FILE

CASE # 6619
EPA ID # TXD980810386
NAME : ~~NORTH~~ CAVALCADE
SOUTH

1012277

003156

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Organics

CHAIN OF CUSTODY RECORD

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

PROJ. NO.: 6619
PROJECT NAME: North Cavalcade # 141
SAMPLERS: (Signature) M. Edgar T. St Clair

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	40ml glass VOA	80 oz glass extractable					EPA #	REMARKS Tag #
~~OW16~~ OW15	12/2/86	1033		–	NCS-OW-OW15-001	4	2	2					FD019	6-21059, 6-21060, 6-21061, 6-21062
OW16	↓	1017		–	NCS-OW-OW16-001	4	2	2					FD601	6-21065, 6-21066, 6-21067, 6-21068
OW16	↓	1427		–	NCS-OW-OW16-099	2	2						FD602	6-21069, 6-21070

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Michael Edgar	12/02/86 1438				
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 Hebert	12-3-86 9:30		

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

6619-2-2

003157

6—8724

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office

ORGANICS TRAFFIC REPORT

Sample Number: FD 019

① Case Number: 6619

Sample Site Name/Code:

② SAMPLE CONCENTRATION (Check One)

✓ Low Concentration
___ Medium Concentration

③ SAMPLE MATRIX (Check One)

✓ Water
___ Soil/Sediment

④ Ship To: GSP
5010 LeRay Jay
New Orleans LA
Attn: Andy Dukatto
Transfer
Ship To: DC-5-6-6679

⑤ Regional Office: Dallas
Sampling Personnel:
M. Edgar (Name)
(Phone)
Sampling Date:
12/2/86 (Begin) 12/2/86 (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	960 cc
Water (VOA)	2	40 ml
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑪ Analysis Lab:
Rec'd by: M. Robert
Date Rec'd: 12-3-86
Sample Condition on Receipt (e.g., broken, no ice, Chain-of-Custody, etc.)

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

⑦ Shipping Information
FedEx
Name of Carrier
12/2/86
Date Shipped:
[illegible]
Airbill Number:

⑧ Sample Description

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

⑨ Sample Location
Observation Well
OW-15

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

LAB FILE COPY

003158

U S ENVIRONMENTAL PROTECTION AGENCY HWI Sampling Management Office

ORGANICS TRAFFIC REPORT

TD 601

① **Case Number:** 1c1c19

Sample Site Name/Code:

② **SAMPLE CONCENTRATION** (Check One)

✓ Low Concentration
___ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

✓ Water
___ Soil/Sediment

④ **Ship To:** GSP
5010 LeRoy Johnson
New Orleans LA
70126
Attn: Andy Paterson
Transfer
Ship To:

⑤ **Regional Office:** Dallas

Sampling Personnel:
M. Edgar
(Name)
512/3[illegible]
(Phone)

Sampling Date:
12/02/86 12/[illegible]/86
(Begin) (End)

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

	Number of Containers	Approximate Total Volume
Water (Extractable)	2	8 oz
Water (VOA)	2	40 ml
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑪ **Analysis Lab:**
Rec'd by: M Meheut
Date Rec'd: 12-3-86
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**

Fed Ex
Name of Carrier

12/02/86
Date Shipped:

[illegible]
Airbill Number:

⑧ **Sample Description**

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

⑨ **Sample Location**

NCS-OW-OW16-001

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

LAB FILE COPY

003159

003159

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

ORGANICS TRAFFIC REPORT

Sample Number: D 602

① **Case Number:** 1619

Sample Site Name/Code:

② **SAMPLE CONCENTRATION** (Check One)

✓ Low Concentration
___ Medium Concentration

③ **SAMPLE MATRIX** (Check One)

✓ Water
___ Soil/Sediment

④ **Ship To:** CSC
5010 Kelly Johnson
New Orleans, LA

Attn: Andy Palotto

Transfer
Ship To:

⑤ **Regional Office:** Dallas

Sampling Personnel:
M. Tabor
(Name)
[illegible]
(Phone)

Sampling Date:
12/2/86 12/2/86
(Begin) (End)

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

	Number of Containers	Approximate Total Volume
Water (Extractable)		
Water (VOA)	2	40ml
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑪ **Analysis Lab:**
Rec'd by: M. [illegible]
Date Rec'd: 12-3-86
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?	✓	
WITH COMMENTS:		

⑦ **Shipping Information**

FedEx
Name of Carrier

12/2/86
Date Shipped:

[illegible]
Airbill Number:

⑧ **Sample Description**

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

⑨ **Sample Location**

Trip Blank

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

LAB FILE COPY

003160

003160

DC-7-6-6619

Sample Number
FD-019

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: V0UY01
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6619
QC Report No: 233
Contract No: 68-01-6959
Date Sample Received: 12/03/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/03/86
Conc/Dil Factor: 1. pH 6.78
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	33. B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	4.9BJ	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	2.9BJ	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	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 1

003161

Laboratory Name: G S R I
Case No: 6619

Sample Number
FD-019

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
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
108-95-2	Phenol	3.2J
111-44-4	bis(2-Chloroethyl)Ether	10. U
95-57-8	2-Chlorophenol	10. U
541-73-1	1,3-Dichlorobenzene	10. U
106-46-7	1,4-Dichlorobenzene	10. U
100-51-6	Benzyl Alcohol	10. U
95-50-1	1,2-Dichlorobenzene	10. U
95-48-7	2-Methylphenol	10. U
39638-32-9	bis(2-Chloroisopropyl)Ether	10. U
106-44-5	4-Methylphenol	10. U
621-64-7	N-Nitroso-Di-n-Propylamine	10. U
67-72-1	Hexachloroethane	10. U
98-95-3	Nitrobenzene	10. U
78-59-1	Isophorone	10. U
88-75-5	2-Nitrophenol	10. U
105-67-9	2,4-Dimethylphenol	10. U
65-85-0	Benzoic Acid	50. U
111-91-1	bis(2-Chloroethoxy)Methane	10. U
120-83-2	2,4-Dichlorophenol	10. U
120-82-1	1,2,4-Trichlorobenzene	10. U
91-20-3	Naphthalene	7.3J
106-47-8	4-Chloroaniline	10. U
87-68-3	Hexachlorobutadiene	10. U
59-50-7	4-Chloro-3-Methylphenol	10. U
91-57-6	Methylnapthalene	10. U
77-47-4	Hexachlorocyclopentadiene	10. U
88-06-2	2,4,6-Trichlorophenol	10. U
95-95-4	2,4,5-Trichlorophenol	50. U
91-58-7	2-Chloronaphthalene	10. U
88-74-4	2-Nitroaniline	50. U
131-11-3	Dimethyl Phthalate	10. U
208-96-8	Acenaphthylene	10. U
99-09-2	3-Nitroaniline	50. U

CAS Number		UG/L
83-32-9	Acenaphthene	2.3J
51-28-5	2,4-Dinitrophenol	50. U
100-02-7	4-Nitrophenol	50. U
132-64-9	Dibenzofuran	10. U
121-14-2	2,4-Dinitrotoluene	10. U
606-20-2	2,6-Dinitrotoluene	10. U
84-66-2	Diethylphthalate	10. U
7005-72-3	4-Chlorophenyl-phenylether	10. U
86-73-7	Fluorene	10. U
100-01-6	4-Nitroaniline	50. U
534-52-1	4,6-Dinitro-2-Methylphenol	50. U
86-30-6	N-Nitrosodiphenylamine (1)	10. U
101-55-3	4-Bromophenyl-phenylether	10. U
118-74-1	Hexachlorobenzene	10. U
87-86-5	Pentachlorophenol	50. U
85-01-8	Phenanthrene	10. U
120-12-7	Anthracene	10. U
84-74-2	Di-n-Butylphthalate	10. U
206-44-0	Fluoranthene	10. U
129-00-0	Pyrene	10. U
85-68-7	Butylbenzylphthalate	10. U
91-94-1	3,3'-Dichlorobenzidine	20. U
56-55-3	Benzo(a)Anthracene	10. U
117-81-7	bis(2-Ethylhexyl)Phthalate	2.7J
218-01-9	Chrysene	10. U
117-84-0	Di-n-Octyl Phthalate	10. U
205-99-2	Benzo(b)Fluoranthene	10. U
207-08-9	Benzo(k)Fluoranthene	10. U
50-32-8	Benzo(a)Pyrene	10. U
193-39-5	Indeno(1,2,3-cd)Pyrene	10. U
53-70-3	Dibenz(a,h)Anthracene	10. U
191-24-2	Benzo(g,h,i)Perylene	10. U

(1) - Cannot be separated from diphenylamine

Form I

003162

Laboratory Name Gulf South Research Institute

Case No 6619

Sample Number
FD-019

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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

003163

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number
FD-019

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	N/I	SVOA	365	30J
3. NA	N/I	SVOA	738	14J
4. NA	N/I	SVOA	1418	80J
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

003164

Sample Number
FD-601

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VGUY05
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6619
QC Report No: 233
Contract No: 68-01-6959
Date Sample Received: 12/03/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/03/86
Conc/Dil Factor: 1. pH 6.40
Percent Moisture: (Not Decanted) NA

003165

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	11.	79-01-6	Trichloroethene	5.0U
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane . . .	5.0U
75-09-2	Methylene Chloride	23. B	79-00-5	1,1,2-Trichloroethane . .	5.0U
67-64-1	Acetone	12. B	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	2.1J	75-25-2	Bromoform	5.0U
156-60-5	Trans-1,2-Dichloroethene .	130.	108-10-1	4-Methyl-2-Pentanone . . .	10. U
67-66-3	Chloroform . . . . . 2.8 ~~2.9~~BJ		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 E I
Case No: 6619

Sample Number
FD-601

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
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	6.0J
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

003166

Laboratory Name Gulf South Research Institute

Case No 6619

Sample Number FD-601

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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

003167

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number: FD-601

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	N/I	SVOA	507	1200 J
3. NA	UNK HC	SVOA	637	200 J
4. NA	N/I	SVOA	799	19 J
5.	N/I	SVOA	1416	25 J
6.				
7.				
8.				
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UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003168

Sample Number
FD-602

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VQUY10
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6619
QC Report No: 233
Contract No: 68-01-6959
Date Sample Received: 12/03/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/03/86
Conc/Dil Factor: 1. pH 7.26
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	13. B	79-00-5	1,1,2-Trichloroethane . .	5.0U
67-64-1	Acetone	7.2BJ	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	15. B	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 1

003169

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number: FD-602

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-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	Dibenzo(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

(1)-Cannot be separated from diphenylamine

003170

Laboratory Name Gulf South Research Institute

Case No 6619

Sample Number FD-602

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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

003171

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number: FD-602

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	Analysis Not Required	SVOA	NA	NA
3.				
4.				
5.				
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28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003172

| Sample Number |
| LOW-W-BLK-1 |

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VB120386A
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6619
QC Report No: 233
Contract No: 68-01-6959
Date Sample Received: NA

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/03/86
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	3.4J	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

003173

Laboratory Name: G S R I
Case No: 6619

Sample Number
LOW-W-BLK-1

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
Conc/Dil Factor: 1.
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	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

003174

Laboratory Name Gulf South Research Institute

Case No 6619

Sample Number
Low-W-BLK-1

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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

003175

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number: Low-W-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.				
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29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003176

Sample Number
FD-019MS

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VQUY01MS
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6619
QC Report No: 233
Contract No: 68-01-6959
Date Sample Received: 12/03/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/03/86
Conc/Dil Factor: 1. pH 6.78
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	2.8J
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	41.MS
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	19. B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	5.3BJ	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	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	3.0BJ	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	46.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.

003177

Laboratory Name: Gulf South Research Institute

Case No: ~~6601~~ 6619 mf

Sample Number
FD-019-MS

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-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-Chloroethoxyl)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

003178

Laboratory Name Gulf South Research Institute

Case No 6619

Sample Number
FD-019-MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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

003179

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number: FD-019-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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28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003180

Sample Number
FD-601-MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Gulf South Research Institute
Case No: 6619
Lab Sample ID No: SV4Y08MSD
QC Report No: 233
Sample Matrix: Water
Contract No: 68-01-6959
Data Release Authorized By:
Date Sample Received:

Volatile Compounds Analysis Not Required

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
Conc/Dil Factor: 1 pH 6.40
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	

003181

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: G S R I
Case No: 6619

Sample Number
FD-601MS

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
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	68. MS	83-32-9	Acenaphthene	41. MS
111-44-4	bis(2-Chloroethyl)Ether	10. U	51-28-5	2,4-Dinitrophenol	50. U
95-57-8	2-Chlorophenol	84. MS	100-02-7	4-Nitrophenol	56. MS
541-73-1	1,3-Dichlorobenzene	10. U	132-64-9	Dibenzofuran	10. U
106-46-7	1,4-Dichlorobenzene	37. MS	121-14-2	2,4-Dinitrotoluene	43. MS
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	46. MS	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	96. MS
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	42. MS	129-00-0	Pyrene	57. MS
91-20-3	Naphthalene	2.0J	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	72. MS	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

MS = matrix spike compound.

