIX LIQUID [13]	pH	% MOIST	DWF	SCREEN LOW [L]	SCREEN MED [M]	SCREEN HIGH [H]	VOLATILES (I) ANT USED (g or ml)	(II) MeOH EXTRACT VOL (ml)	(III) VOL OF MeOH Purged (ul)	SURR VOL ADDED (ul)*	MS SOLN ADDED (ul)*	GC/MS ANALYSIS DATE	ANALYST	QLF
VD01	FD-255	[ ]	[✓]	[ ]	7.41	—	—	[✓]	[ ]	[ ]	5	—	—	5	—	12-18-86	MK	1
VD05	FD-256	[ ]	[✓]	[ ]	6.65	—	—	[✓]	[ ]	[ ]	1	—	—	5	—	12-18-86	GK	5
VD09	FD-257	[ ]	[✓]	[ ]	6.93	—	—	[✓]	[ ]	[ ]	5	—	—	5	—	12-18-86	GK	1
		[ ]	[ ]	[ ]		—	—	[ ]	[ ]	[ ]								
VD09MS	FD-257MS	[ ]	[✓]	[ ]	6.93	—	—	[✓]	[ ]	[ ]	5	—	—	5	5	12-18-86	MK	1
VD09MSD	FD-257MSD	[ ]	[✓]	[ ]	6.93	—	—	[✓]	[ ]	[ ]	5	—	—	5	5	12-18-86	MK	1
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
VDBLK	—	[ ]	[✓]	[ ]	-	—	—	[✓]	[ ]	[ ]	5	—	—	5	—	12-18-86	MK	1
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
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		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								

Spike Levels:
Water and Low Soil
"BI" Surrogates = 50
Med Soil
"BI" Surrogates = $\frac{20 \times III}{I \times II}$
Matrix Spikes = 50 X QLF

Volatile QLF
Water = $\frac{5}{I}$
Low Soil = $\frac{5.00}{I} \times DWF$

Methanol Extractions = $\frac{5000 \times II \times DWF}{I \times II}$

*SURROGATE STD ID 803-76-VSS50

+MATRIX SPIKES ID 803-30-VMS50

ACD 38 R-2

003326

EPISODE VD

CASE 6639

CONTRACT NO. 68-01-6959

DATE RECEIVED 12/13/86

EXTRACTION DATE 12/16-17/86

SAMPLE EXTRACTION/ANALYSIS LOG

PAGE 1 OF 1

FRACTION: SV (✓)
PESTICIDES ( )

ACD 43

GSRI ID	CLIENT ID	Matrix/Level	pH	% MOIST	DWF	I Amt. Ext. g/ml	II INIT. Ext. Vol. (ml)	III Vol. For sv/p (ml)	VII Vol Taken For Alumina	VIII Vol After Alumina	V VOL. TAKEN FOR GPC (ml)	VI VOL AFTER GPC (mL)	IV FINAL EXT. VOL (ml)	SCREEN Y/N	SURR. (ul) sv/p	M.S. (ul) sv/p	ANALYSIS DIL.	ANAL. DATE	ANAL. INIT.	QLF NF	Comments
VD-BLK (H2O)	—	W/L	—	—	—	1000	1	1	—	—	—	—	1	N	100	—		12/24	SL	1	
VD-03	FD-255		7.41	—	—	500			—	—	—	—				—		12/29	SL	2	
VD-03MS				—	—	500			—	—	—	—				BNMS 50/100				2	
VD-03MSD				—	—	500			—	—	—	—				50/100				2	
~~VD-07~~	~~FD-256~~		~~6.65~~	—		~~1000~~										—					
VD-11	FD-257		6.93	—	—	~~1~~ 1000			—	—	—	—				—		12/24	SL	1	
VD-07 RX	FD-256	W/L	6.65	—	—	25			—	—	—	—		N	100	—	YES	12/29	SL	40	DILUTED 1:10 THEN REDILUTED 1:10
VD SPIKE CK	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	50/100		NA			IN 750 ml CH_2Cl_2

SV/P: SEMIVOLATILES/PESTICIDES
A/C/P: ALUMINA/GPC/FLORISIL
QLF: QUAN LIST FACTOR
NF: NELSON FACTOR
LEVEL: LOW (L), MEDIUM (M), HIGH (H)
SV: BASE NEUTRALS AND ACIDS

