



SDMS DocID 571846

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VOLUME 6

PRIVATE WELL

LABORATORY RESULTS

For

Davis Liquid Site

EPA Contract No.: 68-01-6939/117/WP1

Work Assignment No.: 18-I1107

Document No.: 117-WP1-RT-BJMQ-1

FILMED

DAVIS LIQUID SITE
Smithfield, Rhode Island

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SERIES: Private Wells

<u>Case Number</u>	<u>Volume</u>
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3969	3 4
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INTRODUCTION

This volume is apart of a series that presents all validated organic laboratory analyses results pertaining to the private well sampling conducted at the Davis Liquid Site in Smithfield, Rhode Island. The series is a collection of five different cases in which each case is contained in two volumes. The first case, Number 3633, was received by Radian Laboratory on December 7, 1984 and included 14 samples. The second case, Number 3969, was received by GCA Corporation on March 1, 1985 and included 15 samples. The third case, Number 3981, was received by GCA Corporation on March 8, 1985 and included 15 samples. The fourth case, Number 4005, was received by ChemTech on March 13, 1985 and included 10 private well samples. The final case, Number 4124, was received by GCA Corporation on April 5, 1985 and included 10 private well samples. This volume contains case Number 3981.

In addition to the lab results, two summary tables have been included. Table 1 is a list of each case number with the corresponding Sample Management Office (SMO) organic traffic numbers. Table 2 contains a summary of the validated lab analysis reports from the case contained in this volume. At the top of the summary sheets, the well location and resident are matched to their respective SMO traffic numbers.

Organic analyses results from each case are each contained in bound volumes marked accordingly on the covers. These volumes have been tabbed at the beginning of each sample by their sample SMO traffic numbers for easy reference. The first page of results, at the tab are the volatile compounds, the second page contains the semi-volatile compounds and the third page contains the pesticide/PCB compounds. These three pages contain the compounds on the Hazardous Substances List (HSL). Immediately following are two pages which allow write-in space for an additional 10 volatile compounds and 20 semi-volatile compounds which may be matched through a mass spectral library search. They are listed as tentatively present. The rest of the volume consists of the lab QA/QC program.

NOTE:

The validation process has not yet been completed for the fourth and fifth cases, numbers 4005 and 4124. Upon receiving validation, these two cases will be added to this collection of data making this series on private well data complete. Validation completion is expected by mid-September, 1985.

TABLE 1

PRIVATE WELLS

CASE #3981 AB 040

AB 041

AB 042

AB 043

AB 044

AB 045

AB 046

AB 047

AB 048

AB 049

AB 050

AB 051

AB 052

AB 053

AB 054

6

TABLE 2

CASE # 3981

3/8/85

Volatile Organics Analysis

HOME LOCATION
Sample ID

EPA
SMO

CAS
Number

	HURLEY	MARTY	DUP TO PW-16	SIMKINS	RICHARD	TROWBRIDGE	STEVENS	TALBEE	KOZAR	FIELD BLANK
	AB040	AB041	AB042	AB043	AB044	AB045	AB046	AB047	AB048	AB049
	PW-22	PW-16	PW-17	PW-18	PW-19	PW-20	PW-21	PW-23	PW-24	PW-25
74-87-3	Chloromethane									
74-83-9	Bromomethane									
75-01-4	Vinyl Chloride	R	R	R	R	R	R	R	R	R
75-00-3	Chloroethane									
75-09-2	Methylene Chloride	R	R	R	R	R	R	R	R	R
67-64-1	Acetone	R	R		R	R	R	R	R	R
75-15-0	Carbon Disulfide							18		
75-35-4	1, 1-Dichloroethane									
75-34-3	1, 1-Dichloroethane									
156-60-5	Trans-1, 2-Dichloroethene									
67-66-3	Chloroform		11							
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									
79-34-5	1, 1, 2, 2-Tetrachloroethane									
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	R	R	R	R	R	R	R	R	R
591-78-6	2-Hexanone									
108-10-1	4-Methyl-2-Pentanone									
127-18-4	Tetrachloroethene									
108-88-3	Toluene									
108-90-7	Chlorobenzene									
100-41-4	Ethylbenzene									
100-42-5	Styrene	R	R	R	R	R	R	R	R	R
	Total Xylenes									

100

total ppm =

0 11 0 30 0 0 0 44 0 0

Semivolatile Organics Analysis

CAS Number	Sample ID EPA SMO													
		AB040	AB041	AB042	AB043	AB044	AB045	AB046	AB047	AB048	AB049			
62-75-9	N-Nitrosodimethylamine													
108-95-2	Phenol													
62-53-3	Aniline													
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	R	R	R	IOJ	R	R	R	R	R	R	R	R	R
91-20-3	Naphthalene													
106-47-8	4-Chloroaniline													
87-68-3	Hexachlorobutadiene	R		R	R	R	R	R	R	R	R	R	R	R
59-50-7	4-Chloro-3-Methylphenol													
91-57-6	2-Methylnaphthalene													
77-47-4	Hexachlorocyclopentadiene		R											
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	R	R	R	IOJ	R	R	R	R	R	R	R	R	R
99-09-2	3-Nitroaniline													

Semivolatile Organics Analysis

Sample ID
EPA
SMO

CAS
Number

AB040 AB041 AB042 AB043 AB044 AB045 AB046 AB047 AB048 AB049

CAS Number	Chemical Name	AB040	AB041	AB042	AB043	AB044	AB045	AB046	AB047	AB048	AB049
83-32-9	Acenaphthene										
51-28-5	2, 4-Dinitrophenol		R	R	R	R	R	R	R	R	R
100-02-7	4-Nitrophenol										
132-64-9	Dibenzofuran										
121-14-2	2, 4-Dinitrotoluene	R									
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	R	R	R	10T	R	R	R	R	R	R
206-44-0	Fluoranthene										
92-87-5	Benzidine										
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	R	R	R	R	R	R	R	R	R	R
218-01-9	Chrysene										
117-84-0	Di-n-Octyl Phthalate								26		
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										

Case # 3981

Case # 990

Volatile Organics Analysis

3/3/85

3/1/85

FIELD BLANK

OGILVIE

HOME Sample ID

EPA SMO

CAS Number

Sample ID	COLPACK	HORNER	TRIP BLANK	DUP TO PW-27	POWERS	MOORE	NYHAN	QUIMETTE	OGILVIE
AB 050	AB 051	AB 054	AB 052	AB 053	AB 036	AB 037	AB 038	AB 039	
PW 26	PW 27	PW 28	PW 29	PW 30	PW 12	PW 11	PW 10	PW 09	
74-87-3 Chloromethane									
74-83-9 Bromomethane									
75-01-4 Vinyl Chloride	R	R	R	R	R				
75-00-3 Chloroethane									
75-09-2 Methylene Chloride	R	R	R	R	R	R	R	R	R
67-64-1 Acetone	R	R	R	R	R	R			
75-15-0 Carbon Disulfide									
75-35-4 1,1-Dichloroethane			5 J						
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									
75-37-4 Bromodichloromethane									
79-34-5 1,1,2,2-Tetrachloroethane									
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	R	R	R	R	R				
591-78-6 2-Hexanone									
108-10-1 4-Methyl-2-Pentanone									
127-18-4 Tetrachloroethene									
108-88-3 Toluene									
108-90-7 Chlorobenzene									
100-41-4 Ethylbenzene									
100-42-5 Styrene	R	R	R	R	R				
Total Xylenes									

total ppm =

21 0 5 0 0 0 0 0 0

Semivolatile Organics Analysis

CAS Number	Sample ID EPA SMO											
		AB050	AB051	AB054	AB052	AB053	AB 36	AB 37	AB 38	AB 39		
83-32-9	Acenaphthene											
51-28-5	2, 4-Dinitrophenol	R	R		R	R						
100-02-7	4-Nitrophenol											
132-84-9	Dibenzofuran											
121-14-2	2, 4-Dinitrotoluene											
608-20-2	2, 6-Dinitrotoluene											
84-66-2	Diethylphthalate											
7005-72-3	4-Chlorophenyl-phenylether											
86-73-7	Fluorene											
100-01-8	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	R	R		R	R						
206-44-0	Fluoranthene											
92-87-5	Benzidine											
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	R	R		R	R	R	R	R	R	R	R
218-01-9	Chrysene											
117-84-0	Di-n-Octyl Phthalate	21										
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											

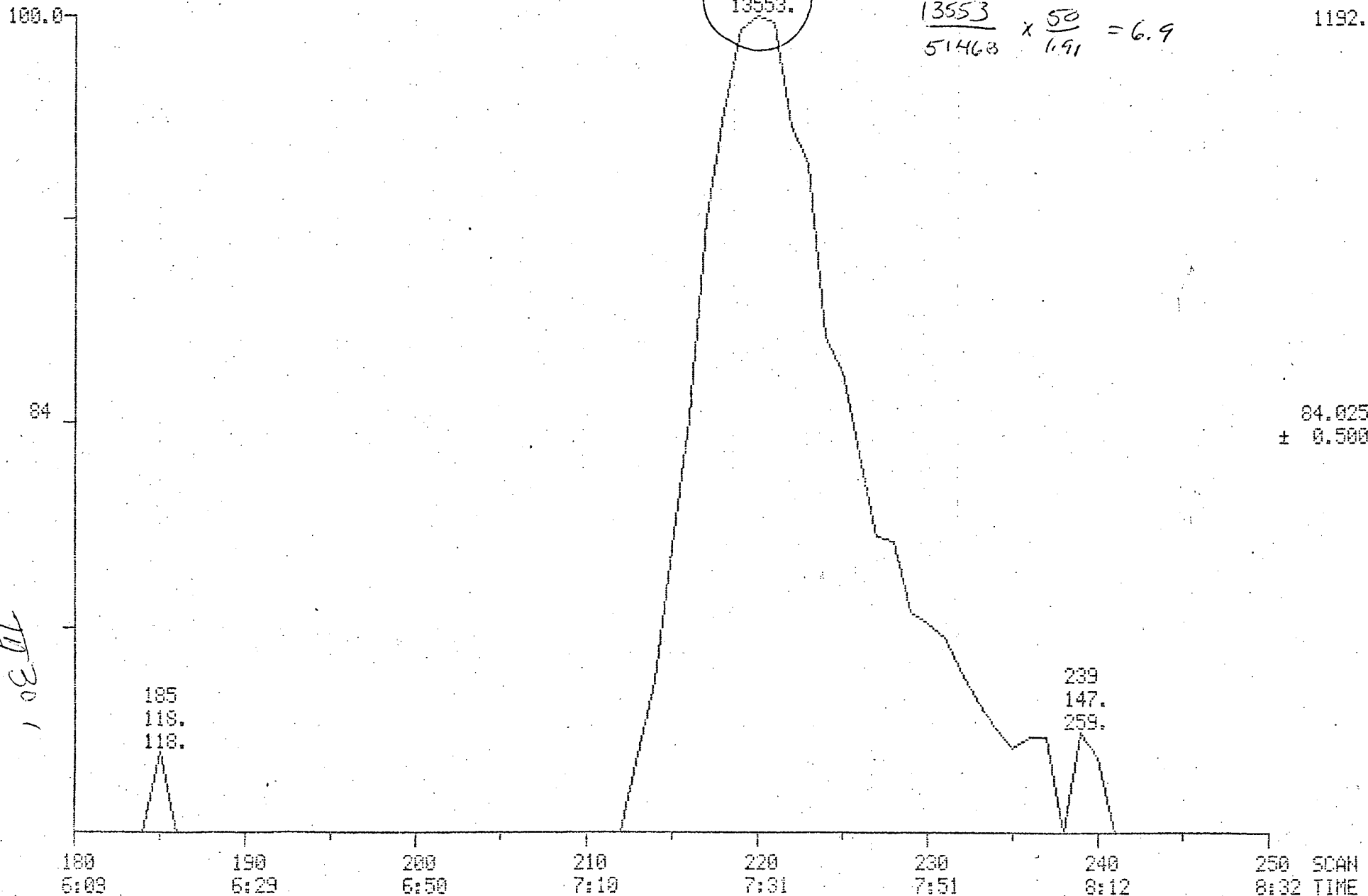
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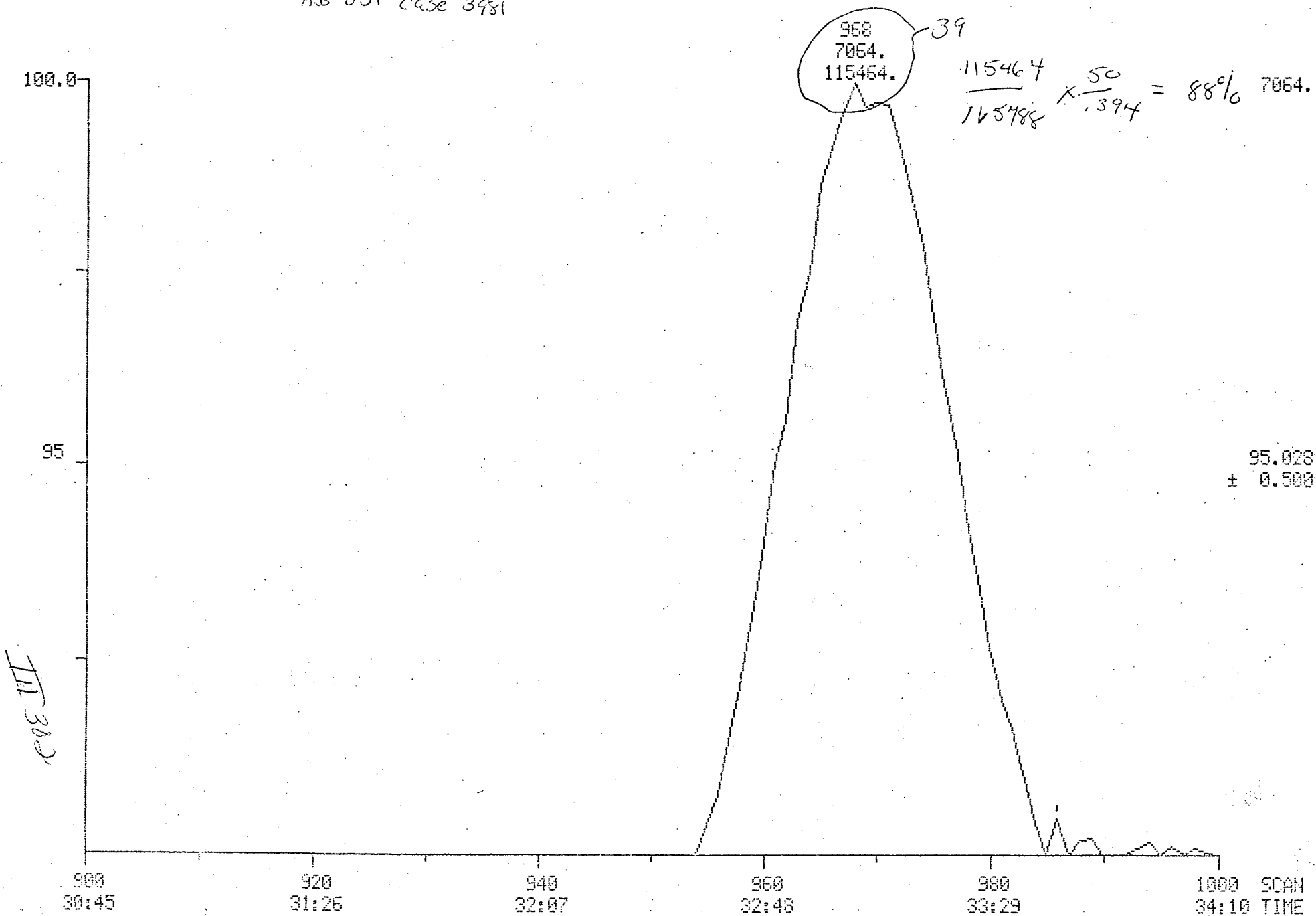
SAMPLE: AB 051 Case 3981



MASS CHROMATOGRAM
03/15/85 1:20:00
SAMPLE: AB 051 Case 3981

DATA: U2840

SCANS 900 TO 1000



DUAL MASS SPECTRUM

DATA: V2840 #220

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RIC: 4815./ 10559.

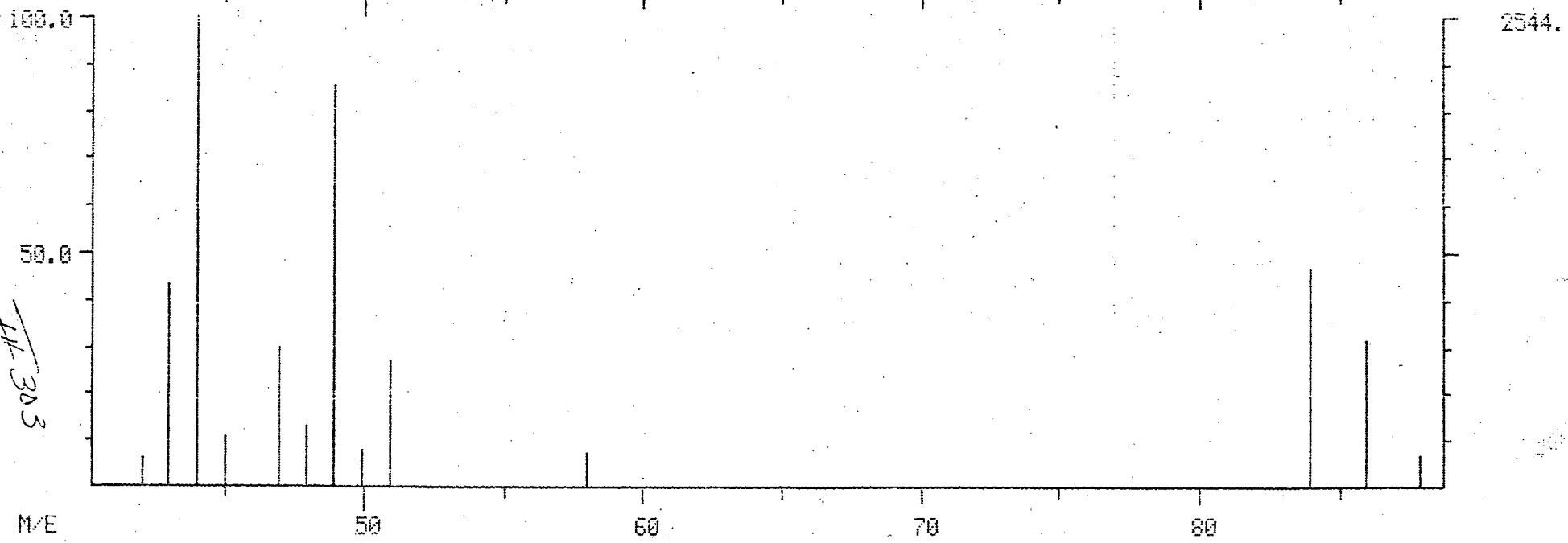
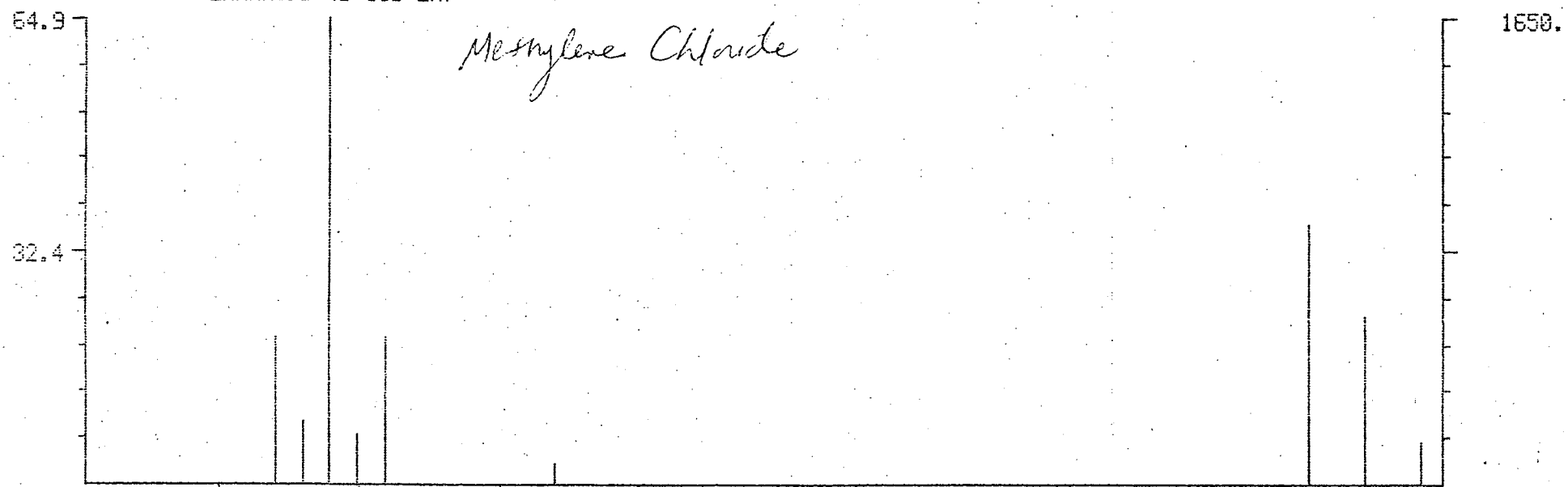
03/16/85 1:28:00 + 7:31

SAMPLE:

QB 051 Case 3981

ENHANCED (S 15B 2N)

Methylene Chloride



303

M/E

MASS SPECTRUM

03/03/85 12:41:00 + 8:28

DATA: U2708 #248

BASE M/E: 49

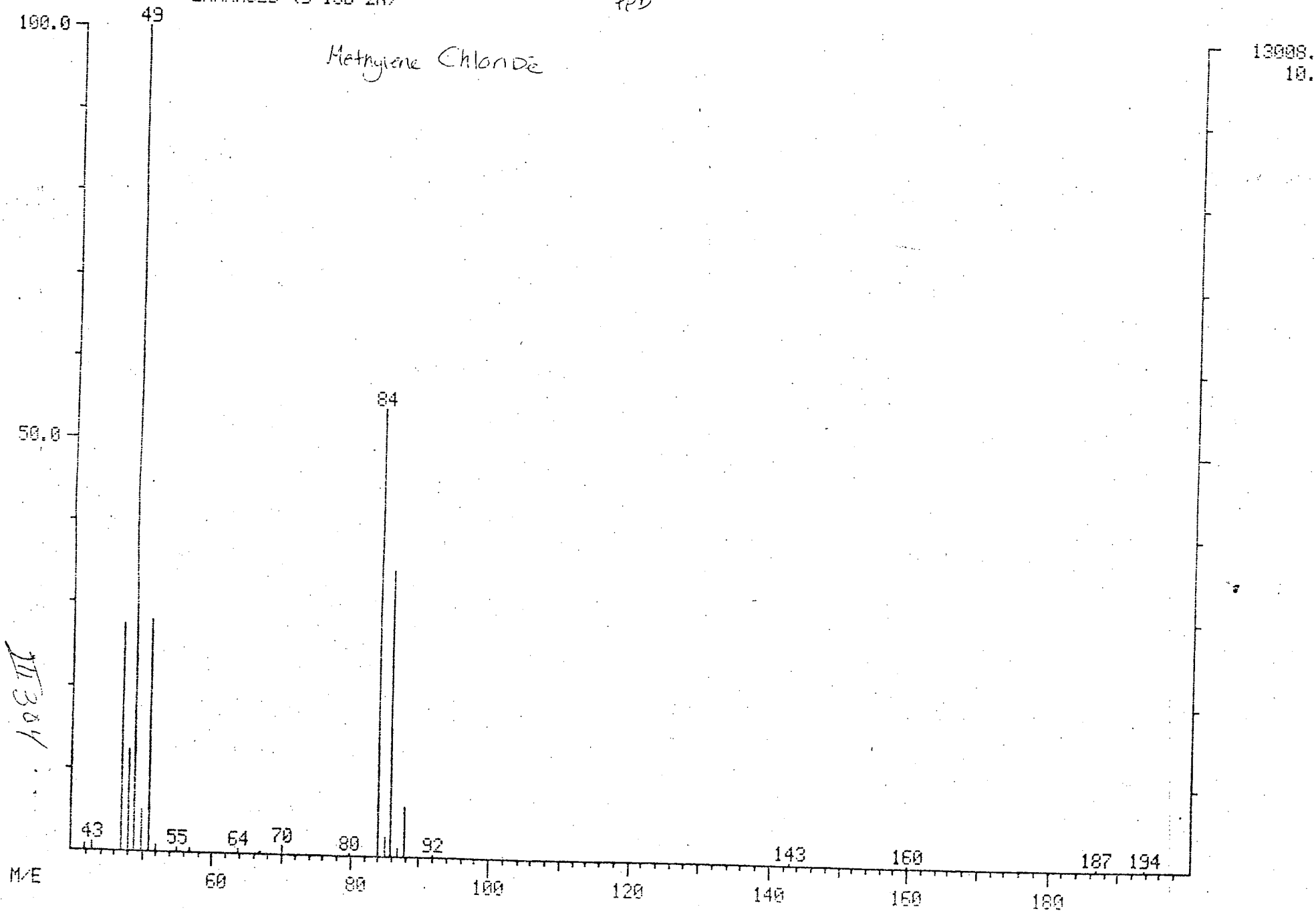
SAMPLE:

RIC: 35224.

ENHANCED (S 15B 2N)

39.9
COSE 39.9cm 100ppb

Methylene Chloride



III 301

13008.
10.

LIBRARY SEARCH

03/15/85 1:20:00 + 34:57

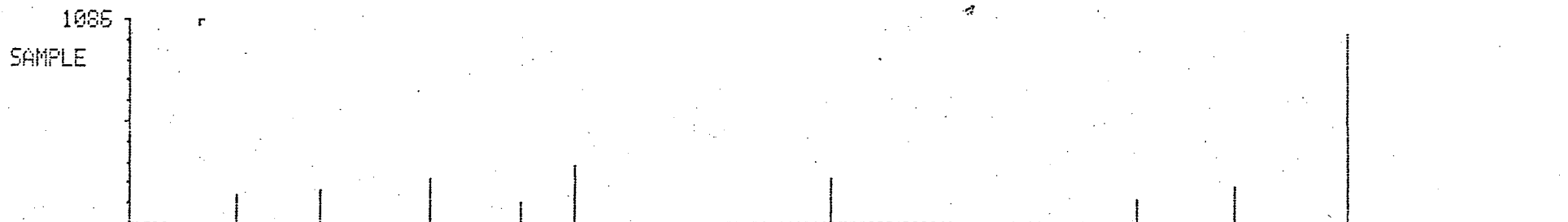
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ENHANCED (S 158 2N 0T)

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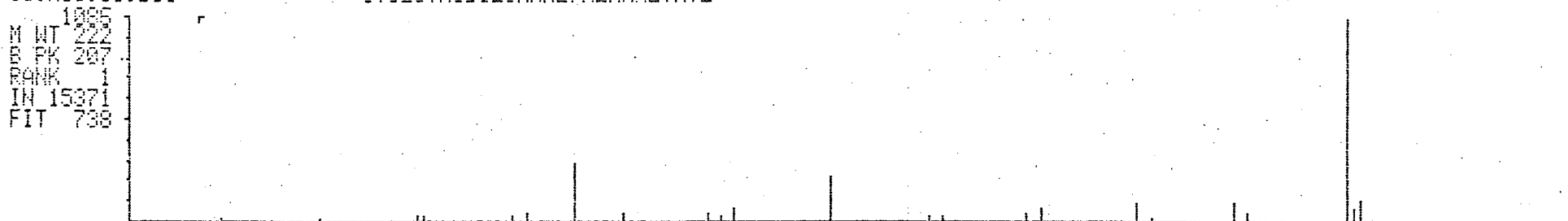
BASE M/E: 207

RIC: 848.



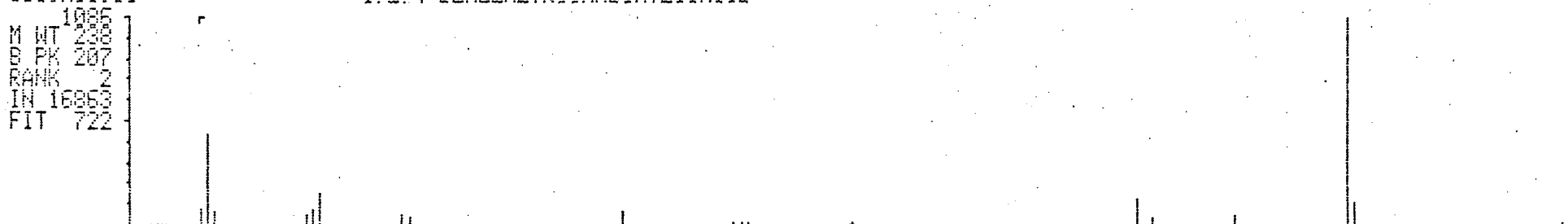
05.H18.03.SI3

CYCLOTRISILOXANE, HEXAMETHYL-



011.H19.06

1,2,4-BENZENETRICARBOXYLICACID



04.H19.03

METHANE, TRIMETHOXY-



M/E

50

100

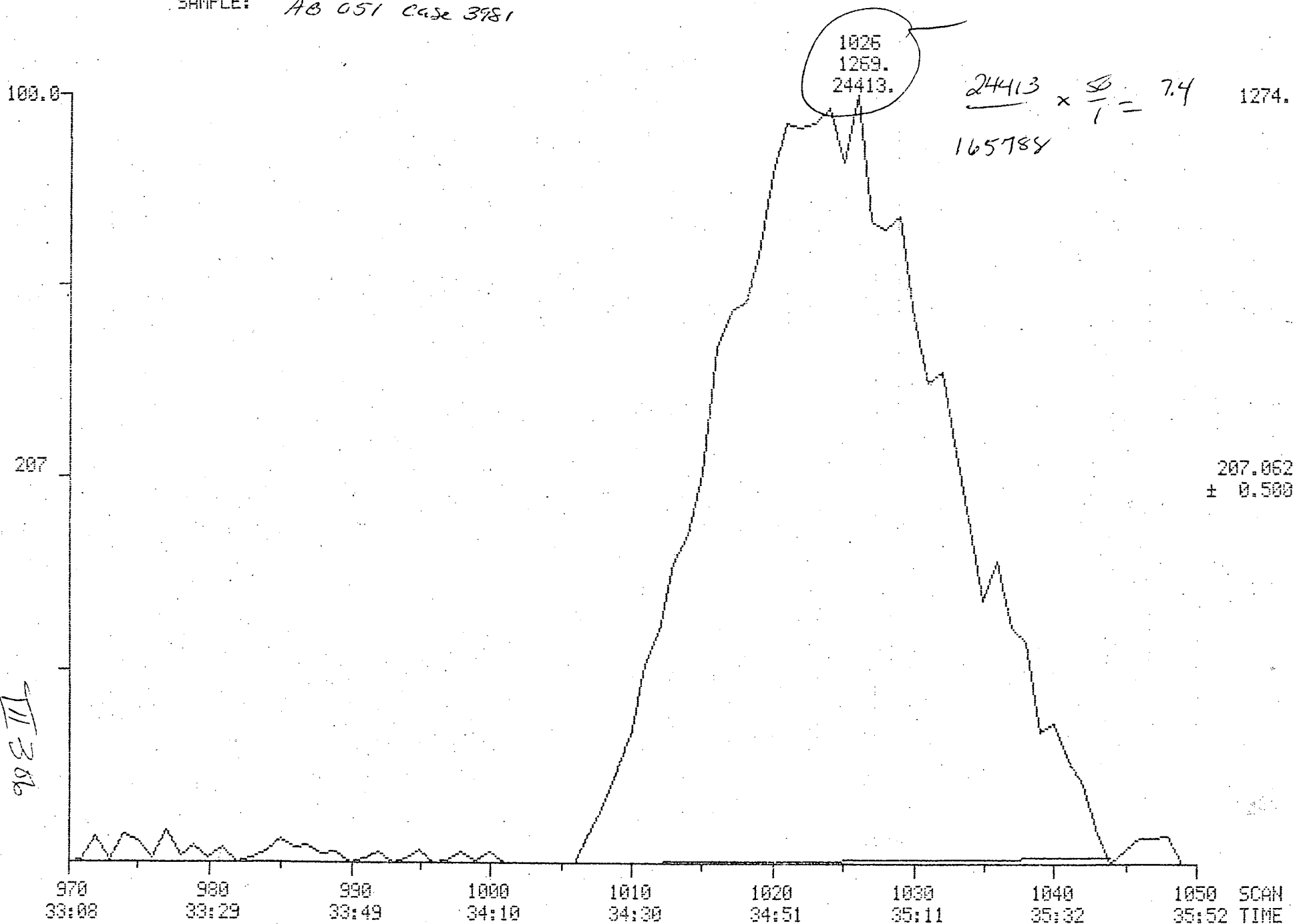
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200

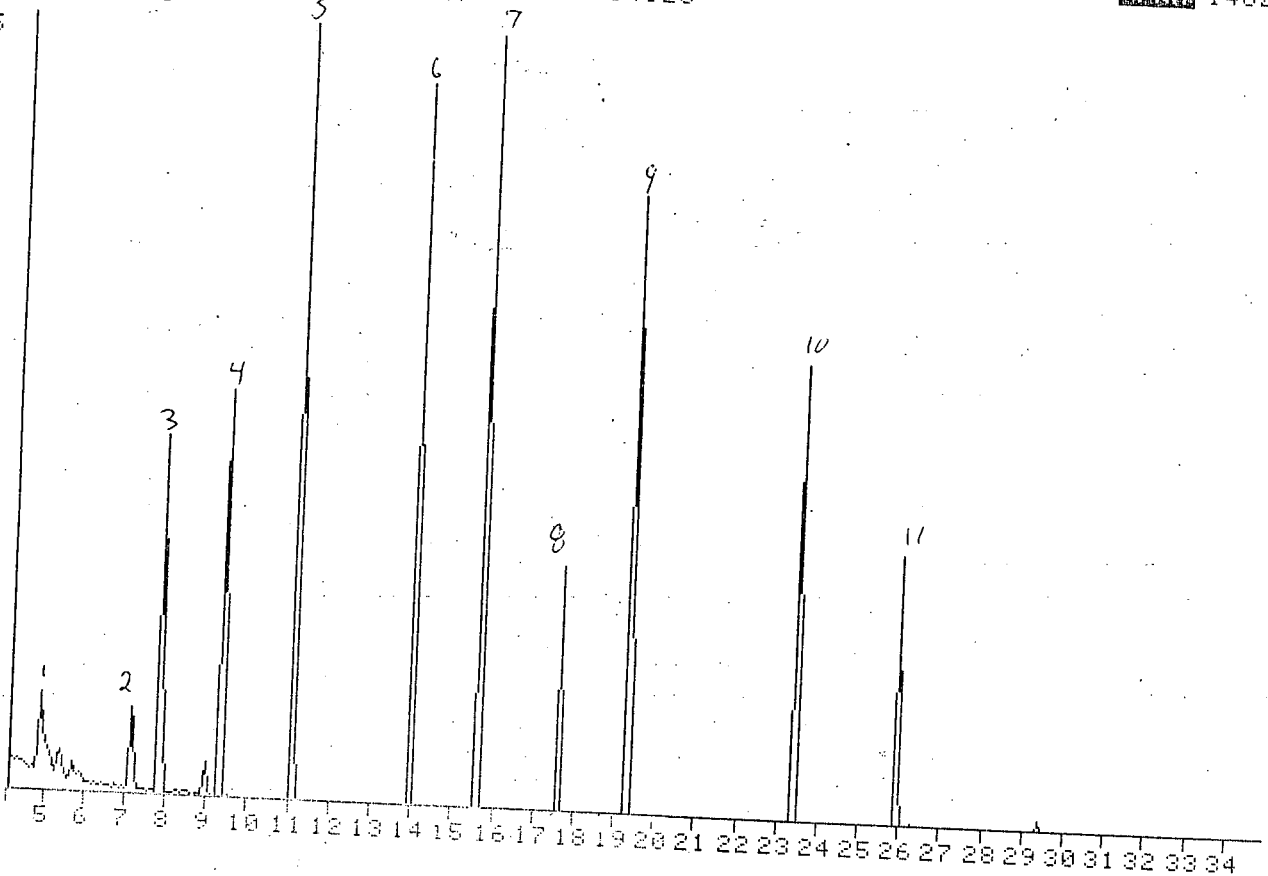
MASS CHROMATOGRAM
03/16/85 1:20:00
SAMPLE: AB 051 case 3981

DATA: U2840

SCANS 970 TO 1050



17915



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

L11307

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000			D4-1,4-DICHLOROBENZENE(20)	
8.9	74.0	.046	.0000			N-NITROSODIMETHYLAMINE	
7.2	93.0	1.095	.0000			ANILINE	
7.4	93.0	.814	.0000			BIS(2-CHLOROETHYL)ETHER	
7.8	146.0	.635	.0000			1,3-DICHLOROBENZENE	
7.9	146.0	.682	.0000			1,4-DICHLOROBENZENE	
8.4	108.0	.459	.0000			BENZYL ALCOHOL	
8.4	146.0	.652	.0000			1,2-DICHLOROBENZENE	
8.8	45.0	.573	.0000			BIS(2-CHLOROISOPROPYL)ETHER	
9.1	70.0	.564	.0000			N-NITROSODINPROPYLAMINE	
9.1	117.0	.324	.0000			HEXACHLOROETHANE	
9.4	77.0	.870	.0000			NITROBENZENE	

11.1	136.0	1.000	80.0000			D8-NAPHTHALENE(20)	
10.0	82.0	.724	.0000			ISOPHORONE	
10.7	93.0	.484	.0000			BIS(2-CHLOROETHOXY)METHANE	
11.0	180.0	.201	.0000			1,2,4-TRICHLOROBENZENE	
11.2	129.0	.105	.0000			NAPHTHALENE	
11.5	127.0	.401	.0000			4-CHLOROANILINE	
11.7	225.0	.099	.0000			HEXACHLOROBUTADIENE	
13.0	142.0	.564	.0000			2-METHYLNAPHTHALENE	

15.6	164.0	1.000	80.0000			D10-ACENAPHTHENE	
13.6	237.0	.248	.0000			HEXACHLOROCYCLOPENTADIENE	
14.2	162.0	1.060	.0000			2-CHLORONAPHTHALENE	
14.6	65.0	.507	.0000			2-NITROANILINE	
15.3	163.0	1.158	.0000			DIMETHYL PHTHALATE	
15.3	152.0	1.874	.0000			ACENAPHTHYLENE	
15.4	165.0	.334	.0000			2,6-DINITROTOLUENE	
15.7	138.0	.433	.0000			3-NITROANILINE	
15.8	153.0	1.236	.0000			ACENAPHTHENE	
16.2	168.0	1.476	.0000			DIBENZOFURAN	
16.3	89.0	.392	.0000			2,4-DINITROTOLUENE	
17.0	149.0	1.429	.0000			DIETHYL PHTHALATE	
17.0	166.0	1.132	.0000			FLUORENE	
17.1	204.0	.510	.0000			4-CHLOROPHENYLPHENYL ETHER	
17.3	138.0	.461	.0000			4-NITROANILINE	
16.2	169.0	.192	.0000			DIPHENYLAMINE	

III 308

AG 051

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
19.3	188.0	1.000	80.0000				D10-PHENANTHRENE(20)
18.3	248.0	.166	.0000				4-BROMOPHENYLPHENYL ETHER
18.6	284.0	.193	.0000				HEXACHLOROBENZENE
19.5	178.0	.574	.0000				PHENANTHRENE/ANTHRACENE
21.2	149.0	1.804	.0000				DIBUTYL PHTHALATE
22.4	202.0	.968	.0000				FLUORANTHENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
23.0	202.0	3.049	.0000				PYRENE
24.8	149.0	1.411	.0000				BUTYL BENZYL PHTHALATE
26.0	228.0	.555	.0000				BENZO(A)ANTHRACENE/CHRYSENE
26.3	149.0	1.345	.0000				BIS(2-ETHYLHEXYL)PHTHALATE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
27.5	149.0	.139	.0000				DIOCTYL PHTHALATE
28.5	252.0	.283	.0000				BENZO(B)/(K)FLUORANTHENE
29.3	252.0	.173	.0000				BENZO(A)PYRENE
32.7	276.0	.075	.0000				INDENO(123-CD)PYRENE
32.8	278.0	.043	.0000				DIBENZO(AH)ANTHRACENE
33.7	276.0	.055	.0000				BENZO(GHI)PERYLENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
22.8	184.0	1.084	.0000				BENZIDINE
26.0	252.0	.357	.0000				DICHLOROBENZIDINE

III 309

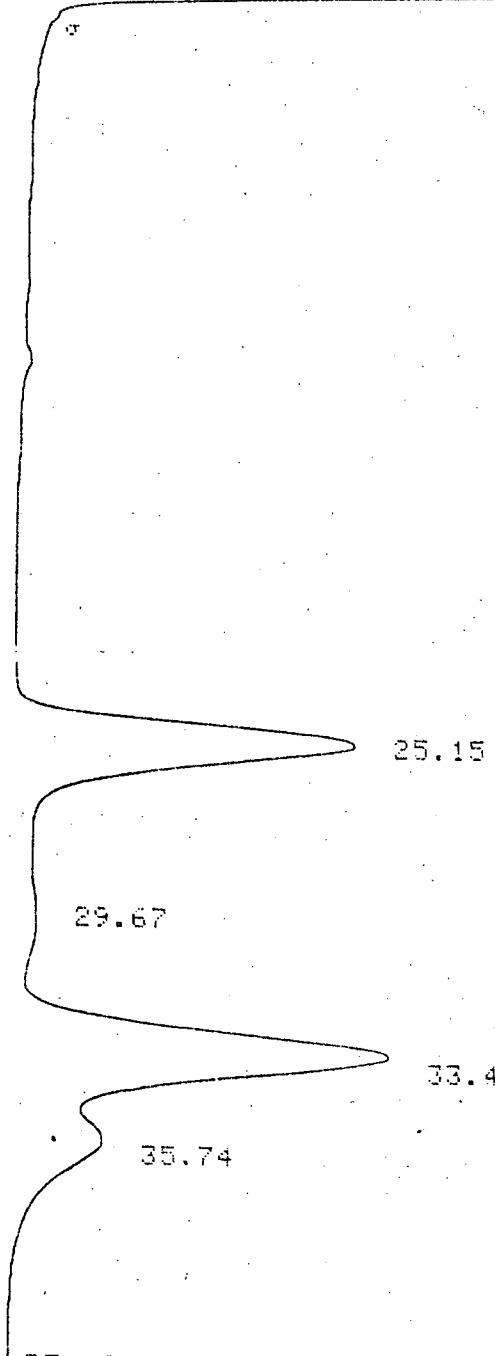
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				
7.2	94.0	1.311	.0000				D4-1,4-DICHLOROBENZENE(20)
7.4	128.0	.997	.0000				PHENOL
8.7	108.0	.963	.0000				2-CHLOROPHENOL
9.1	108.0	1.027	.0000				2-METHYLPHENOL
							4-METHYLPHENOL
11.1	136.0	1.000	80.0000				
10.2	139.0	.198	.0000				D8-NAPHTHALENE(20)
10.5	122.0	.299	.0000				2-NITROPHENOL
11.1	122.0	.131	.0000				2,4-DIMETHYLPHENOL
10.9	162.0	.240	.0000				BENZOIC ACID
12.8	107.0	.317	.0000				2,4-DICHLOROPHENOL
							4-CHLORO-M-CRESOL
15.6	164.0	1.000	80.0000				
13.8	196.0	.347	.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	.0000				2,4,5-TRICHLOROPHENOL
15.9	184.0	.165	.0000				2,4,6-TRICHLOROPHENOL
17.3	198.0	.197	.0000				2,4-DINITROPHENOL
16.2	65.0	.310	.0000				4,6-DINITRO-O-CRESOL
							4-NITROPHENOL
19.3	188.0	1.000	80.0000				
19.1	266.0	.122	.0000				D10-PHENANTHRENE
							PENTACHLOROPHENOL

D310

1.0066
3.01
3.00
3.03

5.40

43320 / AB051
Case 3981
SP 2250 / 2401
HP 5870 5ml



RT: STOP RUN

[HP] 5880A SAMPLER INJECTION @ 03:02 APR 9, 1985
SAMPLE # : ID CODE :
73

AREA %

RT	AREA	TYPE	AREA %
0.32	1177500.00	SBV	92.963
0.56	344.68	BB	0.027
0.80	16033.90	BB	1.266
1.13	198.19	FB	0.016
1.66	317.92	P	0.025
1.80	274.70	VB	0.022
3.01	1338.24	VV	0.105

43320 / AB051
Case 3981 III 312

3.93	772.73	VV	0.051
5.40	12022.00	BV	0.949
25.15	20969.50	BB	1.556
29.67	820.53	BP	0.065
33.47	27698.70	PV	2.187
35.74	7981.98	A VP	0.630

HP 5880 Sml

TOTAL AREA = 1266640.00
MULTIPLIER = 1

RT. TAN. PKT

III
313

① Case Number: 3981

Sample Site Name/Code:

② SAMPLE CONCENTRATION
(Check One)

Low Concentration
 Medium Concentration

③ SAMPLE MATRIX
(Check One)

Water
 Soil/Sediment

④ Ship To:

EOA
213 Burlington Rd.
Bedford, MA 01730

Attn: Gary Hunt

Transfer

Ship To:

⑤ Regional Office: I

Sampling Personnel:

John Williams
(Name)
(617) 742-5151
(Phone)

Sampling Date: 3/7/85 - 3/7/85
(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	80 ml
Water (VOA)	2	40 ml
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑦ Analyzed by: S. Lennon

Date Rec'd: 3/8/85

Revised by:

on Performed by:

Re. Checked by:

No sample tags

⑧ Shipping Information

Hand-Carry
Name of Carrier

Date Shipped:

Airbill Number:

⑧ Sample Description

Surface Water Mixed Media

Ground Water Solids

Leachate Other (specify):

⑨ Sample Location:

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

Matches Inorganic Report # KLAP 42 III 315

Laboratory Name: GCA
Lab Sample ID No: 43335
Sample Matrix: Water
Data Release Authorized By: F. Marquis

Case No: 3981
GC Report No: 3981
Contract No: 68-01-6767
Date Sample Received: 3-8-85

Volatile Compounds

Concentration (Low) Medium (Circle One) Unit

Date Extracted-Prepared: 3-15-85

Date Analyzed: 3-16-85

Conc/Dil Factor: 1 NA

Percent Moisture: NA

Percent Moisture (Decrest): NA

*ETMM
6/4/85*

*ETMM
6/4/85*

CAS Number	Compound	ug./Portion/Kg (Circle One)
76-67-3	Chloroethane	10U
74-93-3	Styrene	10U
76-01-4	Vinyl Chloride	10U R
75-50-3	Chloroform	10U
76-00-2	Methylene Chloride	8.3 R
67-64-1	Acetone	10U R
75-15-0	Carbon Disulfide	5U
76-38-4	1,1-Dichloroethane	5U
76-31-3	1,1-Dibromochloroethane	5U
156-22-5	trans-1,2-Dichloroethene	5U
67-55-3	Chlorobenzene	5U
107-06-2	1,2-Dichloroethane	5U
75-69-3	2-Dibromopropane	10U
71-85-7	1,1,1-Trichloroethane	5U
60-29-1	Carbon tetrachloride	amt 5U
76-01-4	Vinyl Chloride	10U
76-38-4	Bromochloroethane	5U

CAS Number	Compound	ug./Portion/Kg (Circle One)
79-38-6	1,1,2,2-Tetrachloroethane	5U
76-37-5	1,2-Dichloroethene	5U
10041-92-6	trans-1,3-Dichloropropene	5U
73-01-6	Trichloroethane	5U
124-40-1	Dibromochloroethane	5U
76-00-2	1,1,2-Trichloroethane	5U
71-43-7	Benzene	5U
10051-91-5	cis-1,3-Dichloropropene	5U
110-26-8	2-Chloroethyl vinyl ether	10U
75-25-2	Bromobenzene	5U R
501-76-0	2-Nitrotoluene	10U
106-10-1	4-Methyl-2-Pentanol	10U
127-18-4	Dibromochloroethane	5U
108-29-3	Toluene	5U
103-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U R
	Total Xylenes	5U

These results are based on the following conditions:
1. The sample was analyzed as received.
2. The sample was analyzed as received.
3. The sample was analyzed as received.

- A. If the results are being provided to the Department of Health, the following information is required:
 - 1. The name of the person who provided the sample to the laboratory.
 - 2. The date the sample was received by the laboratory.
 - 3. The date the sample was analyzed by the laboratory.
 - 4. The name of the person who analyzed the sample.
 - 5. The name of the person who prepared the report.
- B. If the results are being provided to the Department of Health, the following information is required:
 - 1. The name of the person who provided the sample to the laboratory.
 - 2. The date the sample was received by the laboratory.
 - 3. The date the sample was analyzed by the laboratory.
 - 4. The name of the person who analyzed the sample.
 - 5. The name of the person who prepared the report.

- A. The following are the conditions under which the results were obtained:
 - 1. The sample was analyzed as received.
 - 2. The sample was analyzed as received.
 - 3. The sample was analyzed as received.
- B. The following are the conditions under which the results were obtained:
 - 1. The sample was analyzed as received.
 - 2. The sample was analyzed as received.
 - 3. The sample was analyzed as received.