Form I

003182

Laboratory Name Gulf South Research Institute

Case No ~~6601~~ 6619 mf

Sample Number
FD-601-MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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 NR or W_s NR V_t NR V_i NR

003183

Laboratory Name: Gulf South Research Institute

Case No: ~~6600~~ 6619 YKJ

Sample Number: FD-60/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.				
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30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003184

Sample Number
FD-019MSD

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: G S R I
Lab Sample ID No: VOUY01MSD
Sample Matrix: WATER
Data Release Authorized By:

Case No: 6619
QC Report No: 233
Contract No: 68-01-6959
Date Sample Received: 12/03/86

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/03/86
Conc/Dil Factor: 1. pH 6.78
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	2.9J
75-01-4	Vinyl Chloride	10. U	79-01-6	Trichloroethene	43.MS
75-00-3	Chloroethane	10. U	124-48-1	Dibromochloromethane	5.0U
75-09-2	Methylene Chloride	17. B	79-00-5	1,1,2-Trichloroethane	5.0U
67-64-1	Acetone	8.9BJ	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	3.3BJ	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	49.MS
56-23-5	Carbon Tetrachloride	5.0U	108-90-7	Chlorobenzene	47.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.

003185

Laboratory Name: Gulf South Research Institute

Case No: ~~6601~~ 6619

Sample Number
FD-019-MSD

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

003186

Form I

Laboratory Name Gulf South Research Institute

Case No 6619

Sample Number FD-019-MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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_i NA V_t NA

003187

Laboratory Name: Gulf South Research Institute

Case No: 6619

Sample Number: FD-019-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.				
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23.				
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25.				
26.				
27.				
28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003188

Sample Number
FD-601-MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Gulf South Research Institute
Case No: 6619
Lab Sample ID No: SUUY08MSD
QC Report No: 233
Sample Matrix: water
Contract No: 68-01-6959
Data Release Authorized By: [signature]
Date Sample Received:

Volatile Compounds Analysis Not Required

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
Conc/Dil Factor: 1. pH 6.40
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	

003189

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 [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 R I
Case No: 6619

Sample Number
FD-601MSD

ORGANICS ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 12/03/86
Date Analyzed: 12/10/86
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	72.MS	83-32-9	Acenaphthene	45.MS
111-44-4	bis(2-Chloroethyl)Ether	10. U	51-28-5	2,4-Dinitrophenol	50. U
95-57-8	2-Chlorophenol	67.MS	100-02-7	4-Nitrophenol	63.MS
541-73-1	1,3-Dichlorobenzene	10. U	132-64-9	Dibenzofuran	10. U
106-46-7	1,4-Dichlorobenzene	47.MS	121-14-2	2,4-Dinitrotoluene	45.MS
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	53.MS	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	100.MS
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	47.MS	129-00-0	Pyrene	60.MS
91-20-3	Naphthalene	2.2J	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	77.MS	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

MS = matrix spike compound.

Form I

003190

Laboratory Name Gulf South Research Institute

Case No ~~6601~~ 6619 myf

Sample Number
FD-601-MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs 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)
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 NR or W_s NR V_t NR V_i NR

003191

Laboratory Name: Gulf South Research Institute

Case No: ~~6601~~ 6619 YMJ

Sample Number: FD-601MSD

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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28.				
29.				
30.				

UNK HC - UNKNOWN HYDROCARBON

N/I - NOT IDENTIFIED

003192

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 6619 **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)
FD-019	105	107	89	107	88	100			95*	87	106	NR
FD-601	99	105	87	108	88	119			66	58	75	NR
FD-602	104	103	90	~~107~~ NR	NR	NR			NR	NR	NR	NR
FD-019MS	99	103	87	NR	NR	NR			NR	NR	NR	NR
FD-019MSD	99	107	90	NR	NR	NR			NR	NR	NR	NR
~~VBA~~ BLK #1	104	103	90	79	68	106			95*	96	102	NR
~~Holding BLK~~	~~103~~	~~105~~	~~89~~									
FD-601MS	NR	NR	NR	94	80	109			75	66	89	NR
FD-601MSD	NR	NR	NR	106	87	105			36	67	90	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 ~~26~~ 30 ; outside of QC limits

Pesticides: NR out of NR ; outside of QC limits

Comments: NR : NOT REQUIRED

FORM II 003193 7/85

METHOD BLANK SUMMARY

Case No. 6619 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
VB120386A	12/3/86	VOA	W	L	Finn 1	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
~~VB120386B~~	~~12/3/86~~	~~VOA~~	~~W~~	~~L~~	~~Finn 1~~	~~75-09-2~~	~~Methylene Chloride~~	~~21~~	~~ug/L~~	~~5~~
						~~67-64-1~~	~~Acetone~~	~~8~~	~~ug/L~~	~~10~~
						~~67-66-3~~	~~Chloroform~~	~~3~~	~~ug/L~~	~~5~~
SVUYBLK1	12/10/86	SV	W	L	F2	N/A	None Detected	N/A	N/A	N/A

Comments:

FORM IV 7/85

003194

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 6619 **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-019	1,1-Dichloroethene	50	0	49	98	48	96	2	14	61-145
	Trichloroethene	↓	↓	41	82	43	86	5	14	71-120
	Chlorobenzene	↓	↓	46	92	47	94	2	13	75-130
	Toluene	↓	↓	45	90	49	98	9	13	76-125
	Benzene	↓	↓	48	96	48	96	0	11	76-127
B/N SMO SAMPLE NO. FD-601	1,2,4-Trichlorobenzene	50	0	42	84	47	94	11	28	39-98
	Acenaphthene	↓	↓	41	82	45	90	9	31	46-118
	2,4 Dinitrotoluene	↓	↓	43	86	45	90	5	38	24-96
	Pyrene	↓	↓	57	114	60	120	5	31	26-127
	N-Nitroso-Di-n-Propylamine	↓	↓	46	92	53	106	17	38	41-116
	1,4-Dichlorobenzene	↓	↓	37	74	43	86	15	28	36-97
ACID SMO SAMPLE NO. FD-601	Pentachlorophenol	100	0	96	96	102	102	6	50	9-103
	Phenol	↓	↓	68	68	73	73	7	42	12-89
	2-Chlorophenol	↓	↓	84	84	87	87	4	40	27-123
	4-Chloro-3-Methylphenol	↓	↓	72	72	77	77	7	42	23-97
	4-Nitrophenol	↓	↓	56	56	63	63	12	50	10-80
PEST SMO SAMPLE NO. NR	Lindane								15	56-123
	Heptachlor								20	40-131
	Aldrin			Not Required					22	40-120
	Dieldrin								18	52-126
	Endrin								21	56-121
	4,4'-DDT								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 NR out of NR; 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 NR out of NR; outside QC limits

Comments: NR = Not Required.

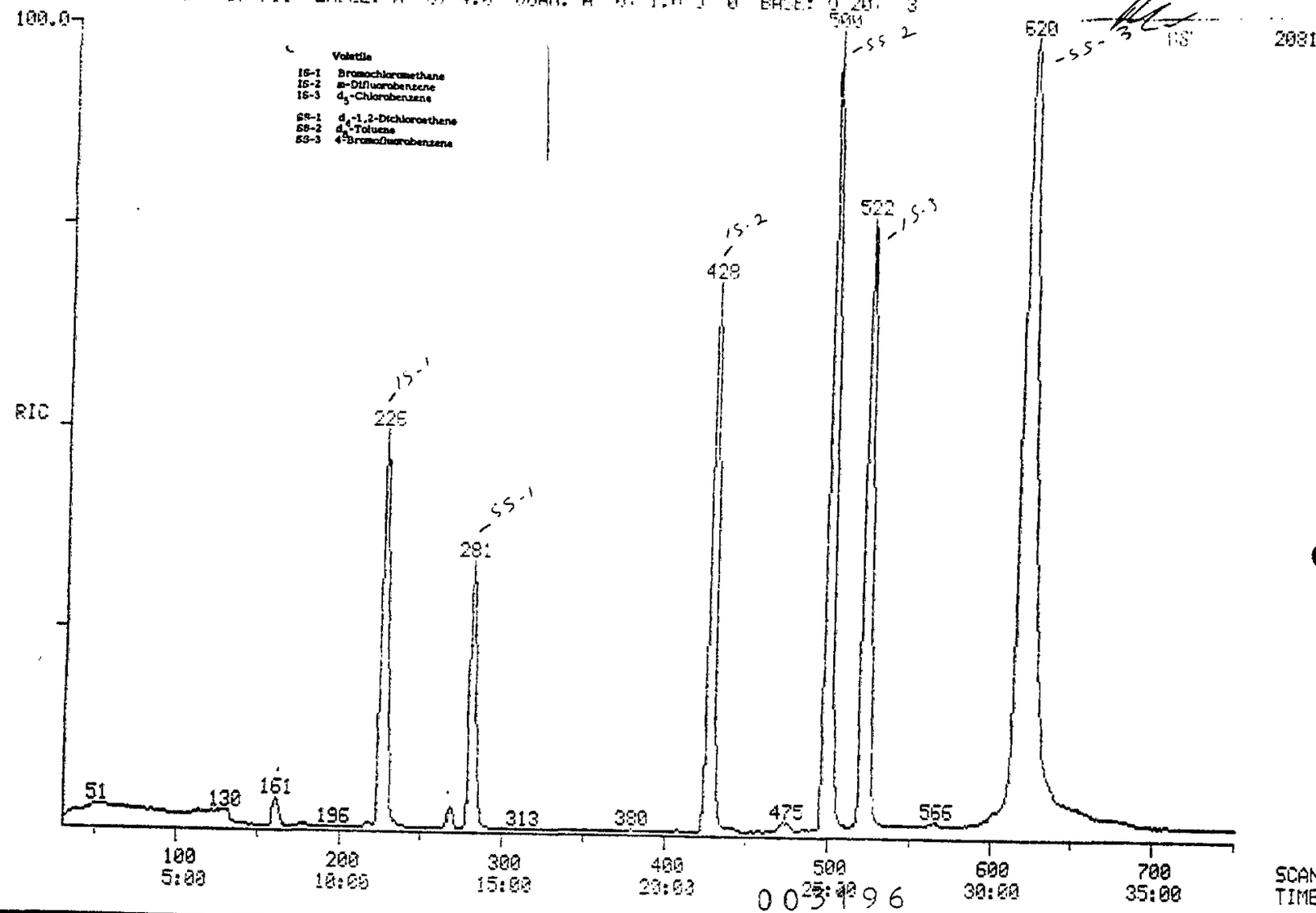
DC 12-6-6619

FORM III 7/85

003195

RIC
12/03/86 14:20:00
SAMPLE: VOA BLANK #1 CASE 6619
CONDS.: 1%SP-1000/CARB B 45/4-22000 CALIB 11/25/86 F1
RANGE: G 1, 750 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: VB120386A #1 SCANS 30 TO 750
CALI: VB120386A #2



208128.