For the Levels:
"B1" Acid Surrogates = ul x 2-II x IV / III
"B2" BN Surrogates = ul Added x 1- II x IV / III
MATRIX SPIKES = ul ADDED x QLF
(For Water Samples = DWF, II and III = 1.0)

SEMIVOLATILE QLF:
Water = 1000 / I
SOLID OR LIQUID = 1000 x II x IV x DWF / I x III

FOR HIGH CONC.:
SOLID OR LIQUID = 1000 x II x VI x DWF / I x V x IV

Initials of Extraction Leader MDS Assistants: LS

Initials of Sample Cleanup Leader _____ Assistants: _____

Initials of Surrogate Spiker MDS Verifier [signature]

Initials of Matrix Spike Spiker MDS Verifier [signature]

SURROGATES ID/CONC: 803-53 SVSS

MATRIX SPIKE SOLN ID/CONC: 803-57 BNMS 1000
803-73 AMS 1000

003327

EPISODE VD

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PAGE 1 OF 1

FRACTION: SV ( ) PESTICIDES (✓)

ACD 43

GSRI ID	CLIENT ID	Matrix/Level	pH	% MOIST	DWF	I Amt. Extd. g/ml	II INIT. Ext. Vol. (ml)	III Vol. For sv/p (ml)	VII Vol Taken for Alumina	VIII Vol After Alumina	V VOL. TAKEN FOR GPC (ml)	VI VOL AFTER GPC (mL)	IV FINAL EXT. VOL (ml)	SCREEN Y/N	SURR. (ul) sv/p	M.S. (ul) sv/p	ANALYSIS DIL.	ANAL. DATE	ANAL. INIT.	QLF NF	Comments
H_2O VD-Blk	—	W/L	—	—	—	1000	10	1	—	—	—	—	1	N	25	—	1	12/31/86	SGR	NA	
VD-04	FD-255	↓	7.41	—	—	500			—	—	—	—		↓	↓	—	1	1/1/87	↓	↓	
VD-04MS	↓	↓	↓	—	—	↓			—	—	—	—		↓	↓	50		1/1/87	↓	↓	
VD-04MSD	↓	↓	↓	—	—	↓			—	—	—	—		↓	↓	50		1/1/87	↓	↓	
VD-07	FD-256	↓	6.65	—	—	1000			—	—	—	—		↓	↓	—		1/2/87	↓	↓	
VD-11	FD-257	↓	6.93	—	—	↓			—	—	—	—		↓	↓	—		1/1/87	↓	↓	
VDSPIKE CK	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	50					IN 925 hexane

SV/P: SEMIVOLATILES/PESTICIDES
A/C/P: ALUMINA/GPC/FLORISIL
QLF: QUAN LIST FACTOR
WF: NELSON FACTOR
LEVEL: LOW (L), MEDIUM (M), HIGH (H)
SV: BASE NEUTRALS AND ACIDS

Spike Levels:
"S1" Acid Surrogates = ul x I-II x IV / III
"S1" BN Surrogates = ul added x I- II x IV / III
MATRIX SPIKES = ul ADDED x QLF
(For Water Samples = DWF, II and III = 1.0)

SEMIVOLATILE QLF:
Water = 1000 / I
SOLID OR LIQUID = 1000 x II x IV x DWF / I x III

FOR HIGH CONC.:
SOLID OR LIQUID = 1000 x II x VI x DWF / I x V x IV

SURROGATES ID/CONC: 803-47 DBC 40

Initials of Extraction Leader MDS Assistants: LS ____ ____

Initials of Sample Cleanup Leader ____ Assistants: ____ ____ ____

Initials of Surrogate Spiker MDS Verifier LS

Initials of Matrix Spike Spiker MDS Verifier LS

MATRIX SPIKE SOLN ID/CONC: 803-52 PMS

003328

VOLATILE CALCULATION SHEET

Water (low and medium level)
Concentration ug/L

$$= \frac{(A_x)(I_s)(V_t^*)}{(A_{is})(RF)(V_i)(W_s)(D)}$$

Where:

A_x = Area of the characteristic ion for the compound to be measured.