11/ 316

Sample Number
 AB 052

Organics Analysis Data Sheet
 (Page 2)

Semivolatiles Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/11/85

Date Analyzed: 3/28/85

Conc/Dil Factor: 1000ml -> 1.0ml

ETM 6/4/85

R=Reject

ETM 6/4/85

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10u
108-95-2	Phenol	10u
62-53-3	Aniline	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
85-57-8	2-Chlorophenol	10u
541-73-1	1,3-Dichlorobenzene	10u
106-46-7	1,4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1,2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39636-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2,4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2,4-Dichlorophenol	10u
120-82-1	1,2,4-Trichlorobenzene	10u R
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-69-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u R
88-06-2	2,4,6-Trichlorophenol	10u
95-95-4	2,4,5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u R
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2,4-Dinitrophenol	50u R
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2,4-Dinitrotoluene	10u
606-20-2	2,6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-5	4-Nitroaniline	50u
534-52-1	4,6-Dinitro-2-Methylphenol	50u
96-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u R
205-44-0	Fluoranthene	10u
92-87-5	Benzidine	50u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3,3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u R
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1,2,3-cd)Pyrene	10u
53-70-3	Dibenz(a,h)Anthracene	10u
191-24-2	Benzo(g,h,i)Perylene	10u

(1) Cannot be separated from diphenylamine

111 317

Sample Number
AB 052

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/12/85

Date Analyzed: 4/9/85

Conc/Dil Factor: 1

Vok
ETmm
6/4/85

J. Hall
4/10/85

CAS Number		<u>ug/L</u> or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05V
319-85-7	Beta-BHC	0.05V
319-86-8	Delta-BHC	0.05V
58-89-9	Gamma-BHC (Lindane)	0.05V
76-44-8	Heptachlor	0.05V
309-00-2	Aldrin	0.05V
1024-57-3	Heptachlor Epoxide	0.05V
959-98-8	Endosulfan I	0.05V
60-57-1	Dieldrin	0.10V
72-55-9	4, 4'-DDE	0.10V
72-20-8	Endrin	0.10V
33213-65-9	Endosulfan II	0.10V
72-54-8	4, 4'-DDD	0.10V
7421-93-4	Endrin Aldehyde	0.10V
1031-07-8	Endosulfan Sulfate	0.10V
50-29-3	4, 4'-DDT	0.10V
72-43-5	Methoxychlor	0.50V
53494-70-5	Endrin Ketone	0.10V
57-74-9	Chlordane	0.50V
8001-35-2	Toxaphene	1.0V
12674-11-2	Aroclor-1016	0.50V
11104-28-2	Aroclor-1221	0.50V
11141-16-5	Aroclor-1232	0.50V
53469-21-9	Aroclor-1242	0.50V
12672-29-6	Aroclor-1248	0.50V
11097-69-1	Aroclor-1254	1.0V
11096-82-5	Aroclor-1260	1.0V

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)

w_s 1000 ml or w_s _____ v_i 10,000 ul v_t 5.0 ml

III 3/8

A13052

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Hexamethyl Cyclotrisiloxane	VofA	1022	9.0
2.				
3.				
4.				
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.				

10/11/00 57.29

III 319
11/84

AB052

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	<i>No compounds found</i>	<i>BN/A</i>		
2.				
3.				
4.				
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.				

12-29

III 300

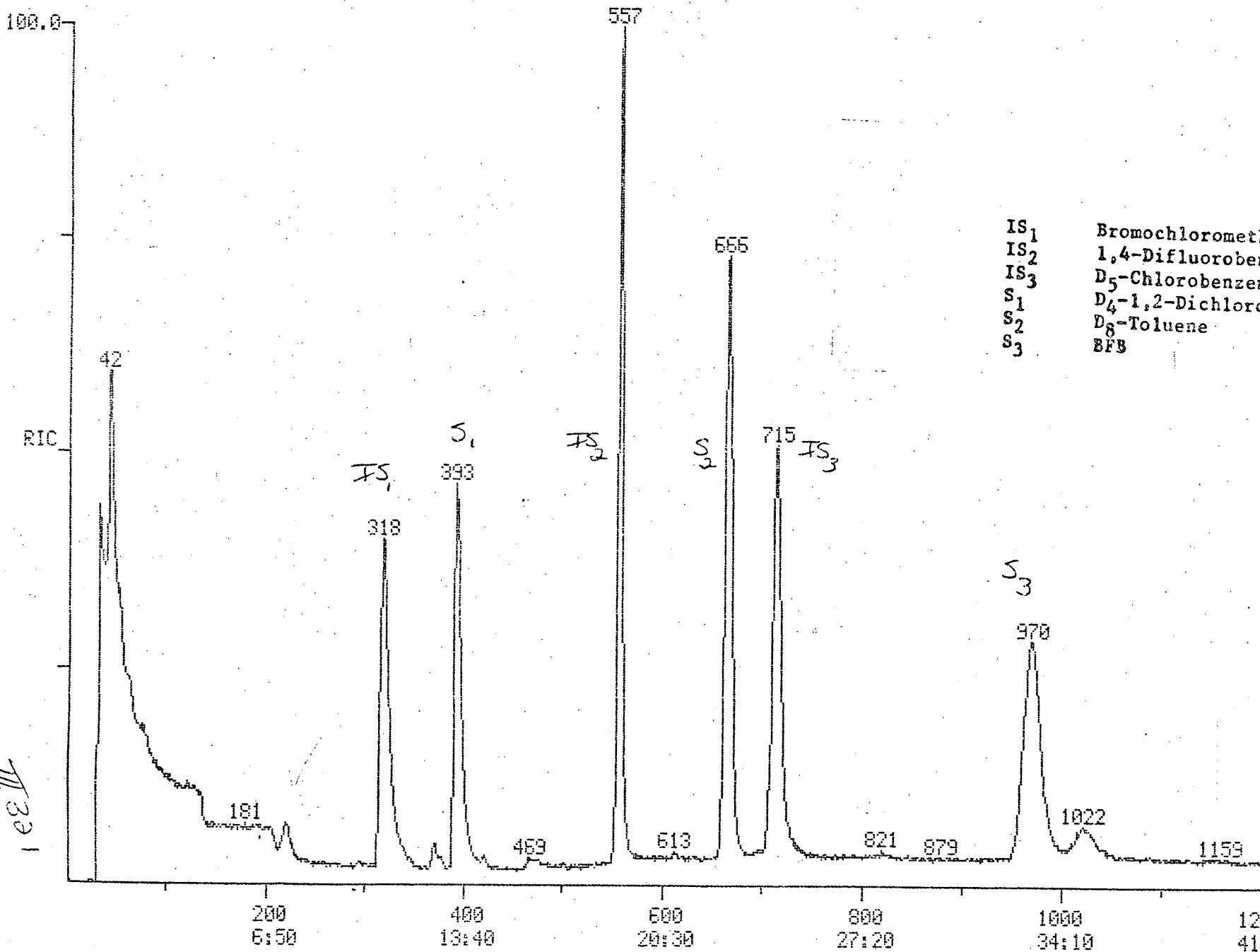
1/84

RIC
03/15/85 2:12:00
SAMPLE: AB 052 Case 3981 43334

DATA: U2841

SCANS 1 TO 1200

114688.



IS₁ Bromochloromethane
IS₂ 1,4-Difluorobenzene
IS₃ D₅-Chlorobenzene
S₁ D₄-1,2-Dichloroethane
S₂ D₈-Toluene
S₃ BFB

II 391

DATA: V2B41.TI
03/16/85 2:12:00
SAMPLE:
SUBMITTED BY:

AB052 CASE 3981

ANALYST:

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LIBRARY ENTRY

- NO NAME
- 1 BROMOCHLOROMETHANE(I. S. #1)
- 2 CHLOROMETHANE
- 3 BROMOMETHANE
- 4 VINYL CHLORIDE
- 5 CHLOROETHANE
- 6 METHYLENE CHLORIDE
- 7 ACETONE
- 8 CARBON DISULFIDE
- 9 1, 1-DICHLOROETHENE
- 10 1, 1-DICHLOROETHANE
- 11 TRANS 1, 2-DICHLOROETHENE
- 12 CHLOROFORM
- 13 1, 2-DICHLOROETHANE
- 14 D4-1, 2-DICHLOROETHANE
- 15 1, 1, 1-TRICHLOROETHANE
- 16 1, 4-DIFLUOROBENZENE(I. S. #2)
- 17 CARBON TETRACHLORIDE
- 18 VINYL ACETATE
- 19 2-BUTANONE
- 20 BROMODICHLOROMETHANE
- 21 1, 2-DICHLOROPROPANE
- 22 TRANS 1, 3-DICHLOROPROPANE
- 23 TRICHLOROETHENE
- 24 DIBROMOCHLOROMETHANE
- 25 1, 1, 2-TRICHLOROETHANE
- 26 BENZENE
- 27 CIS-1, 3-DICHLOROPROPENE
- 28 BROMOFORM
- 29 D8-TOLUENE(SURR#2)
- 30 2-CHLOROETHYLVINYLEETHER
- 31 D5-CHLOROBENZENE(I. S. #3)
- 32 4 METHYL 2 PENTANONE
- 33 2-HEXANONE
- 34 TETRACHLOROETHENE
- 35 1, 1, 2, 2, TETRACHLOROETHANE
- 36 TOLUENE
- 37 CHLOROBENZENE
- 38 ETHYLBENZENE
- 39 BFB(SURR#3)
- 40 STYRENE
- 41 TOTAL XYLENES

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	128	318	10:52	1	1.000	A BB	43630	50.000 UG/L	15.00
2									
3									

M 322

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
4	NOT	FOUND							
5	NOT	FOUND							
6	NOT	FOUND							
7	58	301	10:17	1	0.947	A VB	698.	3.840 UG/L	1.15
8	NOT	FOUND							
9	NOT	FOUND							
10	NOT	FOUND							
11	NOT	FOUND							
12	NOT	FOUND							
13	NOT	FOUND							
14	65	393	13:26	1	1.236	A BB	170657.	89.531 %REC	26.87
15	NOT	FOUND							
16	114	557	19:02	16	1.000	A BB	191245.	50.000 UG/L	15.00
17	NOT	FOUND							
18	NOT	FOUND							
19	NOT	FOUND							
20	NOT	FOUND							
21	NOT	FOUND							
22	NOT	FOUND							
23	NOT	FOUND							
24	NOT	FOUND							
25	NOT	FOUND							
26	NOT	FOUND							
27	NOT	FOUND							
28	NOT	FOUND							
29	98	665	22:43	16	1.194	A BB	196089.	89.882 %REC	26.97
30	NOT	FOUND							
31	117	714	24:24	31	1.000	A BB	118724.	50.000 UG/L	15.00
32	NOT	FOUND							
33	NOT	FOUND							
34	NOT	FOUND							
35	NOT	FOUND							
36	NOT	FOUND							
37	NOT	FOUND							
38	NOT	FOUND							
39	NOT	FOUND							
40	NOT	FOUND							
41	NOT	FOUND							

AB 052 Case 3981

3/16/85

II 323

MASS CHROMATOGRAM
03/16/85 2:12:00
SAMPLE:

DATA: U2841

SCANS 200 TO 250

AB 052 CASE 3981

221
937.
9552.

-6

$$\frac{9552}{30017} \times \frac{50}{1.91} = 8.3$$

937.

100.0

84

84.025
± 0.500

ACE-III

200
6:50

210
7:10

220
7:31

230
7:51

240
8:12

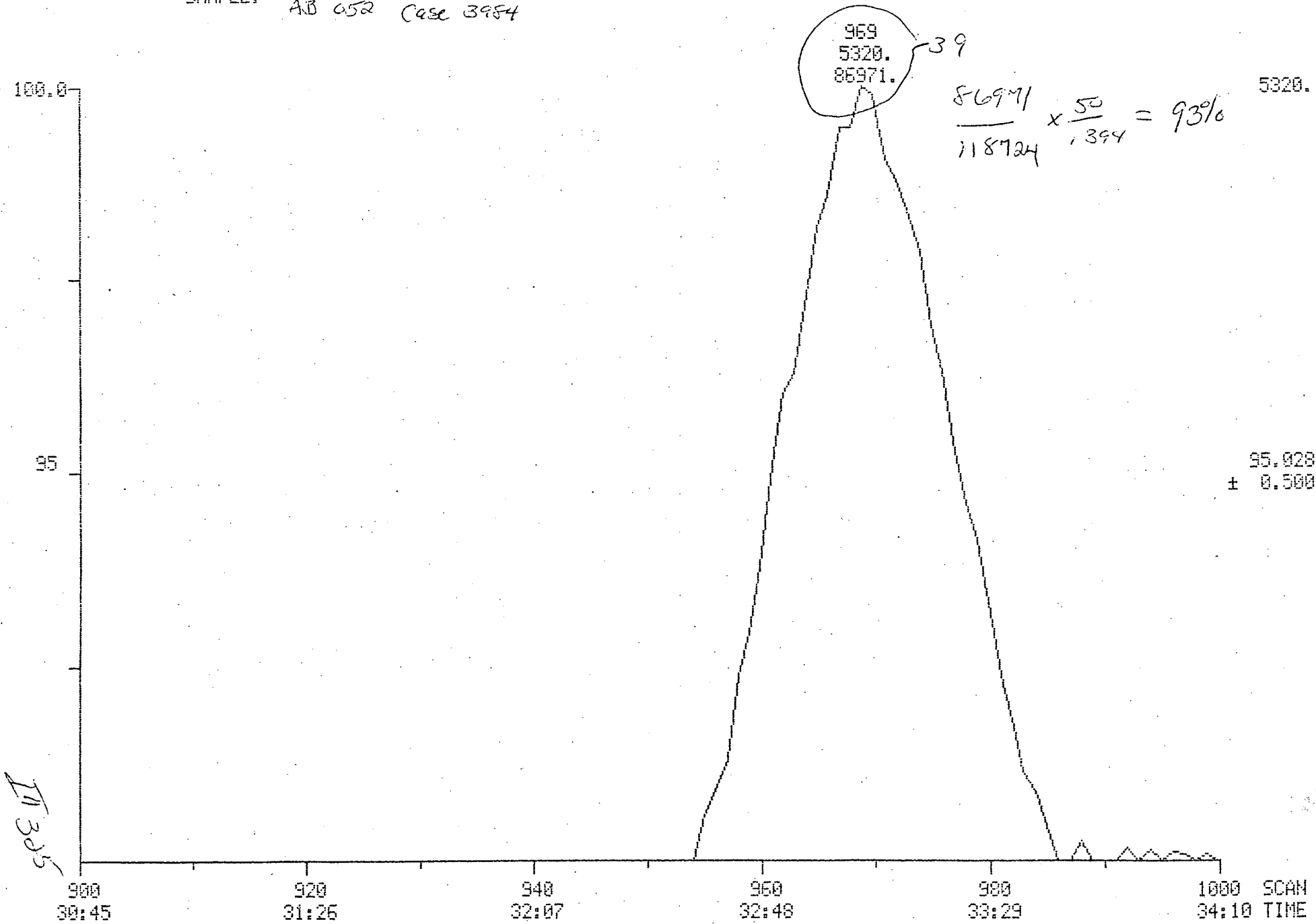
250 SCAN
8:32 TIME

MASS CHROMATOGRAM
03/16/85 2:12:00
SAMPLE:

AB 052 Case 3984

DATA: U2841

SCANS 900 TO 1000



DUAL MASS SPECTRUM

03/16/85 2:12:00 + 7:33

SAMPLE: AB 052

ENHANCED (S 150 2N)

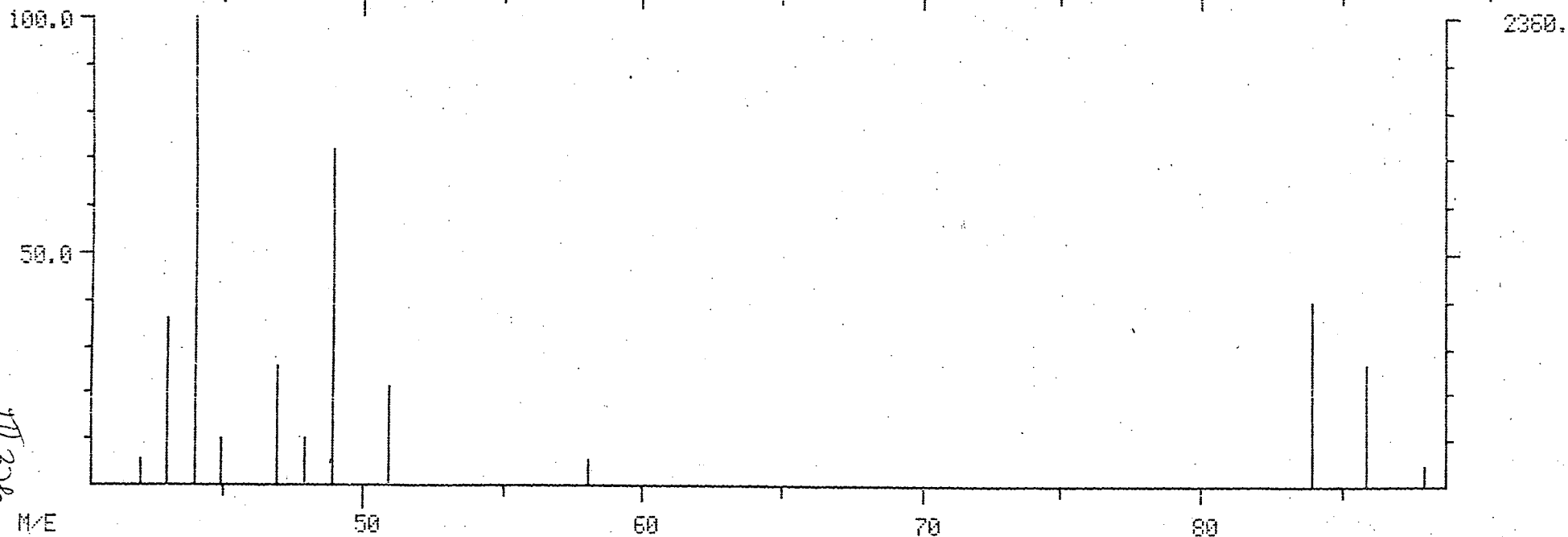
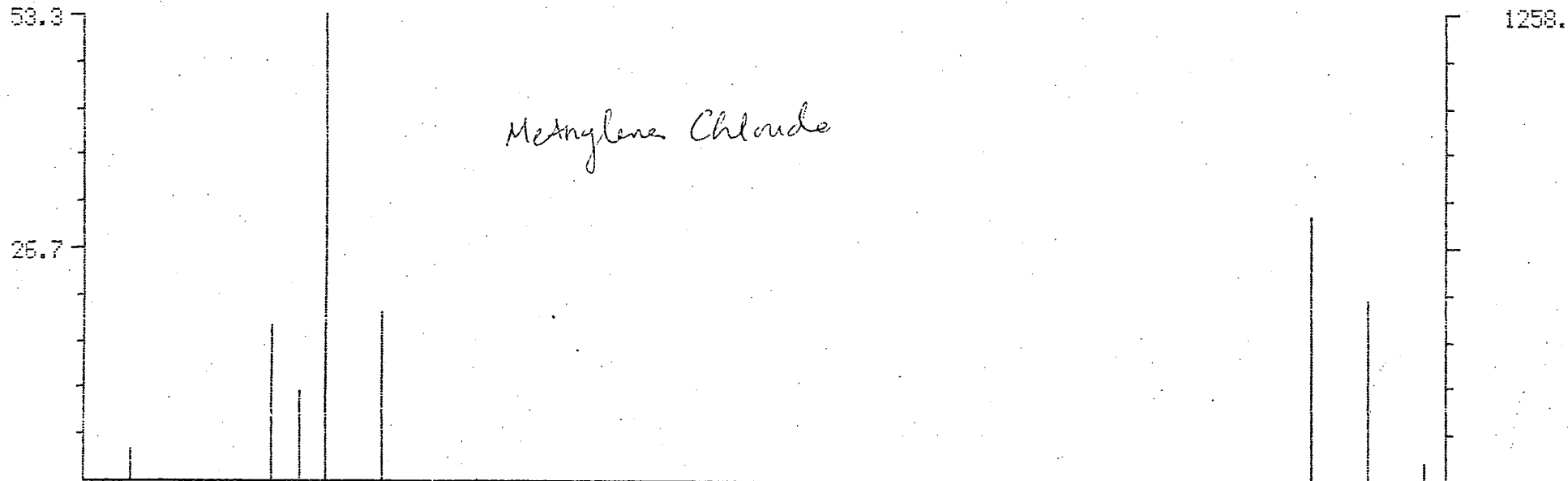
CASE 3981

DATA: U2841 #221

BASE M/E: 49/ 44

RIC: 3703.7 8431.

Methylene Chloride



III 326

M/E

MASS SPECTRUM

DATA: U2798 #248

BASE M/E: 49

03/03/85 12:41:00 + 8:28

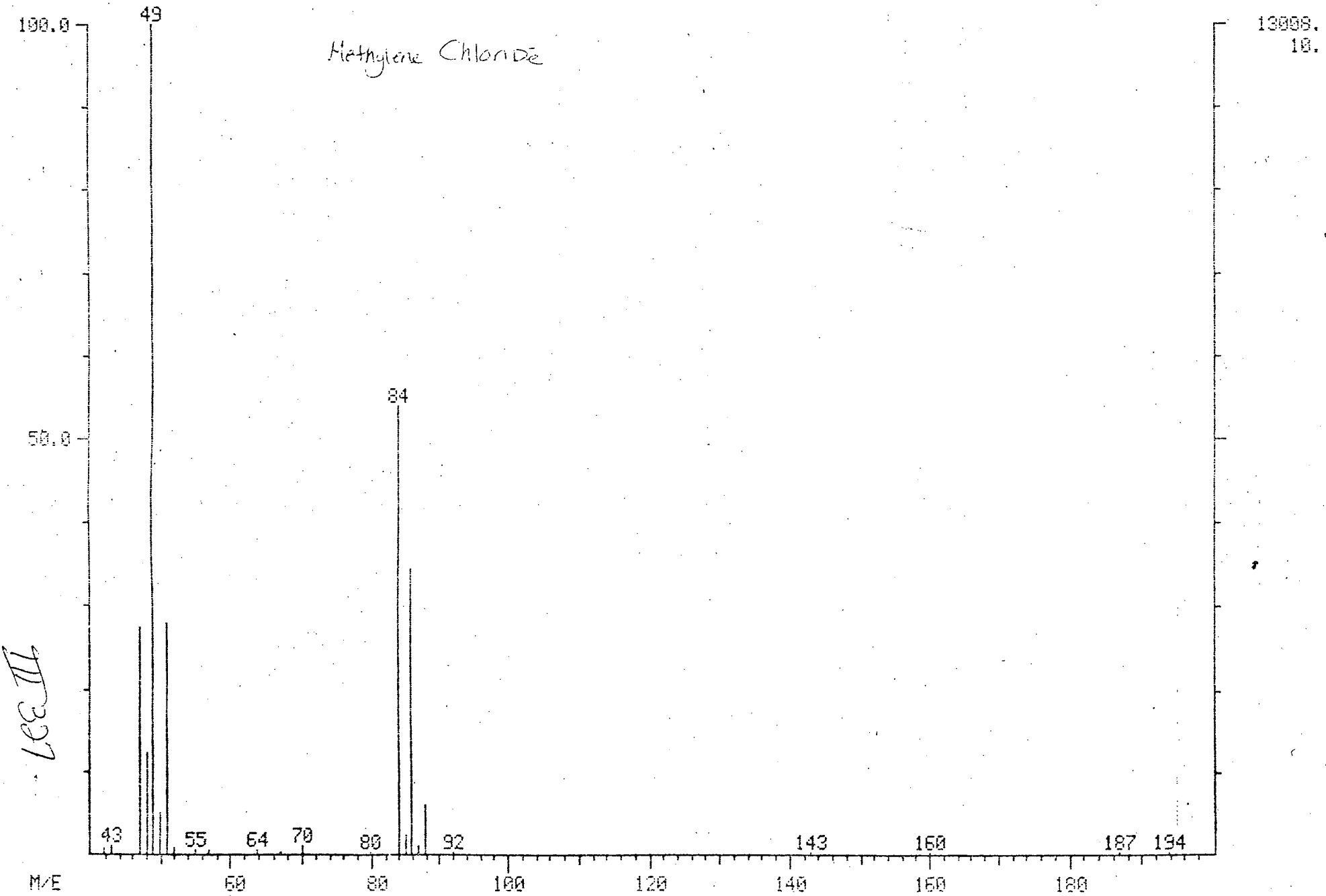
RIC: 35224.

SAMPLE:

ENHANCED (S 15B 2N)

396.9
COSE 3/3/85 100 ppb

Methylene Chloride



LIBRARY SEARCH
03/16/85 2:12:00 + 34:55
SAMPLE:
ENHANCED (S 15B 2N 0T)

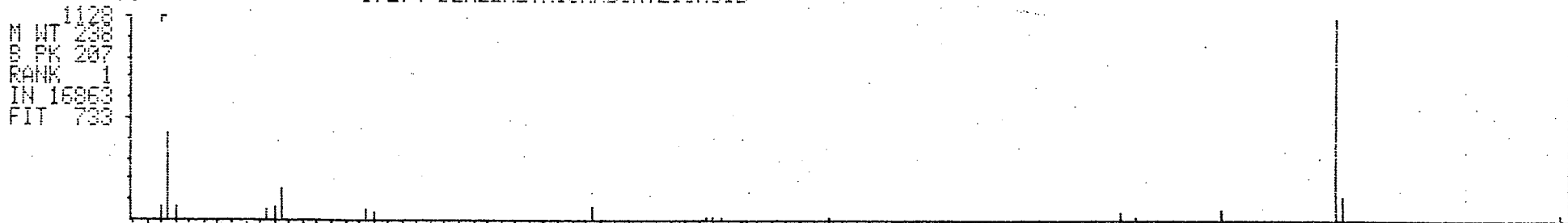
DATA: U2841 #1022

BASE M/E: 207
RIC: 1073.

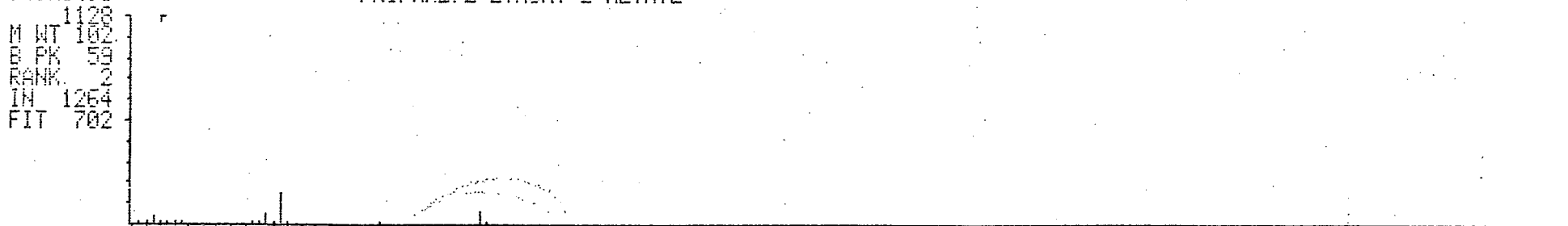
Case 3981



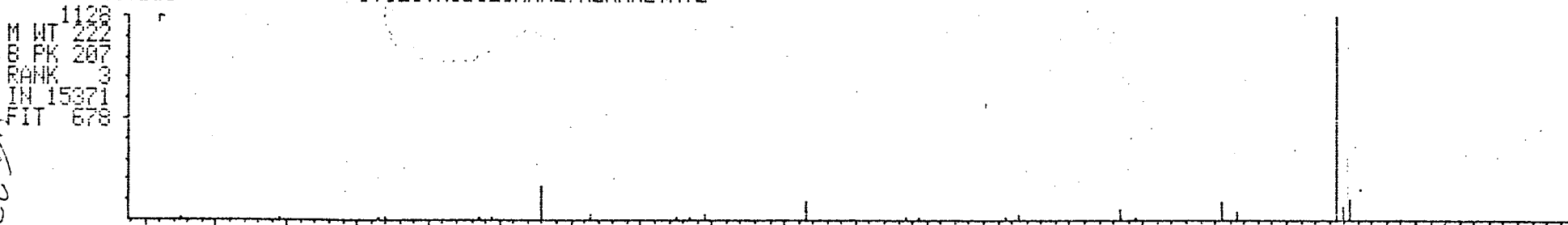
C11.H10.05 1,2,4-BENZENETRICARBOXYLICACID



C6.H14.0 PROPANE, 2-ETHOXY-2-METHYL-



C6.H18.03.SI3 CYCLOTRISILOXANE, HEXAMETHYL-



11328
M/E

40 60 80 100 120 140 160 180 200 220

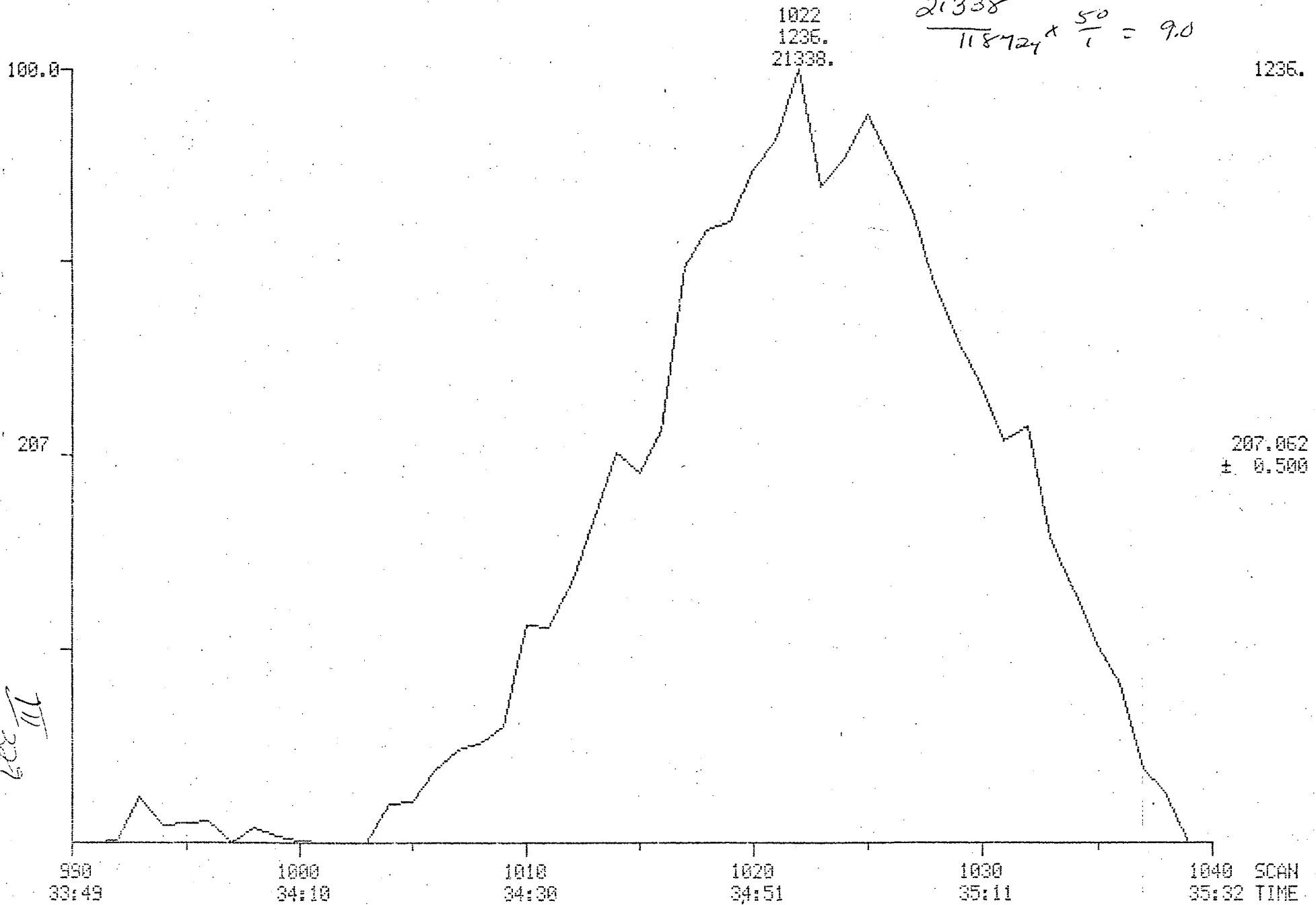
MASS CHROMATOGRAM

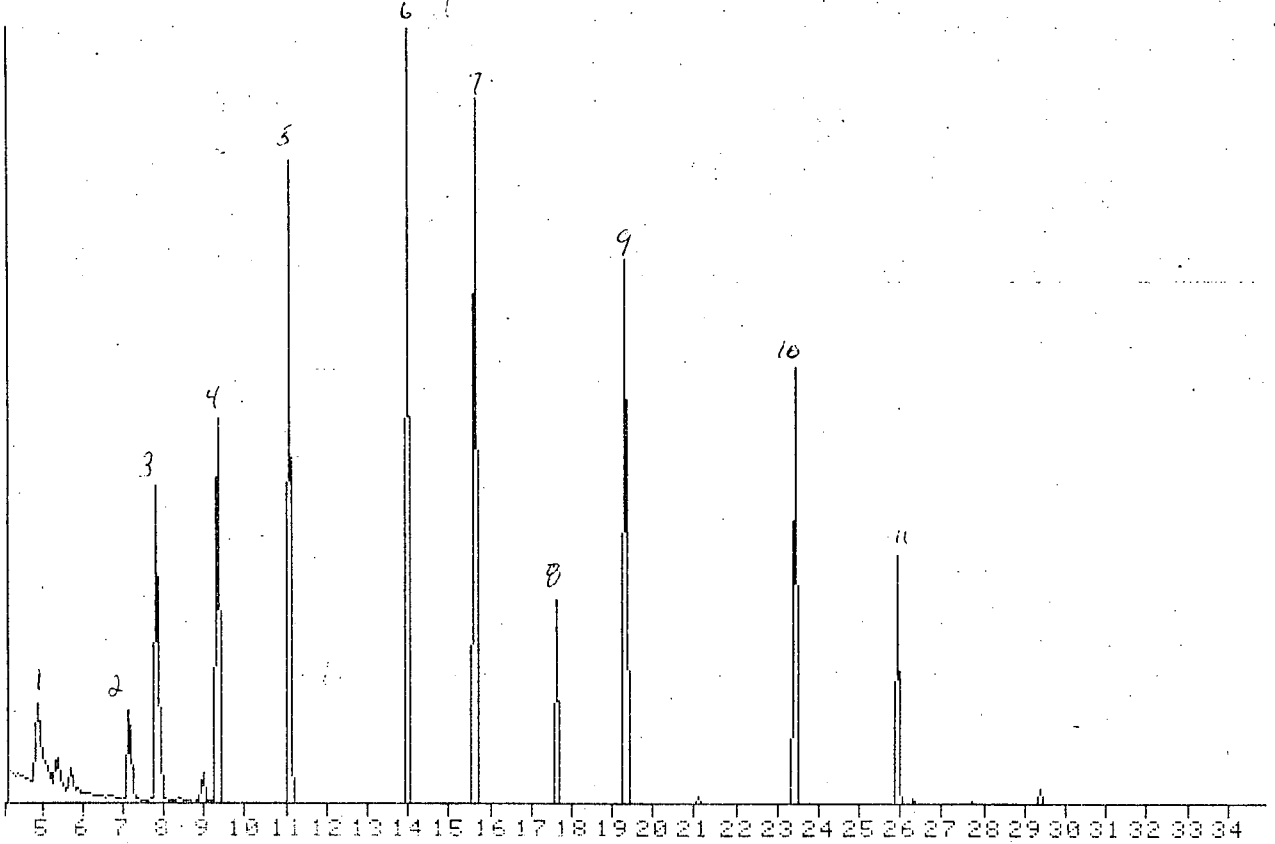
03/16/85 2:12:00

SAMPLE: AB 052 case 3981

DATA: U2841

SCANS 990 TO 1040





1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				D4-1,4-DICHLORO BENZENE(20)
8.9	74.0	.046	.0000				N-NITROSODIMETHYLAMINE
7.2	93.0	1.095	.0000				ANILINE
7.4	93.0	.814	.0000				BIS(2-CHLOROETHYL)ETHER
7.8	146.0	.635	.0000				1,3-DICHLORO BENZENE
7.9	146.0	.682	.0000				1,4-DICHLORO BENZENE
8.4	108.0	.459	.0000				BENZYL ALCOHOL
8.4	146.0	.652	.0000				1,2-DICHLORO BENZENE
8.8	45.0	.573	.0000				BIS(2-CHLOROISOPROPYL)ETHER
9.1	70.0	.564	.0000				N-NITROSODINPROPYLAMINE
9.1	117.0	.324	.0000				HEXACHLOROETHANE
9.4	77.0	.870	.0000				NITROBENZENE

11.1	136.0	1.000	80.0000				D8-NAPHTHALENE(20)
10.0	82.0	.724	.0000				ISOPHORONE
10.7	93.0	.484	.0000				BIS(2-CHLOROETHOXY)METHANE
11.0	180.0	.201	.0000				1,2,4-TRICHLORO BENZENE
11.2	129.0	.105	.0000				NAPHTHALENE
11.5	127.0	.401	.0000				4-CHLOROANILINE
11.7	225.0	.099	.0000				HEXACHLORO BUTADIENE
13.0	142.0	.564	.0000				2-METHYLNAPHTHALENE

15.6	164.0	1.000	80.0000				D10-ACENAPHTHENE
13.6	237.0	.248	.0000				HEXACHLOROCYCLOPENTADIENE
14.2	162.0	1.060	.0000				2-CHLORONAPHTHALENE
14.6	65.0	.507	.0000				2-NITROANILINE
15.3	163.0	1.158	.0000				DIMETHYL PHTHALATE
15.3	152.0	1.874	.0000				ACENAPHTHYLENE
15.4	165.0	.334	.0000				2,6-DINITROTOLUENE
15.7	138.0	.433	.0000				3-NITROANILINE
15.8	153.0	1.236	.0000				ACENAPHTHENE
16.2	168.0	1.476	.0000				DIBENZOFURAN
16.3	89.0	.392	.0000				2,4-DINITROTOLUENE
17.0	149.0	1.429	.0000				DIETHYL PHTHALATE
17.0	166.0	1.132	.0000				FLUORENE
17.1	204.0	.510	.0000				4-CHLOROPHENYLPHENYL ETHER
17.3	138.0	.461	.0000				4-NITROANILINE
16.2	169.0	.192	.0000				DIPHENYLAMINE

2

85/FM HP 5985

43321 AB 052 CBTL#28 Q14827

D14827

AREA

	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
19.3							
18.3	18.0	1.000	80.0000				D10-PHENANTHRENE(20)
18.6	18.0	.166	.0000				4-BROMOPHENYLPHENYL ETHER
19.5	14.0	.193	.0000				HEXACHLOROBENZENE
21.1	18.0	.574	.0000				PHENANTHRENE/ANTHRACENE
22.4	19.0	1.804	1.1122				DIBUTYL PHTHALATE
	12.0	.968	.0000				FLUORANTHENE

26.0							
23.0	10.0	1.000	80.0000				D12-CHRYSENE
24.8	12.0	3.049	.0000				PYRENE
26.0	19.0	1.411	.0000				BUTYL BENZYL PHTHALATE
26.3	18.0	.555	.0000				BENZO(A)ANTHRACENE/CHRYSENE
	19.0	1.345	.0000				BIS(2-ETHYLHEXYL)PHTHALATE

26.0							
27.7	10.0	1.000	80.0000				D12-CHRYSENE
28.5	19.0	.139	7.0767				DIOCTYL PHTHALATE
29.3	12.0	.283	.0000				BENZO(B)/(K)FLUORANTHENE
32.7	12.0	.173	.0000				BENZO(A)PYRENE
32.8	16.0	.075	.0000				INDENO(123-CD)PYRENE
33.7	18.0	.043	.0000				DIBENZO(AH)ANTHRACENE
	16.0	.055	.0000				BENZO(GHI)PERYLENE

26.0							
22.8	10.0	1.000	80.0000				D12-CHRYSENE
26.0	14.0	1.084	.0000				BENZIDINE
	12.0	.357	.0000				DICHLOROBENZIDINE

III 332

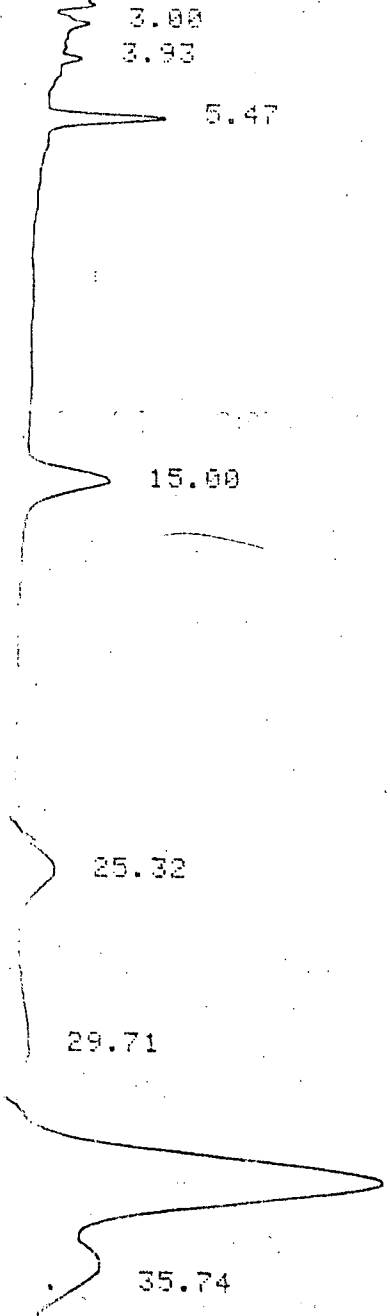
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				D4-1,4-DICHLOROBENZENE(20)
7.2	94.0	1.311	.0000				PHENOL
7.4	128.0	.997	.0000				2-CHLOROPHENOL
8.7	108.0	.963	.0000				2-METHYLPHENOL
9.1	108.0	1.027	.0000				4-METHYLPHENOL

11.1	136.0	1.000	80.0000				D8-NAPHTHALENE(20)
10.2	139.0	.198	.0000				2-NITROPHENOL
10.5	122.0	.299	.0000				2,4-DIMETHYLPHENOL
11.1	122.0	.131	.0000				BENZOIC ACID
10.9	162.0	.240	.0000				2,4-DICHLOROPHENOL
12.8	107.0	.317	.0000				4-CHLORO-M-CRESOL

15.6	164.0	1.000	80.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	.0000				2,4,5-TRICHLOROPHENOL
13.8	196.0	.347	.0000				2,4,6-TRICHLOROPHENOL
15.9	184.0	.165	.0000				2,4-DINITROPHENOL
17.3	198.0	.197	.0000				4,6-DINITRO-O-CRESOL
16.2	65.0	.310	.0000				4-NITROPHENOL

19.3	188.0	1.000	80.0000				D10-PHENANTHRENE
19.1	266.0	.122	.0000				PENTACHLOROPHENOL

IU 333



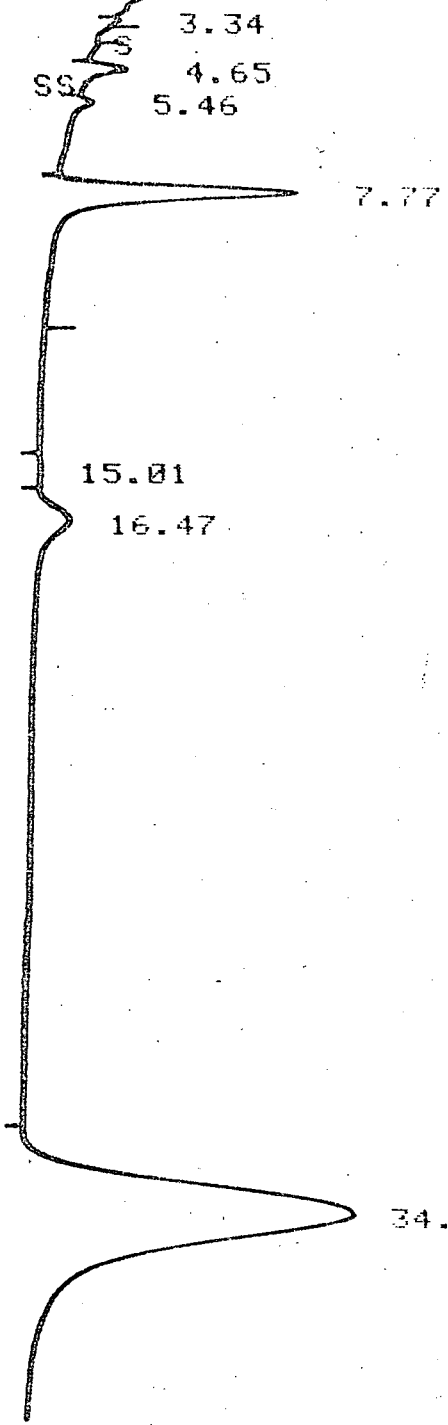
43321/AB052
 Case 3981
 SP 2250/2401
 HP 5880 Sml

AT: STOP RUN

8880
 SAMPLE 9 SAMPLER INJECTION @ 03:46 APR 9, 1985
 ID CODE :
 74

RETENTION TIME	AREA	TYPE	AREA %
3.00			
3.93			
5.47			
15.00			
25.32			
29.71			
33.47	1611030.00	SBV	96.291
35.74	15990.20	BS	0.956
	19.77	BV	0.001
	256.03	VB	0.015
	352.49	PB	0.021
	1915.00	VV	0.079
	686.35	VV	0.041

43321/AB052
 Case 3981
 SP 2250/2401 III 335
 HP 5880 CML



43321, AB052

Case 3981

Sul

SP2100

HP 5840

34.51 dibutylchloride

HP RUN # 4
 BOTTLE 31
 AREA %

APR/10/85

TIME 10:52:22

43321, AB052

Case 3981

Sul

SP2100

HP 5840

RT	AREA	AREA %
0.30	14410000	89.478
0.72	75900	0.471
1.07	256000	1.590
1.66	11610	0.072
2.45	2855	0.018
3.34	1421	0.009
4.65	17430	0.108
5.46	2095	0.013
7.77	178800	1.110
15.01	2090	0.013
16.47	63300	0.393

III 337

16.47
34.51

63300
1083000

0.393
6.725

DIL FACTOR: 1.0000 E+ 0

III 338

① Case Number:
3981

Sample Site Name/Code:

② SAMPLE CONCENTRATION
(Check One)

Low Concentration
 Medium Concentration

③ SAMPLE MATRIX
(Check One)

Water
 Soil/Sediment

④ Ship To:

CCA
213 Burlington Rd
Bedford, MA 01730

Attn: Gary Hunt

Transfer
Ship To:

⑤ Regional Office: JE

Sampling Personnel:

John Williams
(Name)
(617) 742-5151
(Phone)

Sampling Date:
3/7/85 (Begin) 3/7/85 (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	50 oz
Water (VOA)	2	4oz
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑦ Analytical Lab

Rec'd by: Adler

Date Rec'd: 3/8/85

Sample Condition on Receipt (e.g. broken, Chain of Custody)

No sample taken

⑧ Shipping Information

Hand-carry
Name of Carrier

Date Shipped:

Airbill Number:

	Number of Containers	Approximate Total Volume
Water (Extractable)	2	50 oz
Water (VOA)	2	4oz
Soil/Sediment (Extractable)		
Soil/Sediment (VOA)		
Other		

⑧ Sample Location

⑨ Sample Description

Surface Water Mixed Media

Ground Water Solids

Leachate Other (specify)

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

Matchos/organic Report # 11A043 III 339

Laboratory Name: GCA
 Lab Sample ID No: 43336
 Sample Matrix: Water
 Data Release Authorized By: F. Marquez

Case No: 3981
 GC Report No: 3981
 Contract No: 68-01-6767
 Date Sample Received: 3-8-85

Volatile Compounds

Concentration Low Medium (Circle One)
 Date Extracted/Prepared: 3-15-85
 Date Analyzed: 3-16-85
 Concentration Factor: 1 All N/A
 Percent Moisture: N/A
 Percent Moisture (Dried): N/A

*ETmm
6/14/85*

*R=Reject
N/A*

*ETmm
6/14/85*

CAS Number	Compound Name	Concentration (Circle One)
74-87-3	Chloroethane	10u
74-83-9	Bromomethane	10u
75-01-3	Vinyl Chloride	10uR
75-00-3	Dichloroethane	10u
75-09-2	Methylene Chloride	5.9R
57-04-1	Acetone	1.4R
75-15-0	Carbon Disulfide	5u
75-35-4	1,1-Dichloroethane	5u
75-34-3	1,1-Dichloroethane	5u
156-60-5	Trans-1,2-Dichloroethane	5u
67-53-3	Chloroform	5u
107-06-2	1,2-Dichloroethane	5u
75-83-3	2-Butanone	10u
71-55-8	1,1,1-Trichloroethane	5u
50-23-5	Carbon Tetrachloride	5u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5u

CAS Number	Compound Name	Concentration (Circle One)
75-34-6	1,1,2,2-Tetrachloroethane	5u
70-67-6	1,2-Dichloroethane	5u
10081-07-8	Trans-1,3-Dichloropropene	5u
75-01-5	Trichloroethane	5u
124-38-1	Hexachlorocyclopentadiene	5u
75-00-3	1,1,2-Trichloroethane	5u
71-43-2	Benzene	5u
10081-01-5	cis-1,3-Dichloropropene	5u
110-75-0	2-Chloroethylalcohol	10u
75-28-2	Bromochloroform	5uR
101-75-6	2-Propanone	10u
108-10-1	4-Methyl-2-Pentanone	10u
127-18-4	Perchloroethylene	5u
106-68-3	Toluene	5u
108-80-7	Dibromobenzene	5u
100-41-4	1,4-Dioxane	5u
100-43-5	Styrene	5uR
	Total Yields:	5u

For this report, results are reported in units of micrograms per liter (ug/L) unless otherwise indicated. All concentrations are based on the original sample volume.

- V. If the result is a value greater than the reporting limit, data may have been reported as such.
- U. Indicates compound was analyzed but not detected. Report the numerical value as "U" on the report and the U.S.G. (100) based on the original sample volume. (This is not to be confused with the reporting limit.) The "U" indicates that the compound was analyzed but not detected. The number of the compound is listed on the report and the reason for the result.
- J. In the case of a compound that is listed as a possible contaminant, but not detected, the reporting limit is based on the original sample volume. (This is not to be confused with the reporting limit.) The "J" indicates that the compound was analyzed but not detected. The number of the compound is listed on the report and the reason for the result.
- Q. This flag appears on detection parameters when the concentration has been confirmed by GC/MS. The reporting limit is the U.S.G. (100).
- R. This flag appears when the analyte is found in the sample and the reporting limit indicates possible presence. This is not to be confused with the reporting limit. The number of the compound is listed on the report and the reason for the result.