DC-12-4-6619

003196

Quantitation Report File: VB120386A

Data: VB120386A.TI
12/03/86 14:20:00
Sample: VOA BLANK #1 CASE 6619
Conds.: 1%SP-1000/CARB B 45/4-220@8 CALIB 11/25/86 F1
Submitted by: EPA Analyst: GK

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	(IS-1)
2	CI10	1,4-DIFLUOROBENZENE	(IS-2)
3	CI20	D5-CHLOROBENZENE	(IS-3)
4	CS15	D4-1,2-DICHLOROETHANE	(SS-1)
5	CS05	D8-TOLUENE	(SS-2)
6	CS10	4-BROMOFLUOROBENZENE	(SS-3)
7	C030	METHYLENE CHLORIDE	
8	C035	ACETONE	
9	C060	CHLOROFORM*	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	226	11:18	1	1.000	A BB	66306.	50.000 UG/L	16.24
2	114	428	21:24	2	1.000	A BB	283559.	50.000 UG/L	16.24
3	117	522	26:06	3	1.000	A BB	241959.	50.000 UG/L	16.24
4	102	281	14:03	1	1.243	A BB	23275.	44.759 UG/L	14.54
5	98	500	25.00	3	0.958	A BB	323335.	51.938 UG/L	16.87
6	95	619	30 57	3	1.186	A BB	211998	51.668 UG/L	16.78
7	84	161	8.03	1	0.712	A BB	8034.	3.445 UG/L	1.12
8	43	178	8:54	1	0.788	A BB	2251	3.145 UG/L	1.02
9	83	268	13:24	1	1.186	A BB	10099.	2.875 UG/L	0.93

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:51	1.04	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	21:24	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	26:06	1 00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:51	1.01	1.257	0.99	44.76	50.00	0.351	0 392	0.90
5	25:00	1.00	0.958	1.00	51.94	50.00	1.336	1.284	1.04
6	30:57	1.00	1.186	1.00	51.67	50.00	0.876	0.848	1.03
7	6:57	1.16	0.680	1.05	3.44	50.00	0.121	1.759	0.07
8	8:03	1.11	0.770	1.02	3.14	50.00	0.034	0.540	0.06
9	13:09	1.02	1.194	0.99	2.87	50.00	0.152	2.649	0.06

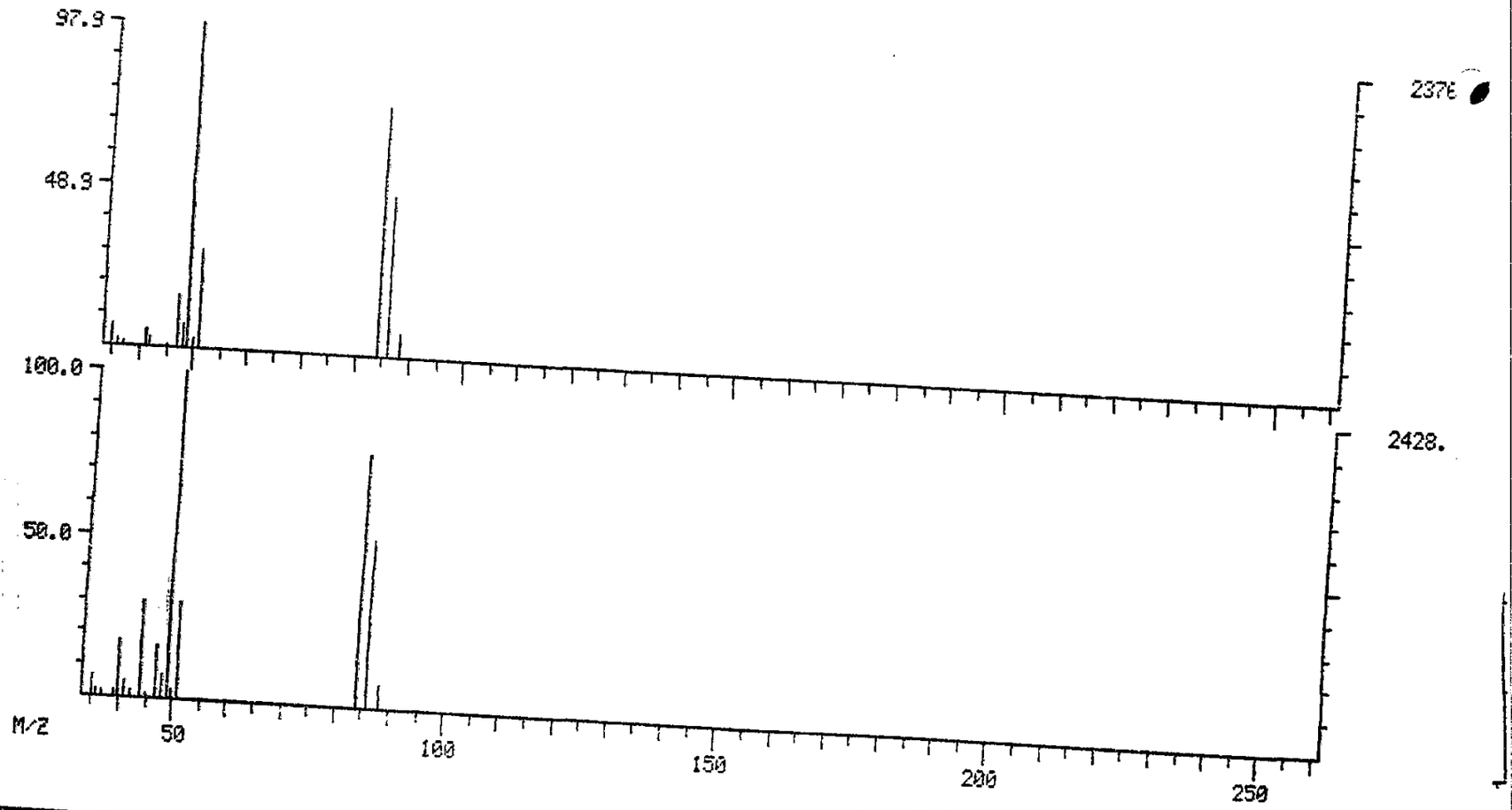
003197

DUAL MASS SPECTRUM
12/03/86 14:20:00 + 8:03
SAMPLE: VOA BLANK #1 CASE 6619
CONDS.: 1%SP-1000/CARB B 45/4-22008
GC TEMP: 76 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VB120386A #161
CALI: VB120386A #2

BASE M/Z: 49/ 49
RIC: 7335./ 8767.

CALIB 11/25/86 F1

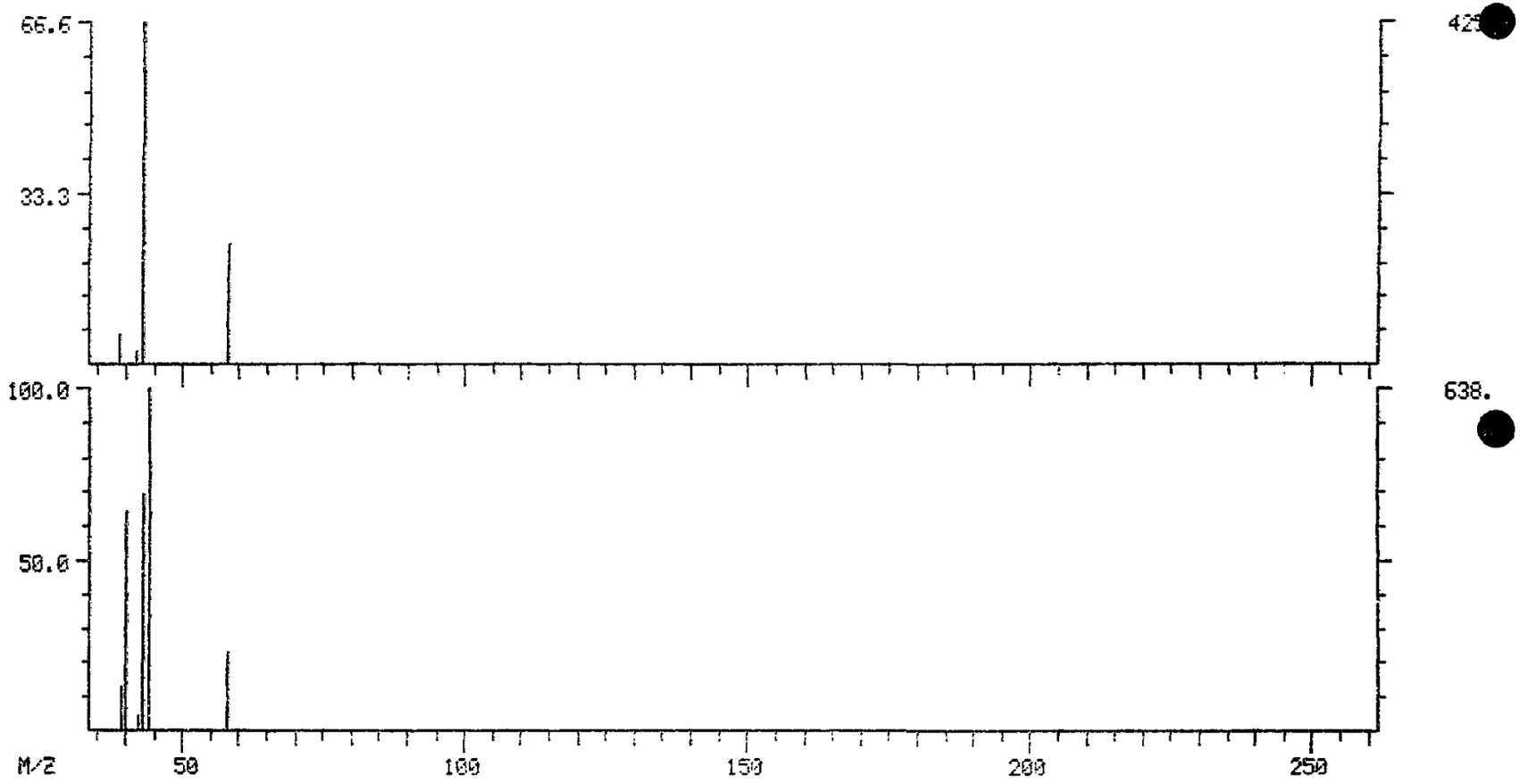


M/Z

003198

DUAL MASS SPECTRUM
12/03/86 14:20:00 + 8:54
SAMPLE: WOA BLANK #1 CASE 6519
CONDS.: 12SP-1000/CAPB B 45/4-22000 CALIB 11/25/86 P1
GC TEMP: 83 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: WB120386A #173 BASE M/Z: 43/ 44
CALI: WB120386A #2 RIC: 625./ 1749.