A_{is} = Area of the characteristic ion for the specific internal standard from Exhibit E.

I_s = Amount of internal standard added in nanograms (ng)

V_o = Volume of water purged in milliliters (mL) (take into account any dilutions)

Sediment/Soil (medium level)

Concentration ug/kg

$$= \frac{(A_x)(I_s)(V_t)}{(A_{is})(RF)(V_i)(W_s)(D)}$$

Sediment/Soil (low level) ug/kg

$$= \frac{(A_x)(I_s)(V_t)}{(A_{is})(RF)(W_s)(D)}$$

(Dry weight basis)

Where:

A_x, I_s, A_{is} = same as water above

V_t = Volume of total extract (uL, use 10,000 uL or a factor of this when dilutions made.

V_i = Volume of extract added (uL) for purging

D = $\frac{100 - \%\ \text{moisture}}{100}$

W_s = Weight of sample extracted (gm) or purged

003329

SEMI-VOLATILE CALCULATION SHEET

Water

$$\text{Concentration (ug/L)} = \frac{(A_x)(I_s)(V_t)}{(A_{is})(RF)(V_o)(V_i)}$$

A_x = Area of the characteristic ion for the compound to be measured

A_{is} = Area of the characteristic ion for the internal standard

I_s = Amount of internal standard injected in nanograms (ng).

V_o = Volume of water extracted in milliliters (mL) (take into account any dilutions)

V_t = Volume of total extract (Use 2000 uL or a factor of this when dilutions are made. The 200 ul is derived from combining half of the 1 mL BN extract and half of the 1 mL A extract.)

Sediment/soil

$$\text{Concentration (ug/Kg)} = \frac{(A_x)(I_s)(V_t)}{(A_{is})(RF)(V_i)(W_s)(D)}$$

(Dry weight basis)

Where:

A_x, I_s, A_{is} = Same as water above

V_t = Volume of low level total extract (use 1000 uL or a factor of this when dilutions are made. If GPC cleanup is used the volume is 2000 uL. The 1000 uL is derived from concentrating the 8 mL extract to 0.8 mL.)

or V_t = Volume of medium level extract (use 2000 uL or a factor of this when dilutions are made. The 2000 uL is derived from concentrating 5 mL of the 10 mL extract to 1 mL.

V_i = Volume of extract injected (uL)

D = $\frac{100 - \%\ \text{moisture}}{100}$

W_s = Weight of sample extracted (grams)

PESTICIDE/PCB CALCULATION SHEET

Water

Concentration ug/L = $\frac{(A_x)(I_s)(V_t)}{(A_s)(V_i)V_s)}$

Where:

A_x = Response for the parameter to be measured.
A_s = Response for the external standard.
V_t = Volume of total extract (uL) (take into account any dilutions)
I_s = Amount of standard injected in nanograms (ng)
V_i = Volume of extract injected (uL)
V_s = Volume of water extracted (mL)

Sediment/Soil

Concentration (Dry weight basis) ug/Kg = $\frac{(A_x)(I_s)(V_t*)}{(A_s)(V_i)(W_s)(D)}$

Where:

A_x, I_s, A_s, V_i = same as above

V_t* = Volume of total extract (use 5,000 uL or a factor of this when dilutions are made other than those accounted for below):

- o 1/5 total extract taken for pesticide analysis
- o final dilution to 1.0 mL for pesticide analysis

D = $\frac{100 - \%\ \text{moisture}}{100}$

W_s = Weight of sample extracted (gm)

003331

GSRI Sample Control EPA Case #6639

EPA-HSL SAMPLE RECEIPT CHECKLIST

This checklist has been prepared to insure that samples received are processed as soon as possible so that technicians can readily initiate preparation, screening and analysis and also to insure that documents required for subsequent submissions will be in place when needed.

INITIAL EACH ITEM AS COMPLETED

MJH (1) Open shipping container under the hood in lab 205. Wear gloves and take safety precautions. Retain EPA custody seals and sign/date them. (Item 8 below will deal with seal disposition.)

MJH (2) Review any attached paperwork for special instructions.

MJH (3) Verify that the Case # is that which was recorded on the "Sample Alert Form" (ACD 12) which is posted on the bulletin board.