ET 3/18

Sample Number
AB 053

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/11/85

Date Analyzed: 3/28/85

Conc/Dil Factor: 200mls -> 1.0ul

*ETMM
6/4/85*

R=Reject

*ETMM
6/4/85*

CAS Number		ug/l or ug/Kg (Circle One)
62-76-9	N-Nitrosodimethylamine	10u
108-95-2	Phenol	10u
62-53-9	Aniline	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-95-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2, 4 Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u R
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-69-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u R
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u R
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u R
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
54-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u R
206-44-0	Fluoranthene	10u
92-87-5	Benzidine	50u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u R
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-09-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1) Cannot be separated from diphenylamine

III 341

Sample Number
AB053

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 3/12/85
 Date Analyzed: 4/9/85
 Conc/Dil Factor: 1

✓ ok
ET from
6/4/85

JMhll
4/10/85

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05U
319-85-7	Beta-BHC	0.05U
319-85-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	0.10U
72-55-9	4, 4'-DDE	0.10U
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4, 4'-DDD	0.10U
7421-93-4	Endrin Aldehyde	0.10U
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4, 4'-DDT	0.10U
72-43-5	Methoxychlor	0.50U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.50U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.50U
11104-28-2	Aroclor-1221	0.50U
11141-16-5	Aroclor-1232	0.50U
53469-21-9	Aroclor-1242	0.50U
12672-29-6	Aroclor-1248	0.50U
11097-69-1	Aroclor-1254	0.50U 1.0U
11096-82-5	Aroclor-1260	1.0U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_i 10,000 ul V_t 5.0 ml

III 342

AB 853

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1	<i>No compounds found</i>	<i>Blank</i>		
2				
3				
4				
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				

IV 344

1/1/89

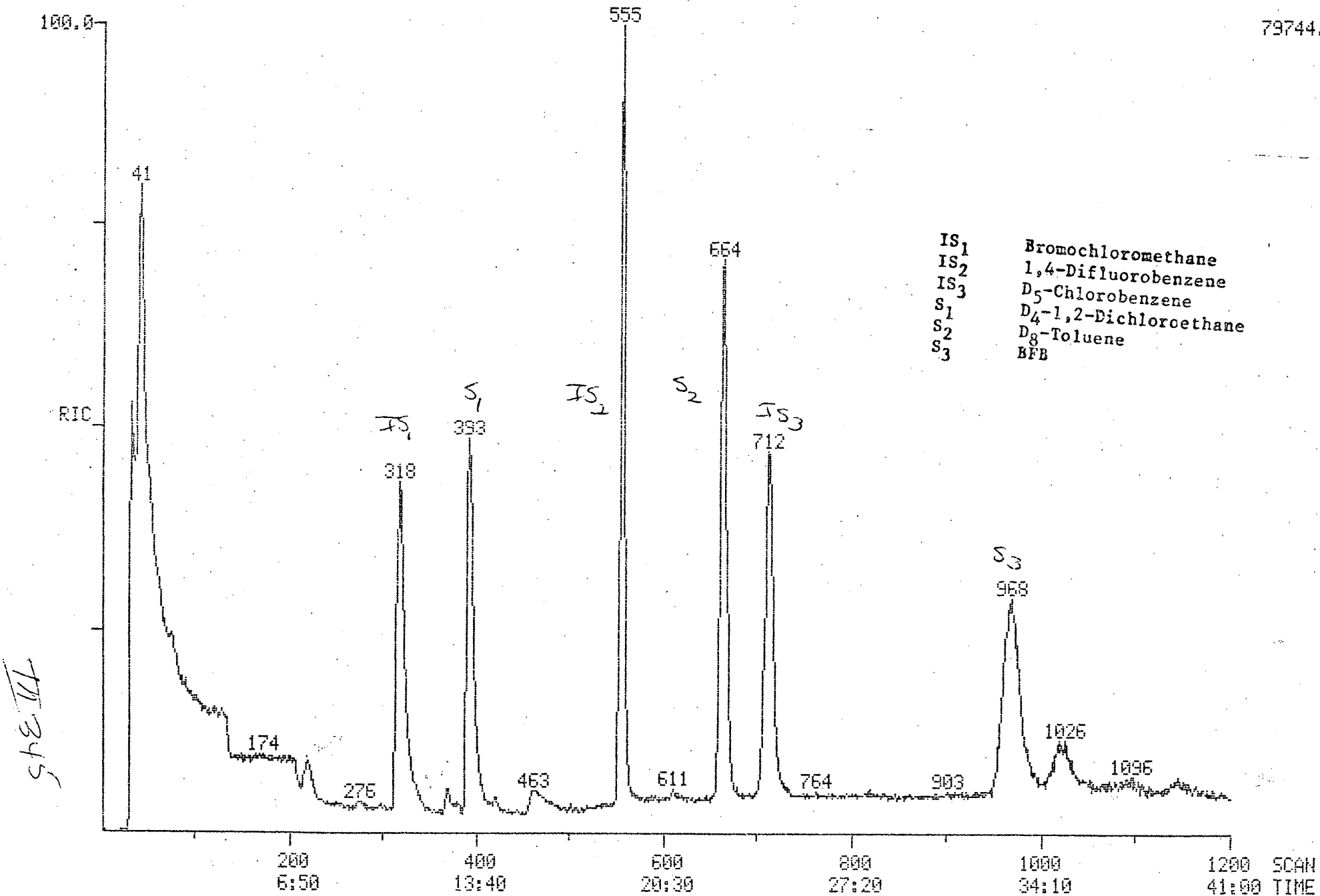
RIC
03/15/85 3:03:00
SAMPLE:

DATA: U2842

SCANS 1 TO 1200

AB 053 C&E 3981 43336

79744.



AB053 Case 3981

DATA: V2842.TI
03/16/85 3:03:00

SAMPLE:
SUBMITTED BY: ANALYST:

AMOUNT=AREA(HGHT) * REF. AMNT / (REF. AREA(HGHT) * RESP. FACT)
RESP. FAC. FROM LIBRARY ENTRY

- NO NAME
- 1 BROMOCHLOROMETHANE (I. S. #1)
- 2 CHLOROMETHANE
- 3 BROMOMETHANE
- 4 VINYL CHLORIDE
- 5 CHLOROETHANE
- 6 METHYLENE CHLORIDE
- 7 ACETONE
- 8 CARBON DISULFIDE
- 9 1, 1-DICHLOROETHENE
- 10 1, 1-DICHLOROETHANE
- 11 TRANS 1, 2-DICHLOROETHENE
- 12 CHLOROFORM
- 13 1, 2-DICHLOROETHANE
- 14 D4-1, 2-DICHLOROETHANE
- 15 1, 1, 1-TRICHLOROETHANE
- 16 1, 4-DIFLUOROBENZENE (I. S. #2)
- 17 CARBON TETRACHLORIDE
- 18 VINYL ACETATE
- 19 2-BUTANONE
- 20 BROMODICHLOROMETHANE
- 21 1, 2-DICHLOROPROPANE
- 22 TRANS 1, 3-DICHLOROPROPANE
- 23 TRICHLOROETHENE
- 24 DIBROMOCHLOROMETHANE
- 25 1, 1, 2-TRICHLOROETHANE
- 26 BENZENE
- 27 CIS-1, 3-DICHLOROPROPENE
- 28 BROMOFORM
- 29 D8-TOLUENE (SURRE#2)
- 30 2-CHLOROETHYL VINYLETHER
- 31 D5-CHLOROBENZENE (I. S. #3)
- 32 4 METHYL 2 PENTANONE
- 33 2-HEXANONE
- 34 TETRACHLOROETHENE
- 35 1, 1, 2, 2, TETRACHLOROETHANE
- 36 TOLUENE
- 37 CHLOROBENZENE
- 38 ETHYLBENZENE
- 39 BFB (SURRE#3)
- 40 STYRENE
- 41 TOTAL XYLENES

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA (HGHT)	AMOUNT	%TOT
1	128	317	10:50	1	1.000	A BB	30017.	50.000 UG/L	14.50
2	NOT FOUND								
3	NOT FOUND								

III 346

NO	TIME	REL	AMT	UNIT	WGT	REC	UG/L	REC
4								
5								
6								
7	10:13		1	0.943	A BB	1766.	14.120	UG/L 4.10
8								
9								
10								
11								
12								
13								
14								
15	13:24		1	1.237	A BB	124951.	95.281	%REC 27.63
16	18:58		16	1.000	A BB	131346.	50.000	UG/L 14.50
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29	22:41		16	1.196	A BB	127982.	85.416	%REC 24.77
30								
31	24:20		31	1.000	A BB	76220.	50.000	UG/L 14.50
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								

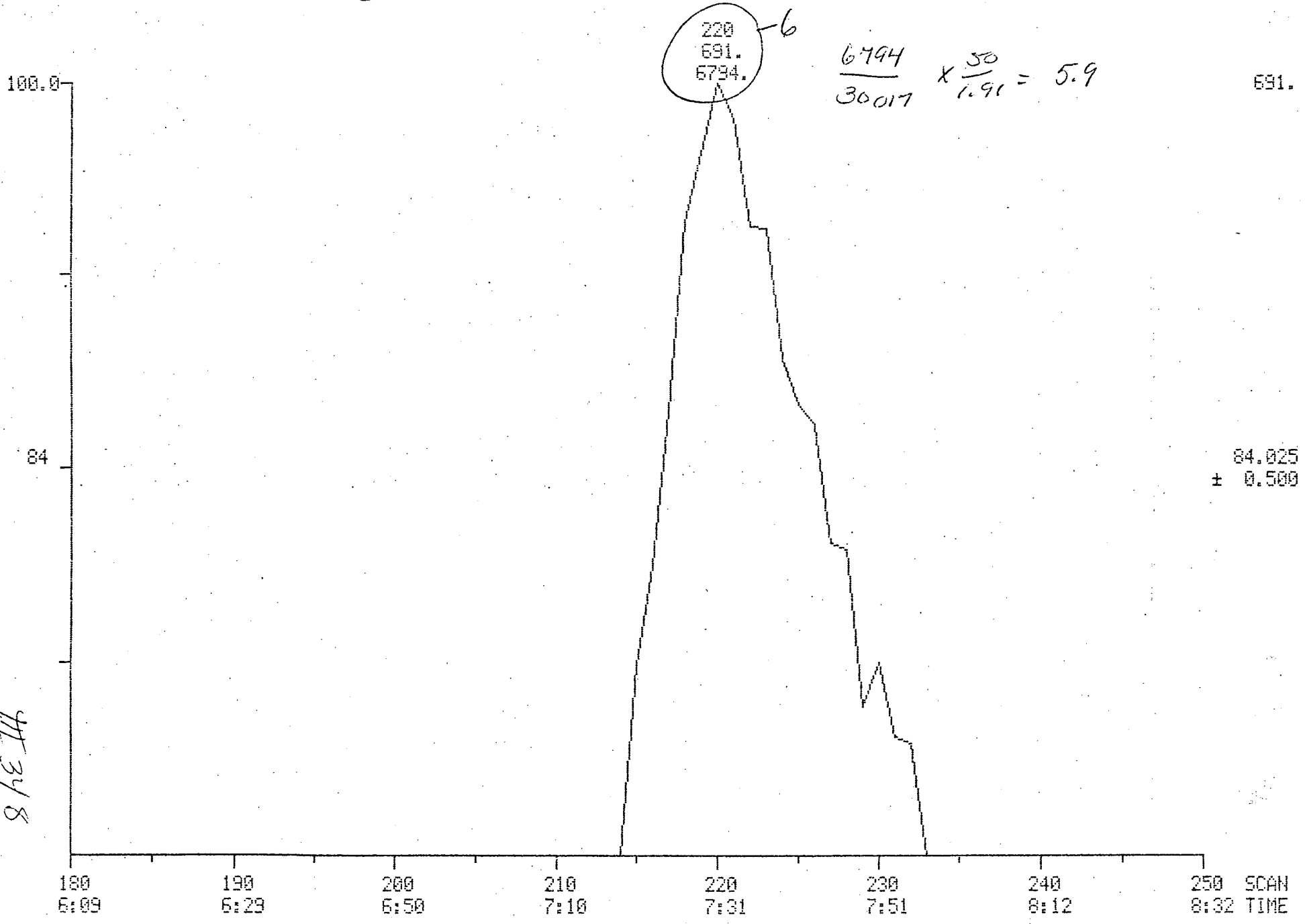
AB 053 case 3981 3/16/55

III 347

MASS CHROMATOGRAM
03/16/85 3:03:00
SAMPLE: AB 053 CASE 3981

DATA: U2842

SCANS 180 TO 250



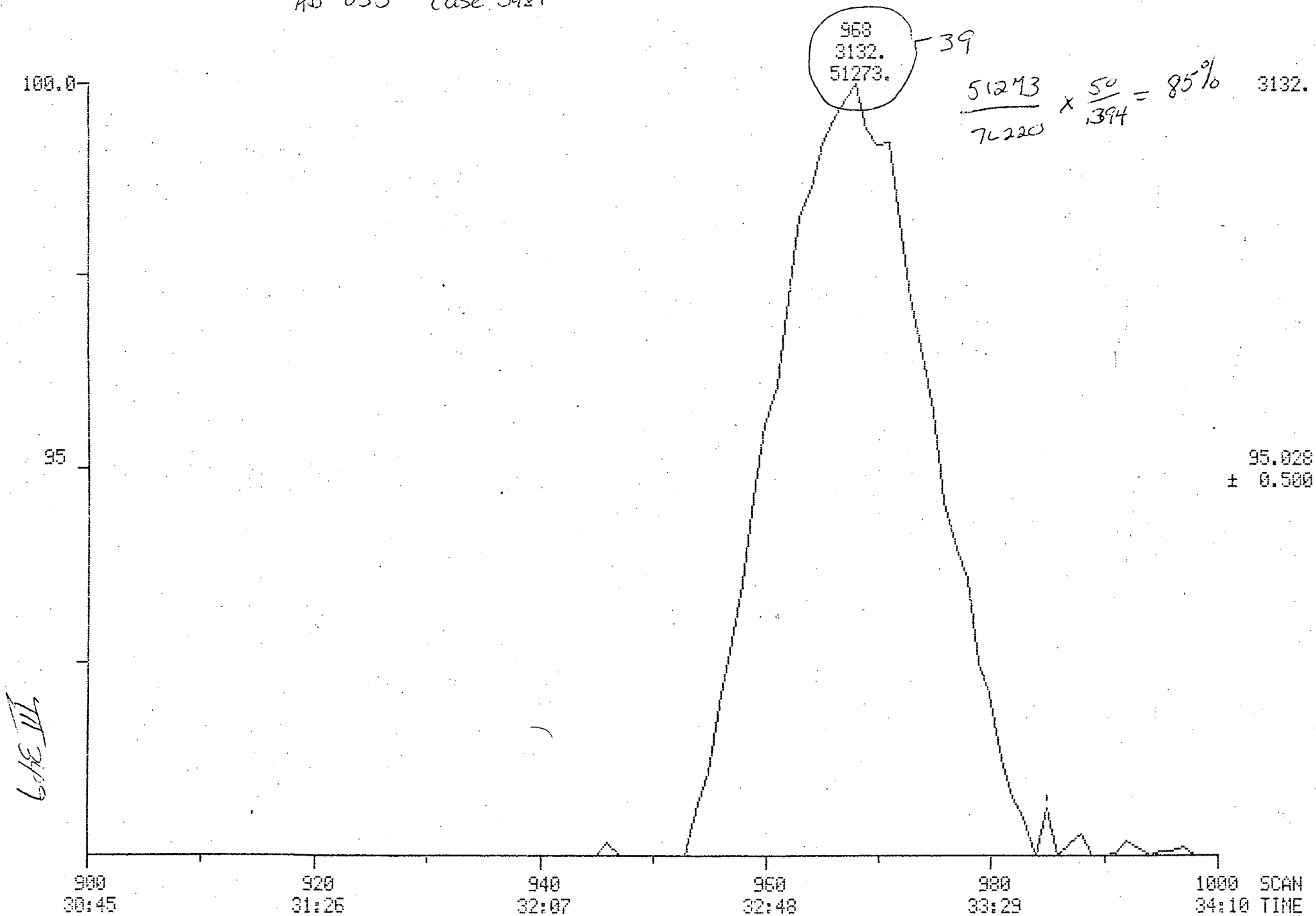
MASS CHROMATOGRAM

03/16/85 3:03:00

SAMPLE: AB 053 Case 3981

DATA: U2842

SCANS 900 TO 1000



DUAL MASS SPECTRUM

03/16/85 3:03:00 + 7:31

SAMPLE:

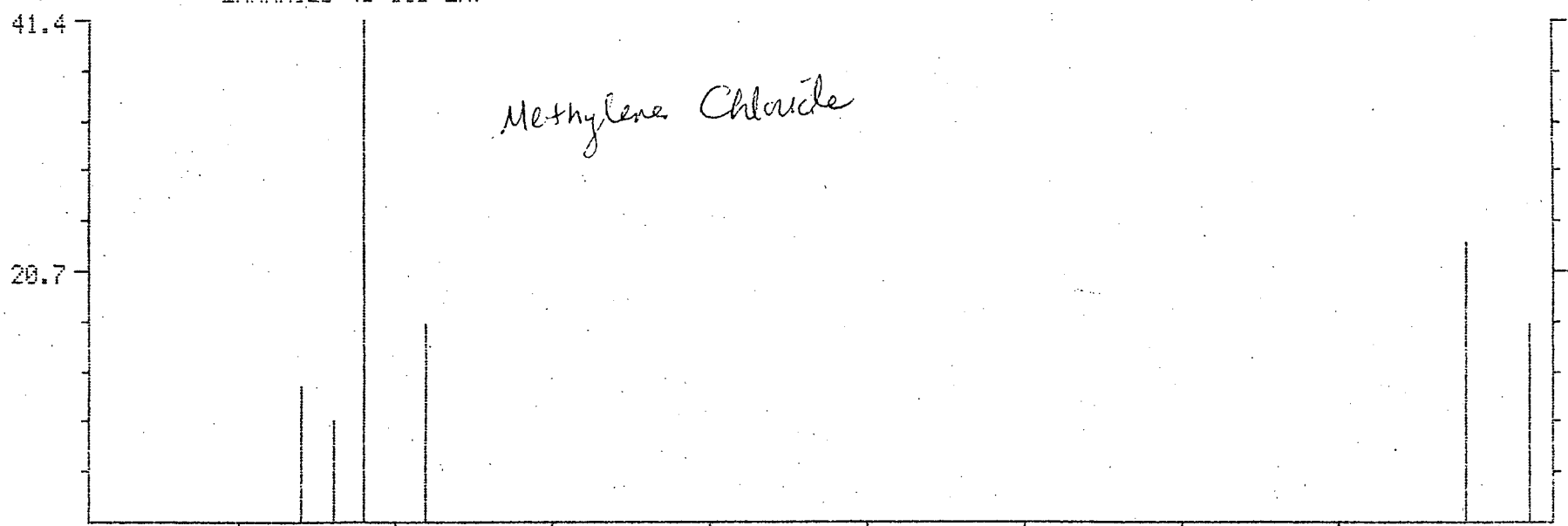
ENHANCED (S 15B 2N)

AB 053 case 3981

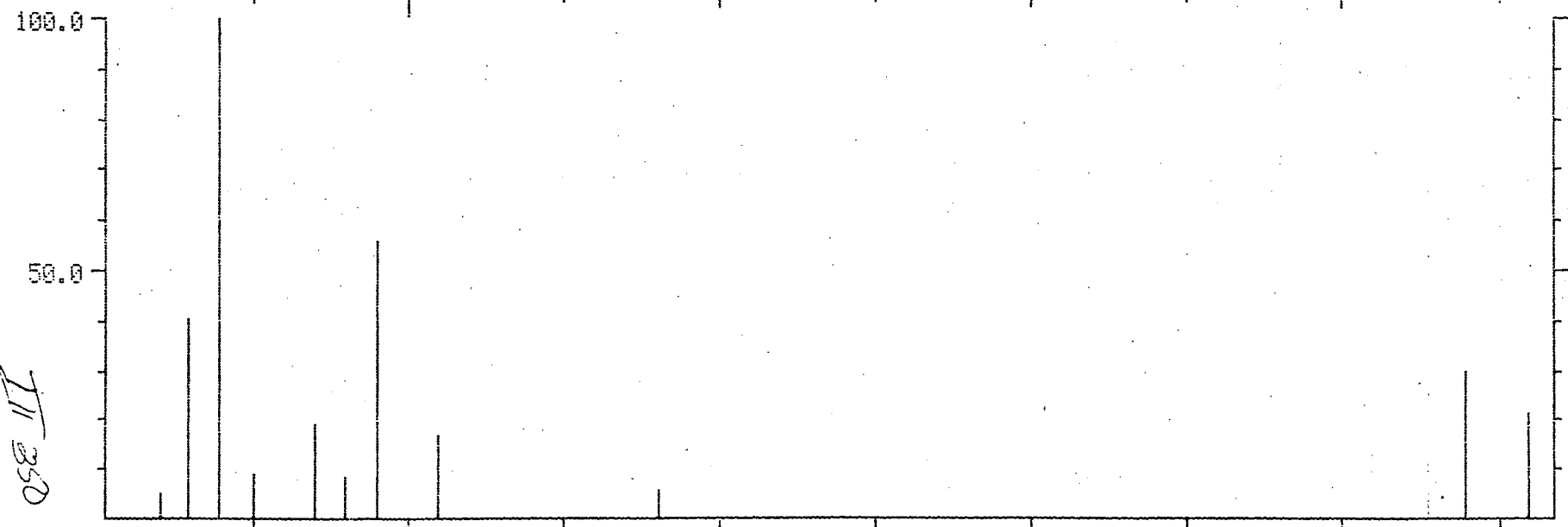
DATA: U2842 #220

BASE M/E: 49/ 44

RIC: 2687./ 7175.



957.



2312.

M/E

50

60

70

80

MASS SPECTRUM

DATA: U2708 #248

BASE M/E: 49

03/03/85 12:41:00 + 8:28

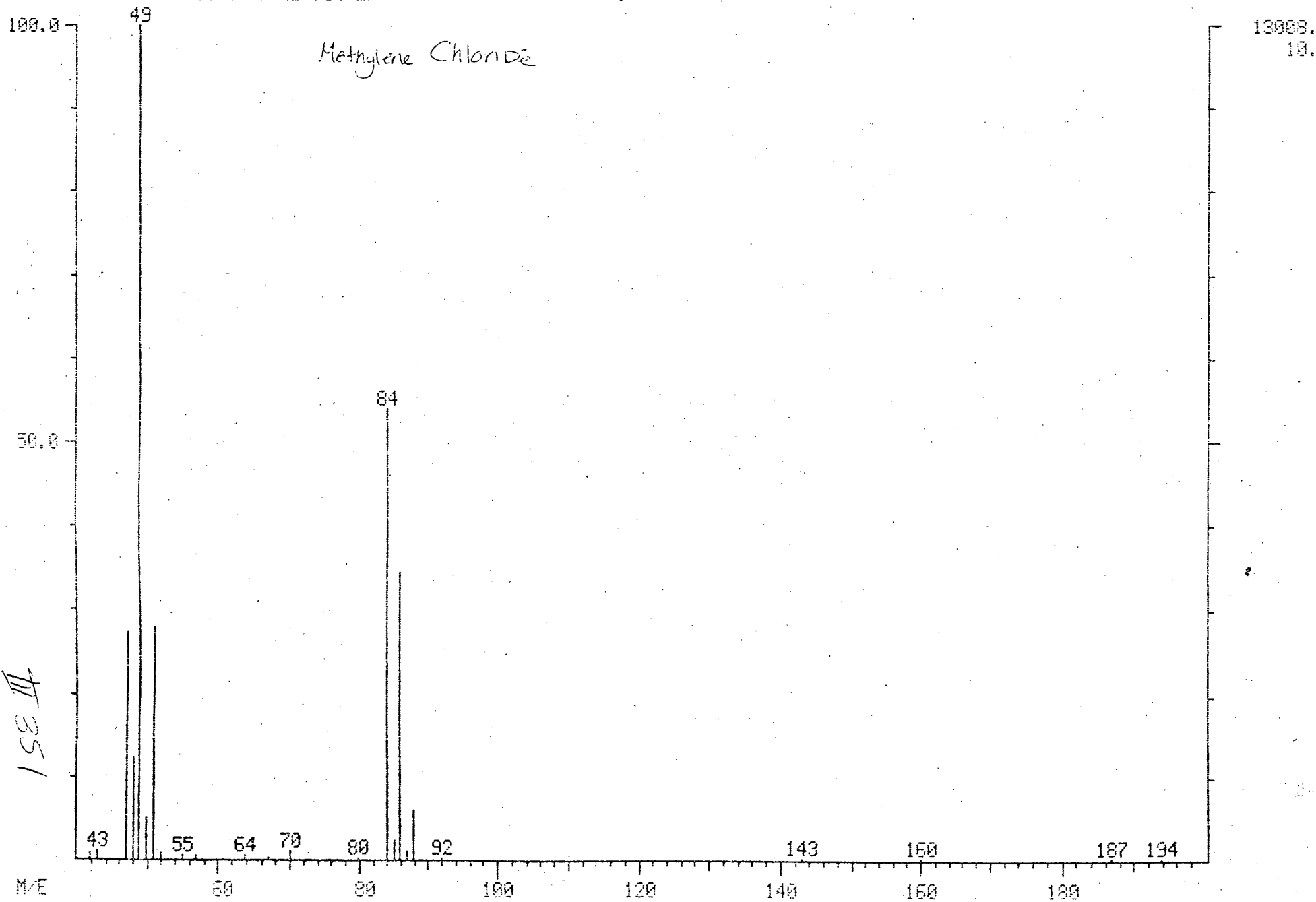
RIC: 35224.

SAMPLE:

ENHANCED (S 15B 2N)

3969
case - 3/3/84 100 ppb

Methylene Chloride

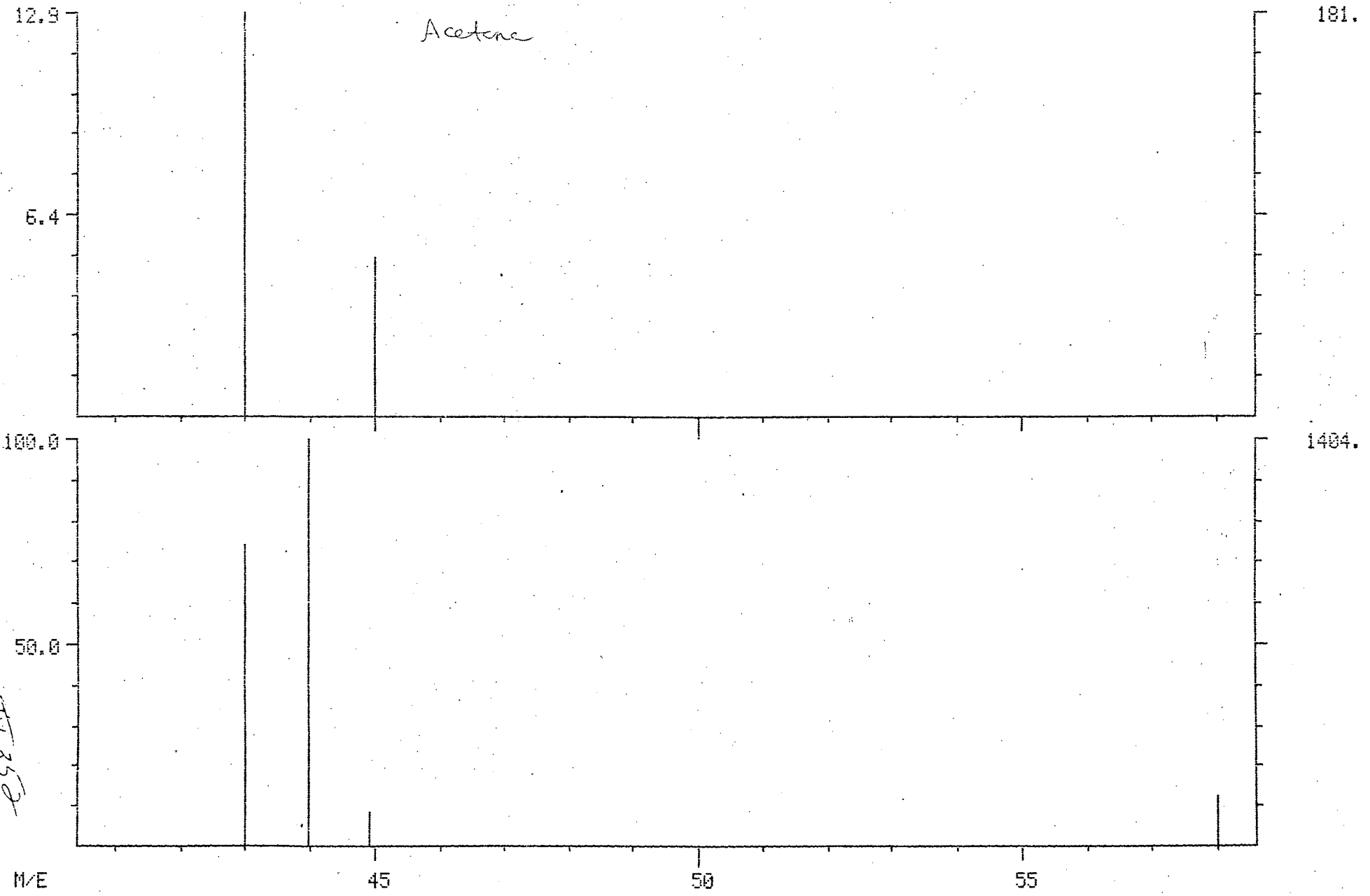


DUAL MASS SPECTRUM
03/16/85 3:03:00 + 10:13
SAMPLE:
ENHANCED (S 15B 2N)

AB053 Case 3981

DATA: U2842 #299

BASE M/E: 43/ 44
RIC: 251./ 2739.



MASS SPECTRUM

83/19/85 14:37:00 + 10:33

SAMPLE: 100 PPB STD

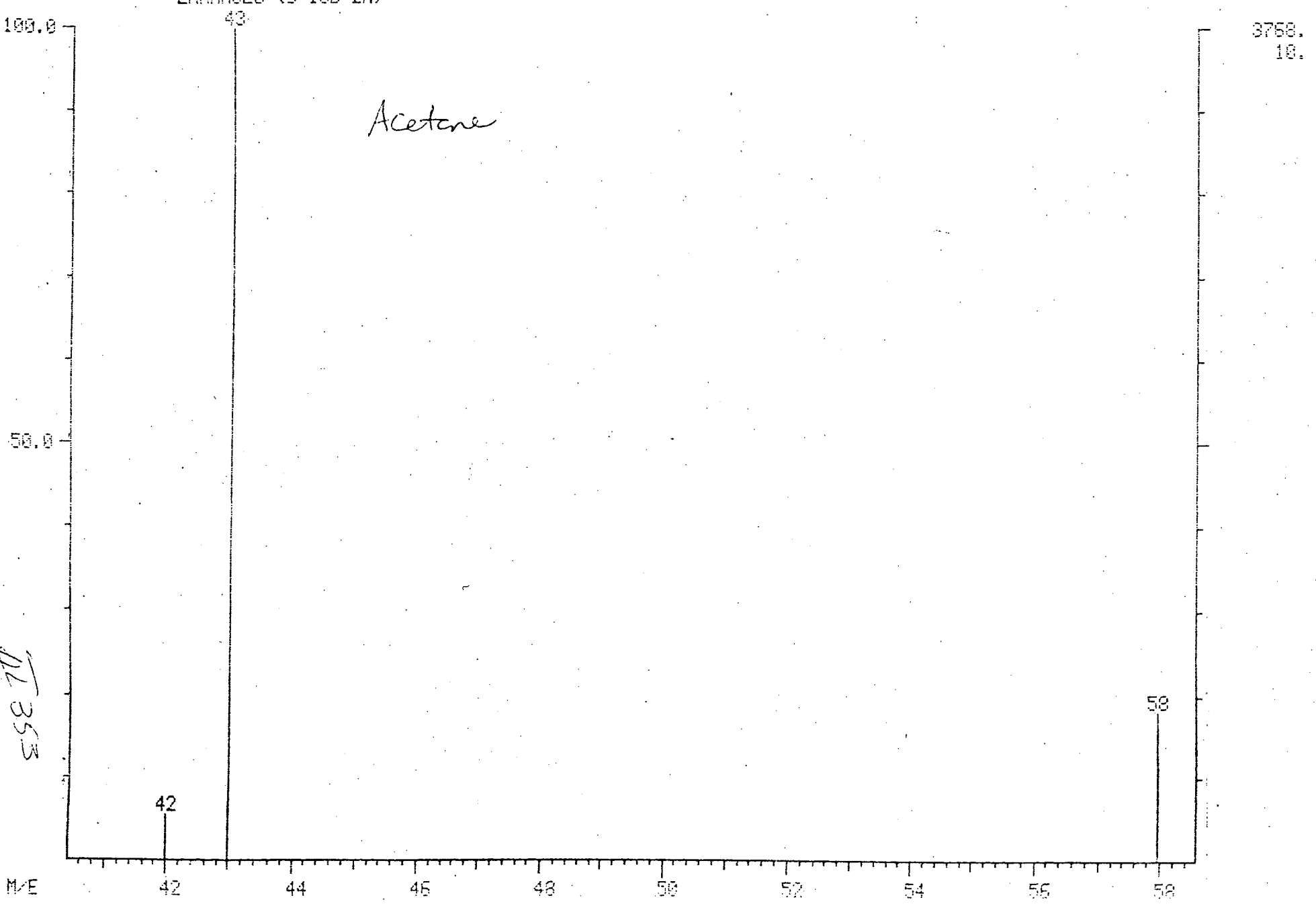
ENHANCED (S 15B 2N)

Case 3981

DATA: U2866 #309

BASE N/E: 43

RIC: 4656.



112 353

LIBRARY SEARCH

DATA: U2842 # 463

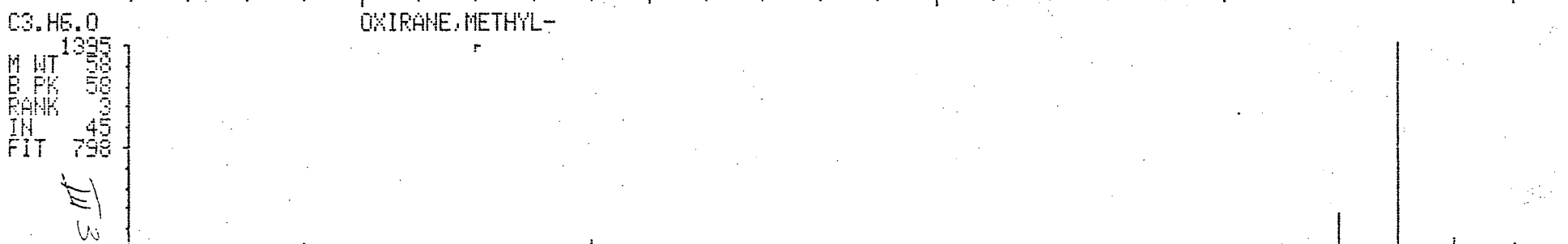
BASE N/E: 58

03/16/85 3:03:00 + 15:49

RIC: 412.

SAMPLE: AB 053 case 3781

ENHANCED (S 158 2H 0T)



M/E 40 45 50 55 60

Handwritten: 1395

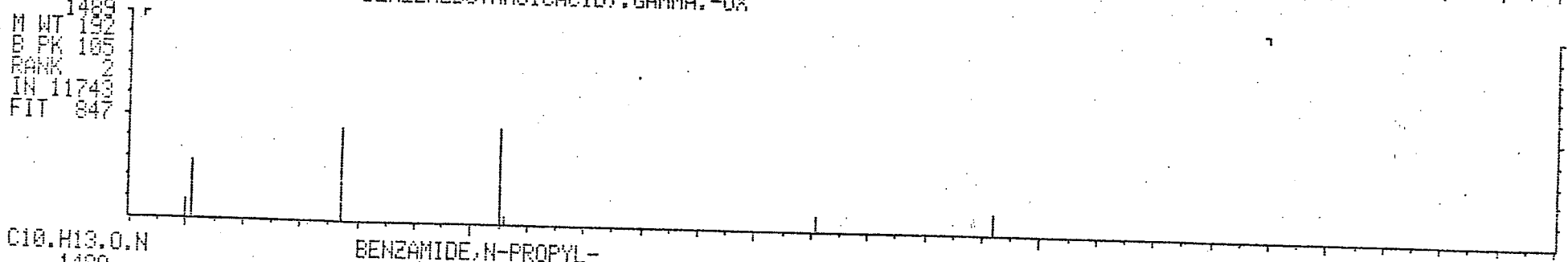
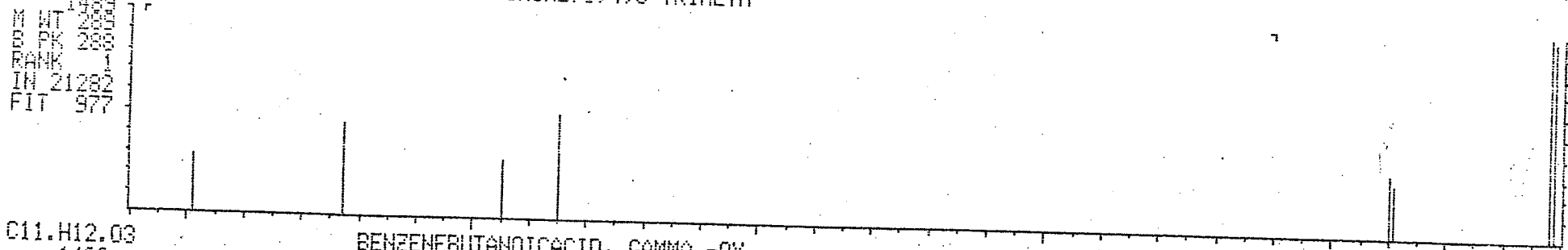
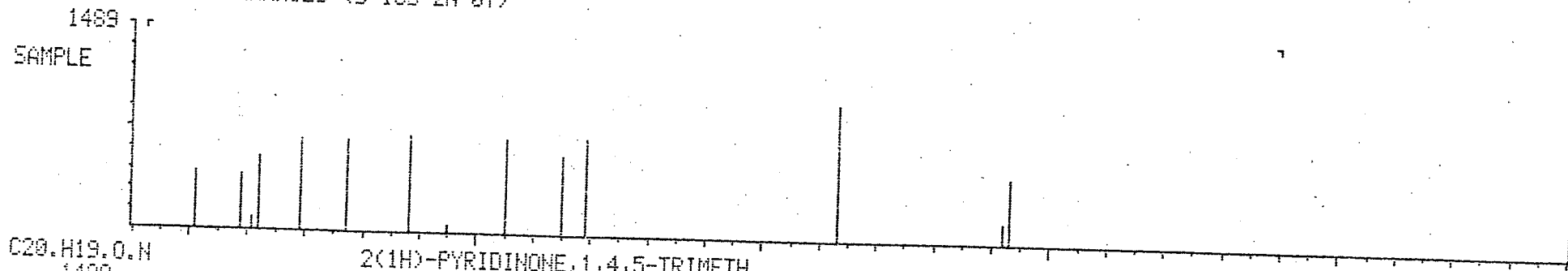
LIBRARY SEARCH

03/16/85 3:03:00 + 35:03

SAMPLE: AB053 case 3981
ENHANCED (S 15E 2N 0T)

DATA: U2842 #1026

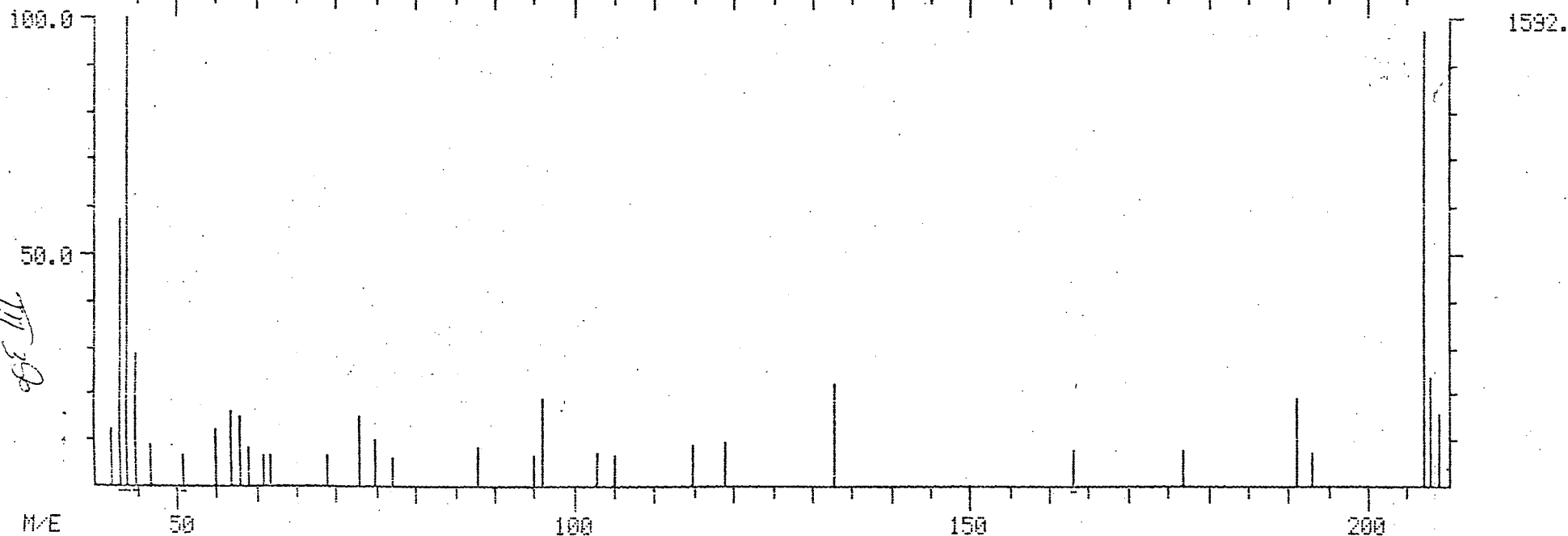
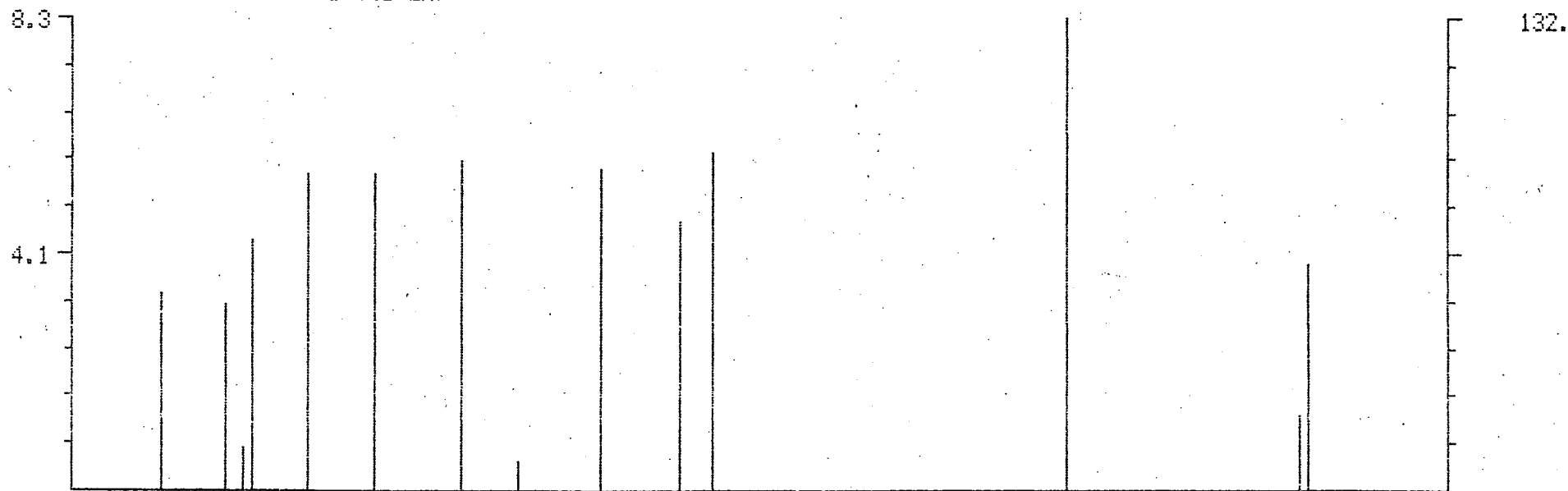
BASE M/E: 163
RIC: 939.



DUAL MASS SPECTRUM
03/16/85 3:03:00 + 35:03
SAMPLE: AB053 case 3981
ENHANCED (S 158 2H)

DATA: V2842 #1026

BASE M/E: 163/ 44
RIC: 939./ 9359.



M/E 50 100 150 200

Handwritten signature

MASS CHROMATOGRAM

03/15/85 3:03:00

SAMPLE: AB 053 case 381

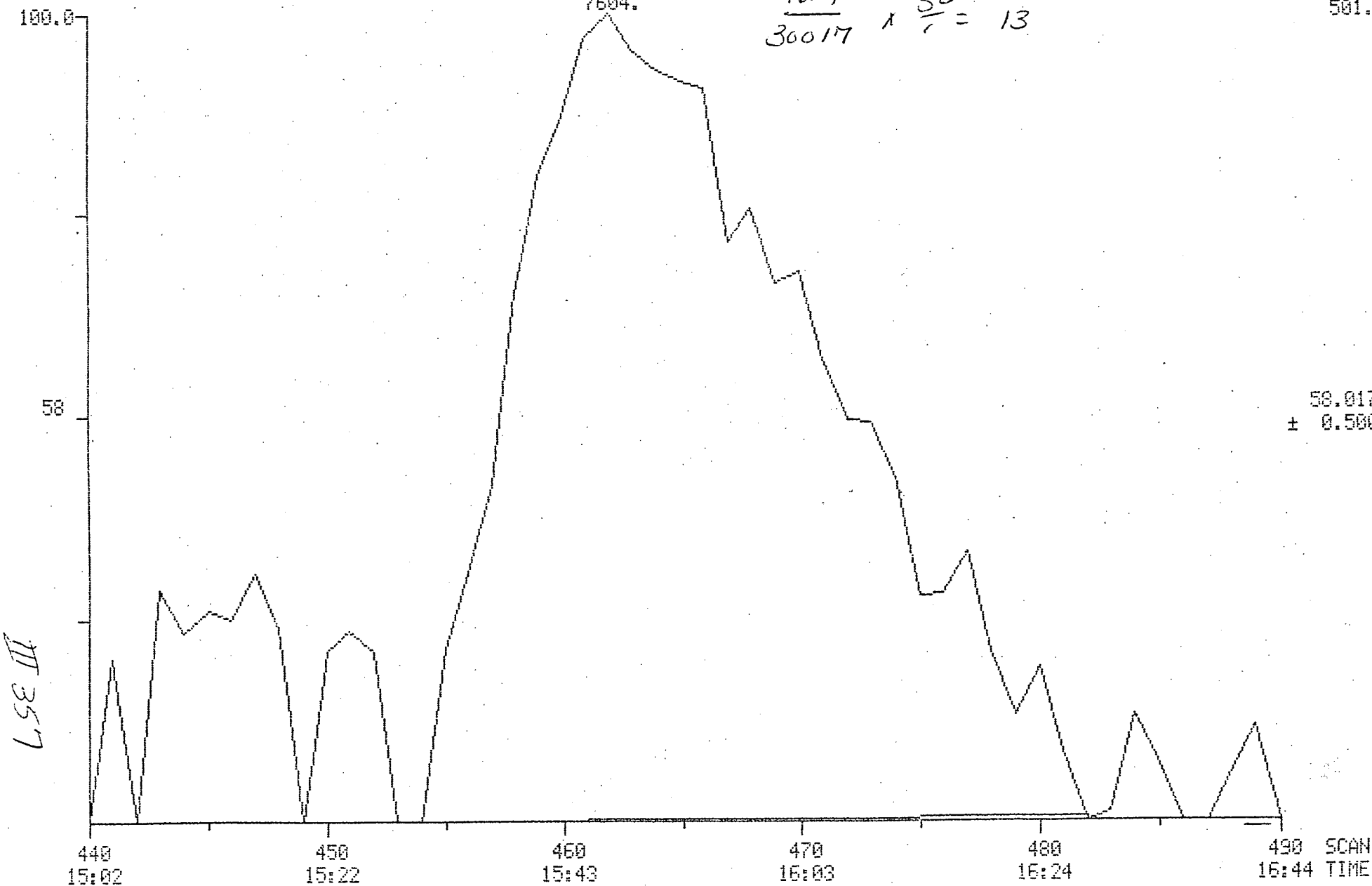
DATA: U2842

SCANS 440 TO 490

462
500.
7604.

$$\frac{7604}{30017} \times \frac{50}{1} = 13$$

501.



MASS CHROMATOGRAM

03/16/85 3:03:00

SAMPLE: AB053 case 3981

DATA: U2842

SCANS 990 TO 1060

1018
1150.
20151.

$$\frac{20161}{76220} \times \frac{50}{1} = 13$$

1152.