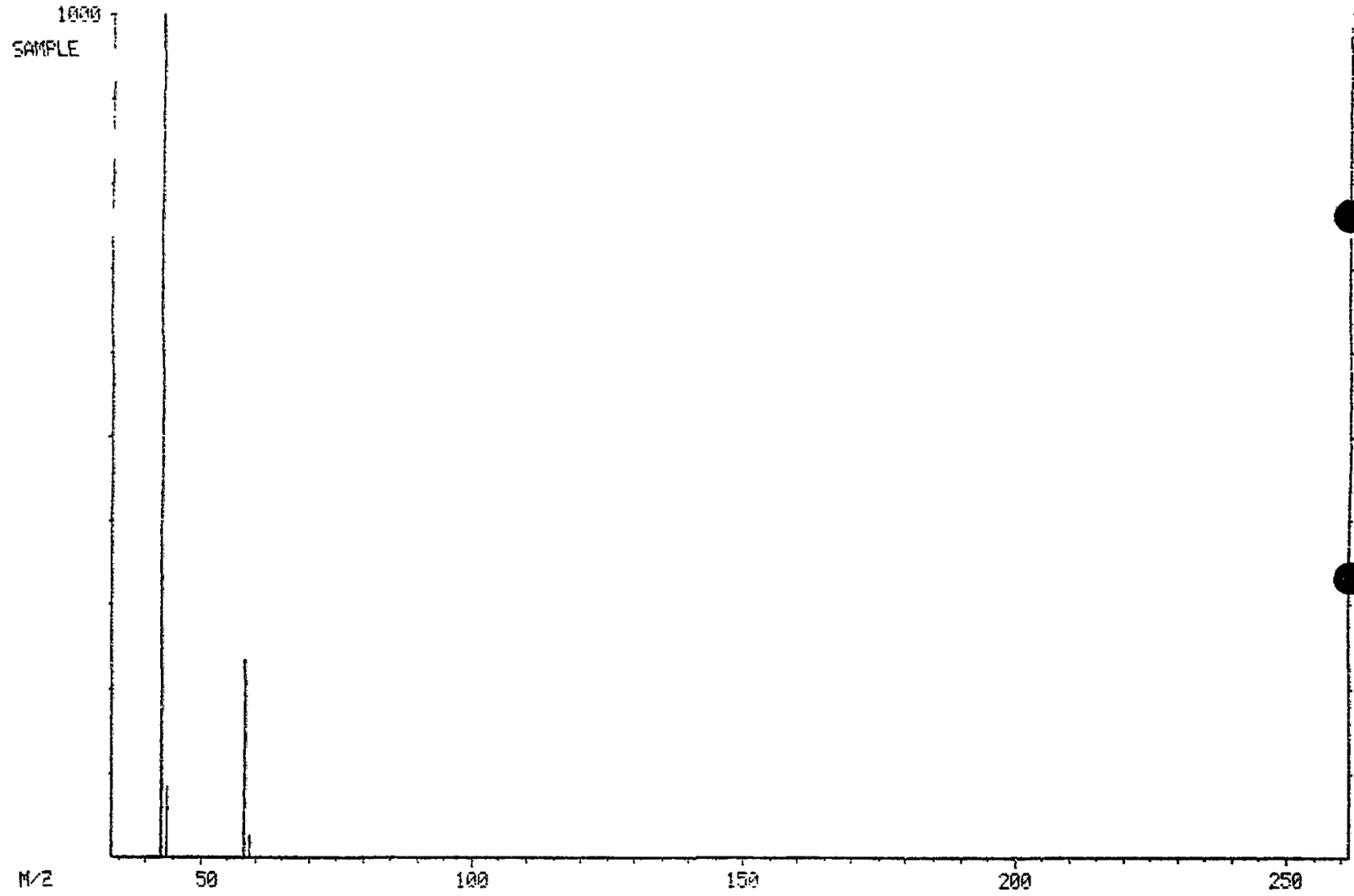
003199

case: 6619 sample: Blank #1

LIBRARY SEARCH

SAMPLE:C035 ACETONE

DATA: LIBRARYUR: 33 BASE M/Z: 43
M.WT.: 750

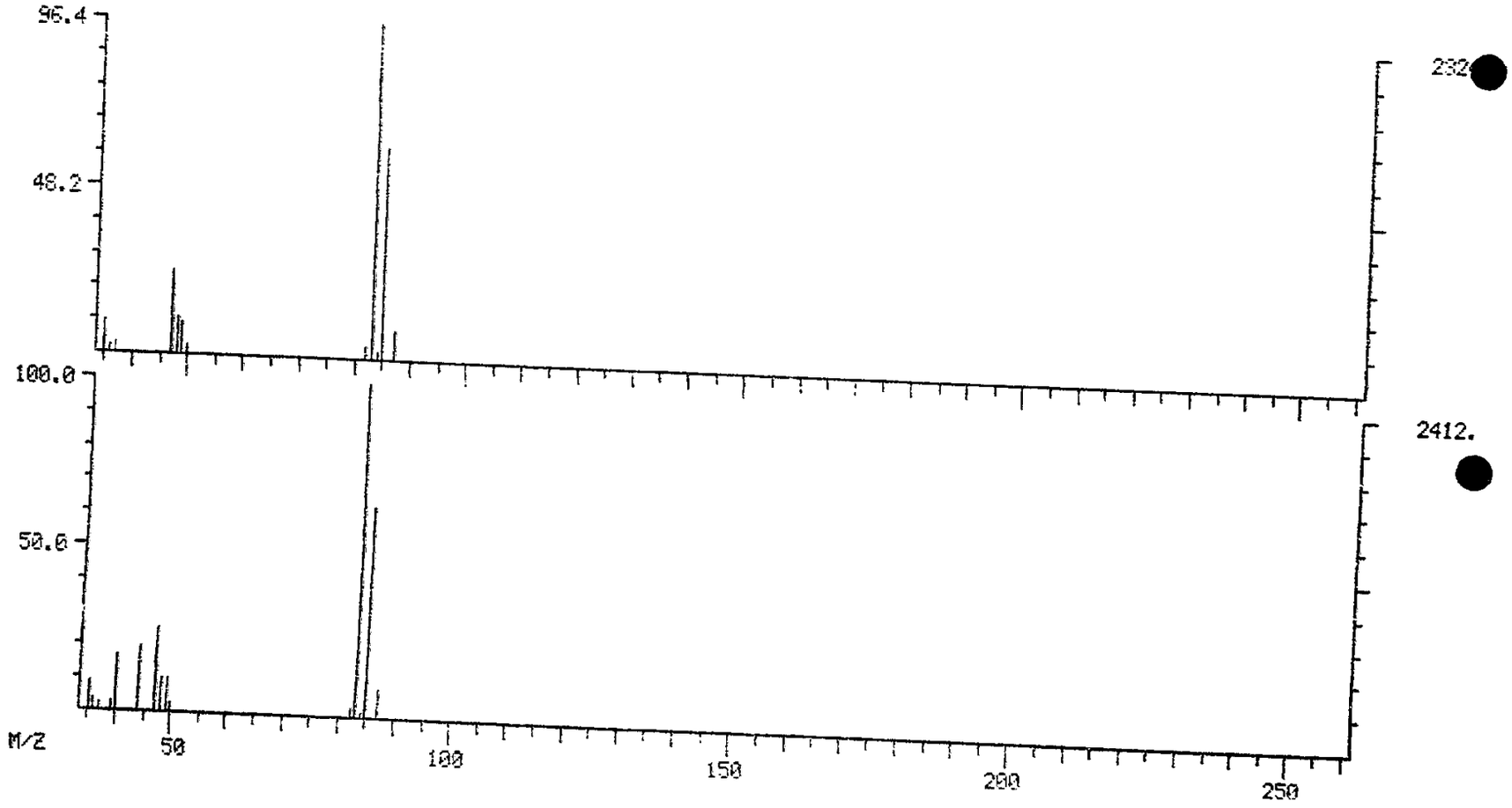


DUAL MASS SPECTRUM
12/03/86 14:20:00 + 13:24
SAMPLE: VOA BLANK #1 CASE 6619
CONDS.: 1%SP-1000/CARB B 45/4-22008
GC TEMP: 118 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: VB120386A #268
CALI: VB120386A #2

BASE M/Z: 83/ 83
RIC: 5591./ 6759.

CALIB 11/25/86 F1



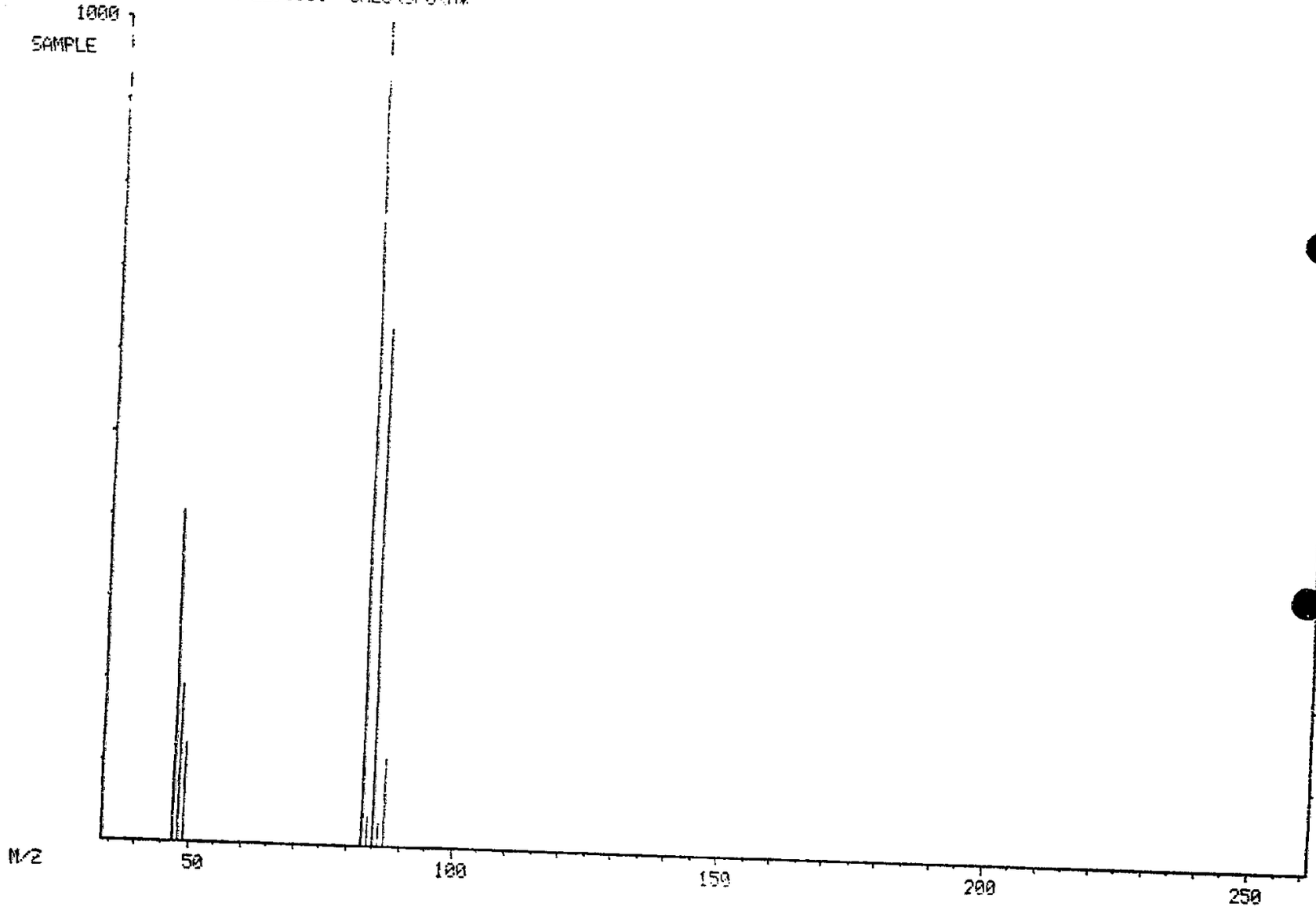
003201

Case: 6619 Sample: BLR #1

LIBRARY SEARCH

SAMPLE:C060 CHLOROFORM%

DATA: LIBRARYUR: 14 BASE M/Z: 83
M.WT.: 850



003202

RIC
12/10/86 15:01:00
SAMPLE: BLANK #1 CASE:5619
CONDS.: 30M DB-5 FSCC(#82129) 45/4-300012 CALIB 11/06/86 FINN-02
RANGE: G 1,2350 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: 0 20, 3

DATA: SUUYBLK1 #1 SCANS 300 TO 2350
CALI: SUUYBLK1 #1

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GSR

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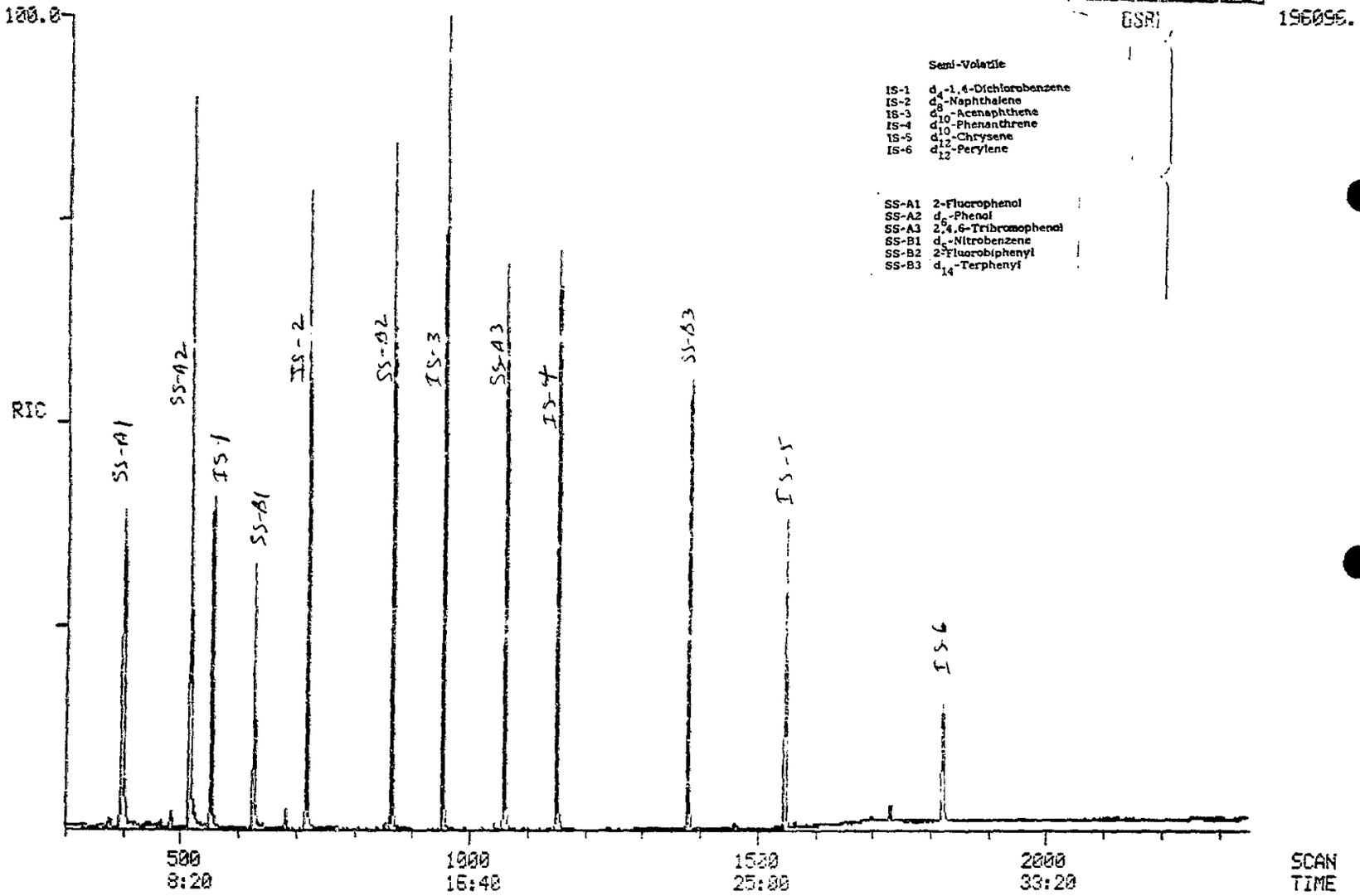