MJH (4) Complete the enclosed "Chain of Custody" form. Make sure to sign the "Received at Laboratory by" area and draw a continuous arrow from the last signature through all other signature boxes to your name.

MJH (5) Stamp each "Organic Traffic Report" (OTR) and complete the OTR by noting the following. Later in this form (Item 12) you will be reminded to mail a copy.

--whether ice was present NO
--condition of shipping and bottle custody seals Ø Shipping seals. 12 bottle seals intact
--whether any bottles broken NO
--whether an EPA tag is on each bottle yes.
--whether shipment documents, labels, etc are accurate, complete and internally consistent. accurate

MJH (6) Enter the samples into the GSRI "Sample Receipt and Log-In Book" and enter the GSRI number onto each sample bottle.

NA (7) Soil Samples - Transfer some soil to a VOA bottle, (if not sent) fill bottle 1/2 full. Store in VOA refrigerator.

MJH (8) Put samples in the "Sample" refrigerator (Lab 204). (Exercise care in transfer as a stiff financial penalty exists for each sample broken.) VOA Samples (i.e. small bottles) go in the "VOA" refrigerator (Lab 202).

MJH (9) Enter samples onto the computer. Note that due date is 30 days from sample receipt. Also enter extraction date as 5 days from receipt and VOA analysis completion date as 7 days from receipt. Also note on the form whether the sample is low, medium or high level if known (as reported on the OTR perhaps).

003332

REPORT PREPARATION CHECK FORM

(Initial box when complete)

Episode #: VB Case #: 6639 SAS #: _____ Report #: 236

I. SUMMARY DATA PACKAGE

	Per Case
A. Cover page	mlf
B. Samples - Organic Analysis Data Sheets (Form I, pg 1-4)	mlf
C. Surrogate Recovery Summary Sheet (Form II)	cp
D. Matrix Spike Duplicate/Recovery (Form III)	cp
E. Reagent Blank Summary (Form IV)	cp
F. Blanks - Organic Analysis Data Sheets (Form I, pg 1-4)	mlf
REPORT COVER PAGE	mlf

II. NARRATIVE

A. Title Sheet	mlf
B. Narrative text (case #, contract #, sample #s, summary of any QC sample, shipment and analytical problems, original signature of Lab Mgr.)	cp
C. Signature initial sheet (Form ACD 1)	mlf

III. QC SUMMARY

	VOA	A/B/N	Pest	Per Case
A. Title Page				mlf
B. Surrogate Recovery (Form II)	cp	cp	cp	
C. Matrix Spike/Dup Summary (Form III)	↓	↓	↓	
D. Reagent Blank Summary (Form IV)	↓	↓	↓	
E. GC/MS Tuning and Calibration Std.				
1. DFTPP (Form V)	mlf	mlf		
2. BFB (Form V)				

IV. SAMPLE DATA PACKAGE

A. Title Sheet				mlf
B. Calculation Sheet				mlf
C. Samples - Organic Analysis Data Sheet (Form I, pg 1-3)	mlf	mlf	cp	
C. Samples - Tentative ID Sheet (Form I, pg 4)	mlf	mlf	cp	
D. Sample raw data - (chros, printouts, HSL spectra, non HSL library data)	mlf	mlf	cp	
E. Organic Traffic Report				mlf

003333

GGRI-81g

EPA-HSL
Contract

SAMPLE ALERT FORM

GSRI 3280-3008
EPA 68-01-6959

Case # 6639
(Episode) VD

No. Samples 4 3 per sp
Matrix # Solid: 4 # Liquid: 0 3 cyl 2.5 gal

Date Expected 12/11 or 12/86

Client (region) Region VI
Date GSRI Contacted 12/3/86 GSRI Individual Contacted C. Palazzo
Client Contact T. Nesky

Notes/Comments:

1. low concentration
2. Bid lot 1
3. 30 day turnaround
4. full analysis

Distribution:

Guthrie
Henderson
Leibe
Whitney

Bulletin Board
Palazzo (2)
'Alert' File (DCO)

Alert Form prepared by: C. Palazzo Date 12/3/86

GSRI-71m

ACD 12-R1 4/84

003334