100.0

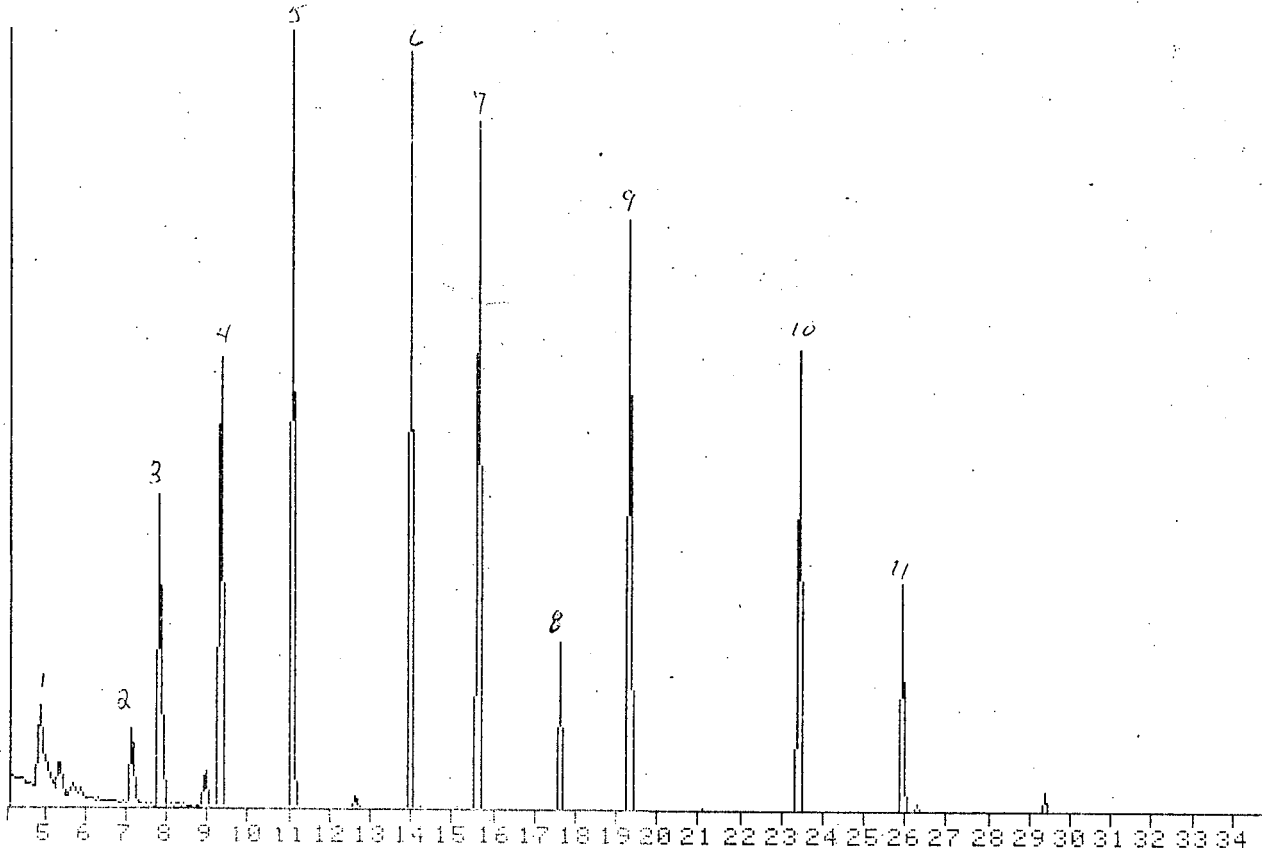
207

207.052
± 0.500

III 358

990	1000	1010	1020	1030	1040	1050	1060	SCAN
33:49	34:10	34:30	34:51	35:11	35:32	35:52	36:13	TIME

18159



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

TIT 359

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	158.0	1.000	80.0000				D4-1,4-DICHLORO BENZENE(20)
8.9	74.0	.046	.0000				N-NITROSODIMETHYLAMINE
7.2	93.0	1.095	.0000				ANILINE
7.4	93.0	.814	.0000				BIS(2-CHLOROETHYL)ETHER
7.8	146.0	.635	.0000				1,3-DICHLORO BENZENE
7.9	146.0	.682	.0000				1,4-DICHLORO BENZENE
8.4	108.0	.459	.0000				BENZYL ALCOHOL
8.4	146.0	.652	.0000				1,2-DICHLORO BENZENE
8.8	45.0	.573	.0000				BIS(2-CHLOROISOPROPYL)ETHER
9.1	78.0	.564	.0000				N-NITROSODINPROPYLAMINE
9.1	117.0	.324	.0000				HEXACHLOROETHANE
9.4	77.0	.870	.0000				NITROBENZENE

11.1	136.0	1.000	80.0000				D8-NAPHTHALENE(20)
10.0	82.0	.724	.0000				ISOPHORONE
10.7	93.0	.484	.0000				BIS(2-CHLOROETHOXY)METHANE
11.0	180.0	.201	.0000				1,2,4-TRICHLORO BENZENE
11.2	129.0	.105	.0000				NAPHTHALENE
11.5	127.0	.401	.0000				4-CHLOROANILINE
11.7	225.0	.099	.0000				HEXACHLOROBUTADIENE
12.0	142.0	.564	.0000				2-METHYLNAPHTHALENE

13.6	164.0	1.000	80.0000				D10-ACENAPHTHENE
13.6	237.0	.248	.0000				HEXACHLOROCYCLOPENTADIENE
14.2	162.0	1.060	.0000				2-CHLORONAPHTHALENE
14.6	65.0	.507	.0000				2-NITROANILINE
15.3	163.0	1.158	.0000				DIMETHYL PHTHALATE
15.3	152.0	1.874	.0000				ACENAPHTHYLENE
15.4	165.0	.334	.0000				2,6-DINITROTOLUENE
15.7	138.0	.433	.0000				3-NITROANILINE
15.8	153.0	1.236	.0000				ACENAPHTHENE
16.2	168.0	1.476	.0000				DIBENZOFURAN
16.3	89.0	.392	.0000				2,4-DINITROTOLUENE
17.0	149.0	1.429	.0000				DIETHYL PHTHALATE
17.0	166.0	1.132	.0000				FLUORENE
17.1	204.0	.510	.0000				4-CHLOROPHENYLPHENYL ETHER
17.3	138.0	.461	.0000				4-NITROANILINE
16.2	169.0	.192	.0000				DIPHENYLAMINE

TJ 360

3/28/85/FM

BTL#29 Q14828

D14828

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
19.3	188.0	1.000	80.0000				D10-PHENANTHRENE(20)
18.3	248.0	.166	.0000				4-BROMOPHENYLPHENYL ETHER
18.6	284.0	.193	.0000				HEXACHLOROBENZENE
19.5	178.0	.574	.0000				PHENANTHRENE/ANTHRACENE
21.1	149.0	1.004	.9589 ^{EM}				DIBUTYL PHTHALATE
22.4	202.0	.968	.0000				FLUORANTHENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
23.0	202.0	3.049	.0000				PYRENE
24.8	149.0	1.411	.0000				BUTYL BENZYL PHTHALATE
26.0	228.0	.555	.0000				BENZO(A)ANTHRACENE/CHRYSENE
26.3	149.0	1.345	.0000				BIS(2-ETHYLHEXYL)PHTHALATE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
27.5	149.0	.139	.0000				DIOCTYL PHTHALATE
28.5	252.0	.283	.0000				BENZO(B)/(K)FLUORANTHENE
29.3	252.0	.173	.0000				BENZO(A)PYRENE
32.7	276.0	.075	.0000				INDENO(123-CD)PYRENE
32.8	278.0	.043	.0000				DIBENZO(AH)ANTHRACENE
33.7	276.0	.055	.0000				BENZO(GHI)PERYLENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
22.8	184.0	1.084	.0000				BENZIDINE
26.0	252.0	.357	.0000				DICHLOROBENZIDINE

III 361

FILE NUMBER: 14828
 43322 AB 053 CASE 3981
 3/28/85/FM BTL#29 014828 D14828

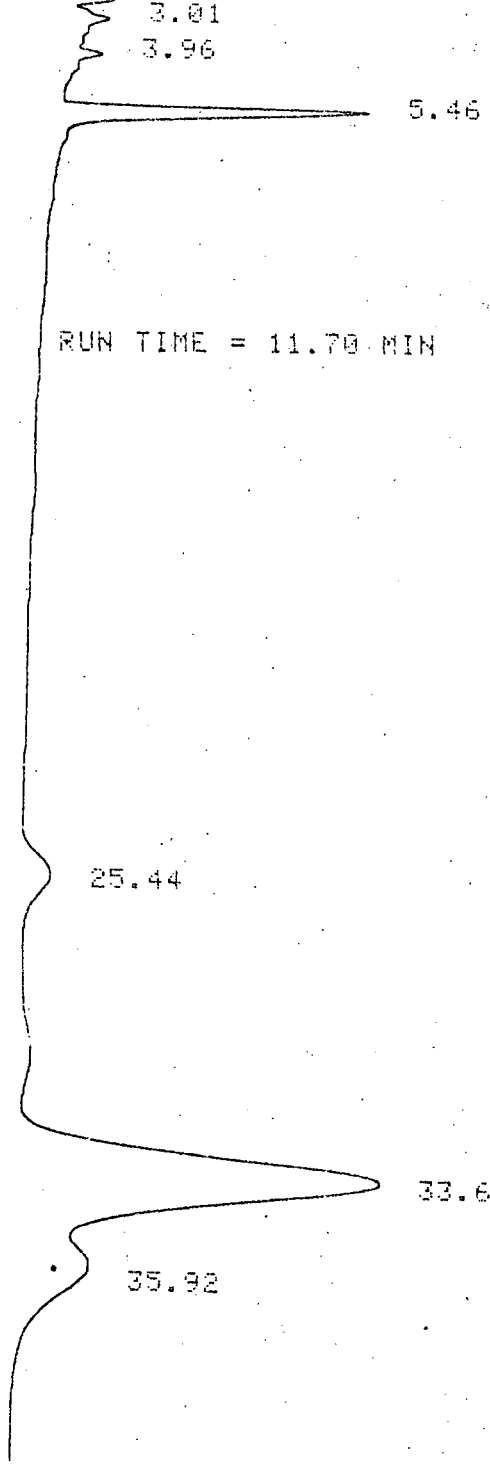
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				
7.2	94.0	1.311	.0000				D4-1,4-DICHLOROBENZENE(20)
7.4	128.0	.997	.0000				PHENOL
8.7	108.0	.963	.0000				2-CHLOROPHENOL
9.1	108.0	1.027	.0000				2-METHYLPHENOL
							4-METHYLPHENOL

11.1	136.0	1.000	80.0000				D8-NAPHTHALENE(20)
10.2	139.0	.198	.0000				2-NITROPHENOL
10.5	122.0	.299	.0000				2,4-DIMETHYLPHENOL
11.1	122.0	.131	.0000				BENZOIC ACID
10.9	162.0	.240	.0000				2,4-DICHLOROPHENOL
12.8	107.0	.317	.0000				4-CHLORO-M-CRESOL

15.6	164.0	1.000	80.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	.0000				2,4,5-TRICHLOROPHENOL
13.8	196.0	.347	.0000				2,4,6-TRICHLOROPHENOL
15.9	184.0	.165	.0000				2,4-DINITROPHENOL
17.3	198.0	.197	.0000				4,6-DINITRO-O-CRESOL
16.2	65.0	.310	.0000				4-NITROPHENOL

19.3	188.0	1.000	80.0000				D10-PHENANTHRENE
19.1	266.0	.122	.0000				PENTACHLOROPHENOL

IV
367



RUN TIME = 11.70 MIN

43222/AB053
 Case 3981
 SP 2250/2401
 HP 5880 Sul

33.60 Dibutyl chloroendate

KMP] 5880A SAMPLER INJECTION @ 08:03 APR 9, 1985

SAMPLE # : ID CODE :
 76

AREA %

RT	AREA	TYPE	AREA %
0.32	683080.00	SBV	91.964
0.56	327.45	BB	0.044
0.80	15701.90	BB	2.114
1.13	176.59	PB	0.024
1.80	347.02	PB	0.047
3.01	1396.03	VV	0.188
3.96	746.92	VV	0.101
3.46	4493.02	BV	0.605
25.44	1791.15	BB	0.241

43222/AB053
 Case 3981
 SP 2250/2401

Handwritten signature/initials

TOTAL AREA = 742771.00
MULTIPLIER = 1

RT: IAN SKIM

INJECTION 09:32 APR 9, 1985

SAMPLE # : ID CODE :

77

AREA %

RT AREA TYPE AREA %

III
365

① Case Number: 3981

Sample Site Name/Code:

② SAMPLE CONCENTRATION
(Check One)

Low Concentration
 Medium Concentration

③ SAMPLE MATRIX
(Check One)

Water
 Soil/Sediment

④ Ship To:

ECA
23 Buckingham Rd
Bedford, MA 01730

Attn: Gary Hunt

Transfer
Ship To:

⑤ Regional Office: F

Sampling Personnel:

John Williams
(Name)
(617) 742-3151
(Phone)

Sampling Date:

3/7/85 3/7/85
(Begin) (End)

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

⑦ Analyte(s)
Requested by: APL
Date Rec'd: 3/8/85
Sample Condition:
in Rec'd bag, box
or Change Custody:

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

No sample tag

⑧ Shipping Information

Hand-carry
Name of Carrier

Date Shipped:

Airbill Number:

⑨ Sample Description

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

⑩ Sample Location

⑪ Special Handling Instructions:
(e.g., safety precautions, hazardous nature)

III
366

Laboratory Name: GCA Case No: 3981
 Lab Sample ID No: 43337 OC Report No: 3981
 Sample Matrix: water Contract No: 68-01-6767
 Data Release Authorized By: F. Marquez Date Sample Received: 3-8-85

Volatile Compounds

Concentration: (Low) Kindam (Circle One)
 Date Extracted-Prepared: 3-15-85
 Date Analyzed: 3-16-85
 Conc/Dil Factor: 1 NA
 Percent Moisture: NA
 Percent Moisture (Decanted): NA

*ETMM
6/14/85*

*R-quest ETMM
6/14/85*

CAS Number	Compound	ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u R
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	7.3 R
67-64-1	Acetone	10u R
75-15-0	Carbon Disulfide	5u
75-35-4	1, 1-Dichloroethane	5u J
75-34-3	1, 1-Dichloroethane	5u
156-60-5	Trans-1, 2-Dichloroethane	5u
67-66-3	Chloroform	5u
107-06-2	1, 2-Dichloroethane	5u
78-53-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5u
56-23-5	Carbon Tetrachloride	5u
106-05-4	Vinyl Acetate	10u
75-27-4	Bromochloromethane	5u

CAS Number	Compound	ug/L or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5u
78-87-5	1, 2-Dichloropropane	5u
10061-02-6	trans-1, 3-Dichloropropene	5u
79-01-6	Trichloroethene	5u
124-48-1	Dibromochloromethane	5u
79-00-5	1, 1, 2-Trichloroethane	5u
71-43-7	Benzene	5u
10061-01-5	cis-1, 3-Dichloropropene	5u
110-75-8	2-Chloroethylvinyl ether	10u
75-25-2	Bromoform	5u R
591-78-6	2-Hexanone	10u
108-10-1	4-Methyl-2-Pentanone	10u
127-18-4	Tetrachloroethane	5u
108-69-3	Toluene	5u
105-90-7	Chlorobenzene	5u
100-41-4	Ethylbenzene	5u
100-42-5	Styrene	5u R
	Total Xylenes	5u

- V: Indicates a value greater than the detection limit, report the value.
- U: Indicates compound was not detected. Report the compound data as U in the sample report. (U is g, 100) based on each day's concentration detection limit. (This is not an estimate, the maximum detection limit.) The test was performed if the compound was believed to be detected. The number is the maximum detectable concentration for the sample.
- J: Indicates an estimated value. This is a useful value when estimating a concentration for tentatively identified compounds when a 1:1 response is observed or when the mass is less than 2.0 times the detection limit. (This is not an estimate, the maximum detection limit.)
- R: Indicates a value greater than the detection limit, report the value.
- NA: Indicates a value greater than the detection limit, report the value.
- Other: Other specific steps or procedures may be required to provide data on the results. If used, they must be fully described in the report also upon attached to the data.

*III
367*

Sample Number
A0054

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Unknown	VOA	1023	6.4
2.				
3.				
4.				
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.				

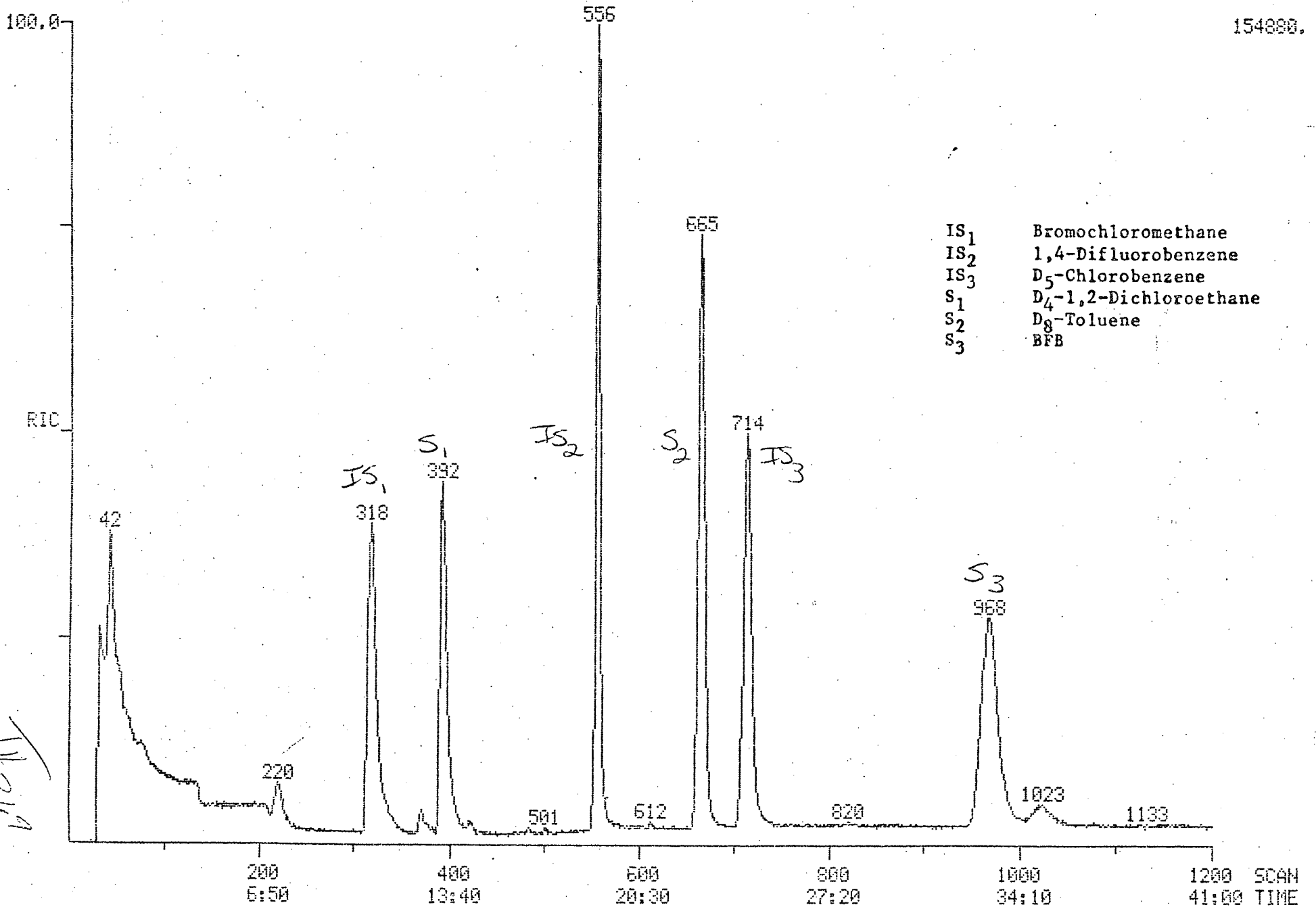
10000, Alexandria, Virginia 22313 703/557-2480

III
368
1/84

RIC
03/16/85 3:55:00
SAMPLE: AB 054 Case 3981 43837

DATA: U2843

SCANS 1 TO 1200



DATA: V2843.TI
03/16/85 3:55:00

AB 054 Case 3981 43337

SAMPLE:
SUBMITTED BY: ANALYST:

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LIBRARY ENTRY

- NO NAME
- 1 BROMOCHLOROMETHANE(I. S. #1)
- 2 CHLOROMETHANE
- 3 BROMOMETHANE
- 4 VINYL CHLORIDE
- 5 CHLOROETHANE
- 6 METHYLENE CHLORIDE
- 7 ACETONE
- 8 CARBON DISULFIDE
- 9 1, 1-DICHLOROETHENE
- 10 1, 1-DICHLOROETHANE
- 11 TRANS 1, 2-DICHLOROETHENE
- 12 CHLOROFORM
- 13 1, 2-DICHLOROETHANE
- 14 D4-1, 2-DICHLOROETHANE
- 15 1, 1, 1-TRICHLOROETHANE
- 16 1, 4-DIFLUOROBENZENE(I. S. #2)
- 17 CARBON TETRACHLORIDE
- 18 VINYL ACETATE
- 19 2-BUTANONE
- 20 BROMODICHLOROMETHANE
- 21 1, 2-DICHLOROPROPANE
- 22 TRANS 1, 3-DICHLOROPROPANE
- 23 TRICHLOROETHENE
- 24 DIBROMOCHLOROMETHANE
- 25 1, 1, 2-TRICHLOROETHANE
- 26 BENZENE
- 27 CIS-1, 3-DICHLOROPROPENE
- 28 BROMOFORM
- 29 D8-TOLUENE(SURR#2)
- 30 2-CHLOROETHYLVINYLEETHER
- 31 D5-CHLOROBENZENE(I. S. #3)
- 32 4 METHYL 2 PENTANONE
- 33 2-HEXANONE
- 34 TETRACHLOROETHENE
- 35 1, 1, 2, 2, TETRACHLOROETHANE
- 36 TOLUENE
- 37 CHLOROBENZENE
- 38 ETHYLBENZENE
- 39 BFB(SURR#3)
- 40 STYRENE
- 41 TOTAL XYLENES

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	128	318	10:52	1	1.000	A BB	56642.	50.000 UG/L	15.19
2	NOT FOUND								
3	NOT FOUND								

IV
570

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
4		NOT FOUND							
5		NOT FOUND							
6		NOT FOUND							
7		NOT FOUND							
8		NOT FOUND							
9		NOT FOUND							
10		NOT FOUND							
11		NOT FOUND							
12		NOT FOUND							
13		NOT FOUND							
14	65	392	13:24	1	1.233	A BB	219266.	88.606 %REC	26.91
15		NOT FOUND							
16	114	556	19:00	16	1.000	A BB	258714.	50.000 UG/L	15.19
17		NOT FOUND							
18		NOT FOUND							
19		NOT FOUND							
20		NOT FOUND							
21		NOT FOUND							
22		NOT FOUND							
23		NOT FOUND							
24		NOT FOUND							
25		NOT FOUND							
26		NOT FOUND							
27		NOT FOUND							
28		NOT FOUND							
29	98	665	22:43	16	1.196	A BB	267458.	90.624 %REC	27.53
30		NOT FOUND							
31	117	714	24:24	31	1.000	A BB	164619.	50.000 UG/L	15.19
32		NOT FOUND							
33		NOT FOUND							
34		NOT FOUND							
35		NOT FOUND							
36		NOT FOUND							
37		NOT FOUND							
38		NOT FOUND							
39		NOT FOUND							
40		NOT FOUND							
41		NOT FOUND							

AB 054 case 3981 3/16/85

III
371

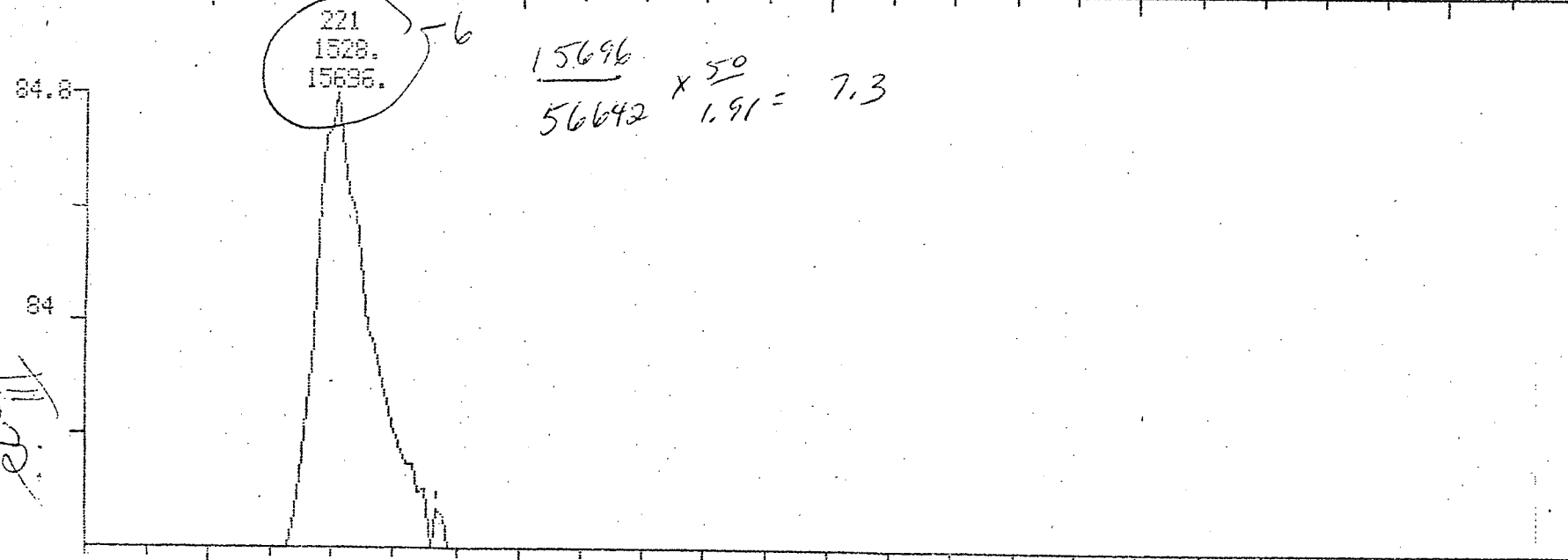
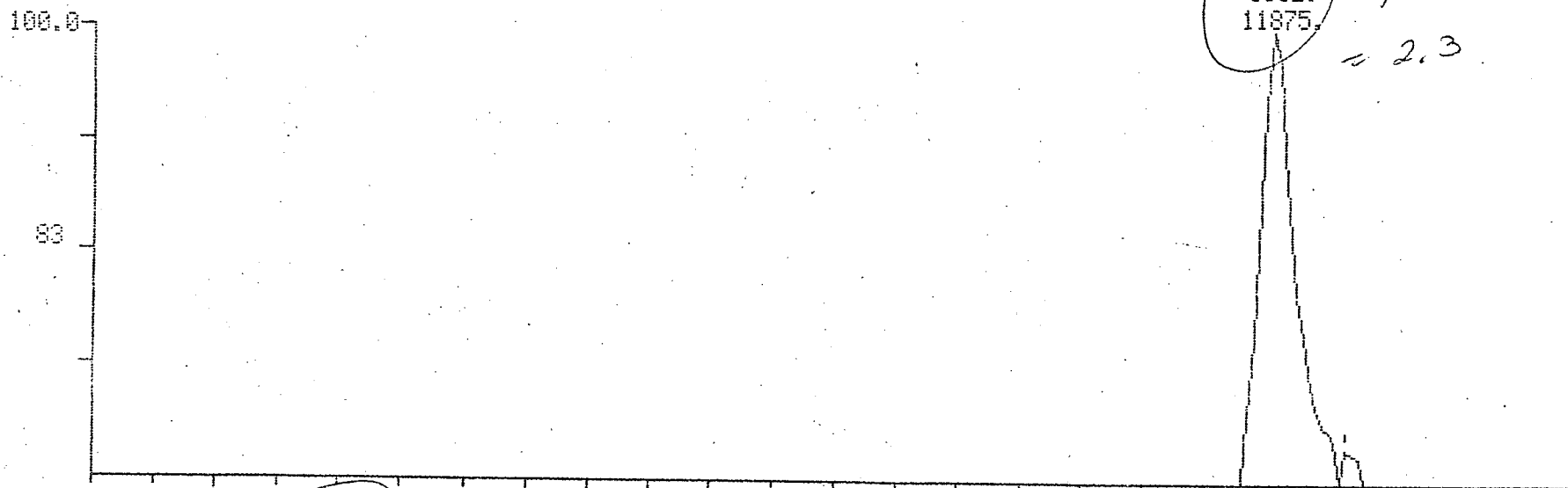
MASS CHROMATOGRAMS

03/16/85 3:55:00

SAMPLE: AB 054 Case 3981

DATA: U2843

SCANS 180 TO 420



200
6:50

250
8:32

300
10:15

350
11:57

400
13:40

SCAN
TIME

MASS CHROMATOGRAM

03/15/85 3:55:00

SAMPLE: AB 054 Case 3981

DATA: U2843

SCANS 900 TO 1000

100.0

95

967
7176.
115144.

39

$$\frac{115144}{164619} \times \frac{50}{.394} = 89\%$$

7176

95.028
± 0.500

III
373

900
30:45

920
31:26

940
32:07

960
32:48

980
33:29

1000 SCAN
34:10 TIME

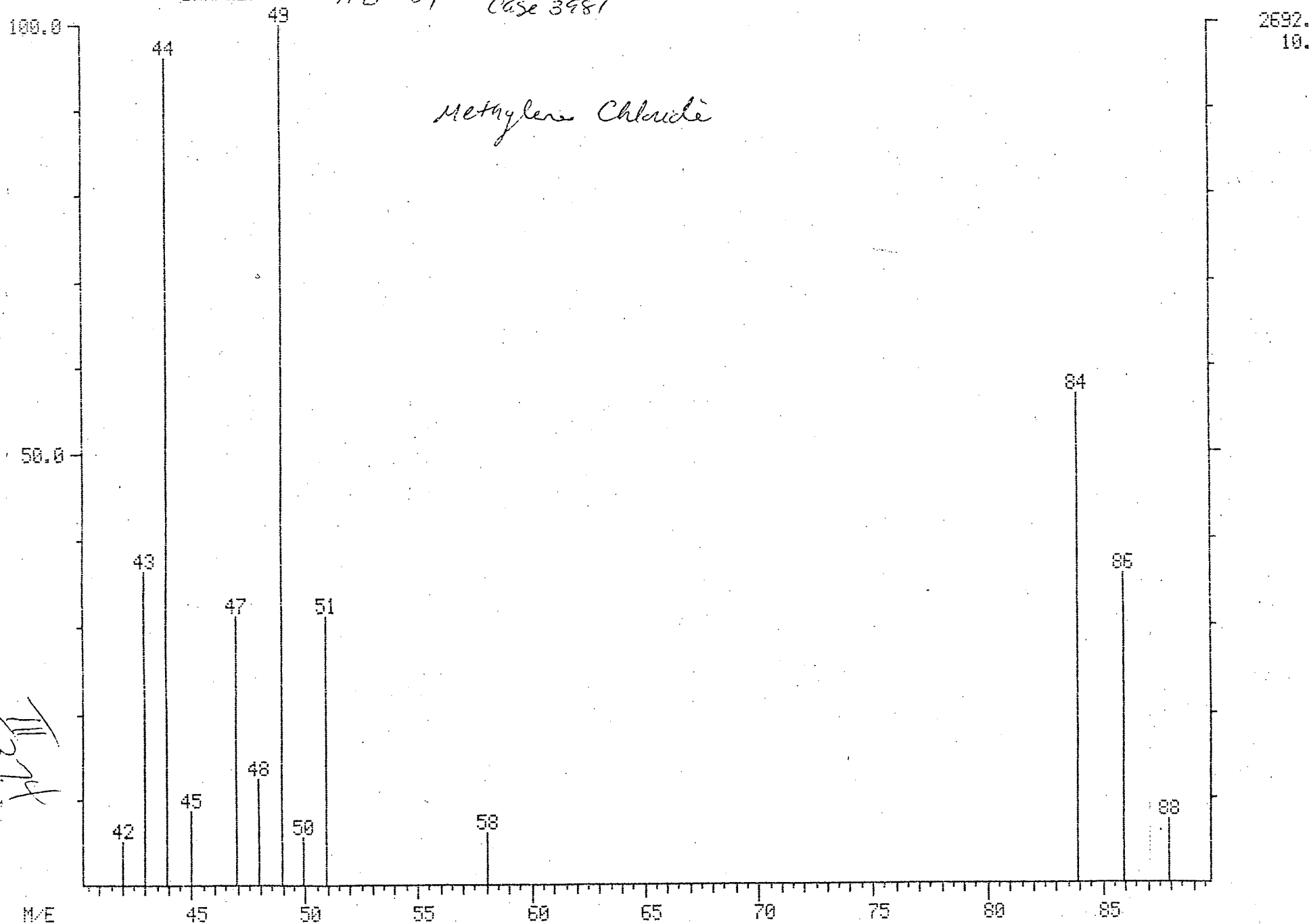
MASS SPECTRUM
03/16/85 3:55:00 + 7:33
SAMPLE: AB 054

DATA: U2843 #221

BASE M/E: 49
RIC: 11580.

Case 3981

Methylene Chloride



MASS SPECTRUM

03/16/85 3:55:00 + 7:33

SAMPLE:

ENHANCED (S 15B 2M)

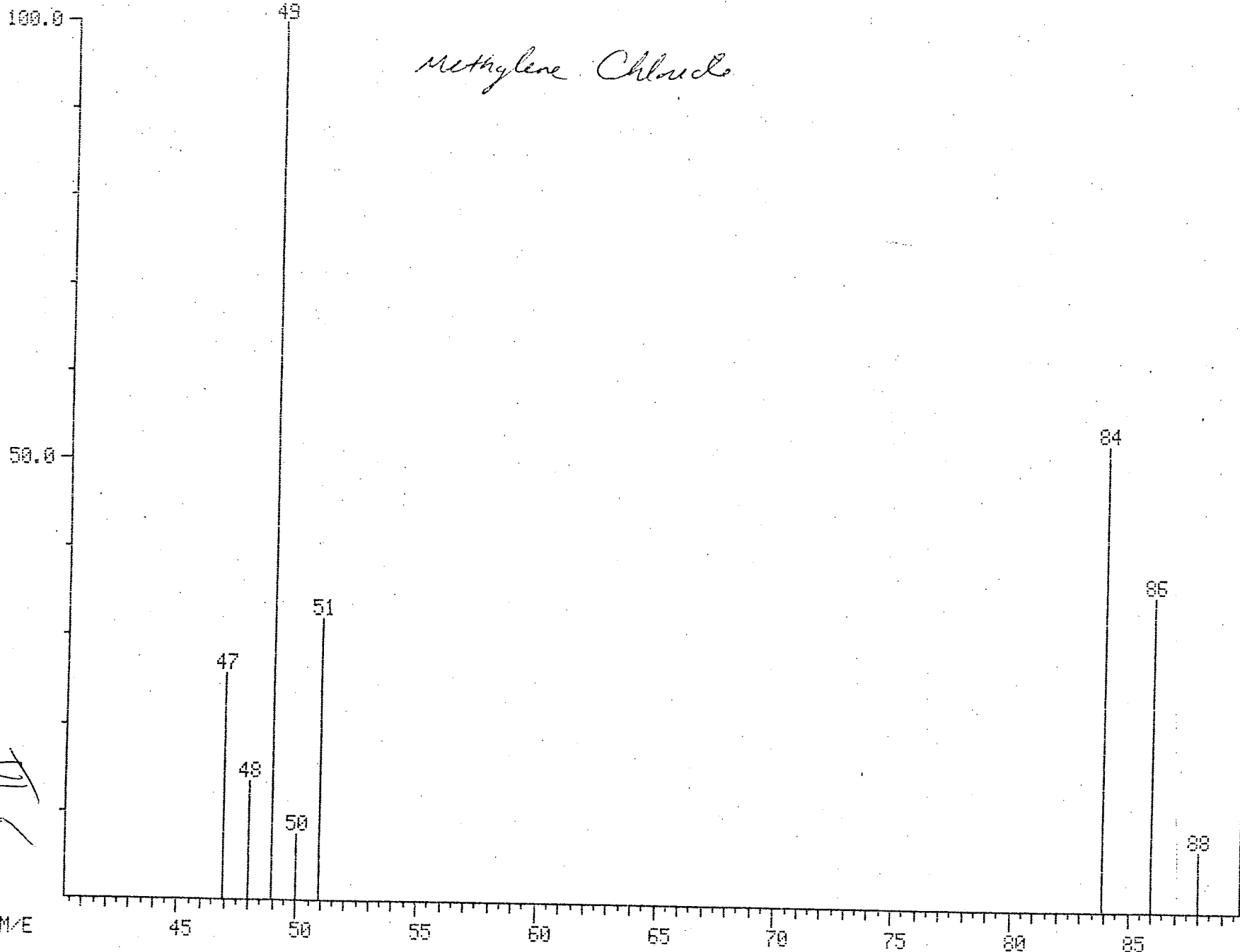
1B 054 Case 3981

DATA: U2843 #221

BASE M/E: 49

RIC: 5704.

Methylene Chloride



Handwritten signature/initials

2072.
10.

MASS SPECTRUM

DATA: U2708 #248

BASE M/E: 49

03/03/85 12:41:00 + 8:28

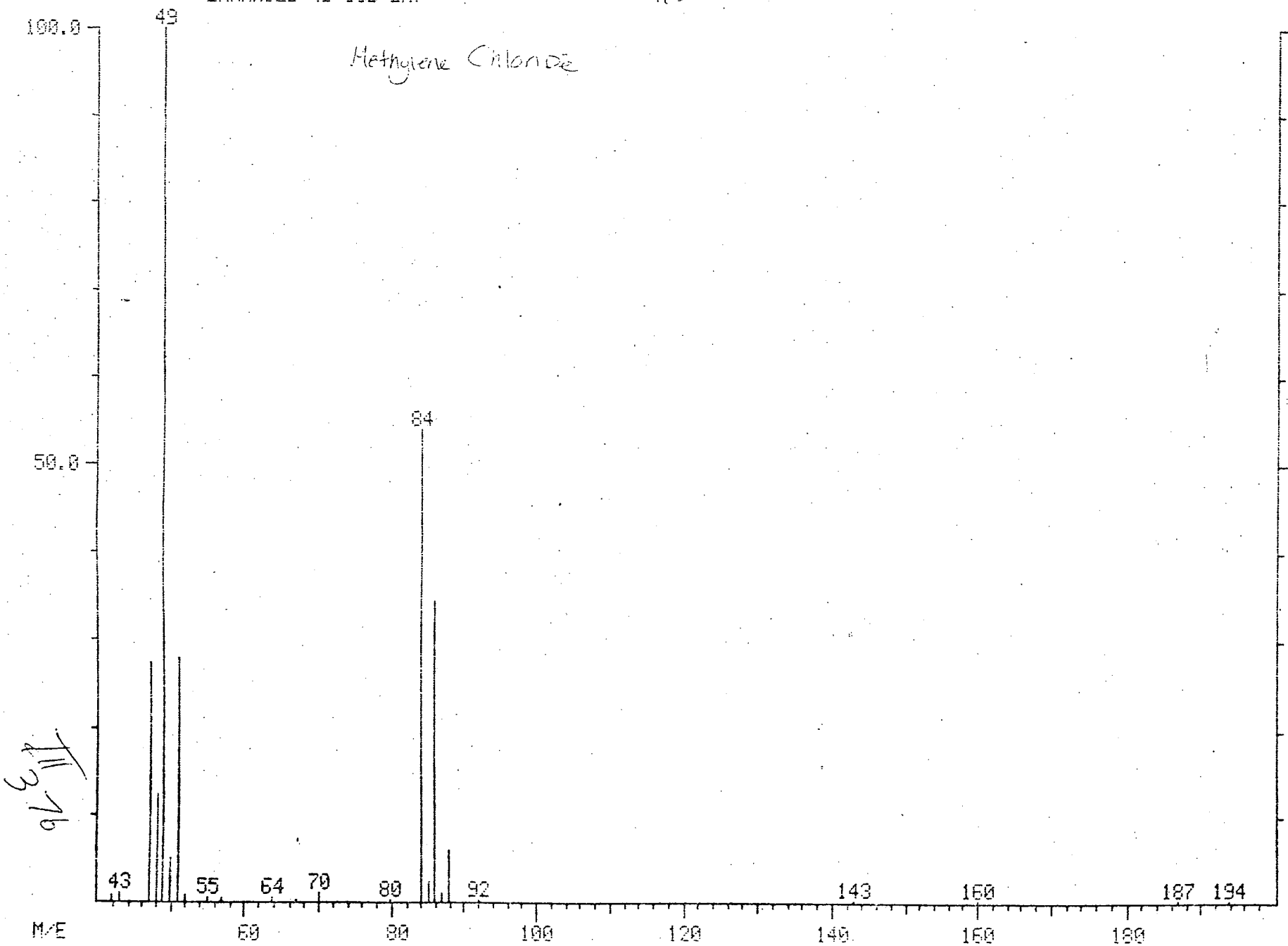
SAMPLE:

ENHANCED (S 15B 2N)

3969
~~3621~~ CM 100 Ppb

RIC: 35224.

Methylene Chloride



3969

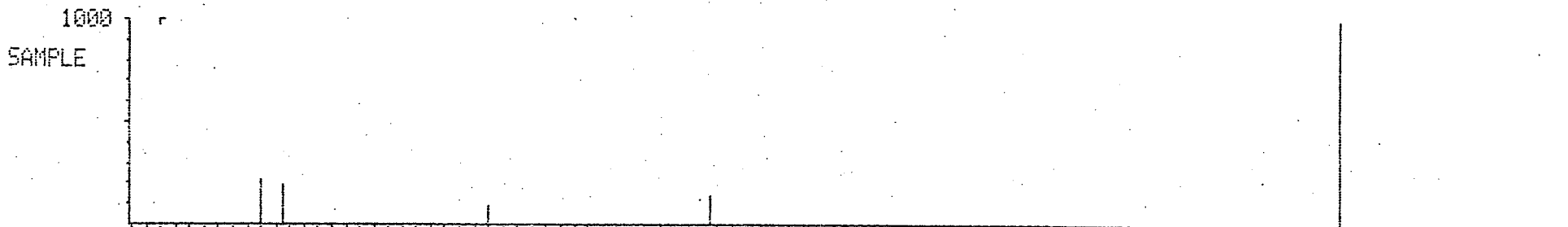
13008.
10.

LIBRARY SEARCH

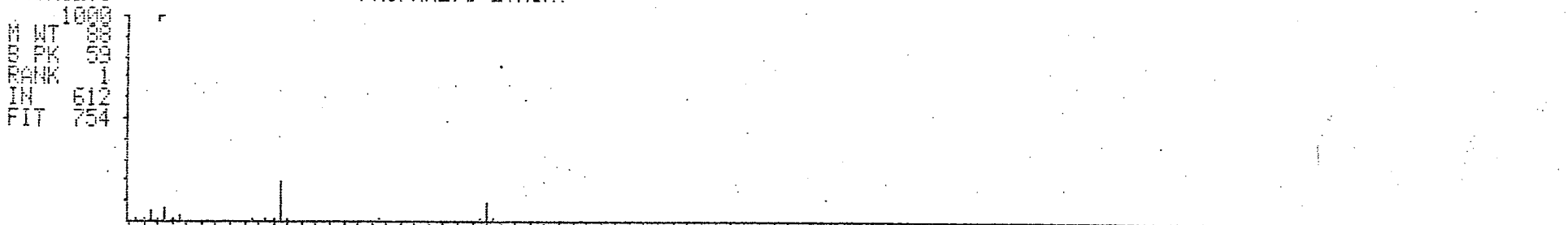
DATA: U2843 #1822

PAGE # 187

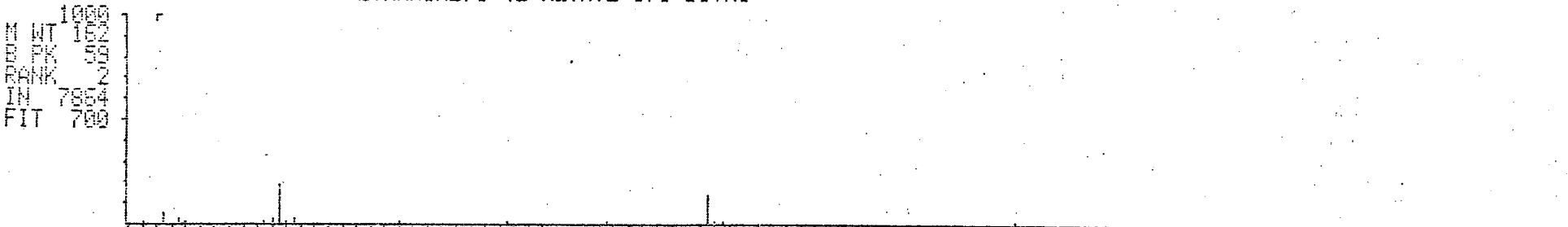
ENHANCED (S 158 2N 0T)



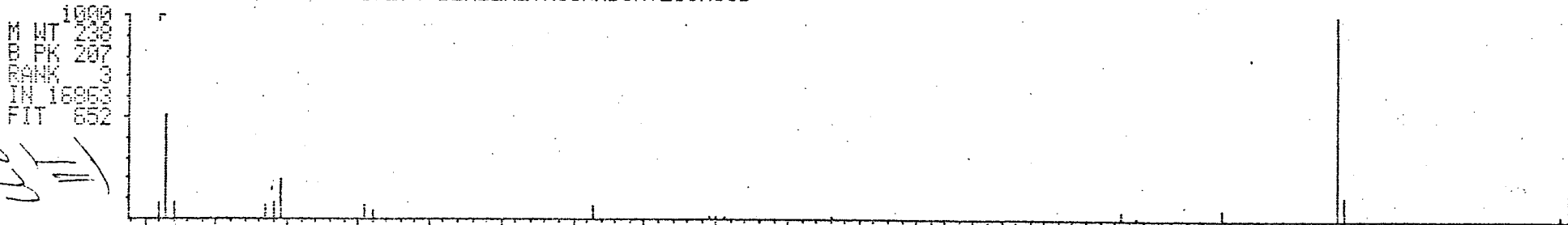
05.H12.0 PROPANE, 1-ETHOXY-



06.H10.0.52 ETHANONE, 1-(2-METHYL-1,3-DITHI



011.H10.05 1,2,4-BENZENETRICARBOXYLICACID



M/E 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220

60
y=

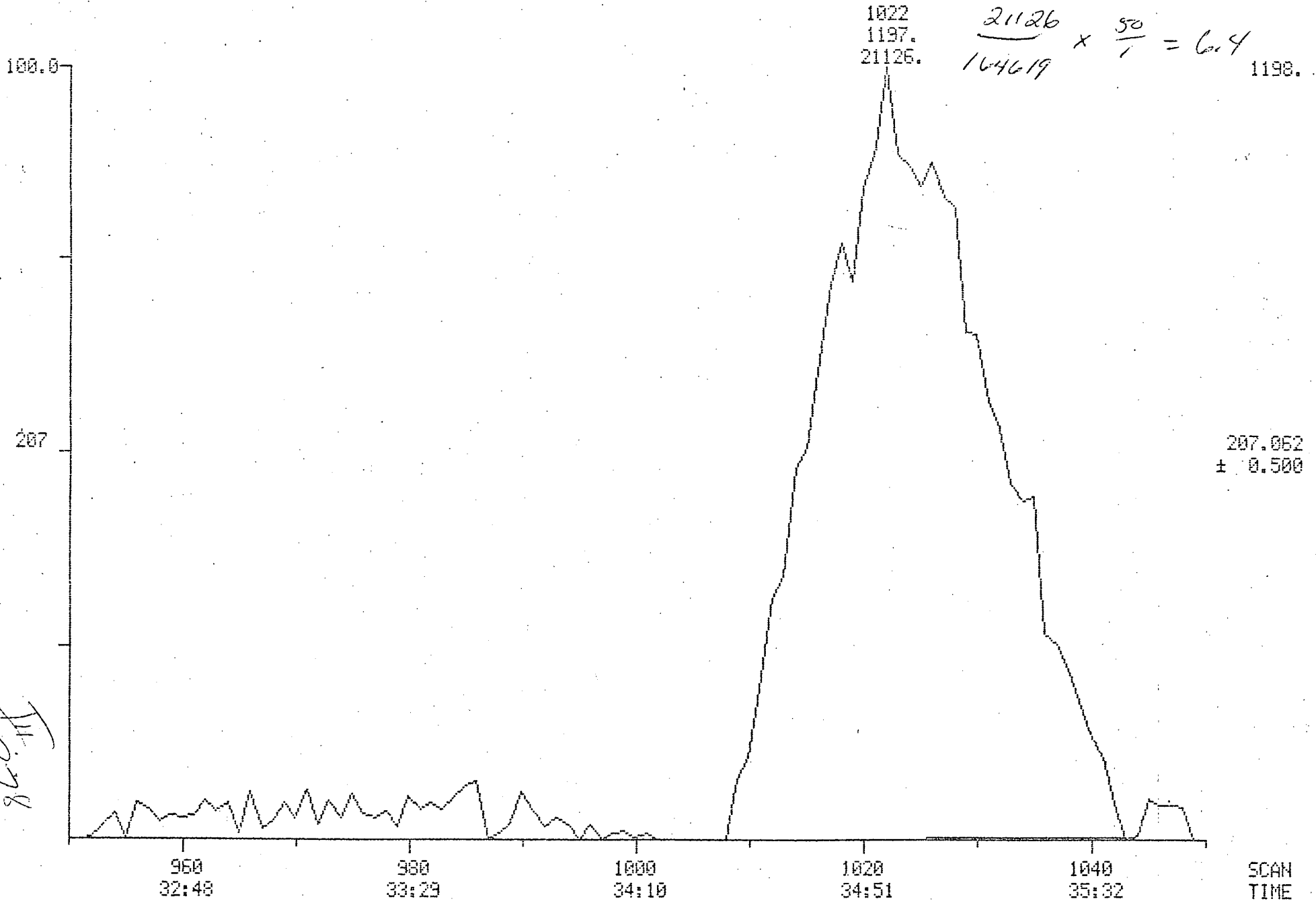
MASS CHROMATOGRAM

03/16/85 3:55:00

SAMPLE: AB054 case 3981

DATA: U2843

SCANS 950 TO 1050



IV. STANDARDS PACKET



GCA CORPORATION
Technology Division



Contractor GCA

Contract # 68-01-6767

CROSS REFERENCE TABLE - CASE 3981

1. Pesticides/PCBs

Date of Analysis of Standards

Applicable Samples

4/5/85 to 6/86

All samples Primary Column

4/6/85 to 8/85

MB, AB042MS, AB042MSD
AB043, AB044, AB045, AB049
AB050, AB051, AB052
AB053, AB 046, AB040, AB041

4/9/85 to 10/85

AB048 for Methoxychlor and
AB052 for p,p'DDD

EXHIBIT C

Hazardous Substance List (HSL) and
Contract Required Detection Limits (CRDL)**

Volatiles	CAS Number	Detection Limits*	
		Low Water ^a ug/L	Low Soil/Sediment ^b ug/Kg
1. Chloromethane	74-87-3	10	10
2. Bromomethane	74-83-9	10	10
3. Vinyl Chloride	75-01-4	10	10
4. Chloroethane	75-00-3	10	10
5. Methylene Chloride	75-09-2	5	5
6. Acetone	67-64-1	10	10
7. Carbon Disulfide	75-15-0	5	5
8. 1,1-Dichloroethene	75-35-4	5	5
9. 1,1-Dichloroethane	75-35-3	5	5
10. trans-1,2-Dichloroethene	156-60-5	5	5
11. Chloroform	67-66-3	5	5
12. 1,2-Dichloroethane	107-06-2	5	5
13. 2-Butanone	78-93-3	10	10
14. 1,1,1-Trichloroethane	71-55-6	5	5
15. Carbon Tetrachloride	56-23-5	5	5
16. Vinyl Acetate	108-05-4	10	10
17. Bromodichloromethane	75-27-4	5	5
18. 1,1,2,2-Tetrachloroethane	79-34-5	5	5
19. 1,2-Dichloropropane	78-87-5	5	5
20. trans-1,3-Dichloropropene	10061-02-6	5	5
21. Trichloroethene	79-01-6	5	5
22. Dibromochloromethane	124-48-1	5	5
23. 1,1,2-Trichloroethane	79-00-5	5	5
24. Benzene	71-43-2	5	5
25. cis-1,3-Dichloropropene	10061-01-5	5	5

(continued)

IV 2

CONTRACT DETECTION LIMITS-- SEMIVOLATILE COMPOUNDS

Laboratory Name: GCA Case No: _____ Concentration _____
 Sample Matrix: _____ Contract No.: 68-01-6767

CAS #	Compound	ug/
88-06-2	2,4,6-trichlorophenol	10
59-50-7	p-chloro-m-cresol	10
95-57-8	2-chlorophenol	10
120-83-2	2,4-dichlorophenol	10
105-67+9	2,4-dimethylphenol	10
88-75-5	2-nitrophenol	10
100-02-7	4-nitrophenol	50
51-28-5	2,4-dinitrophenol	50
534-52-1	4,6-dinitro-2-methylphenol	50
87-86-5	pentachlorophenol	50
108-95-2	phenol	10
65-85-0	benzoic acid	50
95-48-7	2-methylphenol	10
108-39-4	4-methylphenol	10
95+95-4	2,4,5-trichlorophenol	50
83-32-9	acenaphthene	10
92-87-5	benzidine	50
120-82-1	1,2,4-trichlorobenzene	10
118-74-1	hexachlorobenzene	10
67-72-1	hexachloroethane	10
111-44-4	bis(2-chloroethyl)ether	10
91-58-7	2-chloronaphthalene	10
95-50-1	1,2-dichlorobenzene	10
341-73-1	1,3-dichlorobenzene	10
106-46-7	1,4-dichlorobenzene	10
91-94-1	3,3'-dichlorobenzidine	20
121-14-2	2,4-dinitrotoluene	10
606-20-2	2,6-dinitrotoluene	10
122-66-7	1,2-diphenylhydrazine	10
206-44-0	fluoranthene	10
7005-72-3	4-chlorophenyl phenyl ether	10
101-55-3	4-bromophenyl phenyl ether	10
39638-32-9	bis(2-chloroisopropyl)ether	10
111-91-1	bis(2-chloroethoxy)methane	10

IV-3



GCA CORPORATION
Technology Division

CONTRACT DETECTION LIMITS - PESTICIDES

Pesticides	CAS Number	Detection Limits*	
		Low Water ^c ug/L	Low Soil/Sediment ^f ug/kg
104. alpha-BHC	319-84-6	0.05	8.0
105. beta-BHC	319-85-7	0.05	8.0
106. delta-BHC	319-86-8	0.05	8.0
107. gamma-BHC (Lindane)	58-89-9	0.05	8.0
108. Heptachlor	76-44-8	0.05	8.0
109. Aldrin	309-00-2	0.05	8.0
110. Heptachlor Epoxide	1024-57-3	0.05	8.0
111. Endosulfan I	959-98-8	0.05	8.0
112. Dieldrin	60-57-1	0.10	16.0
113. 4,4'-DDE	72-55-9	0.10	16.0
114. Endrin	72-20-8	0.10	16.0
115. Endosulfan II	33213-65-9	0.10	16.0
116. 4,4'-DDD	72-54-8	0.10	16.0
117. Endrin Aldehyde	7421-93-4	0.10	16.0
118. Endosulfan Sulfate	1031-07-8	0.10	16.0
119. 4,4'-DDT	50-29-3	0.10	16.0
120. Endrin Ketone	53494-70-5	0.10	16.0
121. Methoxychlor	72-43-5	0.5	80.0
122. Chlordane	57-74-9	0.5	80.0
123. Toxaphene	8001-35-2	1.0	160.0
124. AROCLOR-1016	12674-11-2	0.5	80.0
125. AROCLOR-1221	11104-28-2	0.5	80.0
126. AROCLOR-1232	11141-16-5	0.5	80.0
127. AROCLOR-1242	53469-21-9	0.5	80.0
128. AROCLOR-1248	12672-29-6	0.5	80.0
129. AROCLOR-1254	11097-69-1	1.0	160.0
130. AROCLOR-1260	11096-82-5	1.0	160.0

^eMedium Water Contract Required Detection Limits (CRDL) for Pesticide HSL Compounds are 100 times the individual Low Water CRDL.