Semi-Volatile

IS-1 d_4-1,4-Dichlorobenzene
IS-2 d_8-Naphthalene
IS-3 d_{10}-Acenaphthene
IS-4 d_{10}-Phenanthrene
IS-5 d_{12}-Chrysene
IS-6 d_{12}-Perylene

SS-A1 2-Fluorophenol
SS-A2 d_6-Phenol
SS-A3 2,4,6-Tribromophenol
SS-B1 d_5-Nitrobenzene
SS-B2 2-Fluorobiphenyl
SS-B3 d_{14}-Terphenyl

003203

Quantitation Report File: SVUYBLK1

Data: SVUYBLK1.TI
12/10/86 15.01:00
Sample: BLANK #1 CASE:6619
Conds.: 30M DB-5 FSCC(#82129) 45/4-300@12 CALIB 11/06/86 FINN-02
Submitted by: EPA Analyst: KMB

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) * 2.000
Resp. fac. from Library Entry

NO	NAME		
1	CI30	D4-1,4 DICHLOROBENZENE	(IS-1)
2	CI40	D8-NAPHTHALENE	(IS-2)
3	CI50	D10-ACENAPHTHENE	(IS-3)
4	CI60	D10-PHENANTHRENE	(IS-4)
5	CI70	D12-CHRYSENE	(IS-5)
6	CI75	D12-PERYLENE	(IS-6)
7	CS50	2-FLUOROPHENOL	(SS-A1)
8	CS45	D6-PHENOL	(SS-A2)
9	CS20	D5-NITROBENZENE	(SS-B1)
10	CS25	2-FLUOROBIPHENYL	(SS-B2)
11	CS55	2,4,6-TRIBROMOPHENOL	(SS-A3)
12	CS30	D14-P-TERPHENYL	(SS-B3)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	554	9:14	1	1.000	A BB	44760.	80.000 UG/L	6.07
2	136	719	11:59	2	1.000	A BB	164120.	80.000 UG/L	6.07
3	164	955	15:55	3	1.000	A BB	92520.	80.000 UG/L	6.07
4	188	1152	19:12	4	1.000	A BV	131643.	80.000 UG/L	6.07
5	240	1548	25:48	5	1.000	A BB	76035.	80.000 UG/L	6.07
6	264	1822	30:22	6	1.000	A BB	46829.	80.000 UG/L	6.07
7	112	400	6:40	1	0.722	A BB	129130.	191.415 UG/L	14.52
8	99	517	8:37	1	0.933	A BB	211679.	189.728 UG/L	14.40
9	82	627	10:27	2	0.872	A BB	54958.	79.304 UG/L	6.02
10	172	866	14:26	3	0.907	A BB	113819.	68.399 UG/L	5.19
11	330	1061	17:41	4	0.921	A BB	43473.	203.004 UG/L	15.40
12	244	1380	23:00	5	0.891	A BB	102738.	106.002 UG/L	8.04

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:09	1.01	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:57	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	15:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	26:09	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:55	0.98	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	6:28	1.03	0.707	1.02	95.71	100.00	1.154	1.206	0.96
8	8:32	1.01	0.933	1.00	94.86	100.00	1.892	1.994	0.95
9	10:25	1.00	0.872	1.00	39.65	50.00	0.268	0.338	0.79
10	14:26	1.00	0.908	1.00	34.20	50.00	0.984	1.439	0.68
11	17:41	1.00	0.921	1.00	101.50	100.00	0.132	0.130	1.02
12	23:08	0.99	0.885	1.01	53.00	50.00	1.081	1.020	1.06

003204

RIC

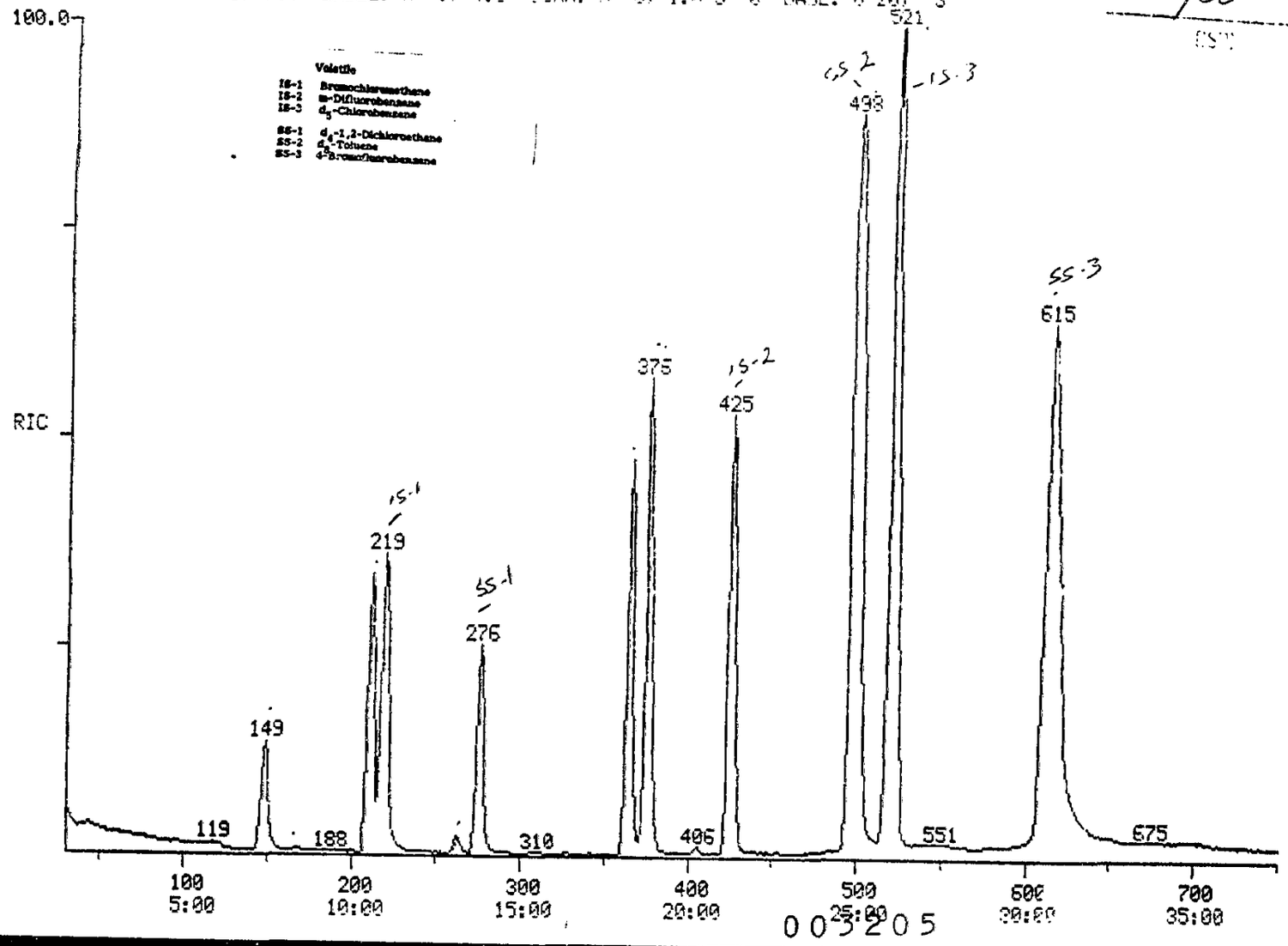
RIC
12/03/86 17:59:00
SAMPLE: FD-019-MS CASE 6619
CONDS.: 1ZSP-1000/CARB B 45/4-22008
RANGE: G 1, 750 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0

DATA: VOUY01MS #1
CALI: VOUY01MS #2

SCANS 30 TO 750

CALIB 11/25/86 F1

BASE: U 20, 3



257280.

003205

003205

Quantitation Report File: VOUY01MS

Data: VOUY01MS.TI
12/03/86 17:59:00
Sample: FD-019-MS CASE 6619
Conds.: 1%SP-1000/CARB B 45/4-220@8 CALIB 11/25/86 F1
Submitted by: EPA Analyst: GK

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	(IS-1)
2	CI10	1,4-DIFLUOROBENZENE	(IS-2)
3	CI20	D5-CHLOROBENZENE	(IS-3)
4	CS15	D4-1,2-DICHLOROETHANE	(SS-1)
5	CS05	D8-TOLUENE	(SS-2)
6	CS10	4-BROMOFLUOROBENZENE	(SS-3)
7	C030	METHYLENE CHLORIDE	
8	C035	ACETONE	
9	C045	1,1-DICHLOROETHENE*	
10	C060	CHLOROFORM*	
11	C145	TRANS13DICHLOROPROPENE	
12	C150	TRICHLOROETHENE	
13	C165	BENZENE	
14	C230	TOLUENE*	
15	C235	CHLOROBENZENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	219	10.57	1	1.000	A BB	61319.	50.000 UG/L	9.03
2	114	425	21:15	2	1.000	A BB	265170.	50.000 UG/L	9.03
3	117	519	25.57	3	1.000	A BB	238138.	50.000 UG/L	9.03
4	102	276	13.48	1	1.260	A BB	20877.	43.412 UG/L	7.84
5	98	497	24.51	3	0.958	A BB	304165	49.643 UG/L	8.96
6	95	614	30:42	3	1.183	A BB	207820.	51.462 UG/L	9.29
7	84	149	7:27	1	0.680	A BB	41129.	19.068 UG/L	3.44
8	43	167	8.21	1	0.763	A BB	3538	5.345 UG/L	0.97
9	96	211	10:33	1	0.963	A BB	82737.	48.825 UG/L	8.82
10	83	263	13.09	1	1.201	A BB	9603.	2.956 UG/L	0.53
11	75	376	18.48	2	0.885	A BB	4396.	2.818 UG/L	0.51
12	130	365	18.15	2	0.859	A BB	95739	40.983 UG/L	7.40
13	78	376	18:48	2	0.885	A BB	302417.	47.707 UG/L	8.62
14	92	501	25:03	3	0.965	A BB	182287	45.185 UG/L	8.16
15	112	522	26:06	3	1.006	A BB	232416.	46.349 UG/L	8.37

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:51	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	21:24	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	26:06	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:51	1.00	1.257	1.00	43.41	50.00	0.340	0.392	0.87
5	25:00	0.99	0.958	1.00	49.64	50.00	1.277	1.286	0.99
6	30:57	0.99	1.186	1.00	51.46	50.00	0.873	0.848	1.03
7	6:57	1.07	0.680	1.00	19.07	50.00	0.671	1.759	0.38
8	8:03	1.04	0.770	0.99	5.34	50.00	0.058	0.540	0.11
9	10:27	1.01	0.964	1.00	48.83	50.00	1.349	1.382	0.98
10	13:09	1.00	1.194	1.01	2.96	50.00	0.157	2.649	0.06
11	19:03	0.99	0.890	0.99	2.82	50.00	0.017	0.294	0.06
12	18:24	0.99	0.860	1.00	40.98	50.00	0.361	0.440	0.82
13	18:57	0.99	0.886	1.00	47.71	50.00	1.140	1.195	0.95
14	25:12	0.99	0.966	1.00	45.19	50.00	0.765	0.847	0.90
15	26:15	0.99	1.006	1.00	46.35	50.00	0.976	1.053	0.93