^fMedium Soil/Sediment Contract Required Detection Limits (CRDL) for Pesticide HSL compounds are 15 times the individual Low Soil/Sediment CRDL.

*Detection limits listed for soil/sediment are based on wet weight. The detection limits calculated by the laboratory for soil/sediment, calculated on dry weight basis, as required by the contract, will be higher.

** Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable.

14 4

Case No: 3981
 Contractor: GCA
 Contract No: 68-01-6767
 Instrument ID: Finnigan Mat OWA

Calibration Date: 3/15/85
 Time: 16:20
 Laboratory ID: V2323
 Initial Calibration Date: 3/19/85

Minimum RF for SPCC is 0.300

Maximum %D for CCC is 25%

Compound	RF	RF _{50,000}	%D	CCC	SPCC
Chloromethane	1.9	.43	77		**
Bromomethane	2.9	.81	72		
Vinyl Chloride	2.1	.64	69	*	
Chloroethane	1.2	.70	42		
Methylene Chloride	2.2	1.9	14		
Acetone	.14	.21	50		
Carbon Disulfide	4.3	2.4	44		
1, 1-Dichloroethene	1.5	1.5	-0-	*	
1, 1-Dichloroethane	4.0	1.70	82		**
Trans-1, 2-Dichloroethene	1.5	.20	87		
Chloroform	5.2	4.5	13	*	
1, 2-Dichloroethane	3.9	5.0	28		
2-Butanone	4.0	.86	99		
1, 1, 1-Trichloroethane	3.9	4.4	13		
Carbon Tetrachloride	3.7	3.2	14		
Vinyl Acetate	.16	0.23	43		
Bromodichloromethane	.82	1.1	24		
1, 2-Dichloropropane	.48	.50	4.0	*	
Trans-1, 3-Dichloropropene	.57	.65	14		
Trichloroethene	.51	.38	25		
Dibromochloromethane	.57	.58	7.4		
1, 1, 2-Trichloroethane	.33	.30	9.1		
Benzene	1.1	1.2	2.1		
cis-1, 3-Dichloropropene	.47	1.63	34		
2-Chloroethylvinylether	.03	.03	-0-		
Bromoform	.32	.19	14		**
2-Hexanone	.09	.14	55		
4-Methyl-2-Pentanone	.48	.63	3.1		
Tetrachloroethene	.47	.46	2.1		
1, 1, 2, 2-Tetrachloroethane	.58	.48	10		**
Toluene	1.1	1.1	-0-	*	
Chlorobenzene	1.2	1.1	8.3		**
Ethylbenzene	.55	.52	5.7	*	
Styrene	.03	.70			
Total Xylenes	1.2	1.3	8.3		

RF₅₀ - Response Factor from daily standard file at 50 ug/l
 RF - Average Response Factor from initial calibration Form VI

%D - Percent Difference
 CCC - Calibration Check Compounds (*)
 SPCC - System Performance Check Compounds (**)

Form VII

IV 5

INITIAL CALIBRATION DATA
VOLATILE HSL COMPOUNDS
(PAGE 1)

CASE NO. 3981
CONTRACTOR SCA
CONTRACT NO. 58-01-6767

INSTRUMENT ID Finnigan Mat OWA
CALIBRATION DATE 3/19/85

MINIMUM RF FOR SPCC IS .300 MAXIMUM % RSD FOR CCC IS 30%

LABORATORY ID

COMPOUND	RF20	RF50	RF100	RF150	RF200	RF	%RSD	CCC*	SPCC**
CHLOROMETHANE	1.5	2.4	1.97	2.1	1.8	1.95	12	**	
BROMOMETHANE	2.7	3.5	1.86	3.4	3	2.91	17		
VINYL CHLORIDE	1.5	2.1	3.27	1.8	1.7	2.07	23	*	
CHLOROETHANE	1.2	1.6	1.37	.4	1.3	1.17	26		
METHYLENE CHLORIDE	2.2	2.5	2.22	2.3	2	2.24	5		
ACETONE	.02	.26	.21	.14	.08	.14	52		
CARBON DISULPHIDE	3.3	4.5	4.5	4.2	4.4	4.3	9		
1,1-DICHLOROETHANE	1.3	1.6	1.57	1.7	1.5	1.53	6	*	
1,1-DICHLOROETHANE	3.2	4.2	4.1	4.4	4.2	4.02	8	**	
TRANS-1,2-DICHLOROETHENE	1.3	1.6	1.6	1.7	1.5	1.54	7		
CHLOROFORM	4.4	5.5	5.3	5.7	5.3	5.24	6	*	
1,2-DICHLOROETHANE	3.3	4	3.9	4.2	4	3.99	5		
2-BUTANONE	2.7	3.5	4.2	5.1	4.7	4.04	18		
1,1,1-TRICHLOROETHANE	3.2	4	4	4.3	4.1	3.92	7		
CARBON TETRACHLORIDE	3	3.6	3.7	4.1	4	3.68	8		
VINYL ACETATE	.08	.16	.13	.21	.23	.16	28		
BROMODICHLOROMETHANE	.67	.8	.81	.91	.92	.92	9		
1,2-DICHLOROPROPANE	.39	.48	.49	.54	.54	.48	8	*	
TRANS-1,3-DICHLOROPROPENE	.35	.53	.58	.57	.69	.57	15		
TRICHLOROETHENE	.36	.45	.95	.46	.45	.51	26		
DIBROMOCHLOROMETHANE	.41	.53	.54	.81	.92	.54	10		
1,1,2-TRICHLOROETHANE	.29	.33	.33	.37	.37	.33	7		
BENZENE	.89	1.1	1.1	1.2	1.2	1.09	7		
CIS-1,3-DICHLOROPROPENE	.28	.4	.48	.58	.61	.47	22		
2-CHLOROETHYL VINYLETHER	.02	.03	.04	.04	.04	.03	21		
BROMOFORM	.14	.26	.21	.24	.26	.22	18	**	
2-HEXANONE	.11	.12	.08	.09	.09	.09	13		
4-METHYL-2-PENTANONE	.42	.47	.45	.52	.55	.48	8		
TETRACHLOROETHENE	.41	.51	.47	.5	.5	.47	6		
1,1,2,2-TETRACHLOROETHANE	.51	.56	.56	.64	.55	.58	8	**	
TOLUENE	.94	1.11	1.07	1.2	1.2	1.1	7	*	
CHLOROBENZENE	1.1	1.27	1.21	1.3	1.3	1.23	5	**	
ETHYLBENZENE	.57	.53	.53	.55	.59	.55	3	*	
STYRENE	.02	.02	.03	.08	.02	.03	56		
TOTAL XYLENES	.89	1.17	1.28	1.4	1.3	1.2	11		

RESPONSE FACTOR(amount in ug/L) SPCC-SYSTEM PERFORMANCE CHECK COMPOUNDS(**)

RF-AVERAGE RESPONSE FACTOR

%RSD-PERCENT RELATIVE STANDARD DEVIATION

CCC-CALIBRATION CHECK COMPOUND(*)

IV

INITIAL CALIBRATION DATA
SEMIVOLATILE HSL COMPOUNDS
(PAGE 1)

CASE NO. 3981
CONTRACTOR GCA
CONTRACT NO. 68-81-6767

INSTRUMENT ID HP 5985A
CALIBRATION DATE ~~4-5-85~~ 3/29/85

MINIMUM RF FOR SPCC IS .050 MAXIMUM % RSD FOR CCC IS 30%

LABORATORY ID

COMPOUND	RF20	RF50	RF80	RF120	RF160	RF	%RSD	CCC* SPCC**
N-NITROSODIMETHYLAMINE	1	1	1	1	1	1	0	
PHENOL	1.2	1.2	1.3	1.2	1.2	1.22	2	*
ANILINE	1.07	1.02	1.1	.89	.81	.97	10	
BIS(2-CHLOROETHYL)ETHER	.94	.76	.81	.64	.59	.74	14	
2-CHLOROPHENOL	.85	.87	1	.92	.89	.9	4	
1,3-DICHLOROBENZENE	.51	.59	.64	.52	.49	.55	9	
1,4-DICHLOROBENZENE	.49	.63	.68	.55	.51	.57	11	*
BENZYL ALCOHOL	.48	.41	.46	.4	.38	.42	8	
1,2-DICHLOROBENZENE	.71	.61	.65	.53	.48	.59	12	
2-METHYLPHENOL	.85	.86	.96	.95	.91	.9	4	
BIS(2-CHLOROISOPROPYL)ETHER	.64	.53	.57	.46	.42	.52	12	
4-METHYLPHENOL	.88	.89	1	1	.98	.95	5	
N-NITROSO-DI-N-PROPYLAMINE	.62	.49	.56	.45	.41	.5	13	**
HEXACHLOROETHANE	.35	.3	.32	.27	.24	.29	11	
NITROBENZENE	.9	.8	.87	.73	.68	.79	9	
ISOPHORONE	.6	.55	.72	.61	.6	.61	6	
2-NITROPHENOL	.15	.17	.2	.16	.17	.17	7	*
2,4-DIMETHYLPHENOL	.23	.26	.3	.27	.27	.26	6	
BENZOIC ACID	^	.1	.13	.14	.15	.13	11	
BIS(2-CHLOROETHOXY)METHANE	.4	.39	.48	.38	.42	.41	6	
2,4-DICHLOROPHENOL	.18	.2	.24	.21	.2	.2	7	
1,2,4-TRICHLOROBENZENE	.17	.17	.2	.18	.18	.18	4	
NAPHTHALENE	.1	.08	.11	.1	.09	.09	9	
4-CHLOROANILINE	.31	.29	.4	.32	.34	.33	9	
HEXACHLOROBTADIENE	.08	.07	.1	.08	.08	.08	8	*
4-CHLORO-3-METHYLPHENOL	.26	.27	.32	.28	.28	.28	5	*
2-METHYLNAPHTHALENE	.5	.44	.56	.46	.51	.49	7	
HEXACHLOROCYCLOPENTADIENE	.2	.18	.25	.21	.26	.21	12	**
2,4,6-TRICHLOROPHENOL	.32	.28	.35	.33	.33	.32	5	*
2,4,5-TRICHLOROPHENOL	^	.28	.35	.33	.33	.32	6	
2-CHLORONAPHTHALENE	.94	.87	1.1	.86	.97	.94	7	
2-NITROANILINE	^	.41	.51	.46	.47	.46	5	
DIMETHYLPHTHALATE	1	.97	1.2	1	1.1	1.05	7	
ACENAPHTHYLENE	1.6	1.5	1.9	1.5	1.7	1.64	7	
3-NITROANILINE	^	.33	.43	.36	.4	.38	9	
ACENAPHTHENE	1.1	.93	1.2	1.1	1.1	1.08	5	*
2,4-DINITROPHENOL	^	.14	.17	.16	.19	.16	9	**
4-NITROPHENOL	^	.25	.31	.33	.36	.31	10	**
DIBENZOFURAN	1.3	1.2	1.5	1.3	1.4	1.34	6	

RESPONSE FACTOR(amount in nanograms) SPCC-SYSTEM PERFORMANCE CHECK COMPOUNDS(**)

RF-AVERAGE RESPONSE FACTOR ^-NOT DETECTABLE AT 20ng
%RSD-PERCENT RELATIVE STANDARD DEVIATION
CCC-CALIBRATION CHECK COMPOUND(*)

JWA

INITIAL CALIBRATION DATA
SEMIVOLATILE HSL COMPOUNDS
(PAGE 2)

CASE NO. 3981
CONTRACTOR GCA
CONTRACT NO. 68-01-6767

INSTRUMENT ID HP 5985A
CALIBRATION DATE 3/29/85

MINIMUM RF FOR SPCC IS .050 MAXIMUM % RSD FOR CCC IS 30%

LABORATORY ID

COMPOUND	RF20	RF50	RF80	RF120	RF160	RF	%RSD	CCC* SPCC**
2,4-DINITROTOLUENE	.32	.29	.39	.32	.33	.33	7	
2,6-DINITROTOLUENE	.26	.25	.33	.28	.3	.28	8	
DIETHYLPHTHALATE	1.3	1.2	1.4	1.2	1.2	1.26	5	
4-CHLOROPHENYL-PHENYETHER	.46	.4	.51	.45	.47	.45	5	
FLUORENE	1	.89	1.1	1	1	.99	4	
4-NITROANILINE	^	.31	.46	.41	.41	.39	11	
4,6-DINITRO-2-METHYLPHENOL	^	.18	.19	.2	.22	.19	6	
N-NITROSODIPHENYLAMINE	.16	.16	.19	.16	.18	.17	7	*
4-BROMOPHENYL-PHENYLEETHER	.15	.13	.17	.15	.16	.15	6	*
HEXACHLOROBENZENE	.16	.15	.19	.16	.17	.16	6	*
PENTACHLOROPHENOL	^	.11	.12	.13	.12	.12	4	
PHENANTHRENE	.48	.42	.57	.57	.63	.53	12	
ANTHRACENE	.48	.42	.57	.57	.63	.53	12	
DI-N-BUTYLPHTHALATE	1.5	1.5	1.8	1.3	1.2	1.46	11	
FLUORANTHENE	.84	.77	.97	.8	.76	.82	7	*
BENZIDINE	1	1	1	1	1	1	0	**
PYRENE	1.8	1.8	3	2.8	2.9	2.46	21	
BUTYLBENZYLPHTHALATE	.97	1	1.4	1.2	1.2	1.15	11	
3,3'-DICHLOROBENZIDINE	1	1	1	1	1	1	0	
BENZO(A)ANTHRACENE	.48	.45	.56	.58	.74	.56	13	
BIS(2-ETHYLHEXYLPHTHALATE)	1	.94	1.3	1.3	.93	1.09	15	
CHRYSENE	.48	.45	.56	.58	.74	.56	13	
DI-OCTYL PHTHALATE	3.8	4.8	7	4.4	4.7	4.94	16	*
BENZO(B)FLUORANTHENE	1.2	1.3	1.8	1.3	1.4	1.4	11	
BENZO(K)FLUORANTHENE	1.2	1.3	1.8	1.3	1.4	1.4	11	
BENZO(A)PYRENE	.74	.72	1.1	.87	1.1	.9	17	*
INDENO(1,2,3-CD)PYRENE	.11	.11	.47	.51	.61	.36	55	
DIBENZO(A,H)ANTHRACENE	.3	.3	.27	.3	.37	.3	8	
BENZO(G,H,I)PERYLENE	.34	.34	.34	.34	.44	.36	8	

RESPONSE FACTOR(amount in nanograms) SPCC-SYSTEM PERFORMANCE CHECK COMPOUNDS(**)

RF-AVERAGE RESPONSE FACTOR ^-NOT DETECTABLE AT 20ng
%RSD-PERCENT RELATIVE STANDARD DEVIATION
CCC-CALIBRATION CHECK COMPOUND(*)

IV B

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	Eval A	Eval B	Eval C	
PESTICIDE	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD. (≤10%)
ALDRIN	1500/.025 63200	3655/.05 77100	10922/.125 87376	12133/75892 16.0*
ENDRIN	2052/.05 41040	5536/.125 44304	12022/.25 48088	3527/44477 7.9
4,4'-DDT	1801/.05 41040	5174/.125 41392	10932/.25 43728	3952/40380 9.8
DIBUTYL CHLORENDATE	2656/.05 53120	6736/.125 53888	14513/.25 58052	2654/55020 4.8

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION			
	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B
ENDRIN	$\frac{1.17}{1.17+5.54} = 17.4\%$			
4,4'-DDT	0			
LABORATORY ID	Eval B			
TIME OF ANALYSIS	14:48 4/5/85			

EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *
Eval A	Eval A	14:07 RT	33.97 RT				
Eval B	Eval B	14:48	0.29				
Eval C	Eval C	15:30	0.32				
Calibration	P-31-3	17:05	0.56				
Method Blank	QC-980	23:26	0.94				
Calibration	P-31-4	5:10 4/6/85	1.1				
AB042	43311	5:52	1.2				
AB047	43316	11:37	0.56				
AB048	43317	12:29	0.47				

* ≤ 2% PACKED, 40.3% CAPILLARY

* see narrative

Case No. 3981 Laboratory GCA
 Contract No. 108-01-6767 Column SP2100
 Date of Analysis 4-9-85 Instrument ID HP5840

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	Eval A	Eval B	Eval C	
PESTICIDE	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD ($\leq 10\%$)
ALDRIN	29016	32260	29304	5.9%
ENDRIN	23180	27664	27504	9.7%
4,4'-DDT	22520	20808	20952	4.4%
DIBUTYL CHLORENDATE	23880	23920	22344	3.8%

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION			
	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B
ENDRIN	$\frac{18730}{100} = 187.3\%$			
4,4'-DDT	$\frac{56240}{187.3} = 3.0\%$			3.0%
LABORATORY ID	Eval B	Eval B	Eval B	
TIME OF ANALYSIS	11:50 4-9-85	21:49 4-9-85	12:52 4-9-85	12:52 4-9-85

EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *
Eval mix A	Eval A	16:07	RT 34.53				
Eval mix B	Eval B	16:50	0.11				
Eval mix C	Eval C	17:32	0.29				
AB048	43317	19:40	0.33				
Eval mix B	Eval B	21:49	0.49				
AB052	43321	10:52	0.20				
Eval mix B	Eval B	12:52	0.05				

* $\leq 2\%$ PACKED, $\leq 0.3\%$ CAPILLARY

JL-46

Contract No. 68-01-6767
 Date of Analysis 4/8/85

Column SP 2250/2401
 Instrument ID HP 5780

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD ($\leq 10\%$)
ALDRIN				* *
ENDRIN	171.05 240	311.125 248	601.25 240	4.6/243 1.9 *
4,4'-DDT	1793/05 35860	4219/125 33752	8550/125 34206	1111/34604 3.2
DIBUTYL CHLORENDATE	2832/05 56640	7068/125 56544	13924/125 55696	520/56293 0.92

**
 Carryover from previous run
 could not be quantitated
 *
 Calculated by peak height

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION					
	EVAL. MIX B		EVAL. MIX B		EVAL. MIX B	
ENDRIN	0	$\frac{1.37}{1.37+5.10} = 21\%$	$\frac{1.40}{1.40+4.82} = 22.5$	$\frac{1.31}{1.31+5.13} = 20.3$	$\frac{1.24}{1.24+5.56} = 18.2$	
4,4'-DDT	$\frac{0.89}{0.89+4.22} = 17.4\%$	0	0	0	0	
LABORATORY ID	Eval B	Eval B	Eval B	Eval B	Eval B	
TIME OF ANALYSIS	9:55 4/8/85	22:38	7:19 4/9/85	13:56	15:24	

EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF. *
Eval A	Eval A	9:13 4/8/85	33.77 RT	AB052	43321	3:46	0.89
Eval B	Eval B	9:55	0.03				
Eval C	Eval C	10:37	0.0				
Calibration	P-31-4	12:01	0.18				
Method Blank	QC-980	18:55	0.09				
AB042 MS	QC-981	19:42	0.18				
AB042 MSD	QC-982	20:26	0.27				
AB043	43312	21:10	0.36				
AB044	43313	21:54	0.38				
Eval B	Eval B	22:38	0.33				
Calibration	P-31-5	0:06 4/8/85	0.41				
AB045	43314	0:50	0.56				
AB049	43318	1:34	0.71				
AB050	43319	2:18	0.77				
AB051	43320	3:02	0.89				

* $\leq 2\%$ PACKED, $\leq 0.3\%$ CAPILLARY

* See narrative

Case No. 3781 Laboratory BCA
 Contract No. 68-01-6767 GC Column SP 2250/2401 GC Instrument ID HP5890

DATE OF ANALYSIS 4/8/85 DATE OF ANALYSIS 4/8/85-4/9/85
 TIME OF ANALYSIS 11:19, 12:01 TIME OF ANALYSIS 7:32, 0:06
 LABORATORY ID P-30-4, P-31-4 LABORATORY ID P-30-5, P-31-5

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.13	2.12-2.14	6.02/.05 = 121	CONF	2.12	1.30/.025 = 52	CONF	80
beta-BHC	3.22	3.18-3.24	2.30/.05 = 46	CONF	3.20	1.11/.025 = 44	CONF	44
delta-BHC	3.76	3.72-3.78	2.28/.05 = 46	CONF	3.74	1.12/.025 = 45	CONF	22
gamma-BHC	2.75	2.72-2.76	5.51/.05 = 110	CONF	2.74	1.29/.025 = 52	CONF	74.72 BL
Heptachlor	3.39	3.36-3.40	2.92/.05 = 58	CONF	3.38	1.43/.025 = 57	CONF	17
Aldrin	4.13	4.09-4.15	4.06/.05 = 98	CONF	4.11	1.53/.025 = 61	CONF	23.58-25 BL
Heptachlor Epoxide	6.42	6.38-6.44	4.64/.05 = 93	CONF	6.40	1.55/.025 = 62	CONF	40
Endosulfan I	8.16	8.07-8.21	2.88/.05 = 58	CONF	8.11	1.43/.025 = 57	CONF	17
Dieldrin	10.09	10.01-10.13	4.48/.05 = 90	CONF	10.04	1.41/.025 = 56	CONF	60
4,4'-DDE	9.62	9.52-9.68	3.76/.05 = 75	CONF	9.57	1.76/.025 = 74	CONF	13
Endrin	12.34	12.25-12.39	2.56/.05 = 51	CONF	12.29	.91/.025 = 36	CONF	34
Endosulfan II	15.31	15.13-15.39	3.10/.05 = 62	CONF	15.21	1.49/.025 = 60	CONF	33
4,4'-DDD	15.12	14.94-15.17	3.01/.05 = 60	CONF	15.05	1.01/.025 = 40	CONF	40
Endrin Aldehyde	20.42	20.24-20.48	4.70/.05 = 94	CONF	20.32	1.87/.025 = 67	CONF	34
Endosulfan Sulfate	24.95	24.70-25.06	1.75/.05 = 35	CONF	24.84	1.10/.025 = 44	CONF	23
4,4'-DDT	18.27	18.12-18.34	2.48/.05 = 50	CONF	18.18	1.10/.025 = 44	CONF	13
Methoxychlor	36.61	36.18-36.82	1.54/.05 = 31	CONF	36.36	1.19/.025 = 48	CONF	67
Endrin Ketone	33.85	33.56-33.98	4.24/.05 = 85	CONF	33.69	1.63/.025 = 65	CONF	27
Tech. Chlordane								
alpha-Chlordane ¹²								
gamma-Chlordane ¹²								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

* SEE EXHIBIT B, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
 QUANT. = QUANTITATION (<10% DIFFERENCE)

Case No. 5781Laboratory GCAContract No. 68-01-6767GC Column SP 2250/2401GC Instrument ID HP 5880
 DATE OF ANALYSIS 4/5/85
 TIME OF ANALYSIS 16:22, 17:05
 LABORATORY ID P-30-3, P-31-3

 DATE OF ANALYSIS 4/6/85
 TIME OF ANALYSIS _____
 LABORATORY ID P-30-4, P-31-4

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.13	2.11-2.15	1520/125 = 122	Con	2.12	6.63/05 = 132	Con	7.9
beta-BHC	3.21	3.19-3.22	6.78/125 = 56	con	3.20	2.49/05 = 50		11.
delta-BHC	3.75	3.73-3.77	8.48/125 = 72	con	3.74	2.49/05 = 50		36
gamma-BHC	2.75	2.73-2.77	13.17/125 = 109	con	2.74	6.04/05 = 121		10
Heptachlor	3.37	3.34-3.42	7.77/125 = 78	con	3.37	5.23/05 = 105		27
Aldrin	4.13	4.08-4.16	11.06/125 = 88	con	4.11	5.15/05 = 103		16
Heptachlor Epoxide	6.43	6.36-6.48	7.25/125 = 74		6.40	4.92/05 = 98		28
Endosulfan I	8.15	8.05-8.21	8.48/125 = 68		8.11	3.17/05 = 63		7.6
Dieldrin	10.10	9.97-10.19	7.82/125 = 63		10.05	4.34/05 = 88		33
4,4'-DDE	9.60	9.50-9.66	5.15/125 = 41		9.56	3.97/05 = 80		1.2
Endrin	12.35	12.17-12.45	5.15/125 = 41		12.27	2.88/05 = 58		35
Endosulfan II	15.29	15.08-15.42	8.32/125 = 67		15.21	3.26/05 = 65		3.0
4,4'-DDD	15.11	14.95-15.21	5.64/125 = 45		15.05	3.37/05 = 67		39
Endrin Aldhyde	20.45	20.22-20.60	9.77/125 = 78		20.36	4.57/05 = 91		24
Endosulfan Sulfate	24.95	24.61-25.17	5.70/125 = 46		24.82	2.18/05 = 44		4.4
4,4'-DDT	18.26	18.05-18.39	5.57/125 = 45		18.18	2.90/05 = 58		25
Methoxychlor	36.55	36.16-36.80	3.13/125 = 25	↓	36.40	2.02/05 = 40	↓	47
Endrin Ketone	33.87	33.45-34.13	9.38/125 = 75	con	33.71	4.96/05 = 99	con	28
Tech. Chlordane								
alpha-Chlordane**								
gamma-Chlordane**								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

* SEE EXHIBIT B, PART 7

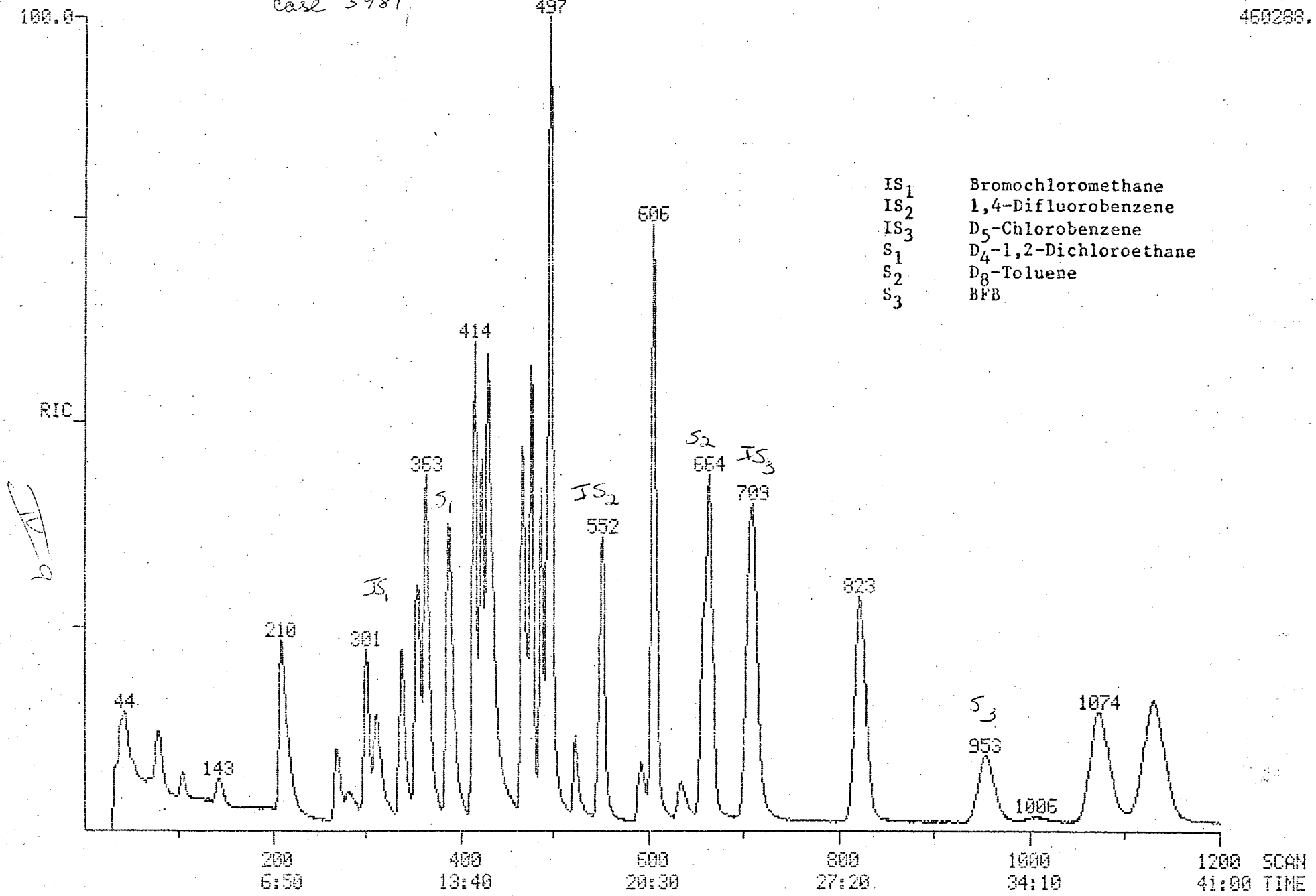
** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<5% DIFFERENCE)

RIC
03/15/85 10:20:00
SAMPLE: 100 ppb std.
case 3981

DATA: U2323

SCANS 1 TO 1200

450268.



Case: 3981

NO	NAME
1	BROMOCHLOROMETHANE (I.S. #1)
2	CHLOROMETHANE
3	BROMOMETHANE
4	VINYL CHLORIDE
5	CHLOROETHANE
6	METHYLENE CHLORIDE
7	CARBON DISULFIDE
8	ACETONE
9	1,1-DICHLOROETHENE
10	1,1-DICHLOROETHANE
11	TRANS-1,2-DICHLOROETHENE
12	CHLOROFORM
13	D4-1,2-DICHLOROETHANE (Surr #1)
14	1,2-DICHLOROETHANE
15	1,1,1-TRICHLOROETHANE
16	CARBON TETRACHLORIDE
17	VINYL ACETATE
18	2-BUTANONE
19	1,4-difluorobenzene (I.S. #2)
20	BROMODICHLOROMETHANE
21	1,2-DICHLOROPROPANE
22	TRANS-1,3-DICHLOROPROPENE
23	TRICHLOROETHENE
24	DIBROMOCHLOROMETHANE
25	1,1,2-TRICHLOROETHANE
26	CIS-1,2-DICHLOROPROPENE
27	BENZENE
28	2-CHLOROETHYL VINYL ETHER
29	BROMOFORM
30	D8-TOLUENE
31	D5-CHLOROBENZENE (I.S. #3)
32	TETRACHLOROETHENE
33	1,1,2,2-TETRACHLOROETHANE
34	2-METHYL-2-PENTANONE
35	2-HEXANONE
36	TOLUENE
37	CHLOROBENZENE
38	ETHYL BENZENE
39	BFB (Surr #3)
40	STYRENE
41	TOTAL XYLENES

IV 10

DATA: U2323

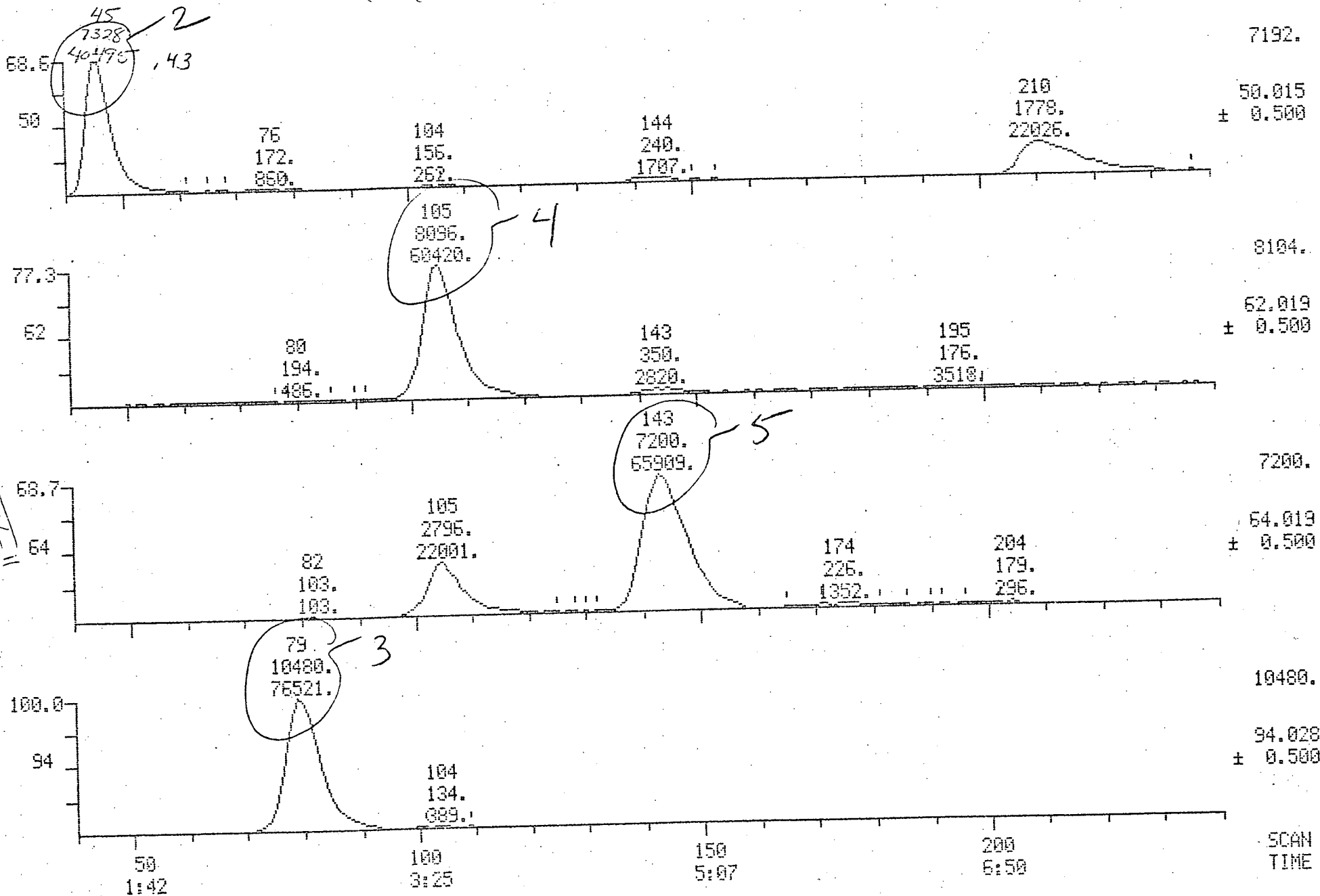
SCANS 40 TO 240

MASS CHROMATOGRAMS

03/15/85 10:20:00

SAMPLE: 100 PAB std.

(case 3981)

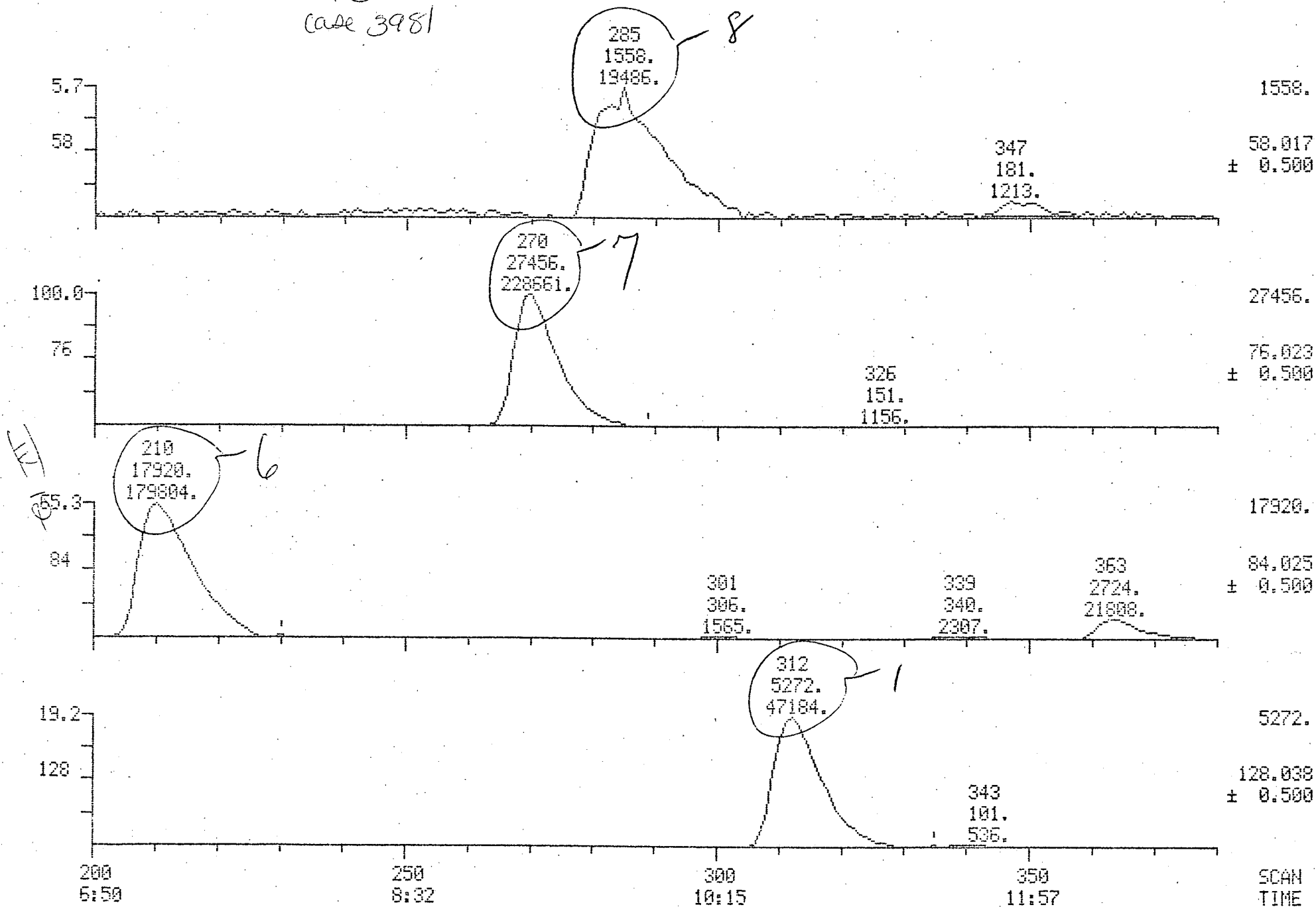


MASS CHROMATOGRAMS
03/15/85 10:20:00
SAMPLE: 1007RB Std.

DATA: U2323

SCANS 200 TO 380

Case 3981

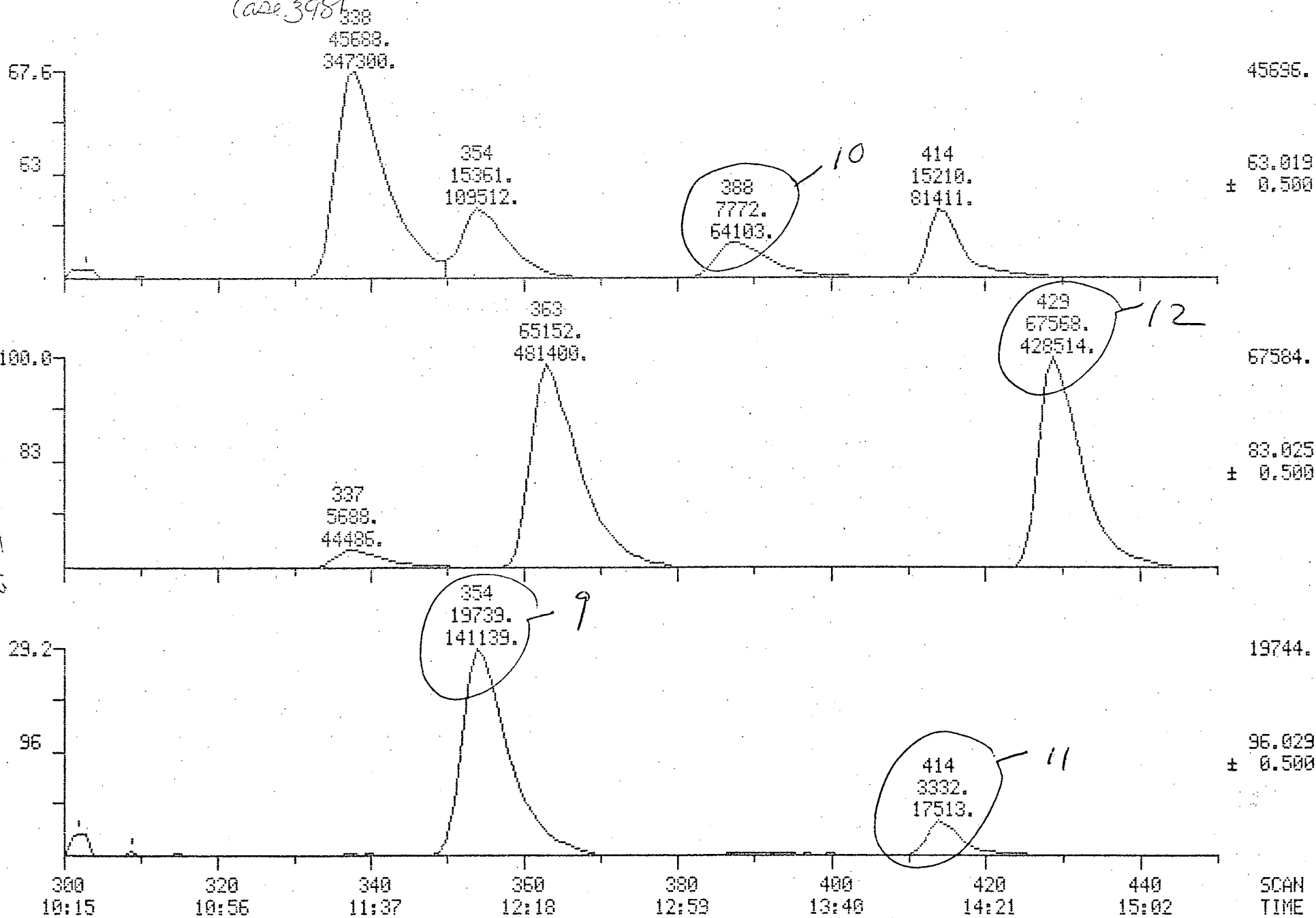


MASS CHROMATOGRAMS
03/15/85 10:20:00
SAMPLE: 100 PPB Std.

DATA: U2323

SCANS 300 TO 450

Case 3981



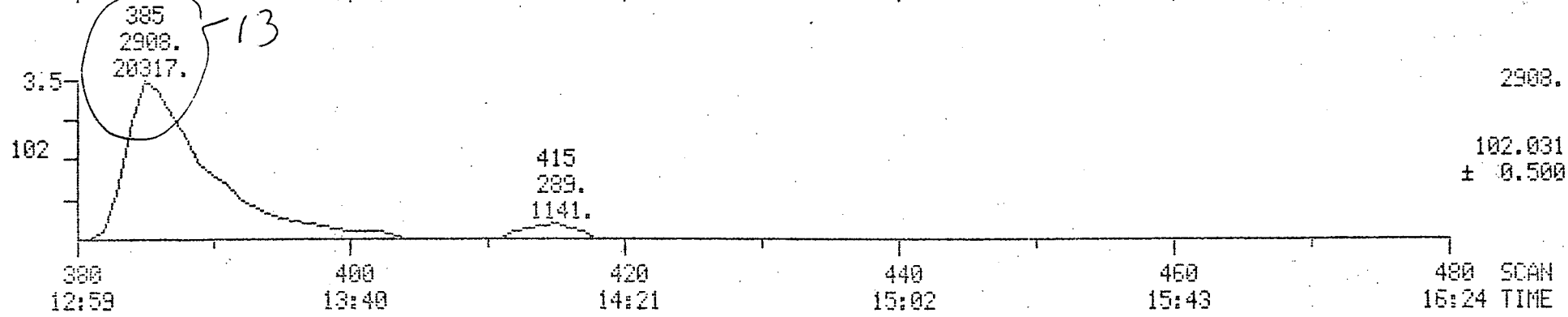
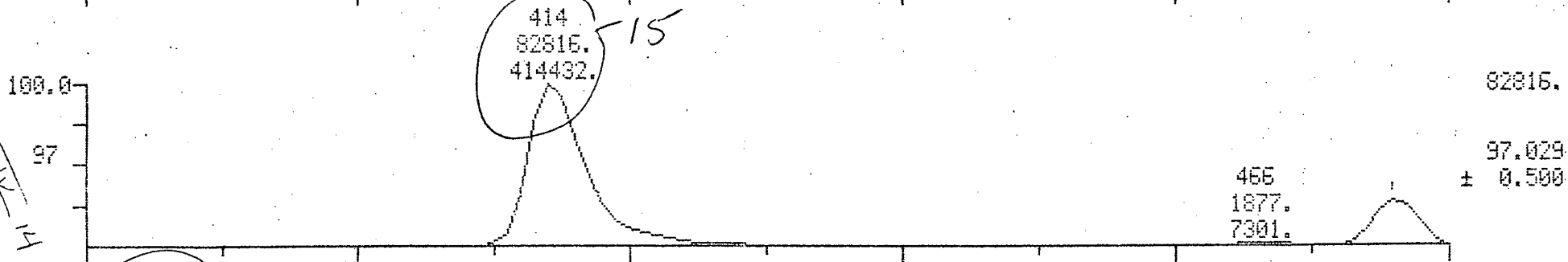
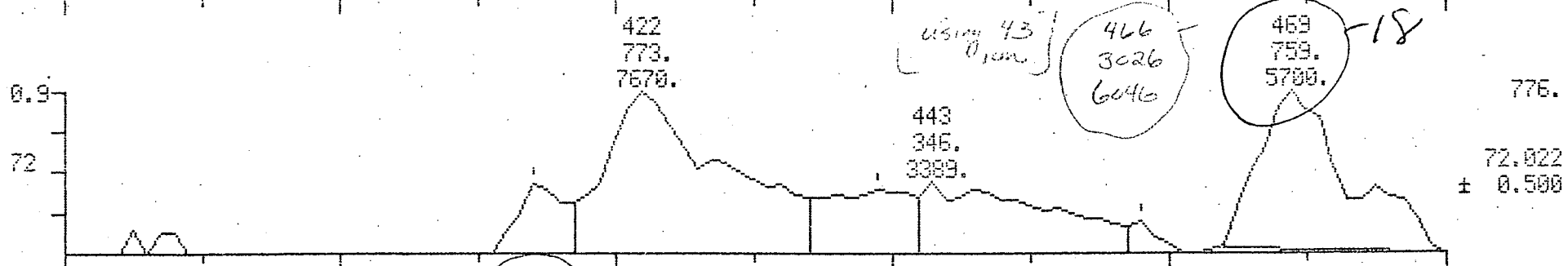
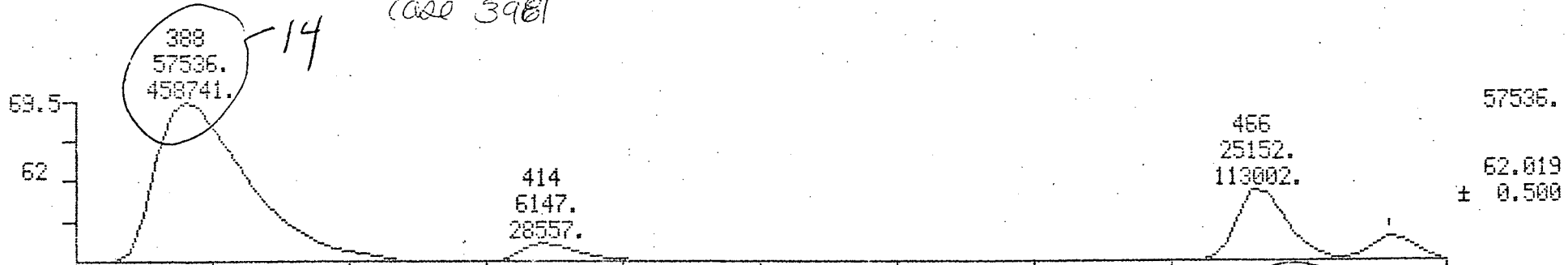
MASS CHROMATOGRAMS

DATA: U2323

SCANS 380 TO 480

03/15/85 10:20:00

SAMPLE: 100 PPD Std
Case 3981



MASS CHROMATOGRAMS

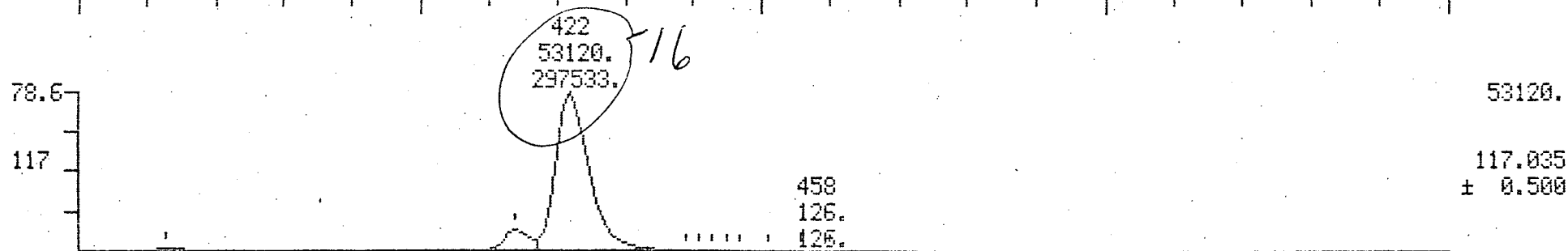
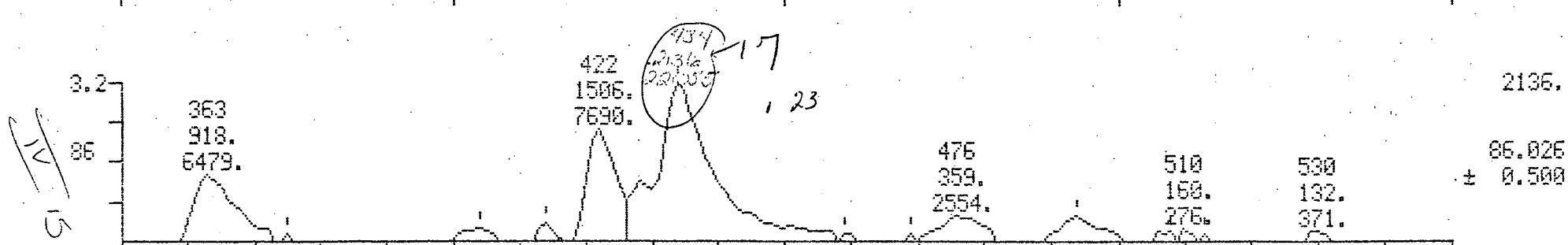
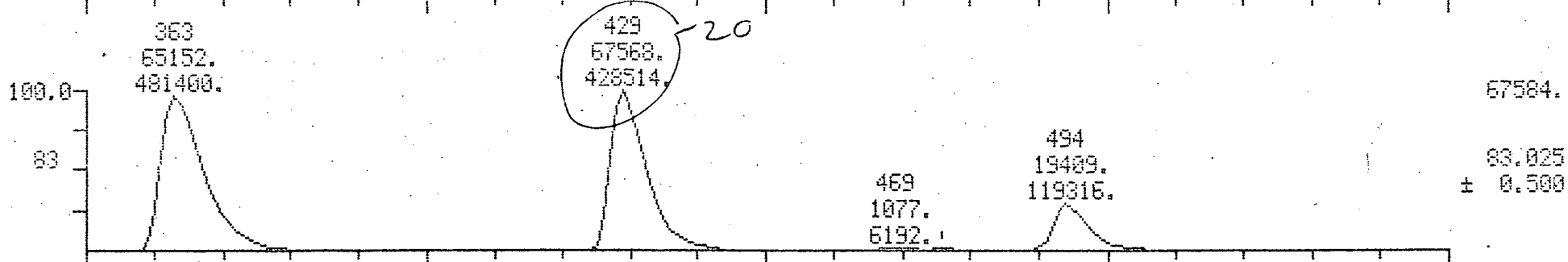
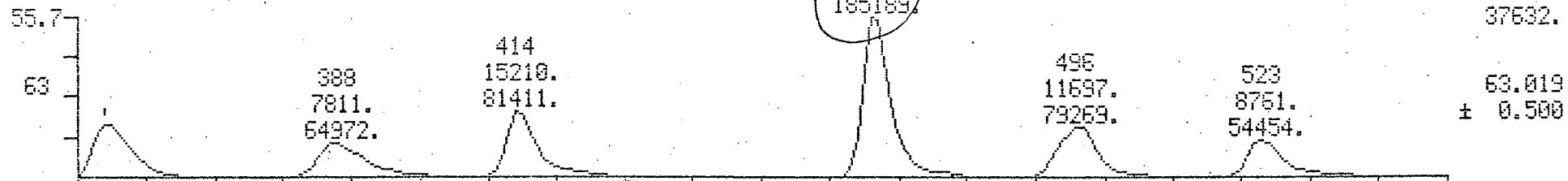
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SCANS 350 TO 550

03/15/85 10:20:00

SAMPLE: 100 PPB std

Case 3981



350
11:57

400
13:40

450
15:22

500
17:05

550 SCAN
18:47 TIME

MASS CHROMATOGRAMS

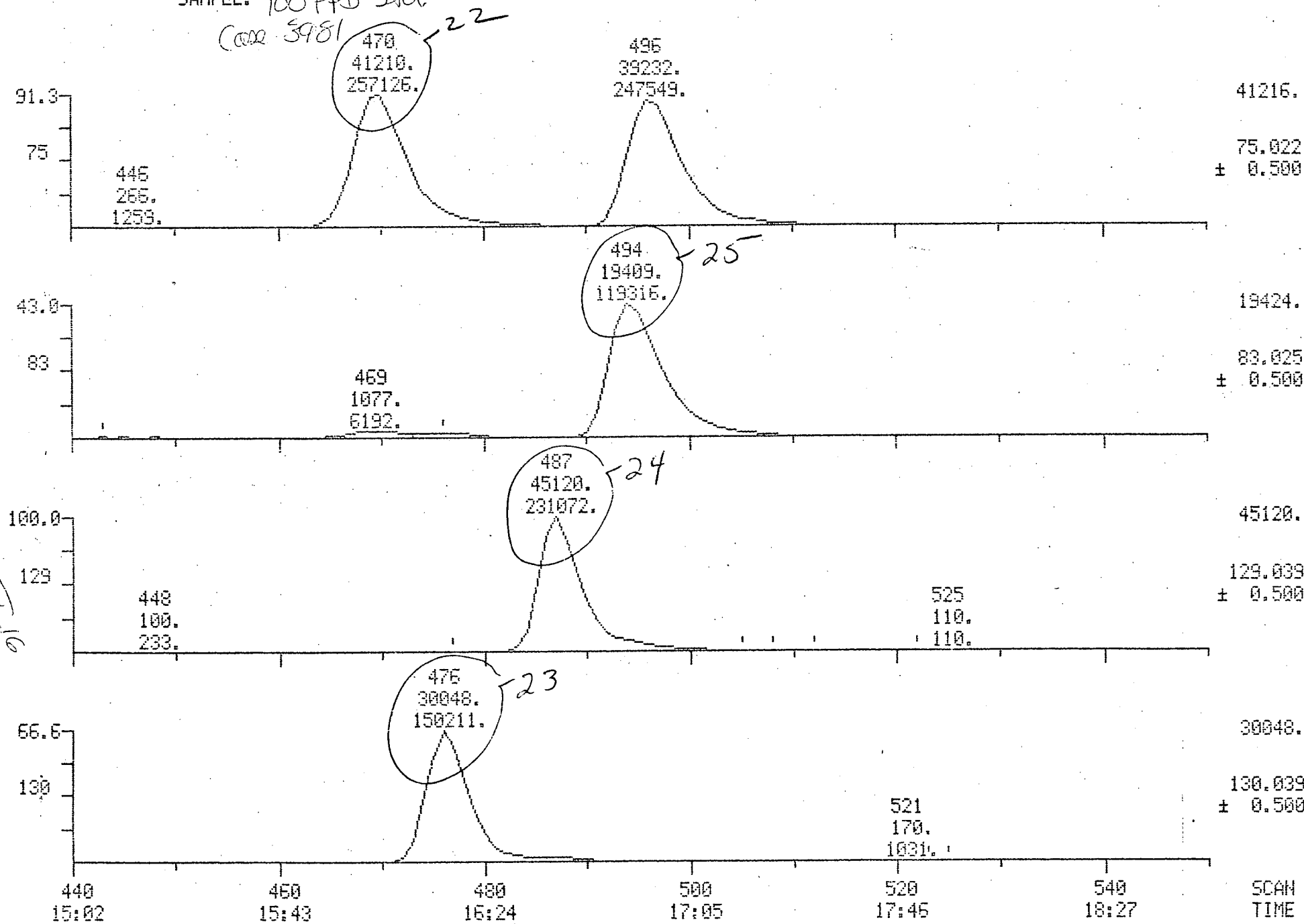
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SCANS 440 TO 550

03/15/85 10:20:00

SAMPLE: 100 PPB std.

Code 3981



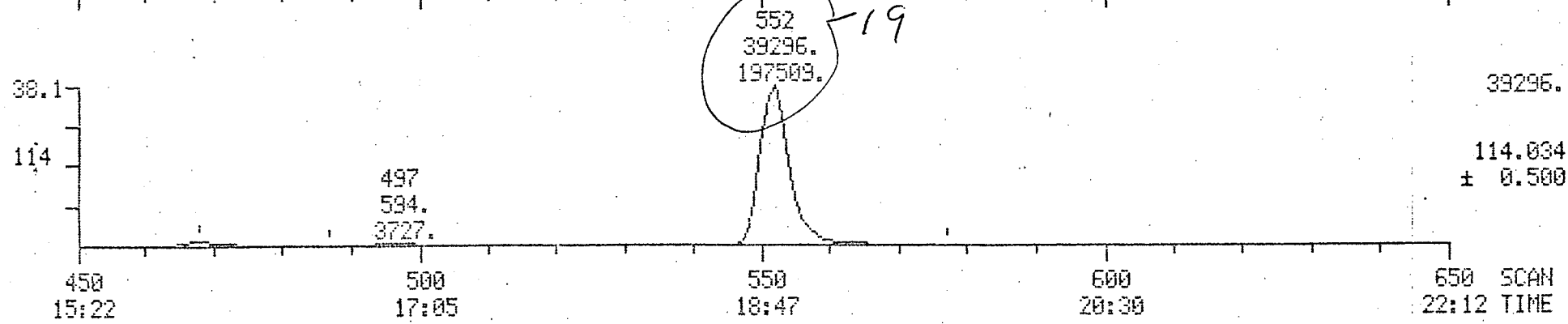
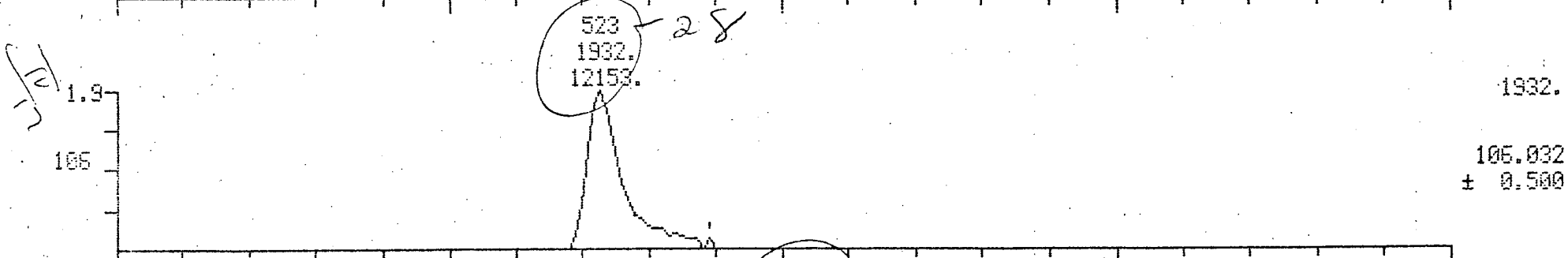
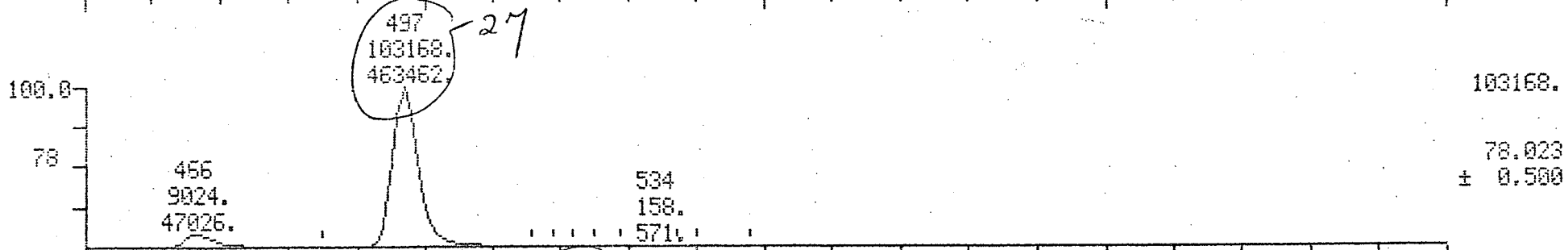
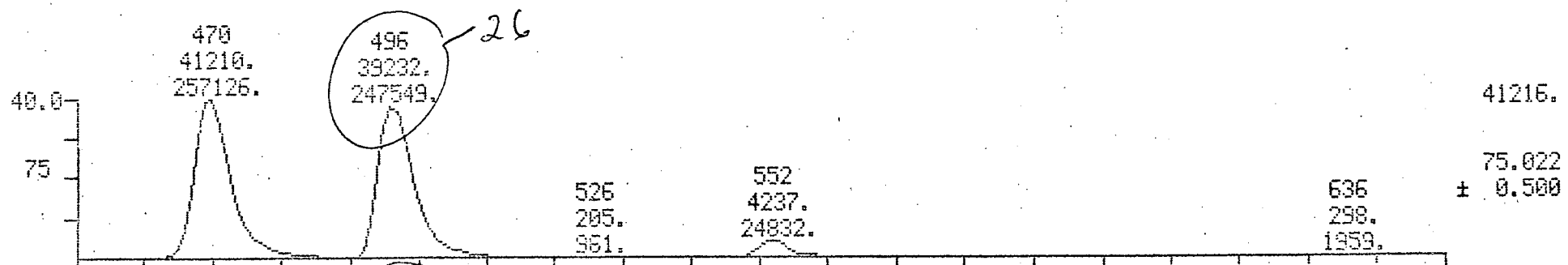
MASS CHROMATOGRAMS

DATA: U2323

SCANS 450 TO 650

03/15/85 18:28:08

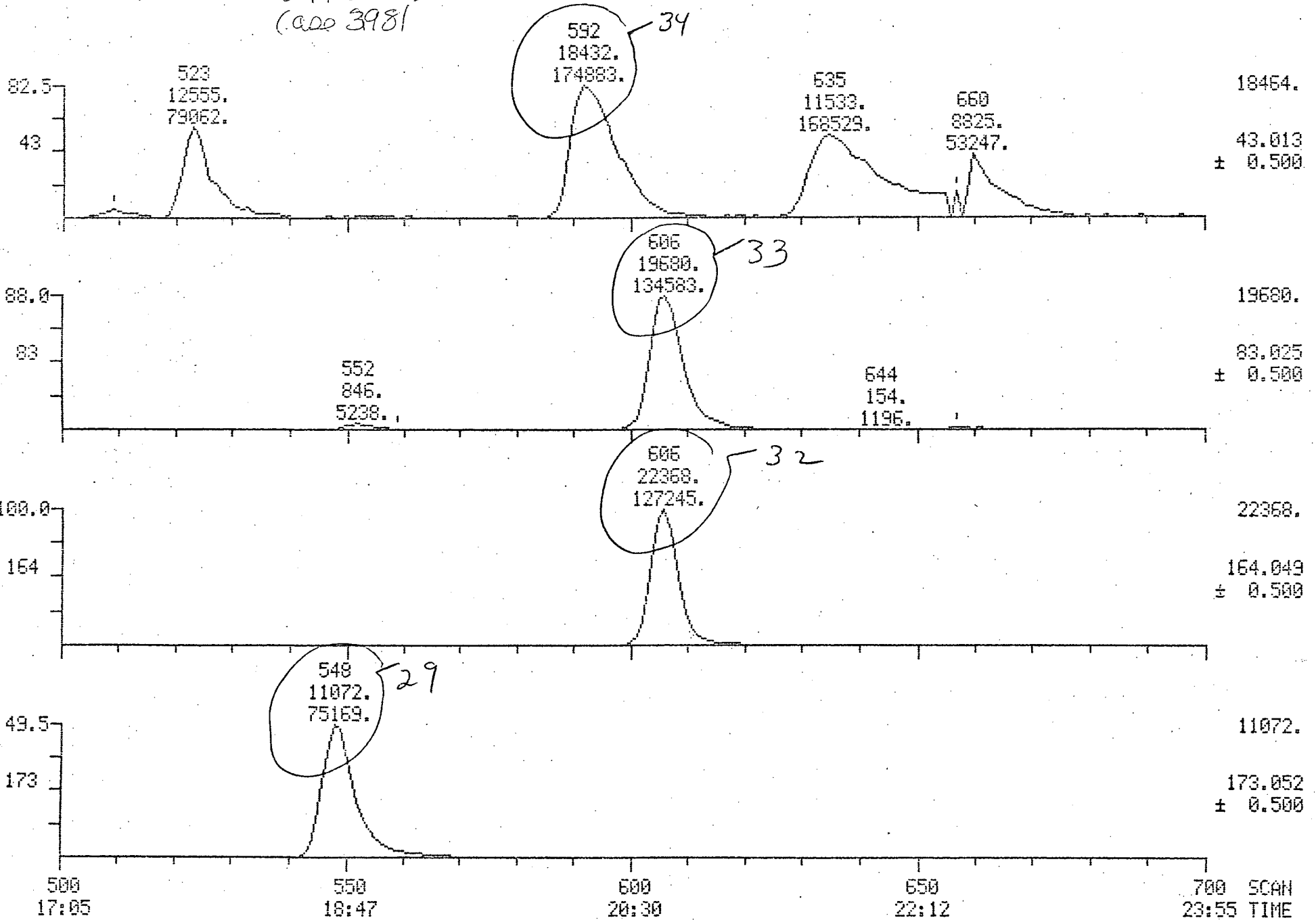
SAMPLE: 100 P/B Std. case 3981



MASS CHROMATOGRAMS
03/15/85 10:20:00
SAMPLE: 100 PPB ST.
(COP 3981)

DATA: U2323

SCANS 500 TO 700



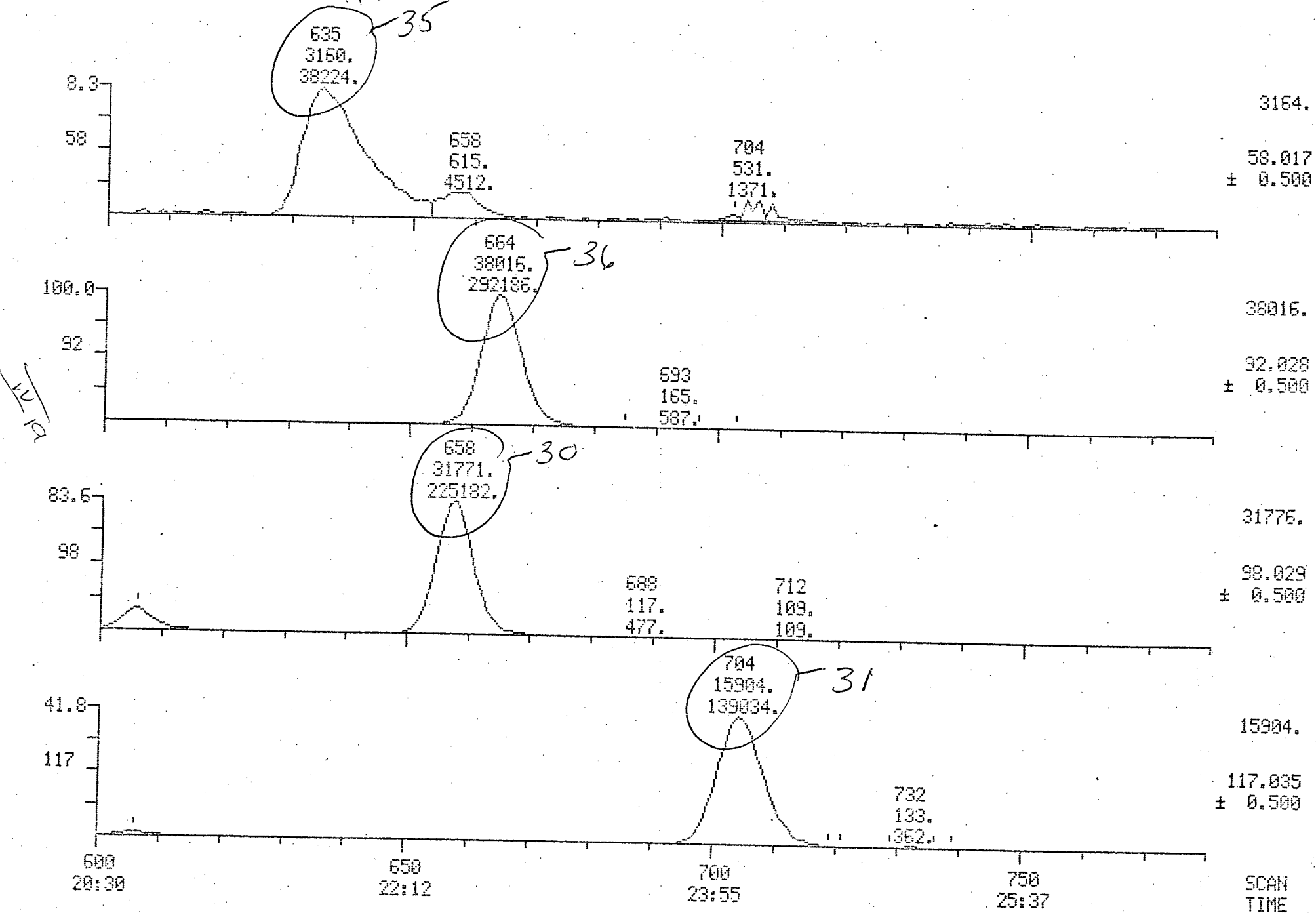
GC/MS CHROMATOGRAMS

03/15/85 10:20:00

SAMPLE: 100 PPB Std. case 3981

DATA: U2323

SCANS 600 TO 780



MASS CHROMATOGRAMS

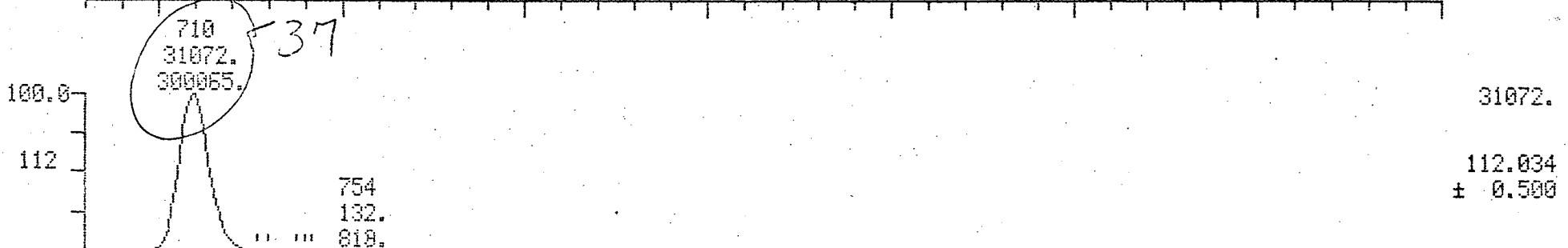
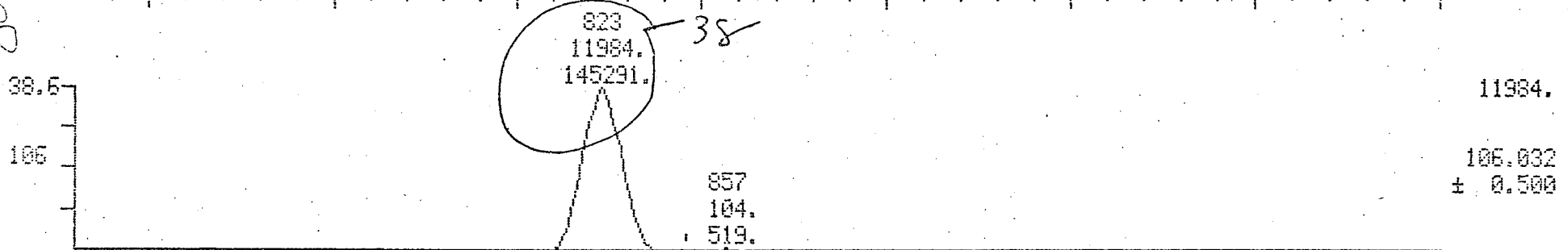
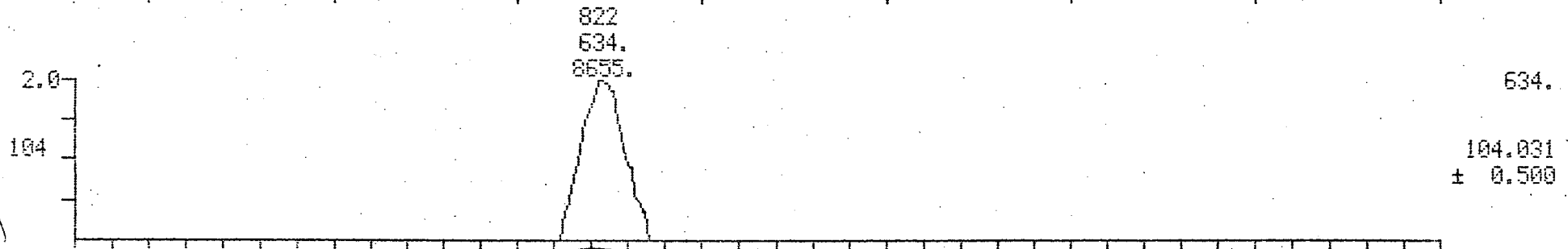
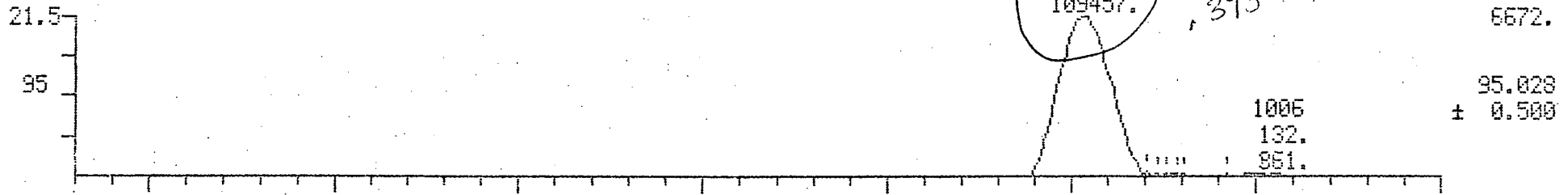
DATA: U2323

SCANS 680 TO 1050

03/15/85 10:20:00

SAMPLE: 100 PPB Std.

case 3981



700 23:55 750 25:37 800 27:20 850 29:02 900 30:45 950 32:27 1000 34:10 1050 35:52
SCAN TIME

MASS CHROMATOGRAMS

DATA: U2323

SCANS 750 TO 1200

03/15/85 10:20:00

SAMPLE: 100 ppm Std

case 3981

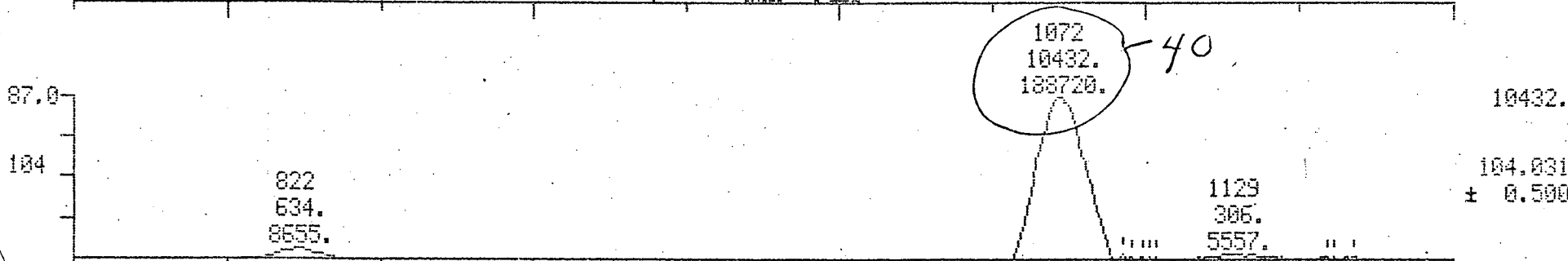
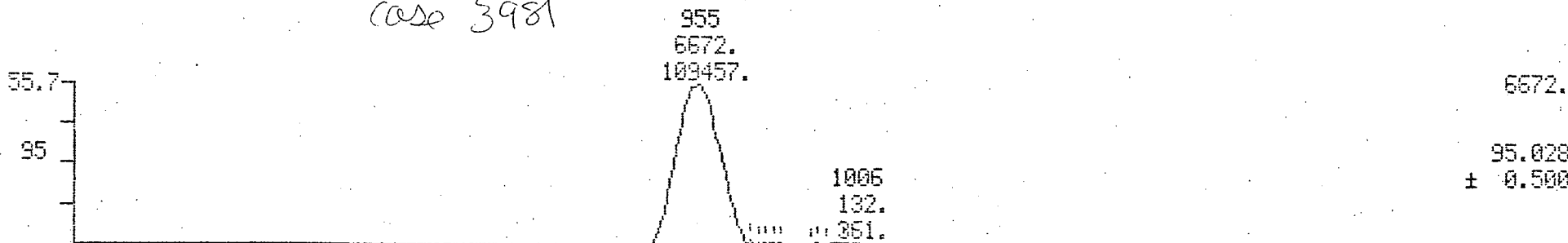
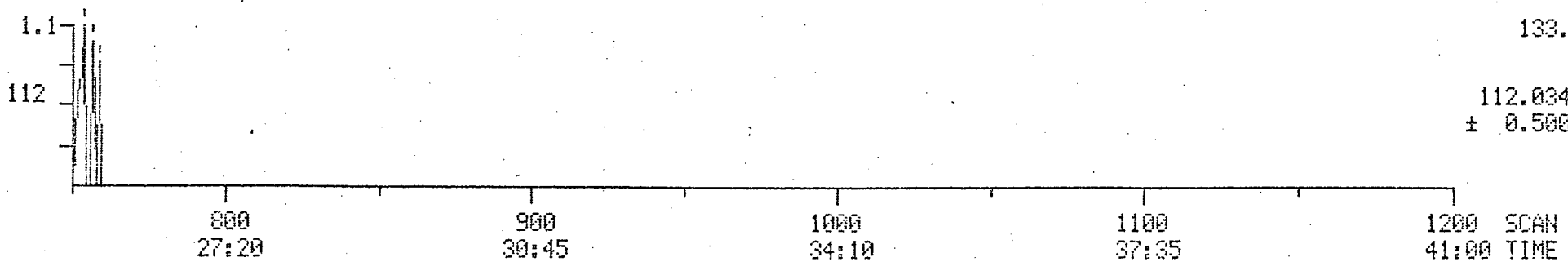
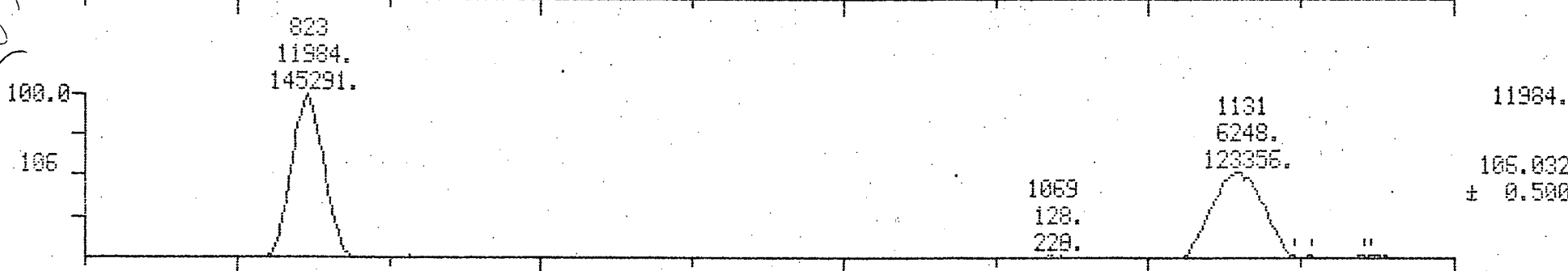


Fig 10

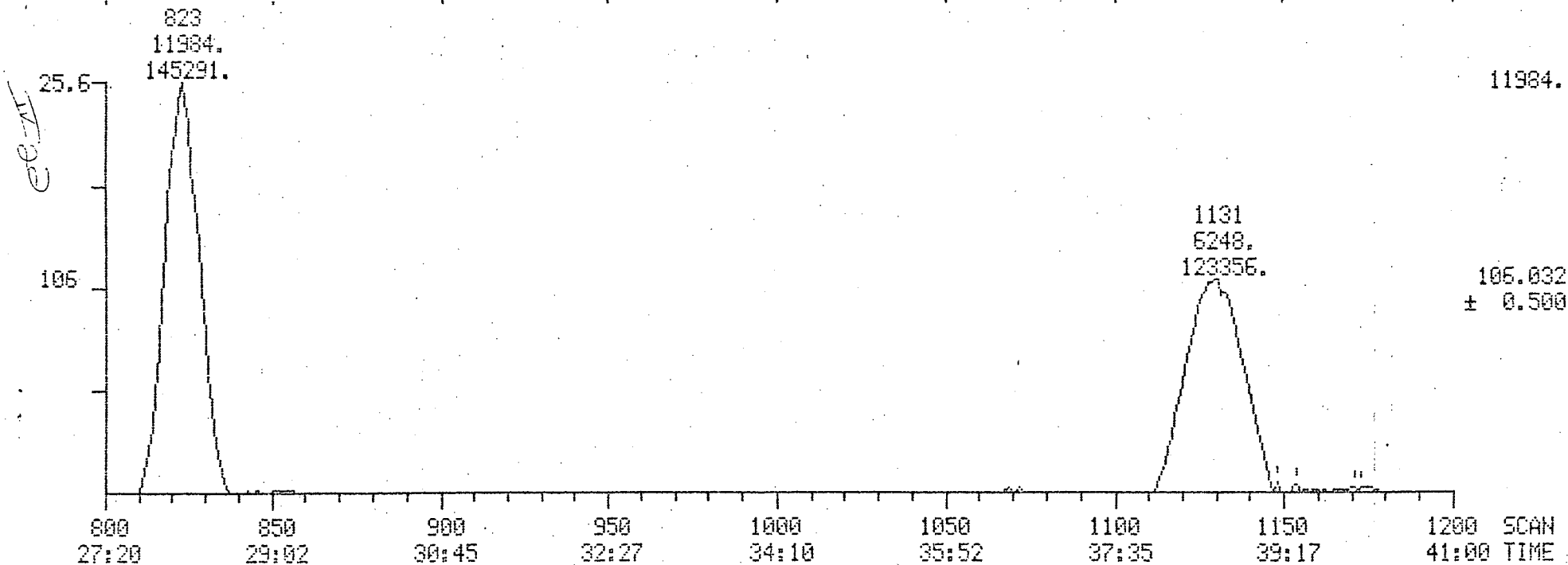
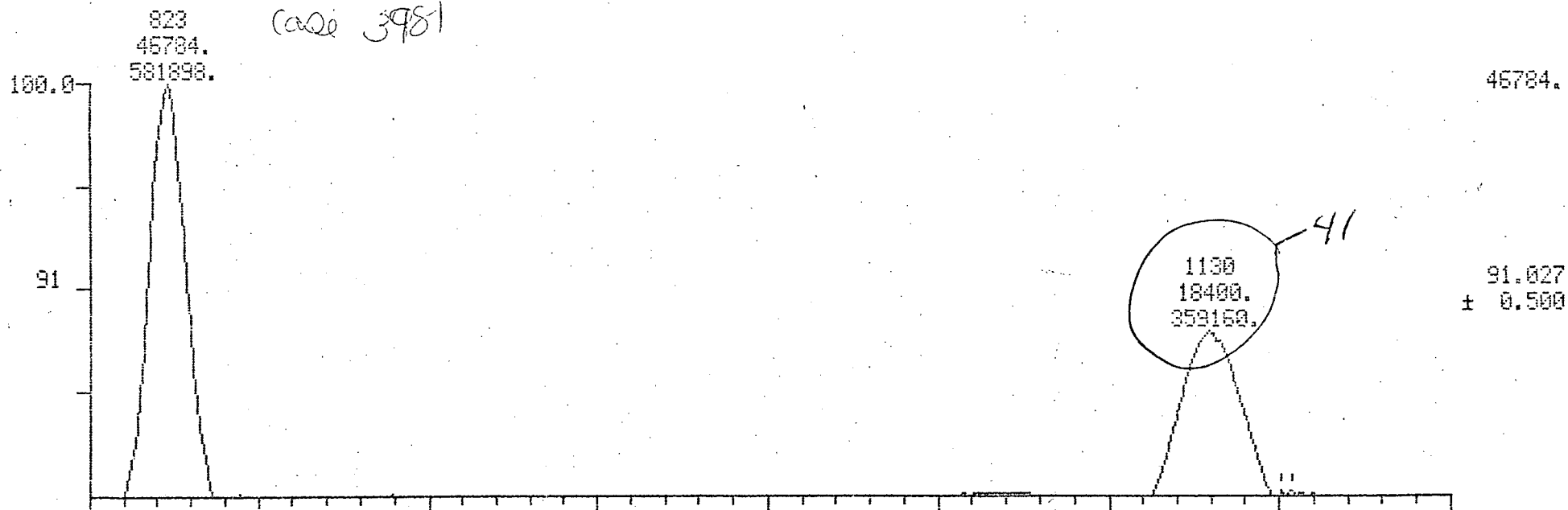


MASS CHROMATOGRAMS
83/15/85 10:20:00
SAMPLE: 100 PPB Std

DATA: U2323

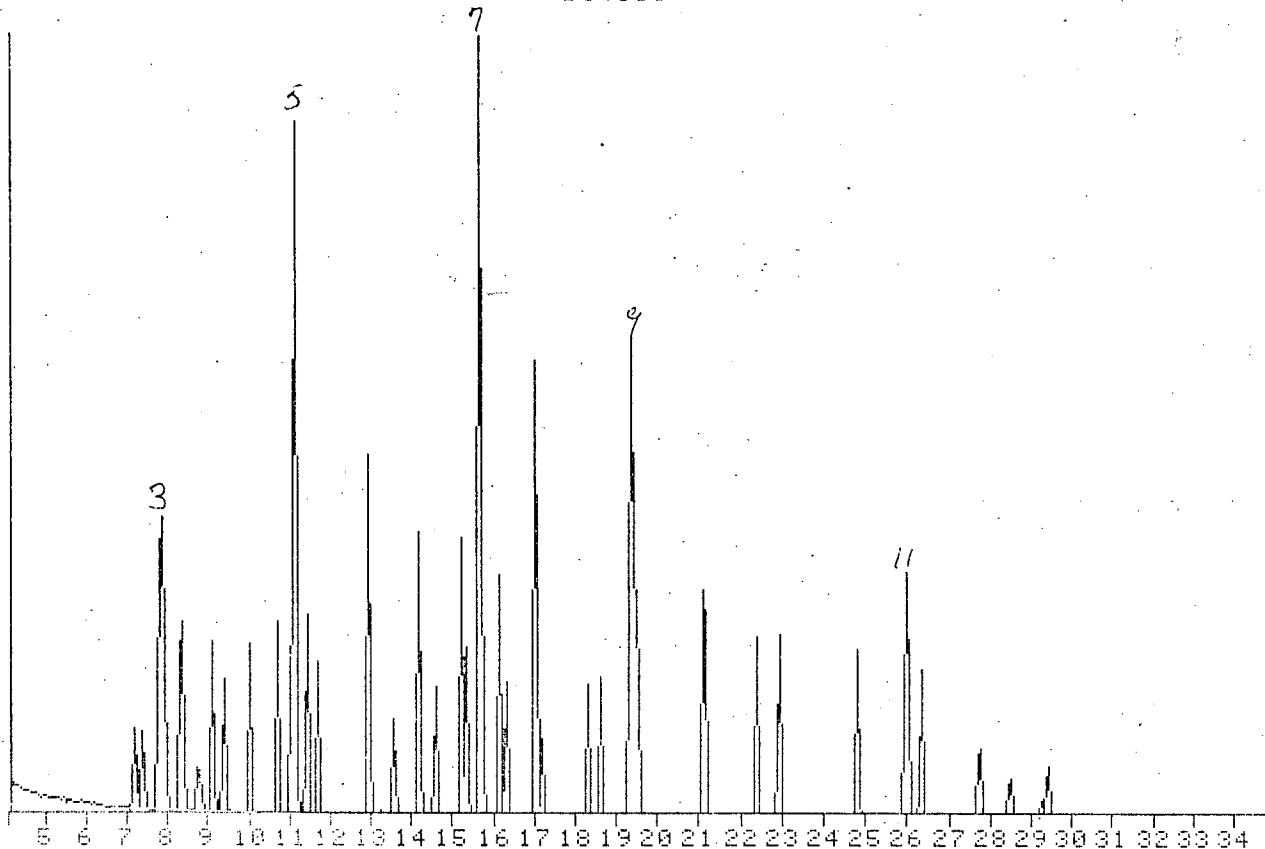
SCANS 800 TO 1200

Case 3981



800 850 900 950 1000 1050 1100 1150 1200 SCAN
27:20 29:02 30:45 32:27 34:10 35:52 37:35 39:17 41:00 TIME

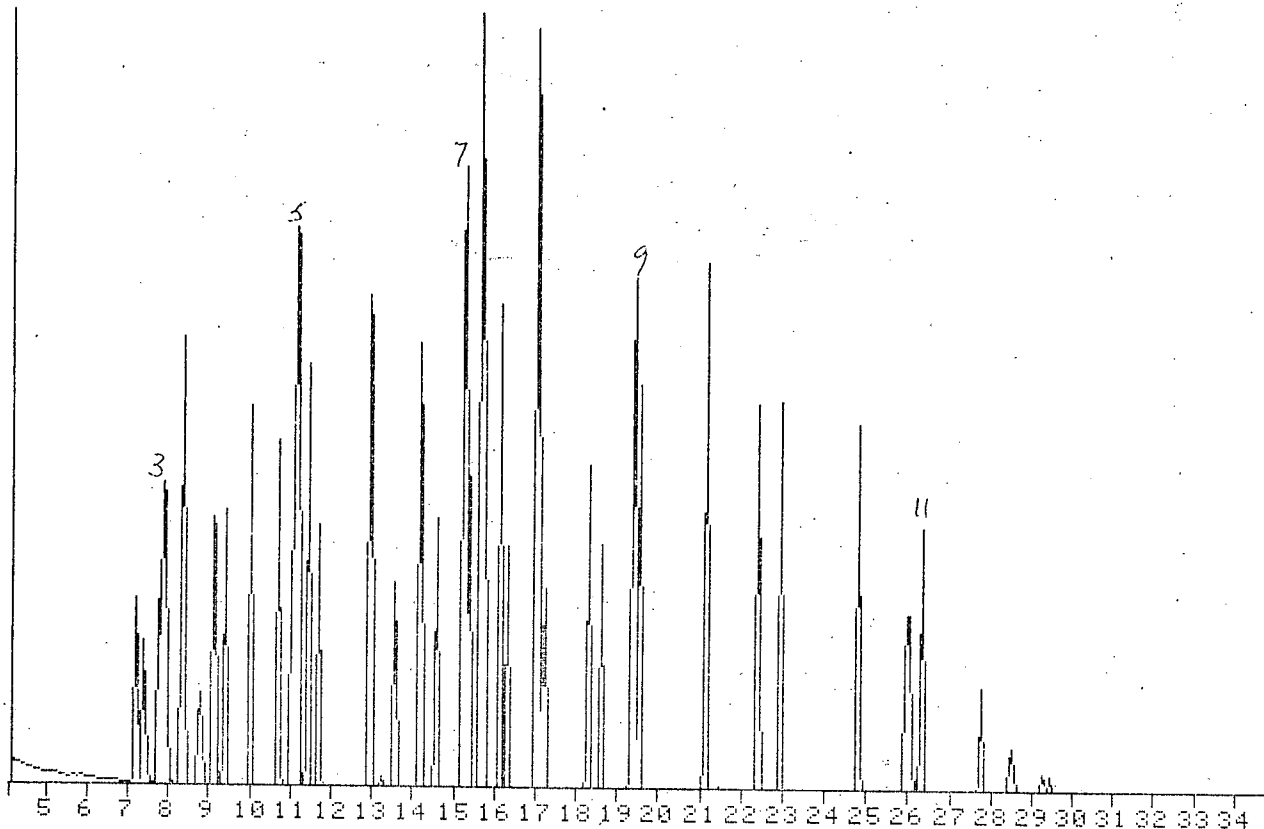
21595



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 23

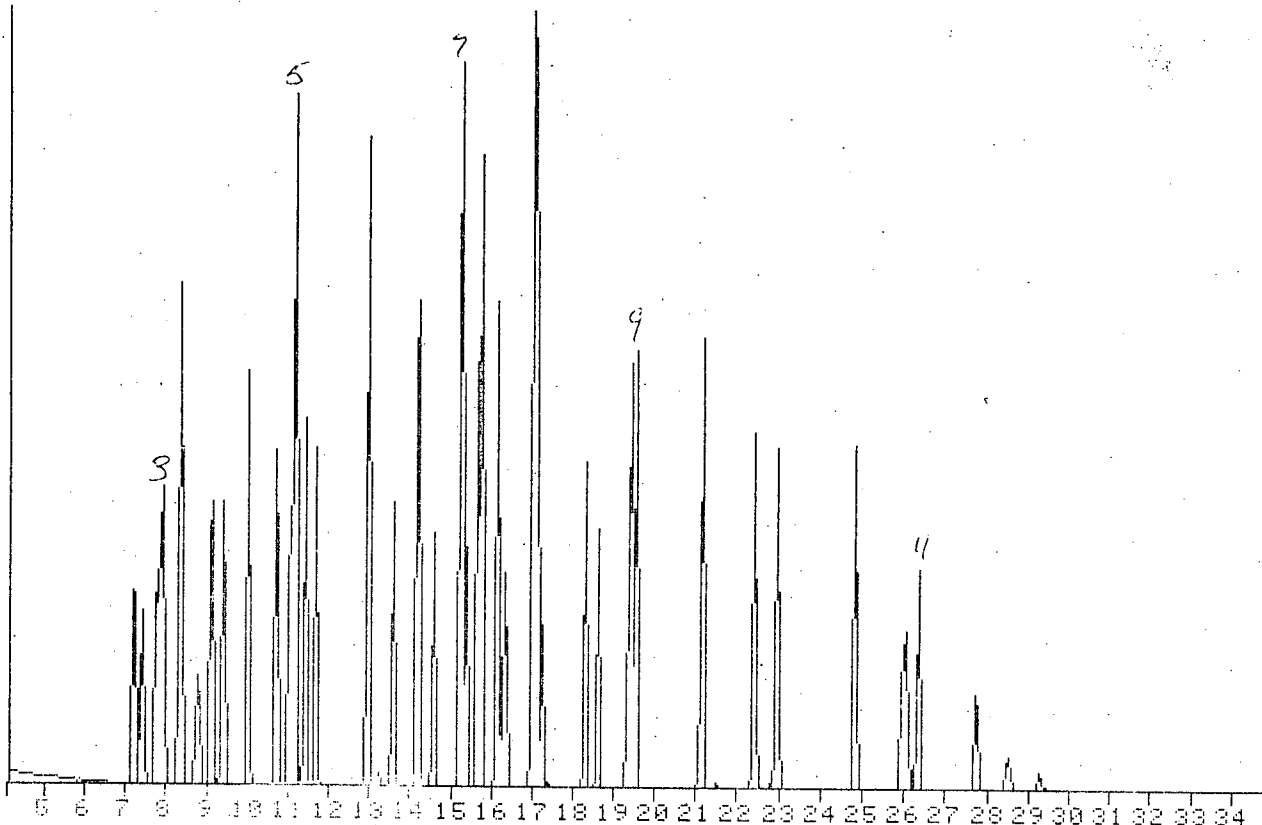
25821



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

4/24

44017



- 1. 2-FLUOROPHENOL (SURR)
- 2. PHENOL-D6 (SURR)
- 3. 1,4-DICHLOROBENZENE-D4 (IS)
- 4. NITROBENZENE-D5 (SURR)
- 5. NAPHTHALENE-D8 (IS)
- 6. 2-FLUOROBIPHENYL (SURR)
- 7. ACENAPHTHENE-D10 (IS)
- 8. 2,4,6-TRIBROMOPHENOL (SURR)
- 9. PHENANTHRENE-D10 (IS)
- 10. TERPHENYL-D14 (SURR)
- 11. CHRYSENE-D12 (IS)
- 12. PERYLENE-D12 (IS)