003206

RIC
12/10/86 16:32:00
SAMPLE: FD-601 MS CASE:6615
CONDS.: 30M DB-5 FSCC(#82129) 45/4-300012 CALIB 11/05/86 FINN-02
RANGE: G 1,2350 LABEL: N 2, 4.0 QUAN: A 0, 1.0 0 0 BASE: 0 22, 3

DATA: SVUY08MS #1
CALI: SVUY08MS #1

SCANS 300 TO 2350

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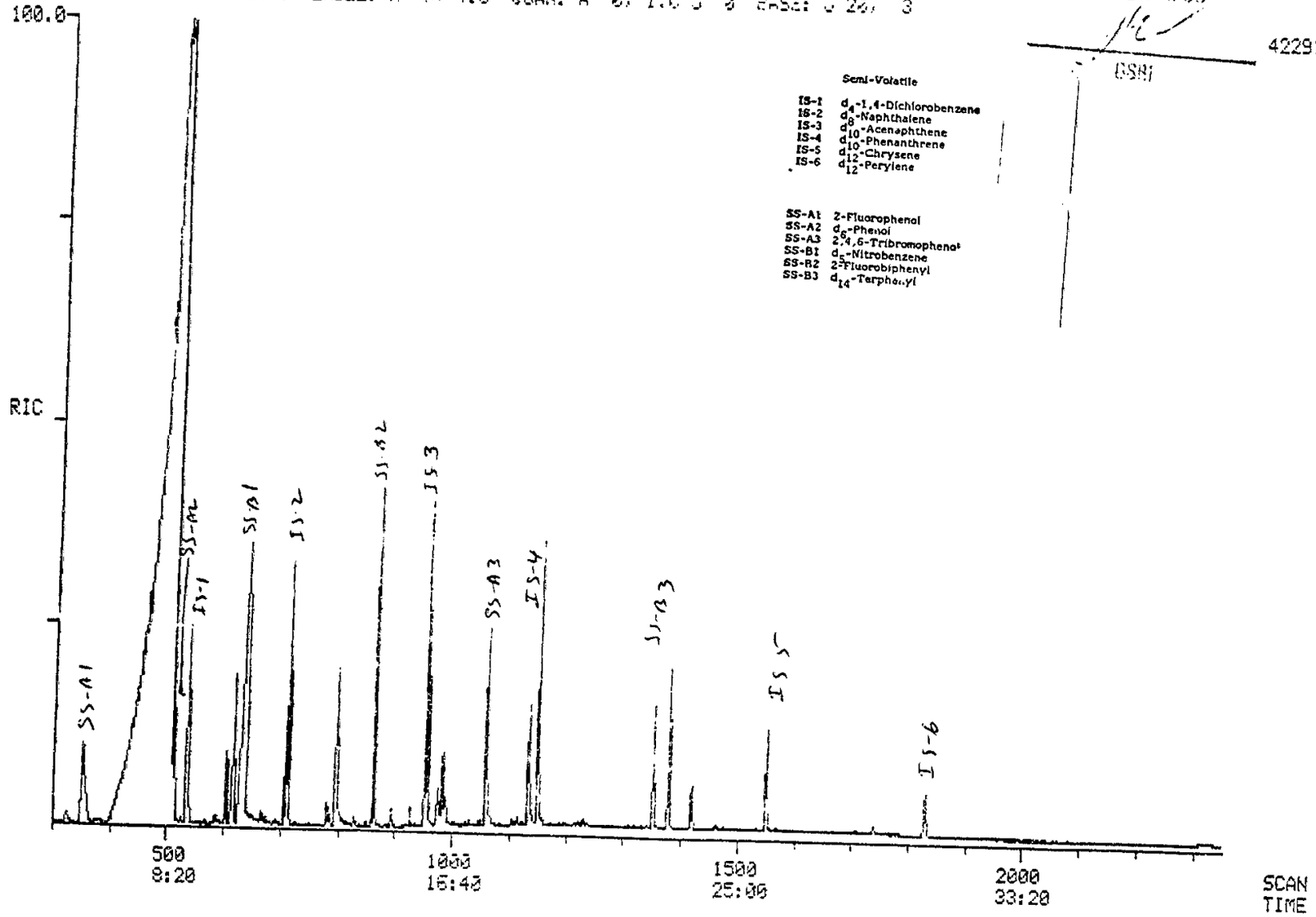


Semi-Volatile

IS-1	d_4-1,4-Dichlorobenzene
IS-2	d_8-Naphthalene
IS-3	d_{10}-Acenaphthene
IS-4	d_{10}-Phenanthrene
IS-5	d_{12}-Chrysene
IS-6	d_{12}-Perylene

SS-A1	2-Fluorophenol
SS-A2	d_6-Phenol
SS-A3	2,4,6-Tribromophenol
SS-B1	d_5-Nitrobenzene
SS-B2	2-Fluorobiphenyl
SS-B3	d_{14}-Terphenyl

003207

003207

Quantitation Report File: SVUY08MS

Data: SVUY08MS.TI
12/10/86 16:32:00
Sample: FD-601 MS CASE:6619
Conds.: 30M DB-5 FSCC(#82129) 45/4-300@12 CALIB 11/06/86 FINN-02
Submitted by: EPA Analyst: KMB

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) * 2.000
Resp. fac. from Library Entry

NO	NAME		
1	CI30	D4-1,4 DICHLOROBENZENE	(IS-1)
2	CI40	D8-NAPHTHALENE	(IS-2)
3	CI50	D10-ACENAPHTHENE	(IS-3)
4	CI60	D10-PHENANTHRENE	(IS-4)
5	CI70	D12-CHRYSENE	(IS-5)
6	CI75	D12-PERYLENE	(IS-6)
7	CS50	2-FLUOROPHENOL	(SS-A1)
8	CS20	D5-NITROBENZENE	(SS-B1)
9	CS25	2-FLUOROBIPHENYL	(SS-B2)
10	CS55	2,4,6-TRIBROMOPHENOL	(SS-A3)
11	CS30	D14-P-TERPHENYL	(SS-B3)
12	C315	PHENOL *	
13	C330	2-CHLOROPHENOL	
14	C340	14DICHLOROBENZENE*	
15	C370	NITROSOPROPYLAMINE**	
16	C445	1,2,4-TRICHLOROBENZENE	
17	C450	NAPHTHALENE	
18	C465	4CHLORO3METHYLPHENOL*	
19	C550	ACENAPTHENE *	
20	C560	4NITROPHENOL**	
21	C570	2,4-DINITROTOLUENE	
22	C635	PENTACHLOROPHENOL*	
23	C715	PYRENE	
24	CS45	D6-PHENOL	(SS-A2)

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	536	8:56	1	1.000	A BB	47985.	80.000 UG/L	4.29
2	136	712	11:52	2	1.000	A BB	171198.	80.000 UG/L	4.29
3	164	953	15:53	3	1.000	A BV	94169.	80.000 UG/L	4.29
4	188	1151	19:11	4	1.000	A BB	137235.	80.000 UG/L	4.29
5	240	1551	25:51	5	1.000	A BB	53286.	80.000 UG/L	4.29
6	264	1830	30:30	6	1.000	A BB	34562.	80.000 UG/L	4.29
7	112	352	5:52	1	0.657	A BB	95578.	132.157 UG/L	7.08
8	82	617	10:17	2	0.867	A BB	68087.	94.187 UG/L	5.05
9	172	863	14:23	3	0.906	A BB	135642.	80.086 UG/L	4.29
10	330	1059	17:39	4	0.920	A BB	39780.	178.189 UG/L	9.55
11	244	1380	23:00	5	0.890	A BB	73895.	108.793 UG/L	5.83
12	94	501	8:21	1	0.935	A BB	68801.	67.610 UG/L	3.62
13	128	512	8:32	1	0.955	A BB	66572.	83.593 UG/L	4.48
14	146	538	8:58	1	1.004	A BB	32726.	37.065 UG/L	1.99
15	130	605	10:05	1	1.129	A BB	5537.	46.241 UG/L	2.48
16	180	708	11:48	2	0.994	A BB	29458.	41.856 UG/L	2.24
17	128	715	11:55	2	1.004	A BV	4183.	2.013 UG/L	0.11
18	107	796	13:16	2	1.118	A BB	45562.	72.170 UG/L	3.87
19	154	957	15:57	3	1.004	A BB	56512.	40.833 UG/L	2.19
20	109	975	16:15	3	1.023	A BB	8667.	56.040 UG/L	3.00
21	165	983	16:23	3	1.031	A BB	22843.	42.551 UG/L	2.28
22	266	1134	18:54	4	0.985	A BB	27153.	95.507 UG/L	5.12
23	202	1353	22:33	5	0.872	A BB	62505.	56.592 UG/L	3.03
24	99	500	8:20	1	0.933	M ZZ	179743.	150.276 UG/L	8.05

003208

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:09	0.98	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:57	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	15:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	26:09	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:55	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	6:28	0.91	0.707	0.93	66.08	100.00	0.797	1.206	0.66
8	10:25	0.99	0.872	0.99	47.09	50.00	0.318	0.338	0.94
9	14:26	1.00	0.908	1.00	40.04	50.00	1.152	1.439	0.80
10	17:41	1.00	0.921	1.00	89.09	100.00	0.116	0.130	0.89
11	23:08	0.99	0.885	1.01	54.40	50.00	1.109	1.020	1.09
12	8:34	0.97	0.936	1.00	33.80	50.00	1.147	1.697	0.68
13	8:46	0.97	0.958	1.00	41.80	50.00	1.110	1.328	0.84
14	9:11	0.98	1.004	1.00	18.53	50.00	0.546	1.472	0.37
15	10:11	0.99	1.113	1.01	23.12	50.00	0.092	0.200	0.46
16	11:53	0.99	0.994	1.00	20.93	50.00	0.138	0.329	0.42
17	12:00	0.99	1.004	1.00	1.01	50.00	0.020	0.971	0.02
18	13:17	1.00	1.112	1.01	36.08	50.00	0.213	0.295	0.72
19	15:59	1.00	1.005	1.00	20.42	50.00	0.480	1.176	0.41
20	16:15	1.00	1.022	1.00	28.02	50.00	0.074	0.131	0.56
21	16:25	1.00	1.032	1.00	21.28	50.00	0.194	0.456	0.43
22	18:56	1.00	0.986	1.00	47.75	50.00	0.158	0.166	0.96
23	22:40	0.99	0.867	1.01	28.30	50.00	0.938	1.658	0.57
24	8:32	0.98	0.933	1.00	75.14	100.00	1.498	1.994	0.75