IV-25

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.9	150.0	1.000	40.0000				D4-1,4-DICHLOROBENZENE(20)
8.9	74.0	.046	.0000				N-NITROSODIMETHYLAMINE
7.2	93.0	1.095	80.0000				ANILINE
7.4	93.0	.814	80.0000				BIS(2-CHLOROETHYL)ETHER
7.8	146.0	.635	80.0000				1,3-DICHLOROBENZENE
7.9	146.0	.682	80.0000				1,4-DICHLOROBENZENE
8.4	108.0	.459	80.0000				BENZYL ALCOHOL
8.4	146.0	.652	80.0000				1,2-DICHLOROBENZENE
8.8	45.0	.573	80.0000				BIS(2-CHLOROISOPROPYL)ETHER
9.1	70.0	.564	80.0000				N-NITROSODIPROPYLAMINE
9.1	117.0	.324	80.0000				HEXACHLOROETHANE
9.4	77.0	.870	80.0000				NITROBENZENE
11.1	136.0	1.000	40.0000				D8-NAPHTHALENE(20)
10.0	82.0	.724	80.0000				ISOPHORONE
10.7	93.0	.484	80.0000				BIS(2-CHLOROETHOXY)METHANE
11.0	180.0	.201	80.0000				1,2,4-TRICHLOROBENZENE
11.2	129.0	.105	80.0000				NAPHTHALENE
11.5	127.0	.401	80.0000				4-CHLOROANILINE
11.7	225.0	.099	80.0000				HEXACHLOROBUTADIENE
13.0	142.0	.564	80.0000				2-METHYLNAPHTHALENE
15.7	164.0	1.000	40.0000				D10-ACENAPHTHENE
13.6	237.0	.248	80.0000				HEXACHLOROCYCLOPENTADIENE
14.2	162.0	1.060	80.0000				2-CHLORONAPHTHALENE
14.6	65.0	.507	80.0000				2-NITROANILINE
15.3	163.0	1.158	80.0000				DIMETHYL PHTHALATE
15.3	152.0	1.874	80.0000				ACENAPHTHYLENE
15.4	165.0	.334	80.0000				2,6-DINITROTOLUENE
15.7	138.0	.433	80.0000				3-NITROANILINE
15.8	153.0	1.236	80.0000				ACENAPHTHENE
16.2	168.0	1.476	80.0000				DIBENZOFURAN
16.3	89.0	.392	80.0000				2,4-DINITROTOLUENE
17.0	149.0	1.429	80.0000				DIETHYL PHTHALATE
17.0	166.0	1.132	80.0000				FLUORENE
17.1	204.0	.510	80.0000				4-CHLOROPHENYLPHENYL ETHER
17.3	138.0	.461	80.0000				4-NITROANILINE
16.2	169.0	.192	80.0000				DIPHENYLAMINE

IV 26

80 BN

FILE NUMBER 14807

3/28/85/FM

BTL#8 Q14807

D14807

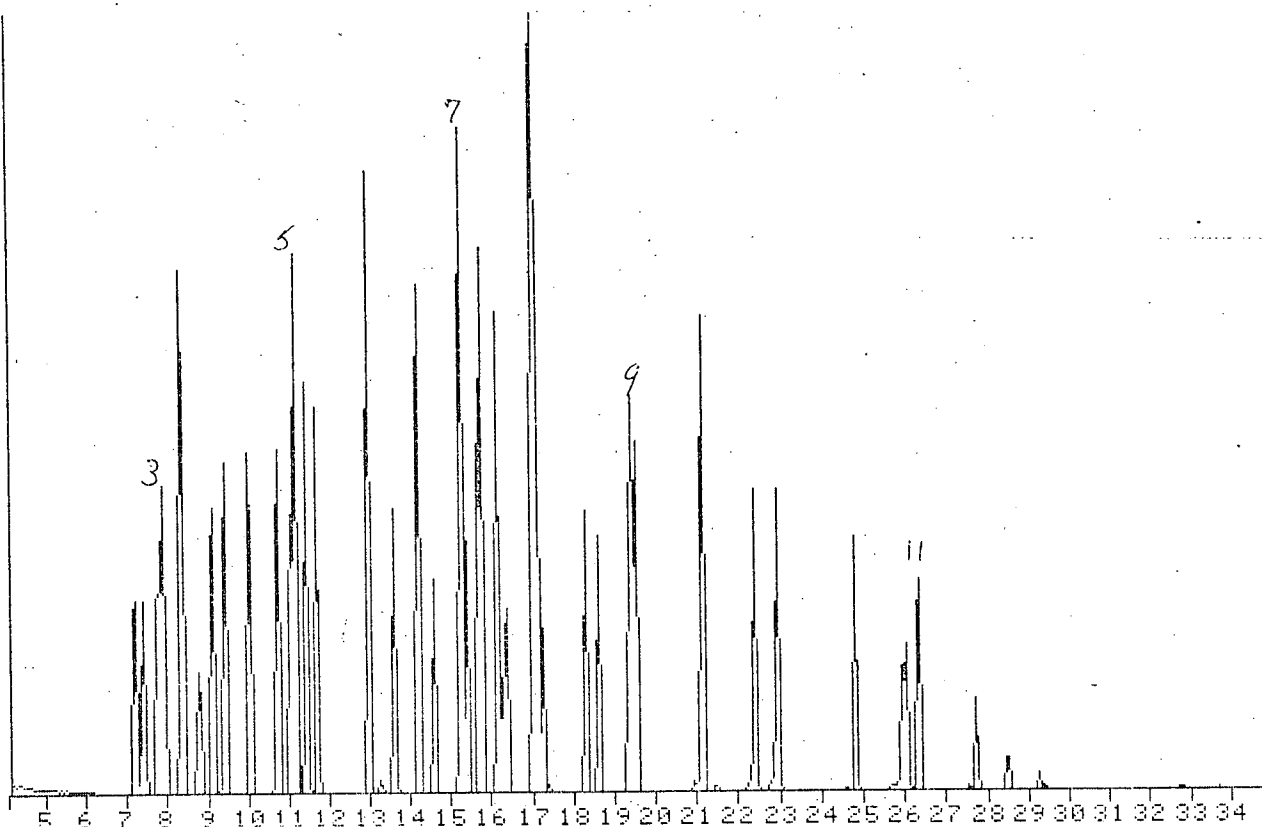
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
19.4	188.0	1.000	40.0000				D10-PHENANTHRENE(20)
18.3	248.0	.166	80.0000				4-BROMOPHENYLPHENYL ETHER
18.6	284.0	.193	80.0000				HEXACHLOROBENZENE
19.5	178.0	.574	160.0000				PHENANTHRENE/ANTHRACENE
21.2	149.0	1.804	80.0000				DIBUTYL PHTHALATE
22.4	202.0	.968	80.0000				FLUORANTHENE

26.0	240.0	1.000	40.0000				D12-CHRYSENE
23.0	202.0	3.049	80.0000				PYRENE
24.8	149.0	1.411	80.0000				BUTYL BENZYL PHTHALATE
26.0	228.0	.555	160.0000				BENZO(A)ANTHRACENE/CHRYSENE
26.3	149.0	1.345	80.0000				BIS(2-ETHYLHEXYL)PHTHALATE

29.4	264.0	1.000	40.0000				D12-PERYLENE
27.7	149.0	7.056	80.0000				DIOCTYL PHTHALATE
28.5	252.0	1.758	160.0000				BENZO(B)/(K)FLUORANTHENE
29.3	252.0	1.077	80.0000				BENZO(A)PYRENE
32.7	276.0	.468	80.0000				INDENO(123-CD)PYRENE
32.8	278.0	.268	80.0000				DIBENZO(AH)ANTHRACENE
33.7	276.0	.341	80.0000				BENZO(GHI)PERYLENE

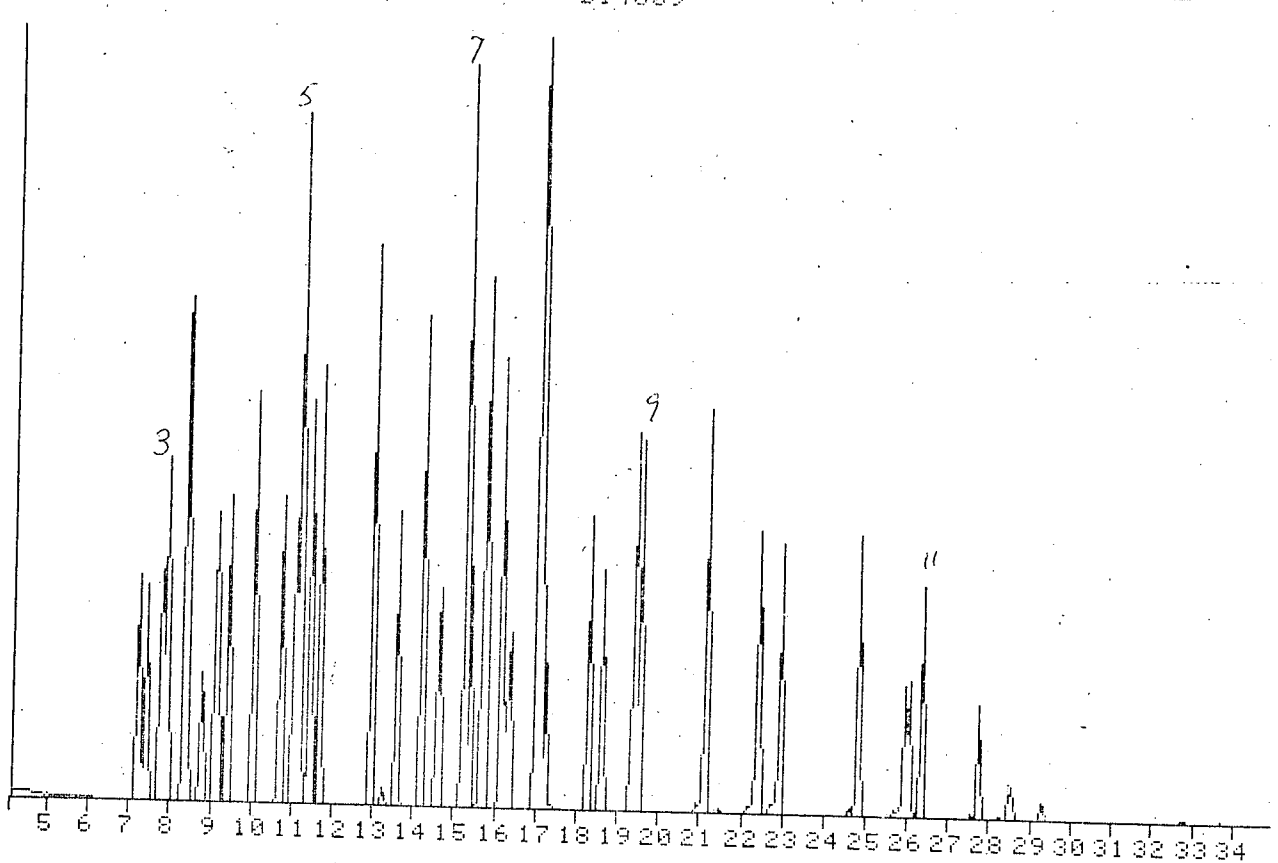
IV 27

59449



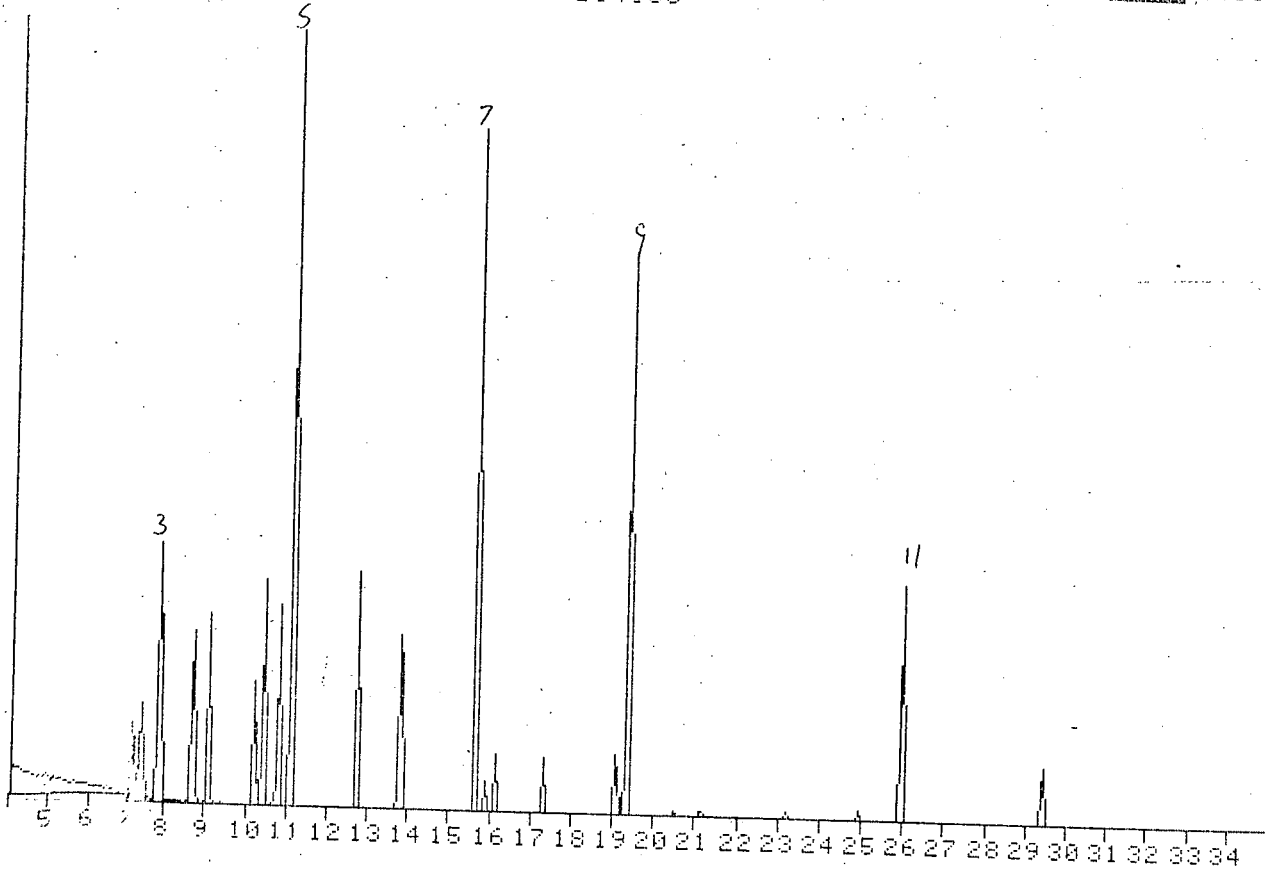
1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 28



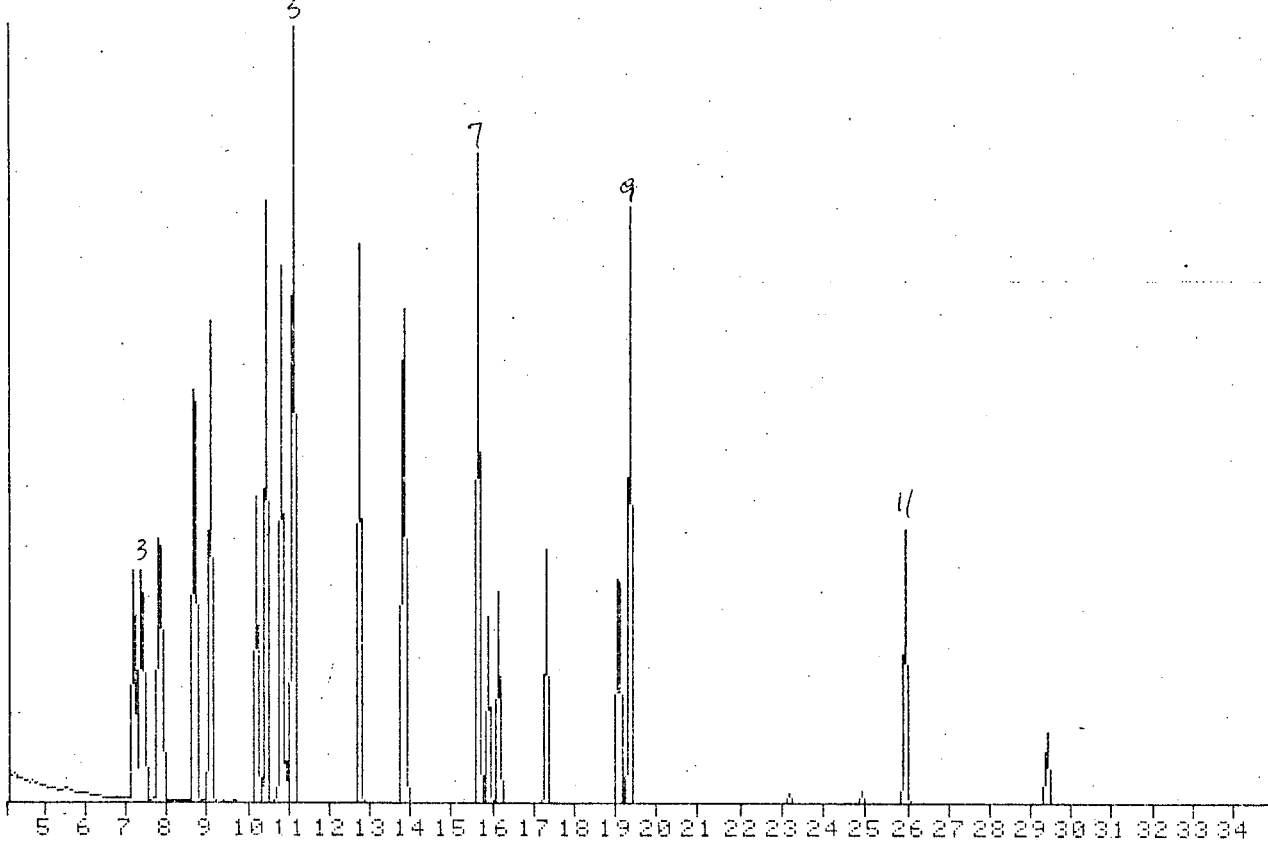
1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 89



- 1. 2-FLUOROPHENOL (SURR)
- 2. PHENOL-D6 (SURR)
- 3. 1,4-DICHLOROBENZENE-D4 (IS)
- 4. NITROBENZENE-D5 (SURR)
- 5. NAPHTHALENE-D8 (IS)
- 6. 2-FLUOROBIPHENYL (SURR)
- 7. ACENAPHTHENE-D10 (IS)
- 8. 2,4,6-TRIBROMOPHENOL (SURR)
- 9. PHENANTHRENE-D10 (IS)
- 10. TERPHENYL-D14 (SURR)
- 11. CHRYSENE-D12 (IS)
- 12. PERYLENE-D12 (IS)

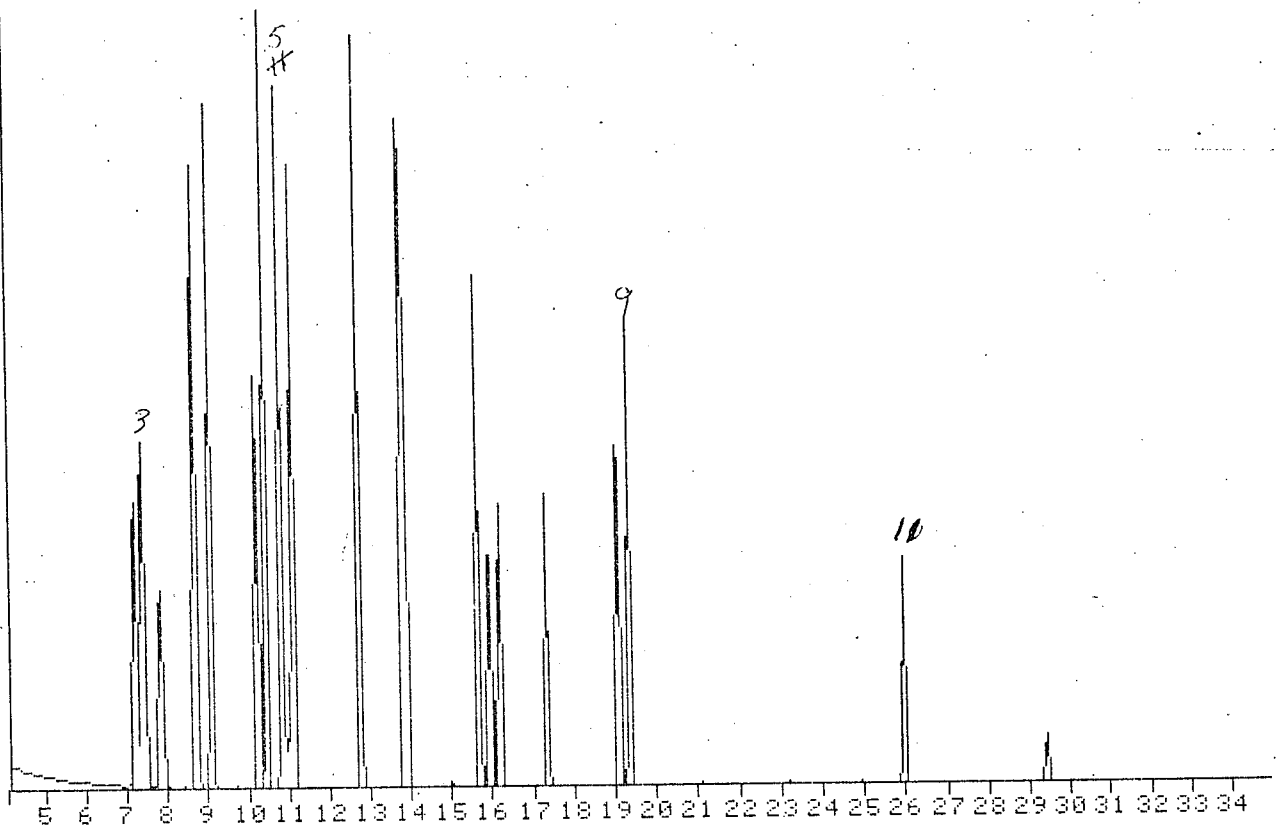
JW 30



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 31

27554



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 32

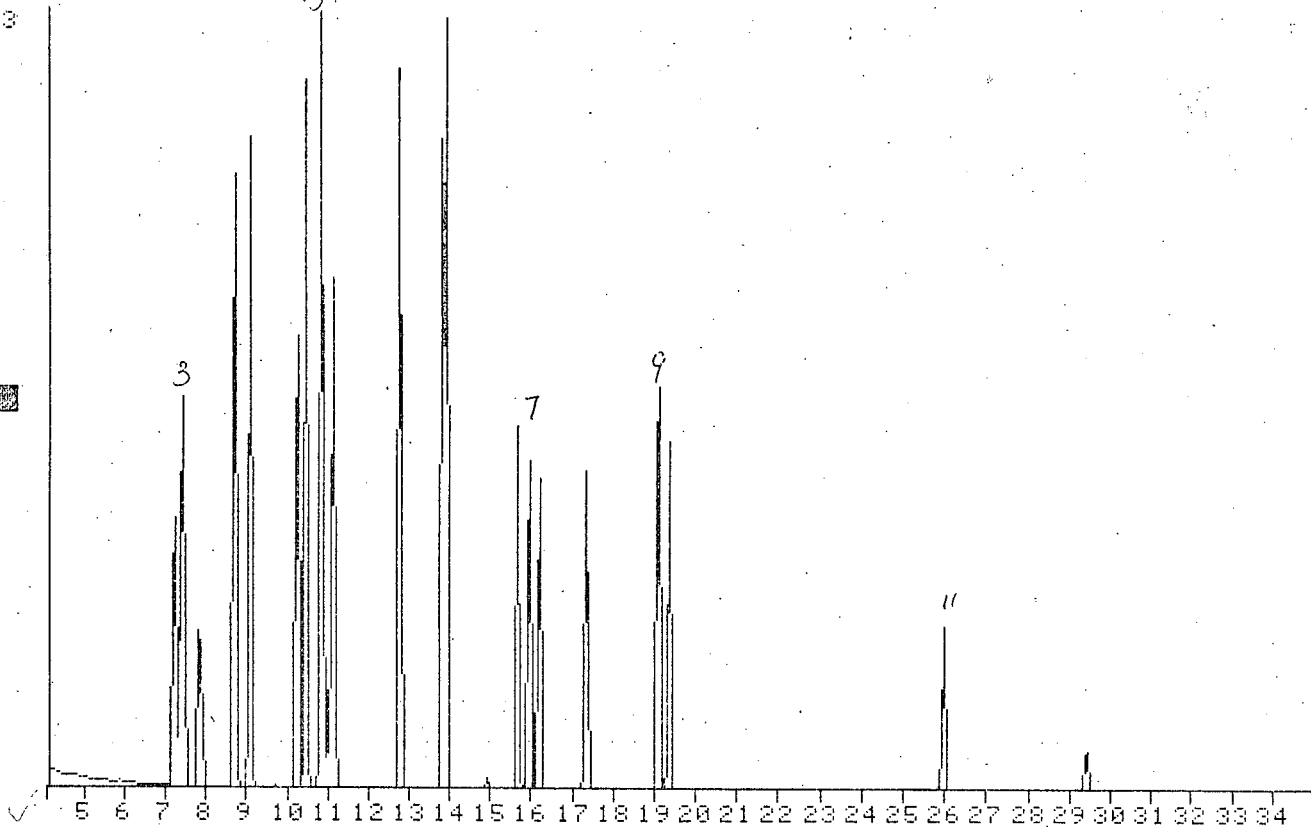
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.9	150.0	1.000	40.0000				D4-1,4-DICHLOROBENZENE(20)
7.2	94.0	1.311	80.0000				PHENOL
7.4	128.0	.997	80.0000				2-CHLOROPHENOL
8.7	108.0	.963	80.0000				2-METHYLPHENOL
9.1	108.0	1.027	80.0000				4-METHYLPHENOL

11.1	136.0	1.000	40.0000				D8-NAPHTHALENE(20)
10.2	139.0	.198	80.0000				2-NITROPHENOL
10.5	122.0	.299	80.0000				2,4-DIMETHYLPHENOL
11.1	122.0	.131	80.0000				BENZOIC ACID
10.9	162.0	.240	80.0000				2,4-DICHLOROPHENOL
12.8	107.0	.317	80.0000				4-CHLORO-M-CRESOL

15.7	164.0	1.000	40.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	80.0000				2,4,5-TRICHLOROPHENOL
13.8	196.0	.347	80.0000				2,4,6-TRICHLOROPHENOL
15.9	184.0	.165	80.0000				2,4-DINITROPHENOL
17.3	198.0	.197	80.0000				4,6-DINITRO-O-CRESOL
16.2	65.0	.310	80.0000				4-NITROPHENOL

19.4	188.0	1.000	40.0000				D10-PHENANTHRENE
19.1	266.0	.122	80.0000				PENTACHLOROPHENOL

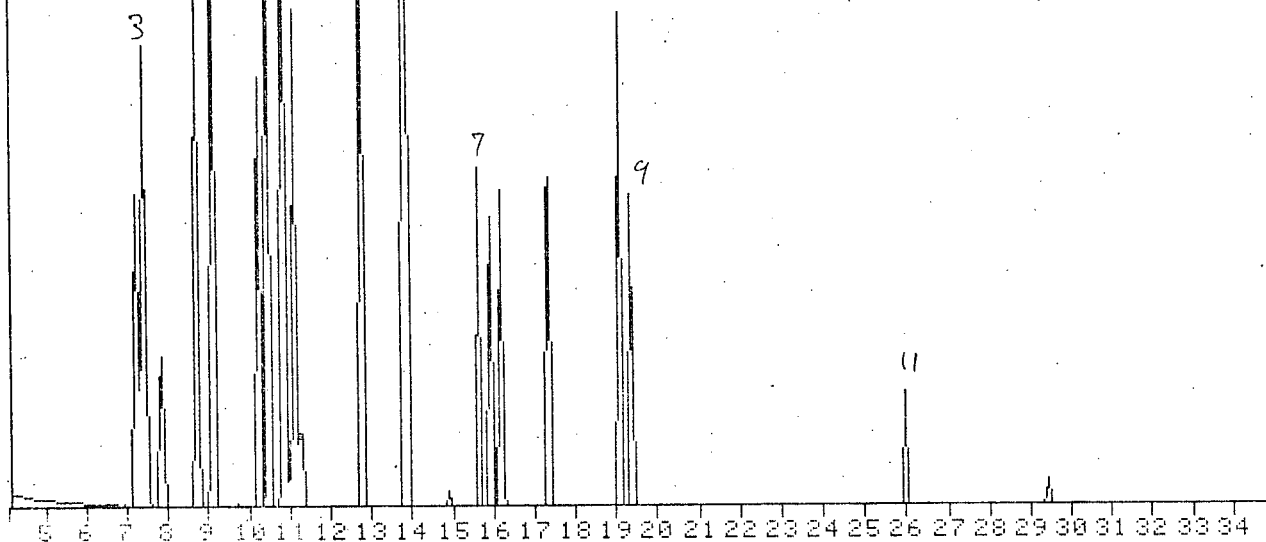
JK 53



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

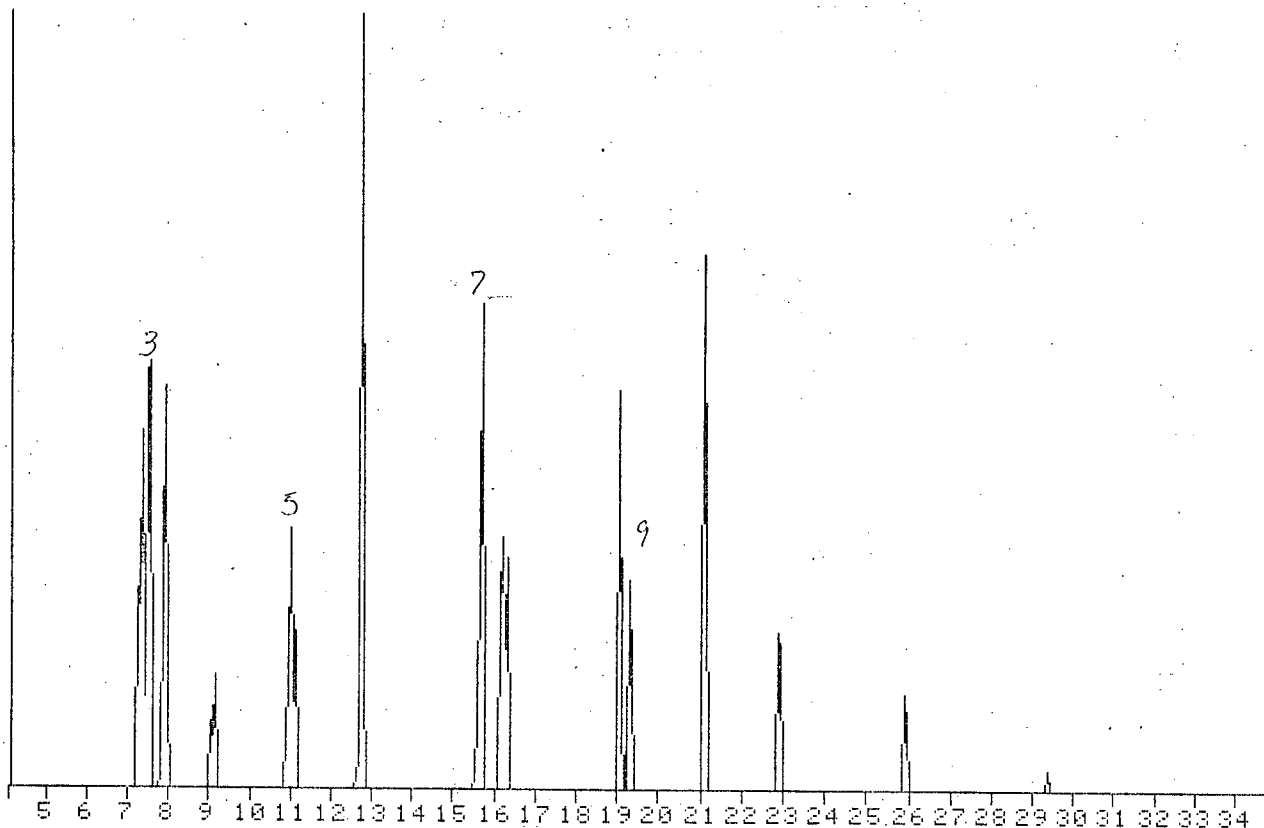
IV 34

43898



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 55



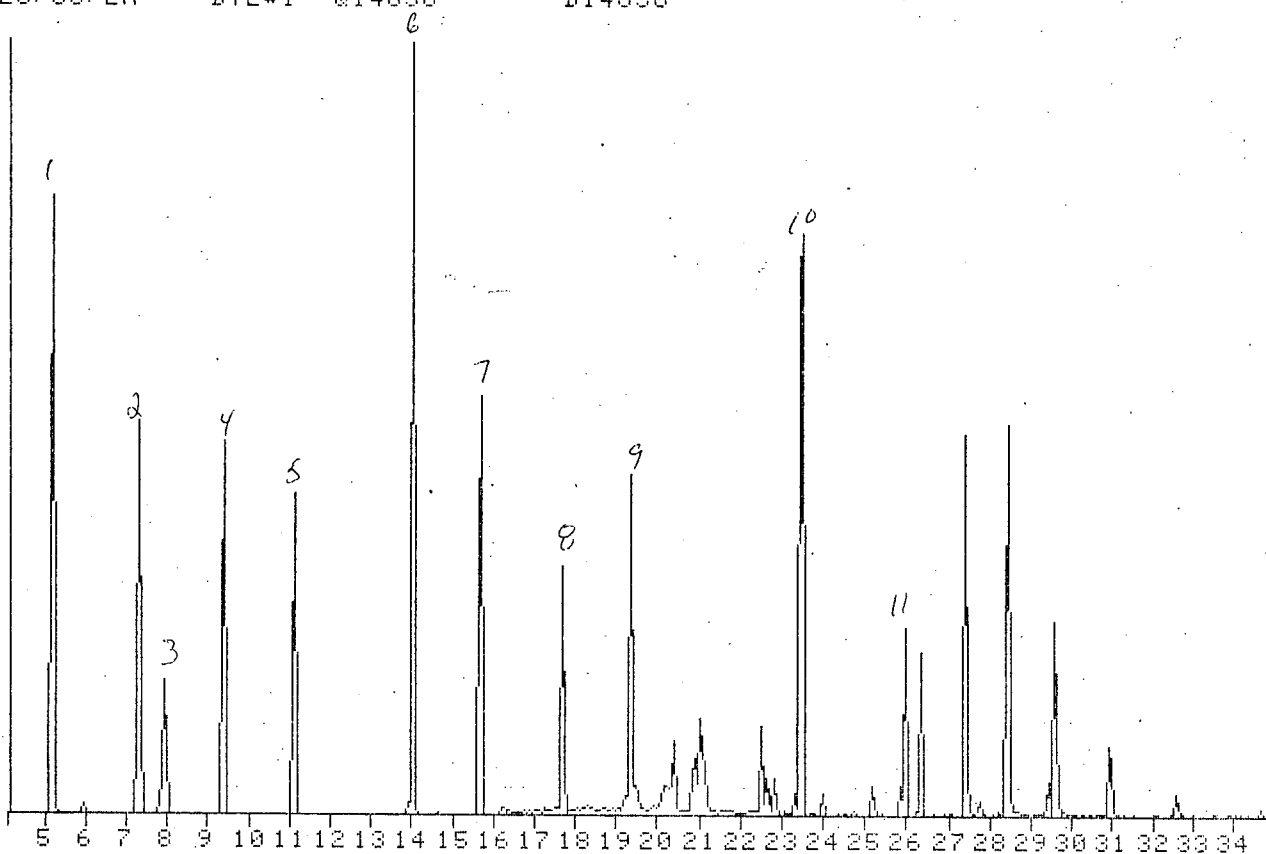
1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 36

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.9	158.0	1.000	40.0000				
7.9	146.0	1.429	50.0000				D4-1,4-DICHLOROBENZENE(MS)
9.0	70.0	.706	50.0000				1,4-DICHLOROBENZENE
7.4	94.0	1.941	100.0000				N-NITROSODINPROPYLAMINE
7.5	128.0	1.645	100.0000				PHENOL
							2-CHLOROPHENOL
11.0	136.0	1.000	40.0000				
11.0	180.0	.434	50.0000				D8-NAPHTHALENE(MS)
12.8	107.0	.932	100.0000				1,2,4-TRICHLOROBENZENE
							4-CHLORO-M-CRESOL
15.6	164.0	1.000	40.0000				
15.7	153.0	2.425	50.0000				D10-ACENAPHTHENE(MS)
16.3	89.0	.630	50.0000				ACENAPHTHENE XR
16.2	139.0	.450	100.0000				2,4-DINITROTOLUENE XR
							4-NITROPHENOL XR
19.3	188.0	1.000	40.0000				
19.1	266.0	.214	100.0000				D10-PHENANTHRENE(MS)
21.1	149.0	3.678	50.0000				PENTACHLOROPHENOL
22.9	202.0	.871	50.0000				DIBUTYL PHTHALATE
							PYRENE(VS ALT. IS)

IV 3

20905

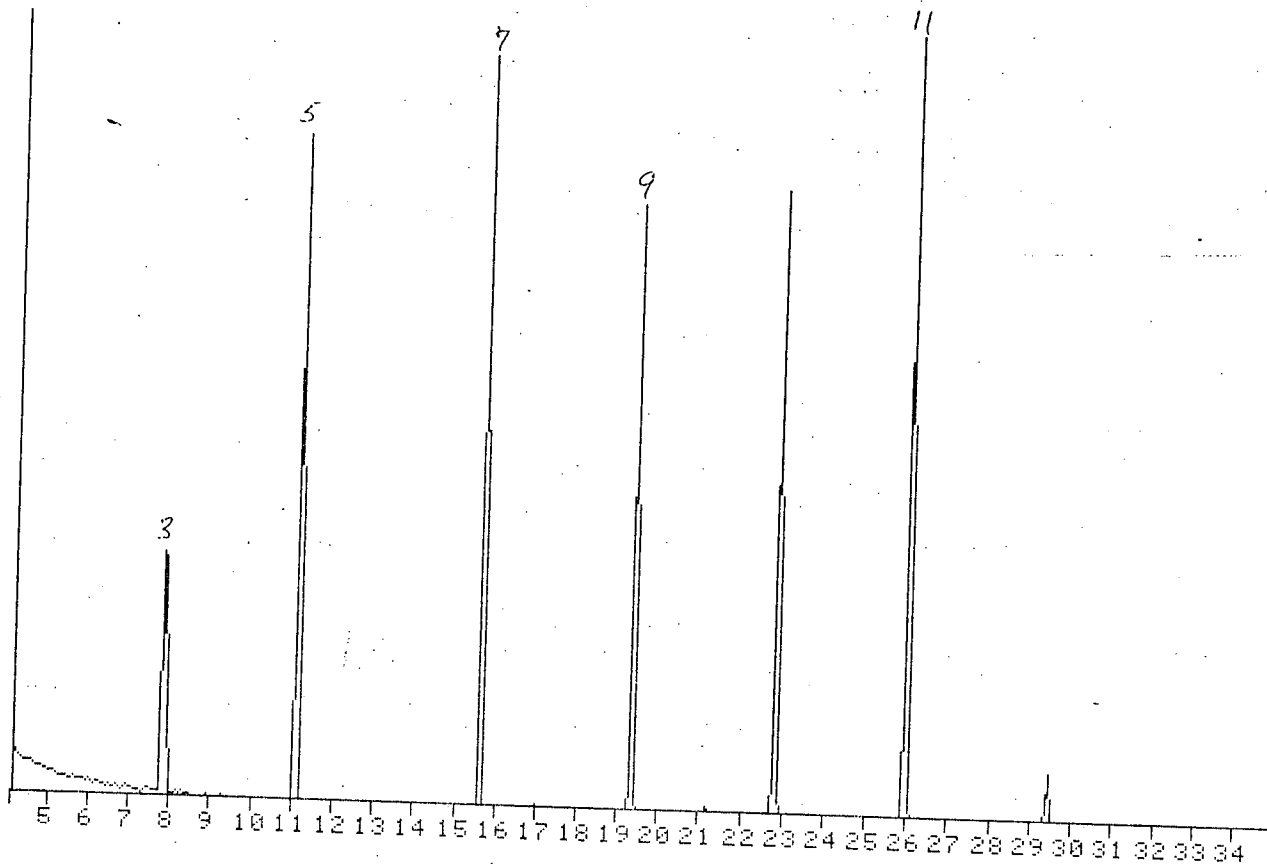


1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

Handwritten signature or initials

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.9	150.0	1.000	40.0000				D4-1,4-DICHLOROBENZENE
7.3	99.0	1.300	100.0000				D6-PHENOL
5.2	112.0	.890	100.0000				2-FLUOROPHENOLXR
11.1	136.0	1.000	40.0000				D8-NAPHTHALENE
9.4	82.0	.421	100.0000				D5 NITROBENZENE
15.7	164.0	1.000	40.0000				D10-ACENAPHTHENE
14.0	172.0	1.292	100.0000				2-FLUOROBIPHENYL
19.4	188.0	1.000	40.0000				D10-PHENANTHRENE
17.7	330.0	.080	100.0000				TRIBROMOPHENOL XR
26.0	240.0	1.000	40.0000				D-12 CHRYSENE
23.5	244.0	1.392	100.0000				D14-TERPHENYL XR

IV 39



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

IV 40

FILE NUMBER 14810

100 BZ

3/28/85/FM

BTL#11.014810

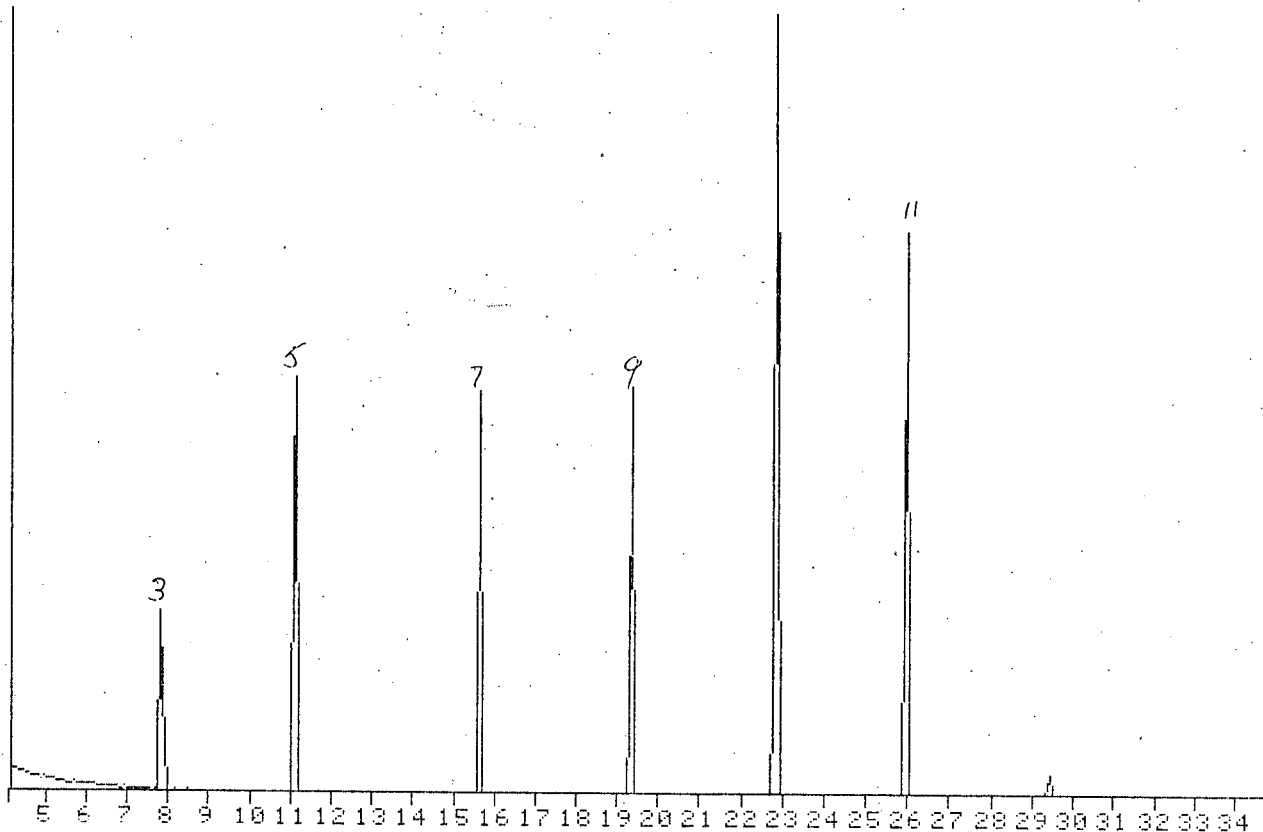
D14810

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
1140.0	19.3	19.3	19.5	553.0	8.0	184.0	B
11074.0	22.8	22.7	23.0	4129.0	13.0	184.0	B
4088.0	26.0	25.9	26.1	1945.0	10.0	240.0	B
3647.0	26.0	25.9	26.1	1726.0	10.0	252.0	B

No. CALIB. RUNS = 1 METHOD TYPE = ISTD

TIME	MASS	FACTOR	RESULT	NAME
26.0	240.0	1.000	40.0000	D12-CHRYSENE
22.8	184.0	1.084	100.0000	BENZIDINE
26.0	252.0	.357	100.0000	DICHLOROBENZIDINE

IV-41



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

W-42

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS.	BASE
1221.0	19.3	19.3	19.5	669.0	9.0	184.0	B
22148.0	22.8	22.7	23.0	7802.0	15.0	184.0	B
3875.0	26.0	25.9	26.1	1698.0	10.0	240.0	B
5561.0	26.0	25.9	26.1	2376.0	11.0	252.0	B

No. CALIB. RUNS = 1 METHOD TYPE = ISTD

TIME	MASS	FACTOR	RESULT	NAME
26.0	240.0	1.000	40.0000	D12-CHRYSENE
22.8	184.0	1.143	200.0000	BENZIDINE
26.0	252.0	.287	200.0000	DICHLOROBENZIDINE

IV 43

PRIORITY POLLUTANT PESTICIDE DATA

RUN DATE: 4/8/75 - 4/9/75

ANALYST: BL

HP 5870 LOGBOOK PAGE 173

(see reverse for linear regression analyses)

Component	RT (Min)	Std. Conc (ng/ml)	Area ₃ X 10 ³	Std. Conc (ng/ml)	Area ₃ X 10 ³	Std. Conc (ng/ml)	Area ₃ X 10 ³	Std. Conc (ng/ml)	Area ₃ X 10 ³	Std. Conc (ng/ml)	Area ₃ X 10 ³	Std. Conc (ng/ml)
1. p-BHC	3.18-3.24	100	33.77	50	15.11	25	6.83	10	2.30	5	1.11	
2. p-BHC	3.72-3.78		65.66		25.22		8.80		2.27		1.12	
3. Endosulfan I	8.07-8.20		52.08		21.74		8.73		2.17		1.43	
4. p,p'-DDE	9.52-9.58		69.07		25.56		10.31		3.76		1.76	
5. Endosulfan II	5.15-5.21		51.21		19.14		7.46		3.10		1.49	
6. Endosulfan Sulfate	24.70-25.06		28.41		12.02		5.86		1.75		1.10	
7. Dibutyl Chlorodate	33.47-33.65		28.33		11.84		5.80		1.92		1.50	
Pesticide Mix		P-31-1		P-31-2		P-31-3		P-31-4		P-31-5		

67

LINEAR REGRESSION RESULTS

Component	Correlation Coefficient	Y-intercept	Slope
1. β -BHC			
2. δ -BHC			
3. Endosulfan I			
4. p,p'-DDE			
5. Endosulfan II			
6. Endosulfan Sulfate			
7. Dibutyl Chlorendate	.99616	-0.954	0.285

IV
50

Object 3-705-051

DATE 4/9 - 4/9/85

PRIORITY POLLUTANT PESTICIDE DATA

ANALYST: RL

HP 581 LOGBOOK PAGE 173

(see reverse for linear regression analyses)