file: SSU408MS

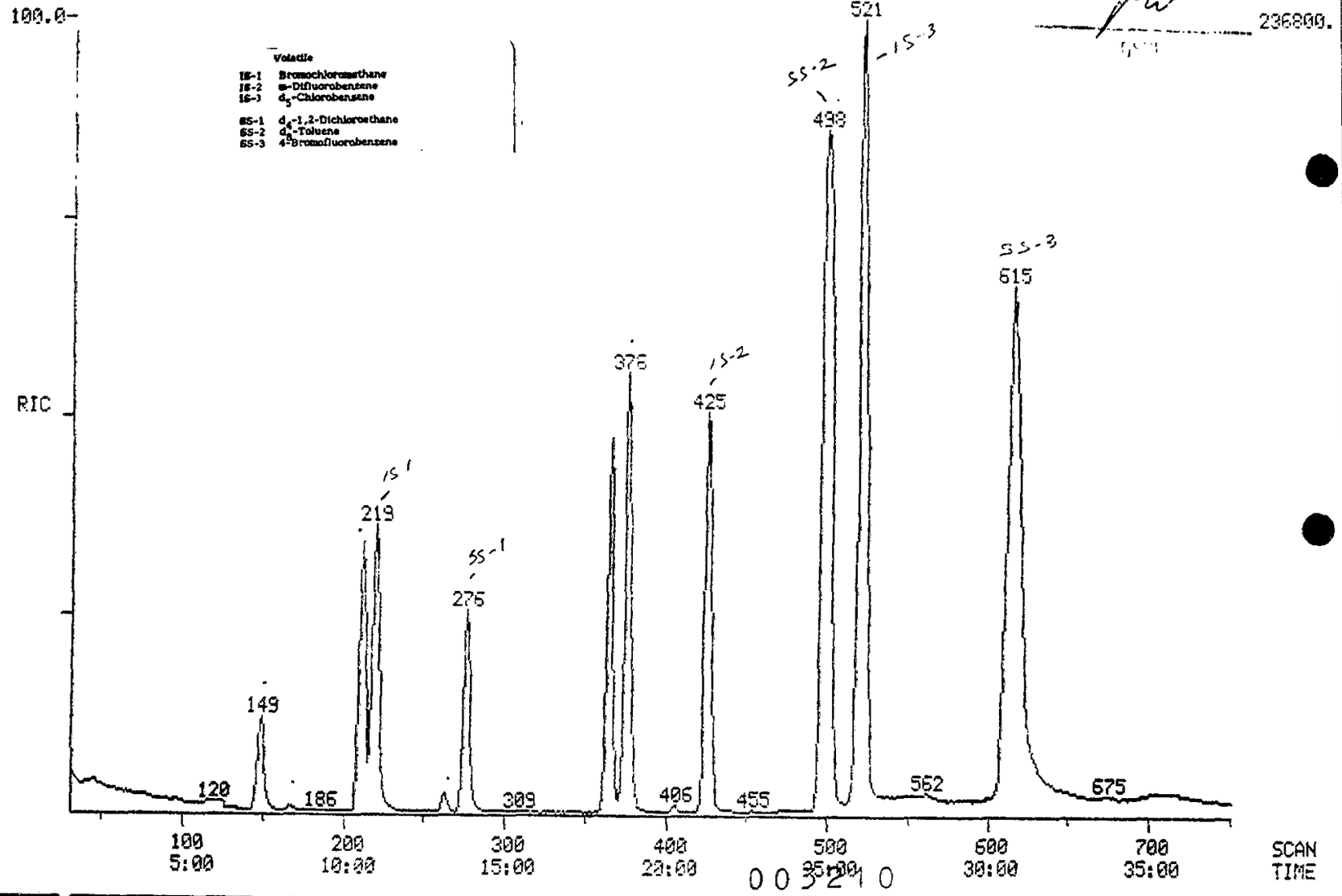
Sample: FD-~~019~~ mef-601MS

Case: 6619

003209

RIC
12/03/86 18:47:00
SAMPLE: FD-019-MSD CASE 6619
CONDS.: 1ZSP-1000/CARB B 45/4-22003 CALIB 11/25/86 F1
RANGE: G 1, 750 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: VOUY01MSD #1 SCANS 30 TO 750
CALI: VOUY01MSD #2



003210

003210

Quantitation Report File: VOUY01MSD

Data: VOUY01MSD.TI
12/03/86 18:47:00
Sample: FD-019-MSD CASE 6619
Conds.: 1%SP-1000/CARB B 45/4-220@8 CALIB 11/25/86 F1
Submitted by: EPA Analyst: GK

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

NO	NAME		
1	CI01	BROMOCHLOROMETHANE	(IS-1)
2	CI10	1,4-DIFLUOROBENZENE	(IS-2)
3	CI20	D5-CHLOROBENZENE	(IS-3)
4	CS15	D4-1,2-DICHLOROETHANE	(SS-1)
5	CS05	D8-TOLUENE	(SS-2)
6	CS10	4-BROMOFLUOROBENZENE	(SS-3)
7	C030	METHYLENE CHLORIDE	
8	C035	ACETONE	
9	C045	1,1-DICHLOROETHENE*	
10	C060	CHLOROFORM*	
11	C145	TRANS13DICHLOROPROPENE	
12	C150	TRICHLOROETHENE	
13	C165	BENZENE	
14	C230	TOLUENE*	
15	C235	CHLOROBENZENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	219	10:57	1	1.000	A BB	56043.	50.000 UG/L	8.87
2	114	425	21:15	2	1.000	A BB	235201.	50.000 UG/L	8.87
3	117	520	26:00	3	1.000	A BB	208433.	50.000 UG/L	8.87
4	102	276	13:45	1	1.260	A BB	19821.	45.097 UG/L	8.00
5	98	497	24:51	3	0.956	A BB	264203.	49.266 UG/L	8.73
6	95	614	30:42	3	1.181	A BB	189942.	53.739 UG/L	9.53
7	84	149	7:27	1	0.680	A BB	33076.	16.779 UG/L	2.97
8	43	167	8:21	1	0.763	A BB	5360.	8.859 UG/L	1.57
9	96	211	10:33	1	0.963	A BB	74756.	48.269 UG/L	8.56
10	83	263	13:09	1	1.201	A BB	9723.	3.275 UG/L	0.58
11	75	376	18:48	2	0.885	A BB	3967.	2.867 UG/L	0.51
12	130	365	18:15	2	0.859	A BB	88702.	42.809 UG/L	7.59
13	78	376	18:48	2	0.885	A BB	267672.	47.606 UG/L	8.44
14	92	501	25:03	3	0.963	A BR	171253.	48.500 UG/L	8.60
15	112	522	26:06	3	1.004	A BB	206068.	46.951 UG/L	8.32

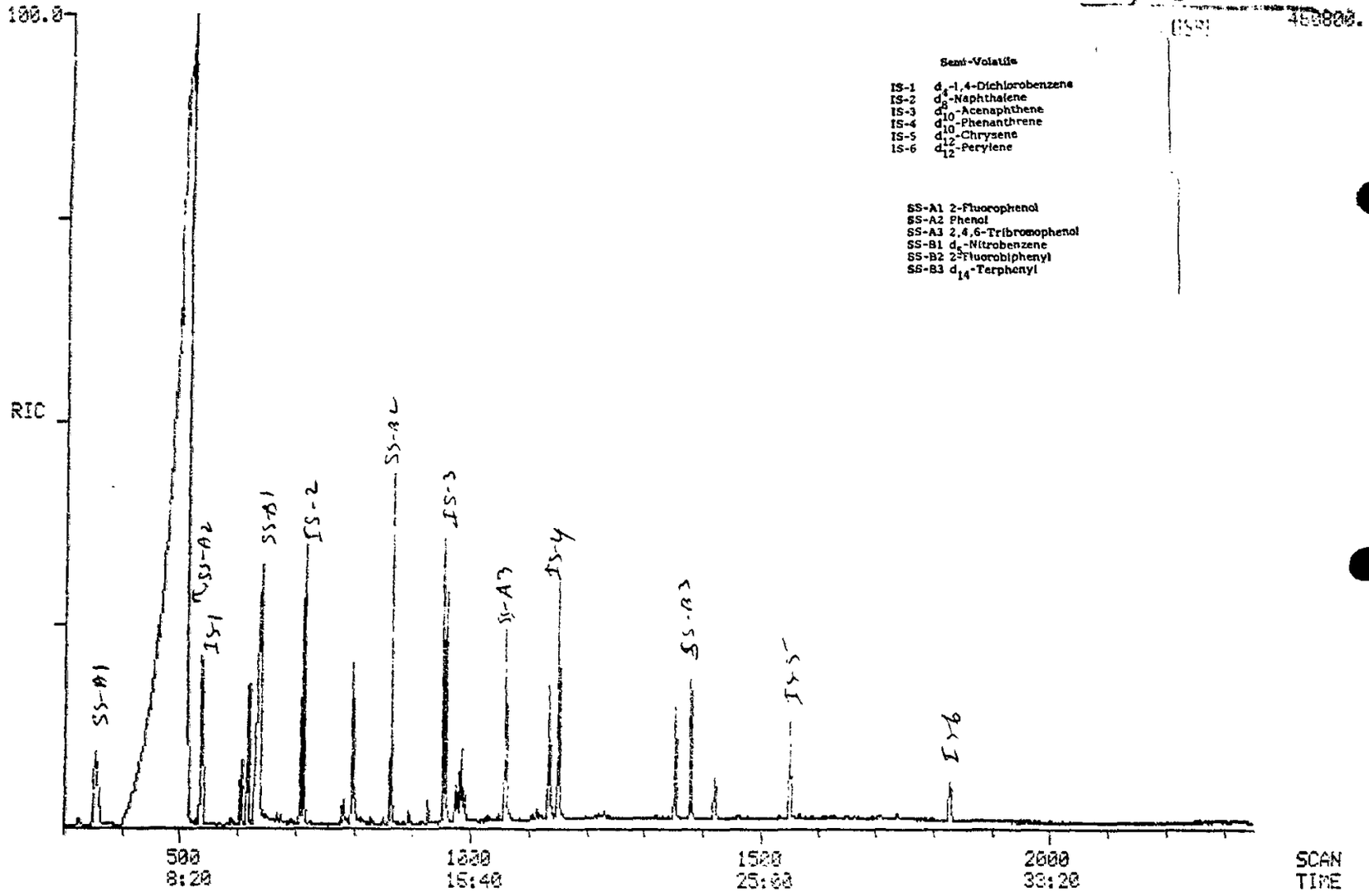
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:51	1.01	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	21:24	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	26:06	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	13:51	1.00	1.257	1.00	45.10	50.00	0.354	0.392	0.90
5	25:00	0.99	0.958	1.00	49.27	50.00	1.268	1.286	0.99
6	30:57	0.99	1.186	1.00	53.74	50.00	0.911	0.848	1.07
7	6:57	1.07	0.680	1.00	16.78	50.00	0.590	1.759	0.34
8	8:03	1.04	0.770	0.99	8.86	50.00	0.096	0.540	0.18
9	10:27	1.01	0.964	1.00	48.27	50.00	1.334	1.382	0.97
10	13:09	1.00	1.194	1.01	3.27	50.00	0.173	2.649	0.07
11	19:03	0.99	0.890	0.99	2.87	50.00	0.017	0.294	0.06
12	18:24	0.99	0.860	1.00	42.81	50.00	0.377	0.440	0.86
13	18:57	0.99	0.886	1.00	47.61	50.00	1.138	1.195	0.95
14	25:12	0.99	0.966	1.00	48.50	50.00	0.822	0.847	0.97
15	26:15	0.99	1.006	1.00	46.95	50.00	0.989	1.053	0.94

003211

RIC
12/10/86 17:18:00
SAMPLE: FD-601 MSD CASE:6619
CONDS.: 30M DB-5 FSCC(#82123) 45/4-300012 CALIB 11/05/86 FINN-02
RANGE: G 1,2350 LABEL: A 0, 4.0 QUAN: A 0, 1.2 J 0 BASE: C 20, 3

DATA: SWUY08MSD #1 SCANS 300 TO 2350
CALI: SWUY08MSD #1

REVIEWED
DEC 1 1986



Semi-Volatile

IS-1 d_4-1,4-Dichlorobenzene
IS-2 d_8-Naphthalene
IS-3 d_{10}-Acenaphthene
IS-4 d_{10}-Phenanthrene
IS-5 d_{12}-Chrysene
IS-6 d_{12}-Perylene

SS-A1 2-Fluorophenol
SS-A2 Phenol
SS-A3 2,4,6-Tribromophenol
SS-B1 d_5-Nitrobenzene
SS-B2 2-Fluorobiphenyl
SS-B3 d_{14}-Terphenyl

003212

Quantitation Report File: SVUY08MSD

Data: SVUY08MSD.TI
12/10/86 17:18:00
Sample: FD-601 MSD CASE:6619
Conds.: 30M DB-5 FSCC(#82129) 45/4-300@12 CALIB 11/06/86 FINN-02
Submitted by: EPA Analyst: KMB

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT) * 2.000
Resp. fac. from Library Entry

NO	NAME		
1	C130	D4-1,4 DICHLOROBENZENE	(IS-1)
2	C140	D8-NAPHTHALENE	(IS-2)
3	C150	D10-ACENAPHTHENE	(IS-3)
4	C160	D10-PHENANTHRENE	(IS-4)
5	C170	D12-CHRYSENE	(IS-5)
6	C175	D12-PERYLENE	(IS-6)
7	CS50	2-FLUOROPHENOL	(SS-A1)
8	CS45	D6-PHENOL	(SS-A2)
9	CS20	D5-NITROBENZENE	(SS-B1)
10	CS25	2-FLUOROBIPHENYL	(SS-B2)
11	CS55	2,4,6-TRIBROMOPHENOL	(SS-A3)
12	CS30	D14-P-TERPHENYL	(SS-B3)
13	C330	2-CHLOROPHENOL	
14	C340	14DICHLOROBENZENE*	
15	C370	NITROSOPROPYLAMINE**	
16	C445	1,2,4-TRICHLOROBENZENE	
17	C450	NAPHTHALENE	
18	C465	4CHLORO3METHYLPHENOL*	
19	C550	ACENAPTHENE*	
20	C560	4NITROPHENOL**	
21	C570	2,4-DINITROTOLUENE	
22	C635	PENTACHLOROPHENOL*	
23	C715	PYRENE	
24	C315	PHENOL*	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	152	537	8:57	1	1.000	A BB	48134.	80.000	UG/L	4.29
2	136	714	11:54	2	1.000	A BB	171500.	80.000	UG/L	4.29
3	164	954	15.54	3	1.000	A BB	93201.	80.000	UG/L	4.29
4	188	1151	19:11	4	1.000	A BB	134672.	80.000	UG/L	4.29
5	240	1551	25:51	5	1.000	A BB	52736.	80.000	UG/L	4.29
6	264	1828	30:28	6	1.000	A BB	35793.	80.000	UG/L	4.29
7	112	354	5:54	1	0.659	A BB	97704.	134.678	UG/L	7.23
8	99	500	8:20	1	0.931	A BV	86932.	72.455	UG/L	3.89
9	82	619	10:19	2	0.867	A BV	76389.	105.485	UG/L	5.66
10	172	864	14:24	3	0.906	A BB	145345.	86.707	UG/L	4.65
11	330	1060	17:40	4	0.921	A BB	39526.	180.421	UG/L	9.68
12	244	1380	23:00	5	0.890	A BB	70766.	105.273	UG/L	5.65
13	128	513	8:33	1	0.955	A BB	69849.	87.437	UG/L	4.69
14	146	539	8:59	1	1.004	A BB	38452.	43.416	UG/L	2.33
15	130	606	10:06	1	1.128	A BB	6375.	53.074	UG/L	2.85
16	180	709	11:49	2	0.993	A BB	33393.	47.364	UG/L	2.54
17	128	716	11:56	2	1.003	A BV	4617.	2.218	UG/L	0.12
18	107	797	13:17	2	1.116	A BB	48908.	77.333	UG/L	4.15
19	154	958	15:58	3	1.004	A BB	61097.	44.604	UG/L	2.39
20	109	975	16:15	3	1.022	A BB	9688.	63.293	UG/L	3.40
21	165	984	16:24	3	1.031	A BB	24041.	45.248	UG/L	2.43
22	266	1135	18:55	4	0.986	A BB	28484.	102.094	UG/L	5.48
23	202	1354	22:34	5	0.873	A BB	65362.	59.796	UG/L	3.21
24	94	504	8:24	1	0.939	M BB	73987.	72.481	UG/L	3.89

003213

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:09	0.98	1.000	1.00	40.00	40.00	1.000	1.000	1.00
2	11:57	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
3	15:54	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
4	19:12	1.00	1.000	1.00	40.00	40.00	1.000	1.000	1.00
5	26:09	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
6	30:55	0.99	1.000	1.00	40.00	40.00	1.000	1.000	1.00
7	6:28	0.91	0.707	0.93	67.34	100.00	0.812	1.206	0.67
8	8:32	0.98	0.933	1.00	36.23	100.00	0.722	1.994	0.36
9	10:25	0.99	0.872	0.99	52.74	50.00	0.356	0.338	1.05
10	14:26	1.00	0.908	1.00	43.35	50.00	1.248	1.439	0.87
11	17:41	1.00	0.921	1.00	90.21	100.00	0.117	0.130	0.90
12	23:08	0.99	0.885	1.01	52.64	50.00	1.074	1.020	1.05
13	8:46	0.98	0.958	1.00	43.72	50.00	1.161	1.328	0.87
14	9:11	0.98	1.004	1.00	21.71	50.00	0.639	1.472	0.43
15	10:11	0.99	1.113	1.01	26.54	50.00	0.106	0.200	0.53
16	11:53	0.99	0.994	1.00	23.68	50.00	0.156	0.329	0.47
17	12:00	0.99	1.004	1.00	1.11	50.00	0.022	0.971	0.02
18	13:17	1.00	1.112	1.00	38.67	50.00	0.228	0.295	0.77
19	15:59	1.00	1.005	1.00	22.30	50.00	0.524	1.176	0.45
20	16:15	1.00	1.022	1.00	31.65	50.00	0.083	0.131	0.63
21	16:25	1.00	1.032	1.00	22.62	50.00	0.206	0.456	0.45
22	18:56	1.00	0.986	1.00	51.05	50.00	0.169	0.166	1.02
23	22:40	1.00	0.867	1.01	29.90	50.00	0.992	1.658	0.60
24	8:34	0.98	0.936	1.00	36.24	50.00	1.230	1.697	0.72

file: SVUY08MSD

Case: 6619

Sample: FD-601MSD

003214

DC-15-6-6619

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

December 5, 1986

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

Subject: EPA Contract No. 680-01-6959
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
6614	VI	12/4/86	9
6619	VI	12/3/86	3

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

Sincerely,

Cindy Palazzo/my

Cindy Palazzo
Report Center Manager

CP:my

003215

DC-16-6-6619

Gulf South Research Institute
Case 6619

EPA Contract No. 68-01-6959

NARRATIVE

Case 6619 consisted of three (3) water samples which were received by Gulf South Research laboratory on December 3, 1986 and logged in as GSRI Episode UY. The samples were identified as follows:

FD-019 FD-601 FD-602

The samples were analyzed for volatile organics, and semivolatile organics only.

No unusual problems were encountered in the analyses. Sample FD-601 contained substantial concentrations of several non-HSL compounds whose identity could not be establish by the mass spectral library search.

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

003216

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	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

003217

GSRI-69b

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

GSRI Sample Control EPA Case #6619

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 yes.
--condition of shipping and bottle custody seals / shipping seal intact. / 10 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).

003218

3 received

EPA-HSL
Contract

SAMPLE ALERT FORM

GSRI 3280-3008
EPA 68-01-6959

Case # 6619
(Episode) UY

No. Samples (3)
Matrix # Solid: 0 # Liquid: 3

Date Expected Dec. 6, 1986

Client (region) USEPA REGION 6
Date GSRI Contacted 11/24/86 GSRI Individual Contacted C. Palazzo
Client Contact Tony Neskey

Notes/Comments: 3 Low Water
Bid lot 1
2 low waters for VOA & BNA ONLY
1 low water for VOA ONLY
30 Day turnaround

Distribution:
Guthrie
Henderson
Leibe
Whitney
Bulletin Board
Palazzo (2)
'Alert' File (DCO)

Alert Form prepared by: M. Young M. Young Date 11/24/86

GSRI-71m

ACD 12-R1 4/84

003219

REPORT PREPARATION CHECK FORM

(Initial box when complete)

Episode #: tt-4 Case #: 6619 SAS #: NA Report #: 233

	Per Case
I. SUMMARY DATA PACKAGE	
A. Cover page	mf
B. Samples - Organic Analysis Data Sheets (Form I, pg 1-4)	↓
C. Surrogate Recovery Summary Sheet (Form II)	↓
D. Matrix Spike Duplicate/Recovery (Form III)	↓
E. Reagent Blank Summary (Form IV)	↓
F. Blanks - Organic Analysis Data Sheets (Form I, pg 1-4)	↓
REPORT COVER PAGE	↓
II. NARRATIVE	
A. Title Sheet	mf
B. Narrative text (case #, contract #, sample #s, summary of any QC sample, shipment and analytical problems, original signature of Lab Mgr.)	mf
C. Signature initial sheet (Form ACD 1)	mf

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

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

003220

GSRI-81g

Episode UY

Case 6619

Contract No. 68 01-6959

Date Received 12-03-86

VOLATILES CONTROL LOG

Page 1 of 1

Extraction Date: 12 03-86

Extractor (s) Lynn Kern

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) AMT 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
UY BLK	—	[ ]	[✓]	[ ]	—	—	—	[✓]	[ ]	[ ]	5	NA	NA	5	0	12/3/86	AK	1
		~~[ ]~~	~~[ ]~~	~~[ ]~~				~~[ ]~~	~~[ ]~~	~~[ ]~~								~~any~~
UY01	FD-019	[ ]	[✓]	[ ]	6.78	—		[✓]	[ ]	[ ]					0	12/3/86	AK	1
UY05	FD-601	[ ]	[✓]	[ ]	6.40	—		[✓]	[ ]	[ ]					0		AK	1
UY10	FD-602	[ ]	[✓]	[ ]	7.26	—		[✓]	[ ]	[ ]					0		AK	1
		~~[ ]~~	~~[ ]~~	~~[ ]~~				~~[ ]~~	~~[ ]~~	~~[ ]~~					~~any~~			~~any~~
UY01MS	FD-019	[ ]	[✓]	[ ]	6.78	—		[✓]	[ ]	[ ]					5		AK	1
UY01MSD	↓	[ ]	[✓]	[ ]	↓	—		[✓]	[ ]	[ ]	↓	↓	↓	↓	↓	↓	AK	1
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]		Plus						
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								
		[ ]	[ ]	[ ]				[ ]	[ ]	[ ]								

Spike Levels:
Water and Low Soil
"B1" Surrogates = 50
Med Soil
"B1" Surrogates = $\frac{20 \times III}{I \times II}$
Matrix Spikes = 50 X QLF

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

003221

EPISODE UY
CASE 6619
CONTRACT NO. 68-01-6959
DATE RECEIVED 12/3/86
EXTRACTION DATE 12/3&4/86

SAMPLE EXTRACTION/ANALYSIS LOG

PAGE 1 OF 1
FRACTION: SV (✓)
PESTICIDES ( )

ACD 43

GSRI ID	CLIENT ID	Matrix/ Level	pH	% MOIST	DWF	I Amt. Extd. (ml)	II INIT. Ext. Vol. (ml)	III Vol. For GPC (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. (µl) SV/P	M.S. (ul) SV/P	ANALYSIS DIL.	ANAL. DATE	ANAL. INIT.	QLF NF	Comments
UY-BLK (H2O)	—	W/L	—	—	—	1000	1	1	—	—	—	—	1	N	100	—		12/10/86	[illegible]	2	* as a combination 0.5 ml AC + 0.5 ml BN
UY-04	FD-019	↓	6.78	—	—	↓	↓	↓	—	—	—	—	↓	↓	↓	—		12/10/86	[illegible]	2	
UY-07	FD-601	↓	6.40	—	—	↓	↓	↓	—	—	—	—	↓	↓	↓	—		12/10/86	[illegible]	2	
UY-08MS	↓	↓	↓	—	—	↓	↓	↓	—	—	—	—	↓	↓	↓	BN/AC 50/100		12/10/86	[illegible]	2	
UY-08MSD	↓	↓	↓	—	—	↓	↓	↓	—	—	—	—	↓	↓	↓	↓		12/10/86	[illegible]	2	

plus

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

Spike Levels:
"S1" Acid Surrogates = µl x 2-II x IV / III
"S1" BN Surrogates = µl Added x 2- II x IV / III
MATRIX SPIKES = µl ADDED x QLF
(For Water Samples = DWF, II and III = 1.0)

SEMIVOLATILE QLF: Water = 1000 / L
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: 803-53 - SVSS

Initials of Extraction Leader SL Assistants: MJS ____ ____
Initials of Sample Cleanup Leader ____ Assistants: ____ ____ ____
Initials of Surrogate Spiker MJS Verifier SL
Initials of Matrix Spike Spiker MJS Verifier [illegible]

MATRIX SPIKE SOLN ID/CONC: 803-57 BNMS/2000
803-73 AMS/1000

003222

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

003223

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)

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Volatile Compounds

INSTRUMENT DETECTION LIMITS

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Laboratory Name: Gulf South Research Institute Case No: 6619

Data Release Authorized By: QC Report No: 233

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

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Laboratory Name: Gulf South Research Institute

Case No: 6619

Semivolatile Compounds

INSTRUMENT DETECTION LIMITS

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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-Methylphenol	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

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Laboratory Name: Gulf South Research Institute

Case No: 6619

Semivolatile Compounds

INSTRUMENT DETECTION LIMITS

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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

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