Component	RT (Min)	Std. Conc (ng/ml)	Area X 10 ³	Std. Conc (ng/ml)	Area X 10 ³	Std. Conc (ng/ml)	Area X 10 ³	Std. Conc (ng/ml)	Area X 10 ³
1. α-BHC	2.12-2.14	100	76.18	SO	39.89	25	15.18	10	6.06
2. β-BHC	2.72-2.76	100	79.84	(53.1)	36.28	(22.0)	13.65	(107)	5.51
3. Heptachlor	3.36-3.40	100	53.13	(51.4)	26.18	(22.2)	9.73	(7.6)	2.52
4. Aldrin	4.07-4.15	100	65.23	(51.5)	32.13	(20.5)	11.07	(11.4)	4.88
5. Hept. Epox.	6.38-6.44	100	57.07	(47.6)	27.10	(20.3)	7.65	(13.3)	4.48
6. Dieldrin	10.01-10.03	100	117.29	(102)	21.06	(21.0)	7.37	(23)	2.56
7. Endrin	12.25-12.31	100	75.11	(53)	12.27	(21.0)	4.77	(23)	2.56
8. p,p'-DDB	14.64-15.17	100	30.19	(48.1)	13.52	(21.6)	5.47	(11.5)	2.42
9. p,p'-DDT	18.12-18.34	100	28.10	(48.1)	13.52	(21.6)	5.47	(11.5)	2.42
10. Endrin Alg.	20.24-20.41	100	44.54	(48.1)	21.68	(21.6)	9.45	(11.5)	4.70
1. Endrin	33.56-33.81	100	46.02	(48.1)	21.77	(21.6)	9.61	(11.5)	4.76
2. Methoxychlor	36.18-36.82	100	12.54	(48.1)	36.47	(21.6)	22.94	(11.5)	1.54

Column SP 2250/2401

LINEAR REGRESSION RESULTS

Component	Correlation Coefficient	Y-intercept	Slope
1. -BHC			
2. X -BHC	.99834	-2.36	0.728
3. Heptachlor	.99856	-2.39	0.556
4. Aldrin	.99780	-2.86	0.680
5. Heptachlor Epoxide			
6. Dieldrin	.99624	-1.92	0.483
7. Endrin	.79811	-.582	0.255
8. p,p'-DDD			
9. p,p'-DDT	.99841	-.905	0.295
10. Endrin Aldehyde			
11. Endrin Ketone			
12. Methoxychlor			

CS
H

4.16 Aldrin

5.58

12.43 Endrin

18.37 pp'-DDE

33.97 Dibutylchloride

Eval. Mix A
Case 3981
SP 2250/2401
HP 5880 5ul

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 14:07 APR 5, 1985

SAMPLE # : ID CODE :

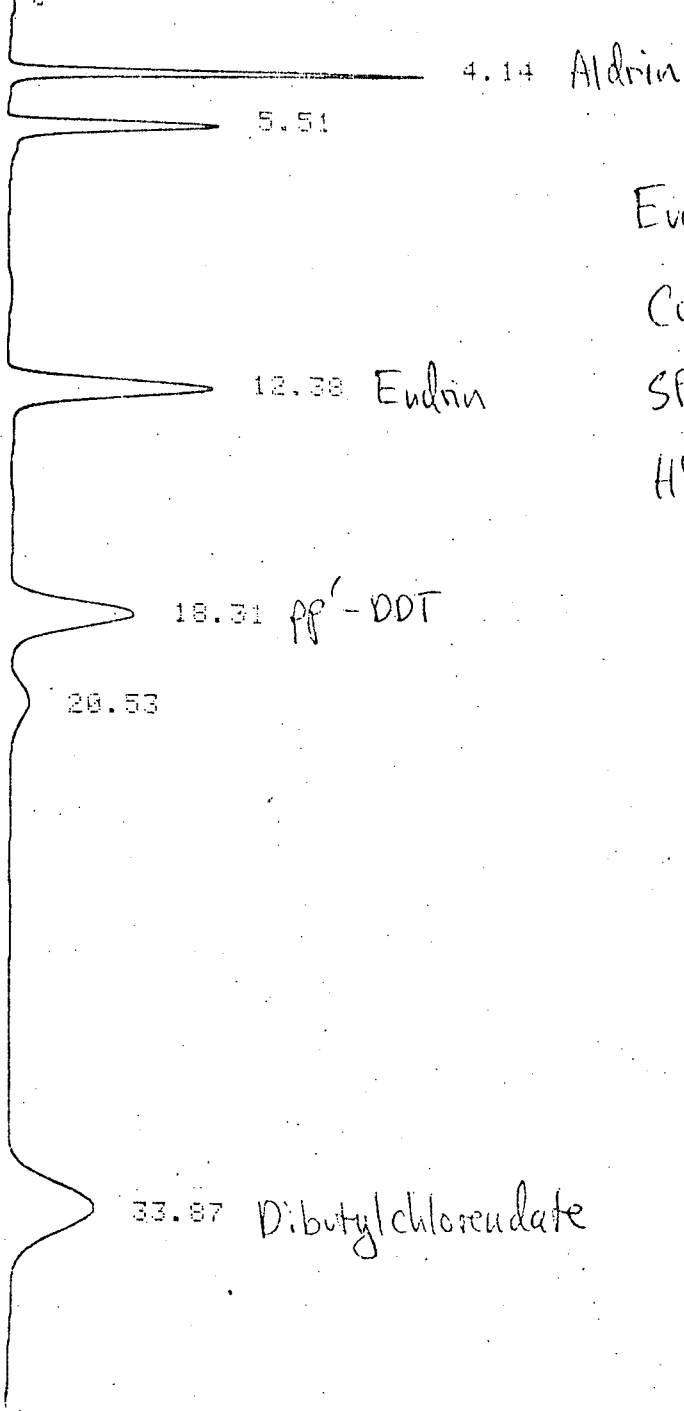
1

AREA %

RT	AREA	TYPE	AREA %
0.31	28174.30	SBV	75.277
0.82	481.17	BV	1.072
1.01	41.76	VB	0.112
1.83	175.70	VB	0.469
4.16	1588.52	BB	4.223
5.58	544.94	BV	1.456
12.43	2051.62	BB	5.482
18.37	1801.13	BP	4.812
33.97	2656.44	BB	7.098

Eval. Mix A
Case 3981
SP 2250/2401
HP 5880 5ul

53



Eval Mix B
 Case 3981
 SP 2250/2401
 HP 5880 5ml

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 14:48 APR 5, 1985

SAMPLE # : ID CODE :

2

AREA %

RT	AREA	TYPE	AREA %
0.31	23516.10	SBV	46.706
0.81	382.88	BV	0.760
1.01	399.60	VV	0.794
1.81	550.86	VV	1.092
4.14	3855.49	BB	7.657
5.51	3031.35	BB	6.021
12.38	5538.12	BB	10.999
18.31	5173.51	BV	10.275
20.53	1166.49	VB	2.317
33.87	6735.88	BB	13.328

Eval Mix B
 Case 3981
 SP 2250/2401
 HP 5880 5ml

4.14 Aldrin

5.54

Eval. Mix C
Case 3981
SP 2250/2401
HP 5880 Sml

12.38 Endrin

18.31 pp'-DDT

20.53

33.86 Dibutylchloroendate

RT: STOP RUN

KPM 5880A SAMPLER INJECTION @ 15:30 APR 5, 1985

SAMPLE # : ID CODE :

3

AREA %

RT	AREA	TYPE	AREA %
0.31	29787.20	SBV	36.353
0.81	400.19	SV	0.488
1.00	115.60	VP	0.141
1.46	21.49	BP	0.026
1.81	129.72	VB	0.158
4.14	10921.60	BB	13.329
5.54	689.36	BB	0.841
12.38	12022.10	BV	14.672
18.31	10932.30	BV	13.342
20.53	2407.21	VP	2.938

Eval. Mix C
Case 3981
SP 2250/2401
HP 5880 Sml

RT	AREA	TYPE	AREA %
0.31	54600.10	BBV	34.041
0.81	230.80	BV	0.144
1.68	30.94	PV	0.019
1.81	111.46	VV	0.069

IV 5b P-30-3

3.13 DDT
3.39 Heptachlor
4.13 Aldrin

6.43 Heptachlor Epoxide

10.10 Dieldrin

P-30-3

12.35 Endrin

0.125 nanograms

15.11 pp'-DDD

Case 3981

18.26 pp'-DDT

SP 2250/2401

20.45 Endrin Aldehyde

HP 5886 Sul

33.87 Endrin Ketone

36.55 Methoxychlor

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 16:22 APR 5, 1985
SAMPLE # : ID CODE :

4

AREA %

RT	AREA	TYPE	AREA %
0.31	54600.10	SBV	34.041
0.81	230.80	BV	0.144
1.68	30.94	PV	0.019
1.81	111.46	VV	0.069
2.13	15198.00	VV	9.475
2.75	13673.90	VB	8.525
3.39	9774.11	BV	6.094
4.13	11063.70	VB	6.898
6.43	9249.00	BB	5.766
10.10	7815.45	BB	4.873
12.35	5151.74	BV	3.212

P-30-3
0.125 nanograms
Case 3981
SP 2250/2401

HP 5870

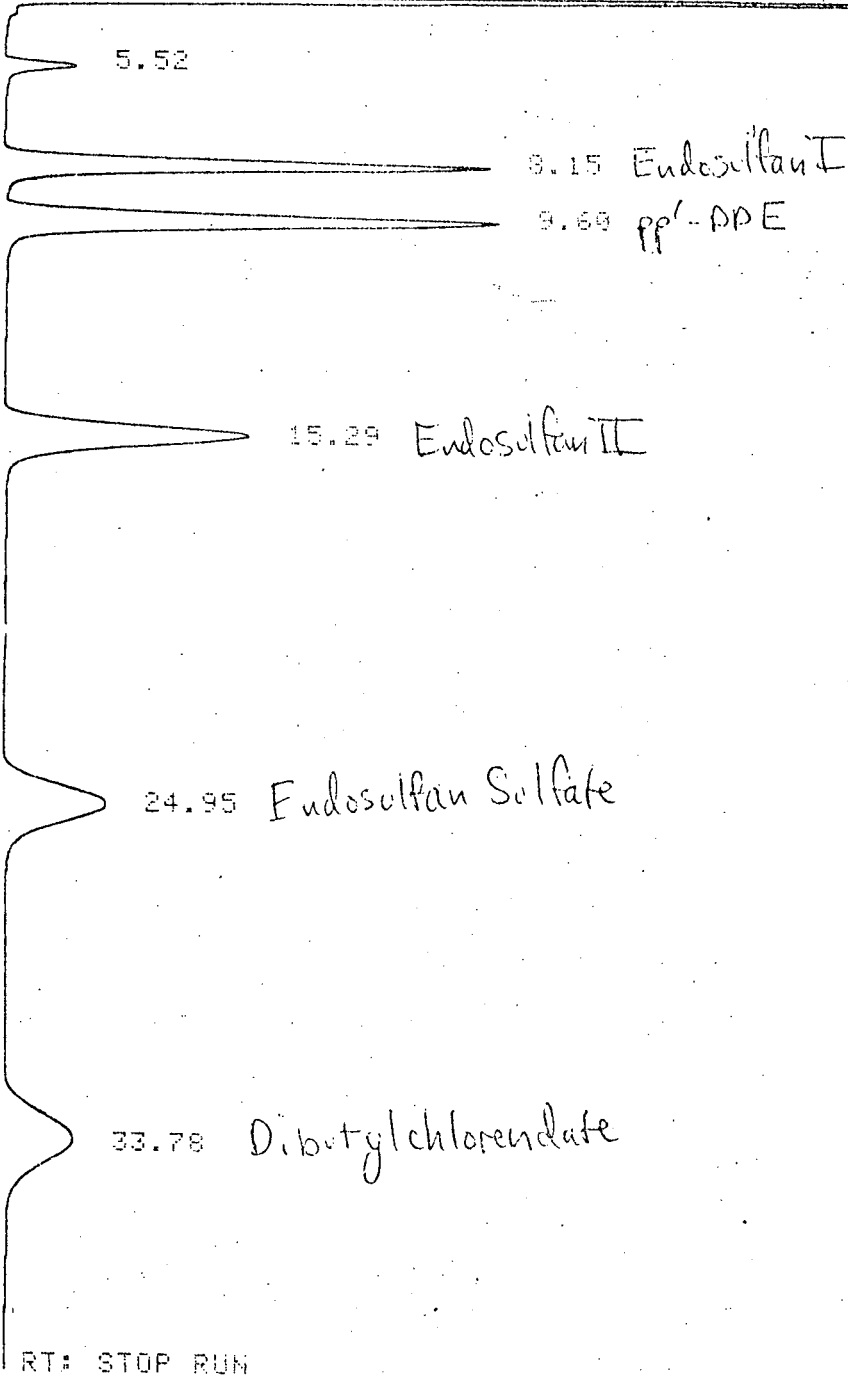
15.11	5640.57	PB	3.517
18.26	5574.96	BV	3.476
20.45	9771.37	VV	6.092
33.87	9375.68	BV	5.845
36.55	3134.72	V8	1.954

TOTAL AREA = 160397.00
MULTIPLIER = 1

PI: TAN SKIM

AREA %

IV 58



P-31-3
 0.125 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 17:05 APR 5, 1985

SAMPLE # : ID CODE :
 5

AREA %

RT	AREA	TYPE	AREA %
0.31	42195.80	SBV	43.189
0.81	317.34	BV	0.325
1.01	90.80	VB	0.093
1.81	95.48	VB	0.098
3.21	6978.27	BV	7.142
3.75	8979.93	VV	9.191
5.52	993.11	BB	1.016
8.15	8483.83	BB	8.683
9.60	10093.30	BB	10.331
15.29	8318.61	BV	8.514
24.95	5904.15	BB	6.014

P-31-3
 0.125 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

TOTAL AREA = 97701.20
MULTIPLIER = 1

RT: TAN SKIM

AREA %

RT	AREA	TYPE	AREA %
0.31	198976.00	SBV	95.070
0.60	40.00	SB	0.010

IV 60 Toxaphene

Toxaphene
0.50 nanograms

Case 3981

SP 2250/2401

HP 5880

10.04

11.24

12.20

15.42

18.92

25.35

RT: STOP RUN

KHP 5880A SAMPLER INJECTION @ 17:47 APR 5, 1985

SAMPLE # : ID CODE :

6

AREA %

RT	AREA	TYPE	AREA %
0.31	198976.00	SBV	95.070
0.60	40.01	BB	0.019
0.81	213.40	SV	0.102
1.81	66.70	VB	0.032
10.04	225.79	SP	0.108
11.24	512.19	PV	0.245
12.20	515.71	VV	0.246
15.42	1136.90	VV	0.543
18.92	1587.00	VV	0.758
25.35	6021.20	VB	2.877

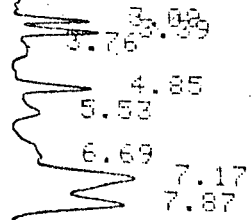
Toxaphene

0.50 nanograms

Case 3981

SP 2250/2401

IV-61 HP 5880



Chlordane
 0.25 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

14.45

RT: STOP RUN

APR 5880A SAMPLER INJECTION @ 13:29 APR 5, 1985

SAMPLE # : ID CODE :

7

AREA %

RT	AREA	TYPE	AREA %
0.31	38624.00	SBV	78.336
0.81	491.82	BV	1.013
0.99	50.56	VB	0.104
1.37	127.65	BV	0.263
1.81	141.44	VV	0.291
1.94	98.74	VV	0.203
3.09	559.75	PV	1.153
3.39	732.59	VV	1.509
3.76	128.28	VV	0.248
4.85	834.04	BV	1.718

Chlordane
 0.25 nanograms
 Case 3981
 SP 2250/2401

10-62

14.45 2294.47 4.727
493.53 VB 1.017

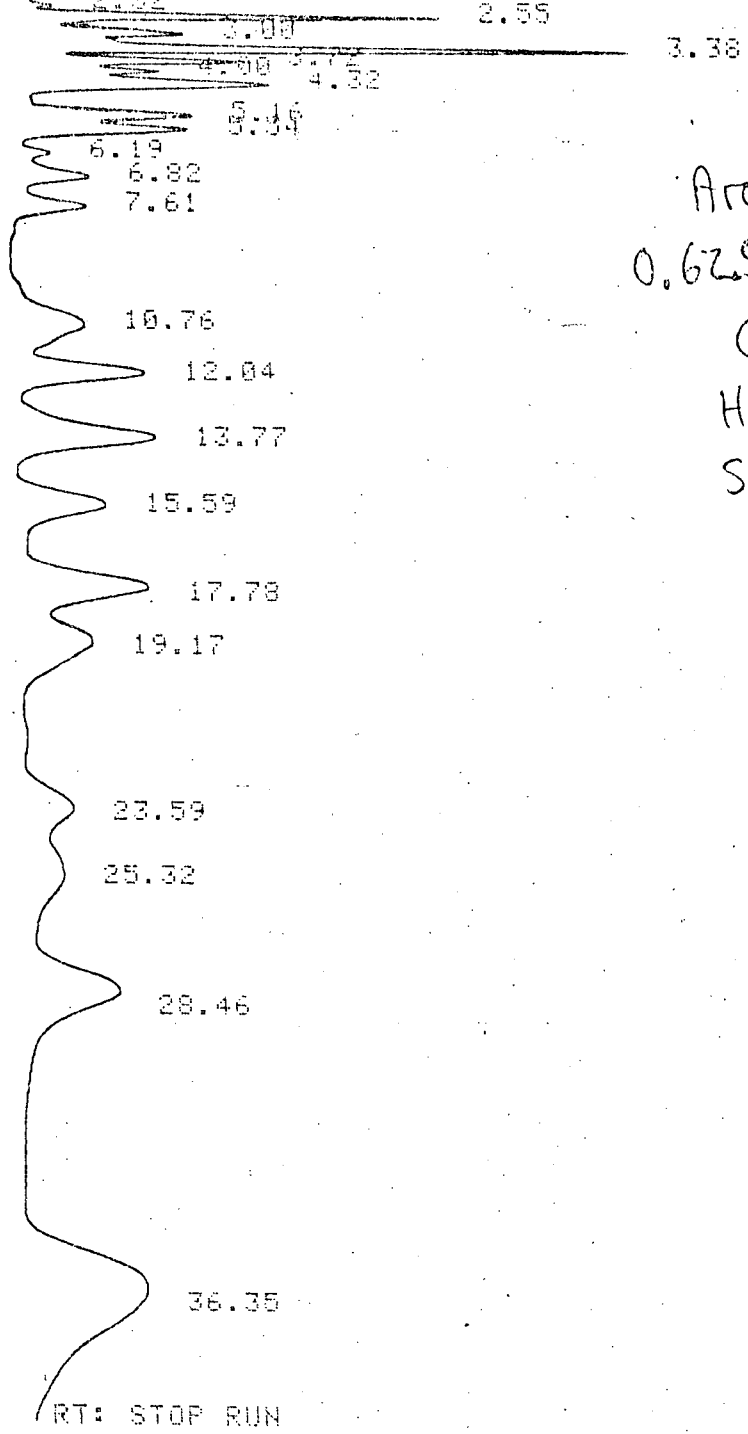
TOTAL AREA = 48539.90
MULTIPLIER = 1

RT: TAN SKIM

AREA %

RT	AREA	TYPE	AREA %
0.31	84200.00	SBV	59.306

IV 63



Aroclor 1016/1260
 0.625 nanograms each
 Case 3981
 HP 5880
 SP 2250/2401

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 19:11 APR 5, 1985

SAMPLE # : ID CODE :
 8

AREA %

RT	AREA	TYPE	AREA %
0.31	84200.00	SBV	50.306
0.60	29.93	OV	0.018
0.81	362.26	OV	0.216
1.55	152.21	OV	0.091
1.70	238.40	VV	0.142
1.95	1982.73	VP	1.185
2.32	130.15	PV	0.078
2.55	3040.27	VV	1.816
3.00	1654.24	VV	0.998
3.38	5286.00	VV	3.218

64 Aroclor 1016/1260

Case 5761
HP 5880
SP 2250/2401

4.32	3742.16	VV	2.236
5.16	2206.96	VV	1.319
5.54	2370.45	VV	1.416
6.19	429.95	VV	0.256
6.82	1425.63	VV	0.852
7.61	1387.98	VP	0.829
10.76	3669.05	BV	2.192
12.04	3769.16	VV	2.252
13.77	5163.58	VP	3.085
15.59	3111.48	PB	1.859
17.78	5016.40	BV	2.997
19.17	3937.91	VP	2.353
23.59	2937.34	VV	1.755
25.32	3791.59	VV	2.265
28.46	7315.50	VB	4.371
36.35	16538.00	A BH	9.881

TOTAL AREA = 167376.00
MULTIPLIER = 1

IV 65

2.54
3.71

1.94

5.54

Aroclor 1221
1.25 nanograms
Case 3981
SP 2250/2401
HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 19:54 APR 5, 1985

SAMPLE # : ID CODE :

9

AREA %

RT	AREA	TYPE	AREA %
0.31	30001.60	BBV	73.937
0.81	287.59	BV	0.709
1.06	1241.69	VV	3.069
1.34	400.20	VV	0.986
1.54	522.67	VV	1.288
1.69	1381.00	VV	3.404
1.94	4760.14	VV	11.731
2.55	592.79	VV	1.461
2.64	639.32	VV	1.576

Aroclor 1221
1.25 nanograms
Case 3981
SP 2250/2401

IV 66

0.71 170.77 VW 0.433
5.54 172.35 BP 0.425

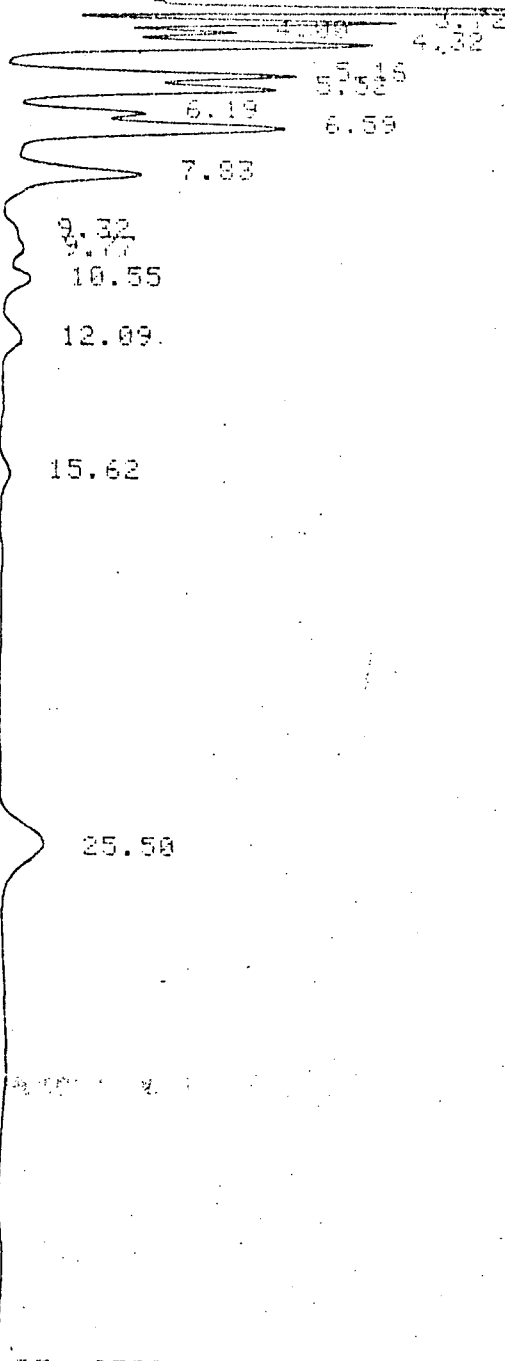
HY 3100

TOTAL AREA = 40577.40
MULTIPLIER = 1

AREA %

RT	AREA	TYPE	AREA %
0.31	38042.40	SDV	36.342
0.60	55.83	BB	0.053
0.81	791.00	BB	0.002

TL 67



Aroclor 1232
 2.50 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 20:36 APR 5, 1985

SAMPLE # : ID CODE :
 10

AREA %

RT	AREA	TYPE	AREA %
0.31	38042.40	SBV	36.342
0.60	55.83	BB	0.053
0.81	391.85	BB	0.374
1.06	1239.16	BP	1.184
1.34	449.60	PV	0.429
1.54	661.33	VV	0.632
1.69	1581.13	VV	1.510
1.94	6929.91	VV	6.620
2.32	286.39	VV	0.274
2.55	5652.73	VV	5.400

Aroclor 1232
 2.50 nanograms

SP 2250/2401
HP 5880

3.72	3795.35	VV	3.626
4.00	2204.44	VV	2.106
4.32	5780.64	VV	5.522
5.16	4010.82	VV	3.831
5.52	4140.12	VV	3.955
6.19	1999.48	VV	1.910
6.59	5818.61	VV	5.558
7.83	3372.81	VV	3.222
9.32	328.40	VV	0.314
9.77	622.90	VV	0.595
10.55	844.75	VV	0.807
12.09	778.16	VV	0.743
15.62	389.61	BB	0.372
25.50	2880.42	HH	2.752

TOTAL AREA = 104680.00
MULTIPLIER = 1

IV 69

~~1.94~~ 1.94
~~2.55~~ 2.55
~~3.37~~ 3.37
~~4.32~~ 4.32
~~5.53~~ 5.53
~~6.59~~ 6.59
 7.83

Aroclor 1242
 0.50 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

10.55
12.10

25.55

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 21:19 APR 5, 1985

SAMPLE # : ID CODE :
11

AREA %

RT	AREA	TYPE	AREA %
0.31	341602.00	SBV	91.900
0.61	408.12	SB	0.110
0.81	482.19	SV	0.130
1.55	126.72	SV	0.034
1.70	176.07	VV	0.047
1.94	1753.46	VS	0.472
2.32	118.59	SV	0.032
2.55	2730.04	VV	0.734
3.00	1512.66	VV	0.434
3.37	4882.80	VV	1.315

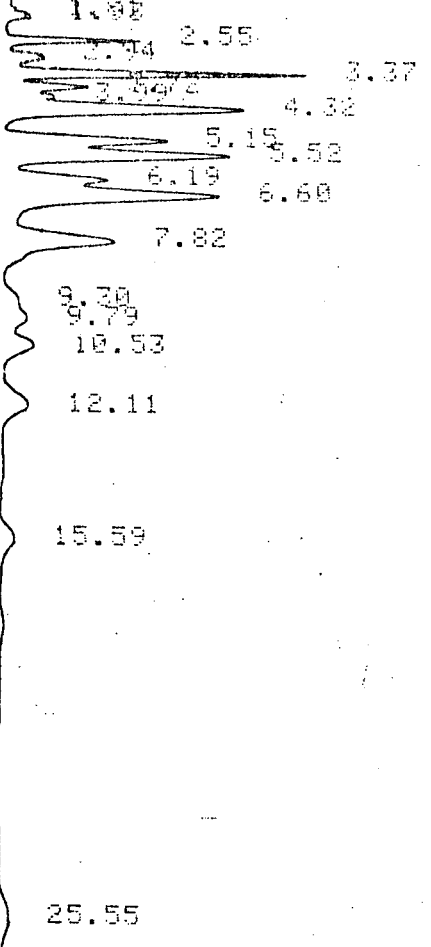
Aroclor 1242
 0.50 nanograms

HP 5880

5.53	2133.30	VV	0.350
6.19	2044.78	VV	0.350
6.59	1041.69	VV	0.280
7.83	3077.39	VV	0.820
10.55	1749.03	VB	0.471
12.10	419.72	VP	0.113
25.55	435.17	PP	0.117
	665.78	VB	0.179

TOTAL AREA = 371713.00
MULTIPLIER = 1

14 7



Aroclor 1248
 0.50 nanograms
 Case 3981
 SP 2250 / 2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 22:01 APR 5, 1985

SAMPLE # : ID CODE :

12

AREA %

RT	AREA	TYPE	AREA %
0.31	42017.60	SBV	60.466
0.60	53.82	B2	0.077
0.81	483.44	BV	0.696
1.00	46.45	VS	0.067
1.81	141.95	VV	0.204
1.93	163.64	VS	0.235
2.55	880.73	VV	1.267
2.94	445.81	VV	0.643
3.37	2460.22	VV	3.540
3.72	220.10	VV	0.314

Aroclor 1248
 0.50 nanograms
 Case 3981

HP 5880

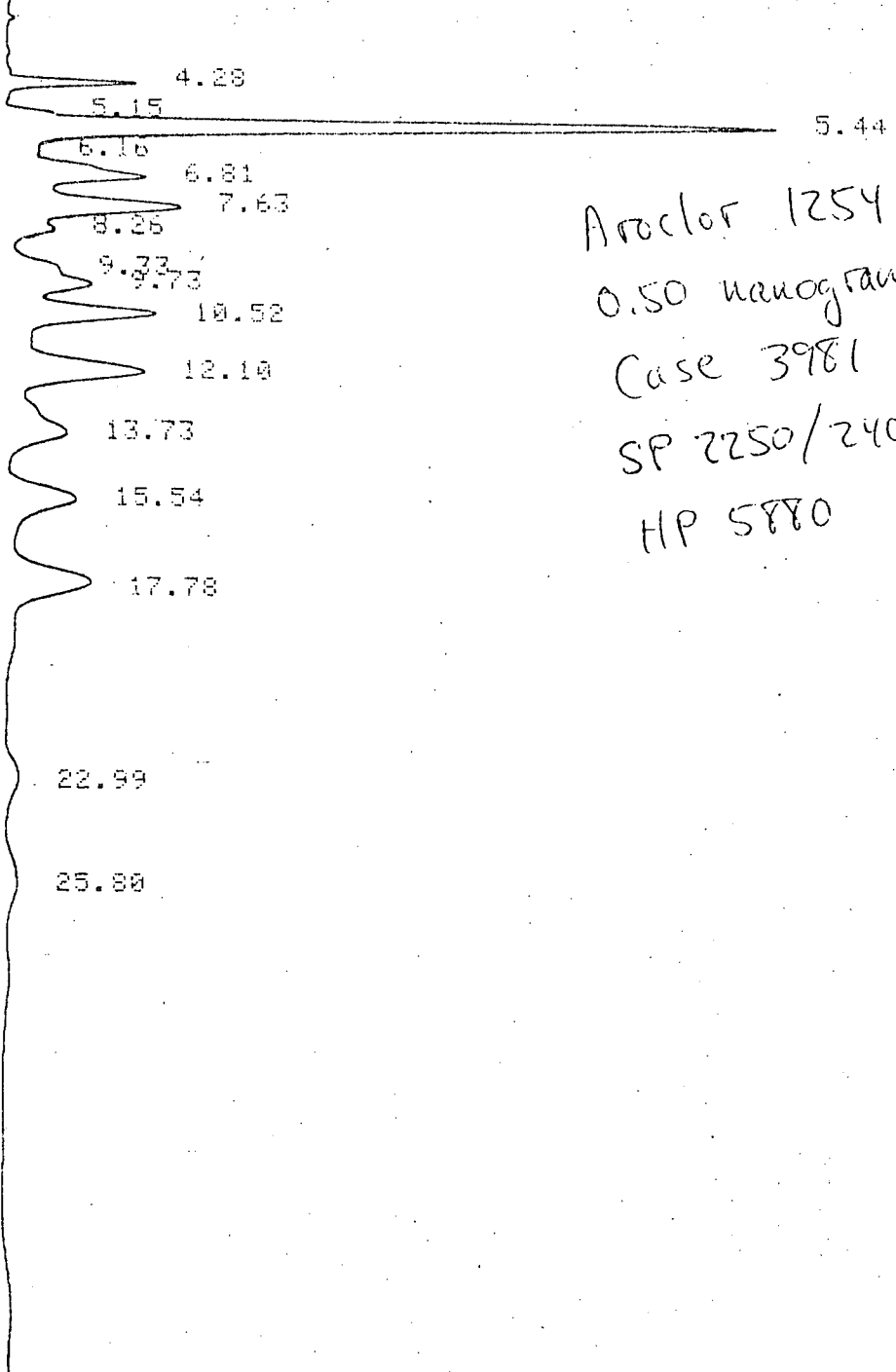
4.32	3578.38	VP	3.159
5.15	1998.81	PV	2.876
5.52	3296.23	VV	4.743
6.19	1433.61	VV	2.063
6.60	4463.86	VV	6.424
7.82	2758.34	VV	3.969
9.30	383.71	VV	0.437
9.79	671.53	VV	0.966
10.53	843.94	VV	1.214
12.11	961.65	VV	1.384
15.59	555.69	BB	0.800
25.55	666.24	BB	0.959

TOTAL AREA = 69489.80

MULTIPLIER = 1

ST. TON SKIN

74 73



Aroclor 1254
 0.50 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 22:43 APR 5, 1985

SAMPLE # : ID CODE :
 13

AREA %

RT	AREA	TYPE	AREA %
0.31	45662.80	SSV	48.687
0.61	97.03	BB	0.102
0.81	102.02	BB	0.107
4.28	1427.02	BB	1.503
5.15	365.59	SV	0.385
5.44	13246.00	VV	13.949
6.16	415.85	VV	0.438
6.81	3781.81	VV	3.983
7.63	4711.83	VV	4.962
8.26	272.80	VV	0.286

Aroclor 1254
 0.50 nanograms

3981

SP 2250/2401
HP 5870

10.52	4210.66	VV	4.434
12.10	4860.87	VV	5.119
13.73	2994.15	VV	3.153
15.54	3035.55	VV	3.197
17.78	3951.60	VV	4.161
22.99	801.14	PH	0.844
25.80	969.21	HH	1.021

TOTAL AREA = 94958.70
MULTIPLIER = 1

RT: TAN SKIM

0.32

IV 75

2.74 8-BHC

3.37 Heptachlor

4.11 Aldrin

5.52

6.40 Heptachlor Epoxide

P-30-4

0.05 nanograms

Case 3981

SP 2250/2401

HP 5880

10.05 Dieldrin

12.29 Endrin

15.05 pp'-DDD

18.18 pp'-DDT

20.36 Endrin Aldehyde

33.71 Endrin Ketone

36.40 Methoxy chlor

RT: STOP RUN

5880A SAMPLER INJECTION @ 04:28 APR 6, 1985

SAMPLE # : ID CODE :
25

AREA %

RT	AREA	TYPE	AREA %
60.32	2049280.00	SBV	97.411
60.80	237.17	BV	0.011
61.80	341.03	VV	0.016
62.12	6829.77	VV	0.315
62.74	6044.76	VB	0.287
63.37	5225.48	VB	0.248
63.11	5148.55	VB	0.245
63.52	427.70	BV	0.020
63.40	4922.09	VB	0.234
63.05	4387.64	VB	0.209

P-30-4

0.05 nanograms

Case 3981

SP 2250/2401 IV 76

TOTAL AREA = 2103740.00
MULTIPLIER = 1

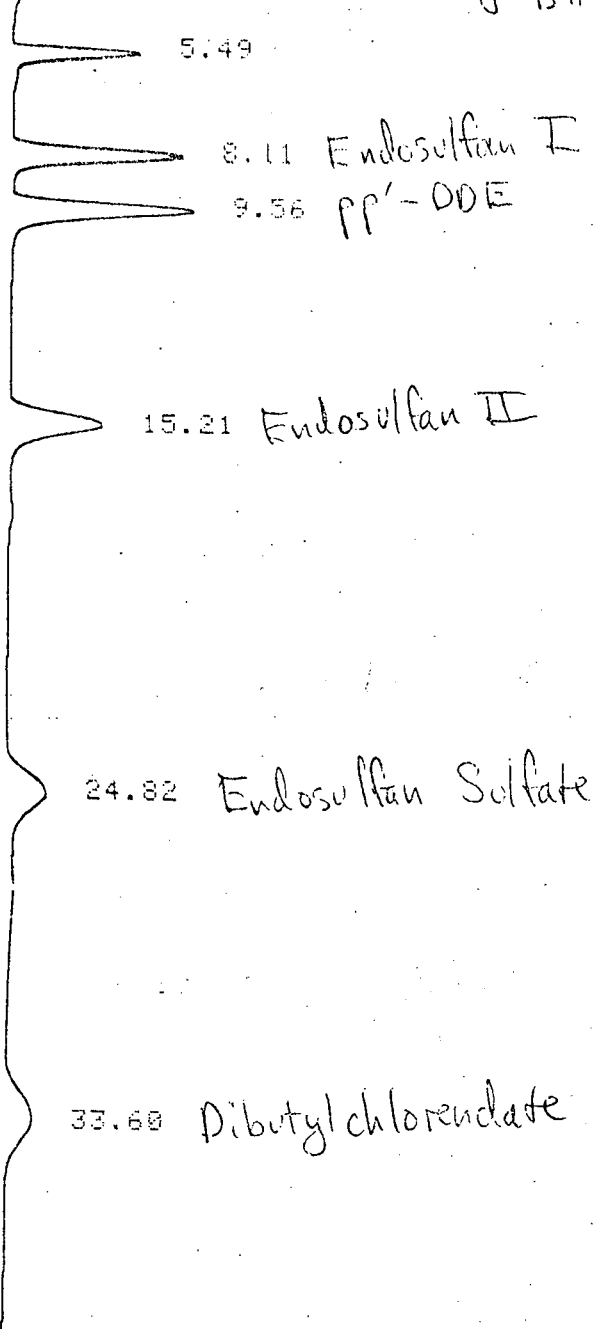
0.096

RT: TAN SKIM

RT

RT	AREA	TYPE	...
31	35645.80	SBV	61.802
0.81	339.84	SV	0.589

JW 97



P-31-4
 0.05 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 05:10 APR 6, 1985
 SAMPLE # : ID CODE :
 26

AREA %

RT	AREA	TYPE	AREA %
0.31	35645.80	SBV	61.802
0.81	339.84	BV	0.589
1.00	59.58	VB	0.103
1.81	181.29	VB	0.314
3.20	2498.42	BV	4.318
3.74	2485.94	VV	4.310
5.49	1763.12	BB	3.057
8.11	3165.69	BV	5.489
9.56	3991.50	VB	6.920
15.21	3255.98	BB	5.645

P-31-4
 0.05 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

JV 78

33.60

2114.57

BP

3.666

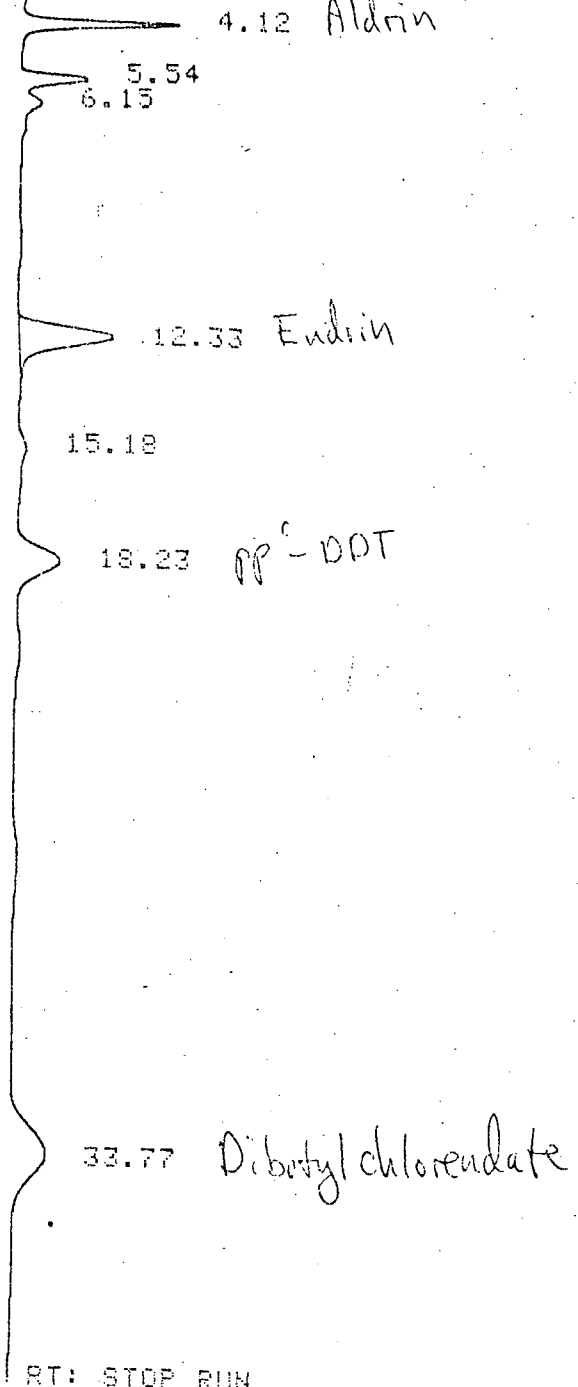
TOTAL AREA = 57677.10

MULTIPLIER = 1

RT: TAN SKIM

RT: STOP RUN

IV 79



Eval. Mix A
 Case 3981
 SP 2250/2401
 HP 5880 5ul

HP 5880A SAMPLER INJECTION @ 09:13 APR 8, 1985
 SAMPLE # : ID CODE :
 49

AREA %

RT	AREA	TYPE	AREA %
0.31	32636.10	SBV	73.948
0.81	376.91	SB	0.854
1.01	42.95	SB	0.097
1.81	285.17	VB	0.646
4.12	1625.72	SB	3.684
5.54	984.31	SV	2.230
6.15	479.36	VV	1.096
12.33	2821.75	SB	6.494
15.18	256.50	SB	0.581
18.23	1792.88	SB	4.062

Eval. Mix A
 Case 3981
 SP 2250/2401
 HP 5880 5ul

JZ 80

33.77 1752.88 8F 4.952
2832.15 8H 6.417

TOTAL AREA = 44133.80
MULTIPLIER = 1

50

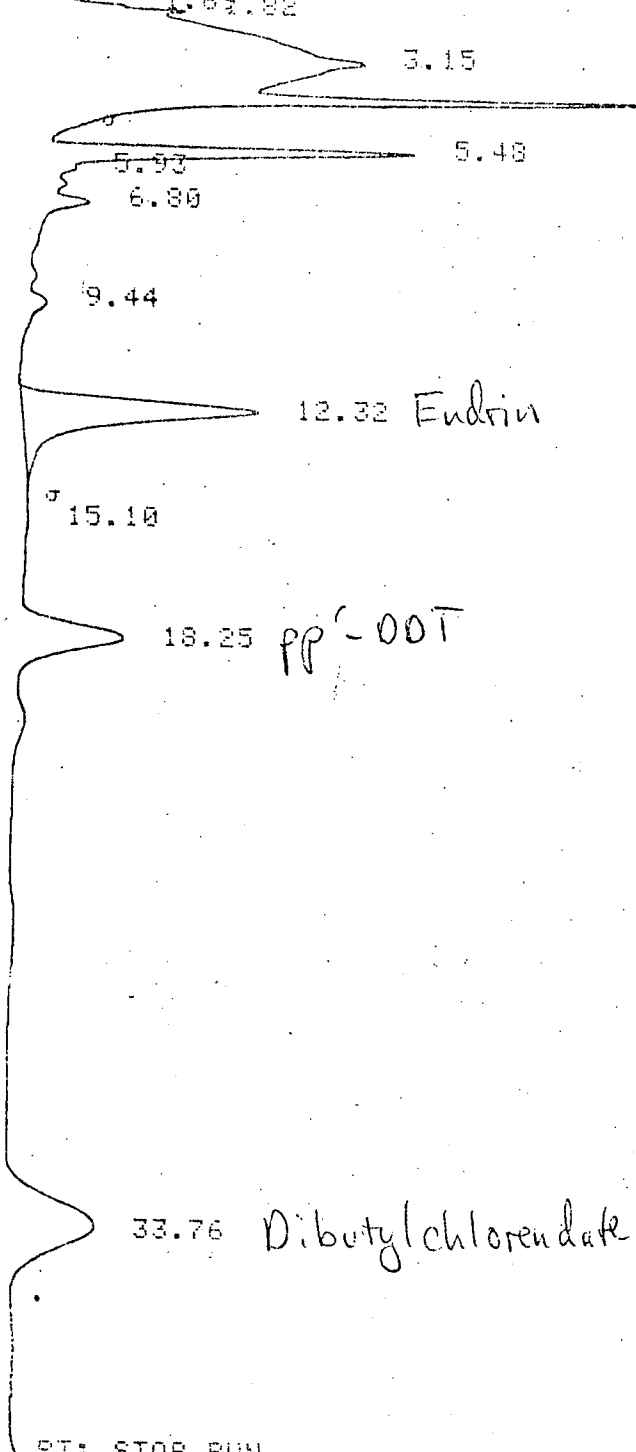
AREA %

RT

AREA	TYPE	AREA %
32000.40	80V	37.400
325.21	8V	0.346
49.20	8P	0.112

0.31
0.61
1.00

IV 81



4.12 Aldrin

Eval. Mix B
 Case 3981
 SP 2250/2401
 HP 5890 Sml

12.32 Endrin

18.25 pp'-OBT

33.76 Dibutylchlorodate

RT: STOP RUN

FILE 5802A SAMPLER INJECTION @ 60:55 APR 8, 1980

SAMPLE # : ID CODE :
 50

AREA %

RT	AREA	TYPE	AREA %
0.31	32088.60	SBV	34.090
0.81	325.21	BV	0.346
1.00	49.20	VP	0.052
1.69	756.21	BV	0.803
1.82	1236.11	VV	1.313
3.15	23525.90	VV	24.994
4.12	9358.49	VV	9.953
5.48	5365.55	BV	5.702
5.93	293.73	VV	0.312
6.88	813.74	VB	0.862

Eval Mix B

Case 3981

SP 2250/2401

HP 5890 Sml

10 82

15.10	89.31	BV	0.085
18.25	4219.12	BP	4.482
33.76	7067.94	BH	7.569

TOTAL AREA = 94127.90

MULTIPLIER = 1

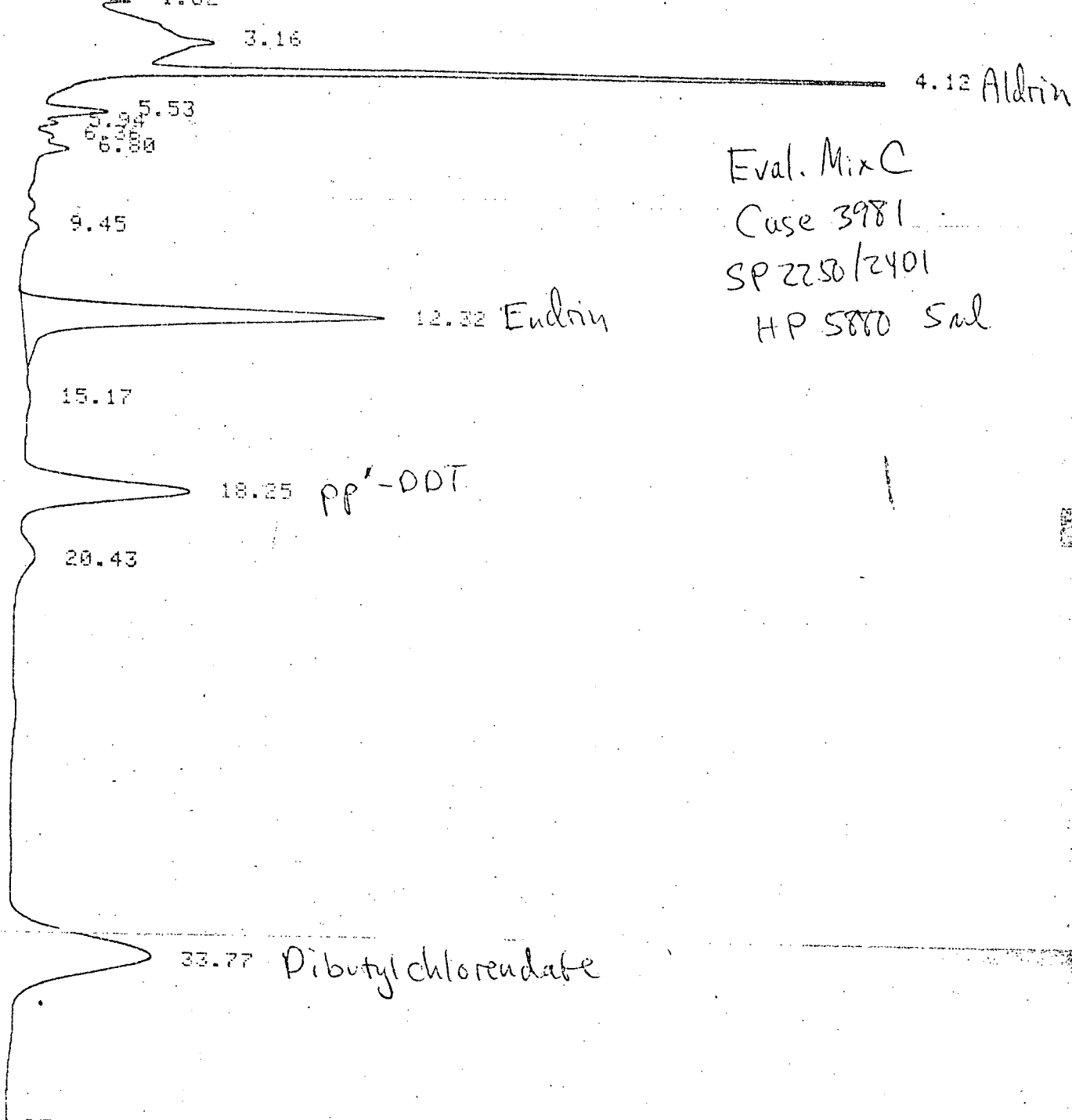
RT: TAN SKIM

AREA 2

RT

AREA TYPE AREA 2

JW 83



Eval. Mix C
 Case 3981
 SP 2250/2401
 HP 5880 Sol

RT: STOP RUN

KRM1 5880A SAMPLER INJECTION @ 10:37 APR 8, 1985

SAMPLE # : ID CODE :

51

AREA %

RT	AREA	TYPE	AREA %
0.31	32312.00	SBP	33.765
0.81	701.30	BV	0.733
1.00	88.85	VP	0.093
1.68	61.25	BV	0.064
1.92	377.33	VV	0.394
3.16	7980.38	BV	8.339
4.12	13754.60	VP	14.273
5.53	1001.75	BV	1.041
5.94	213.48	VP	0.223
6.07	324.04	BV	0.338

Eval. Mix C
 Case 3981
 SP 2250/2401

IV 84

15.17	183.68	BB	0.192
16.25	8549.88	BV	8.934
20.43	1180.34	VB	1.233
33.77	13923.70	PH	14.550

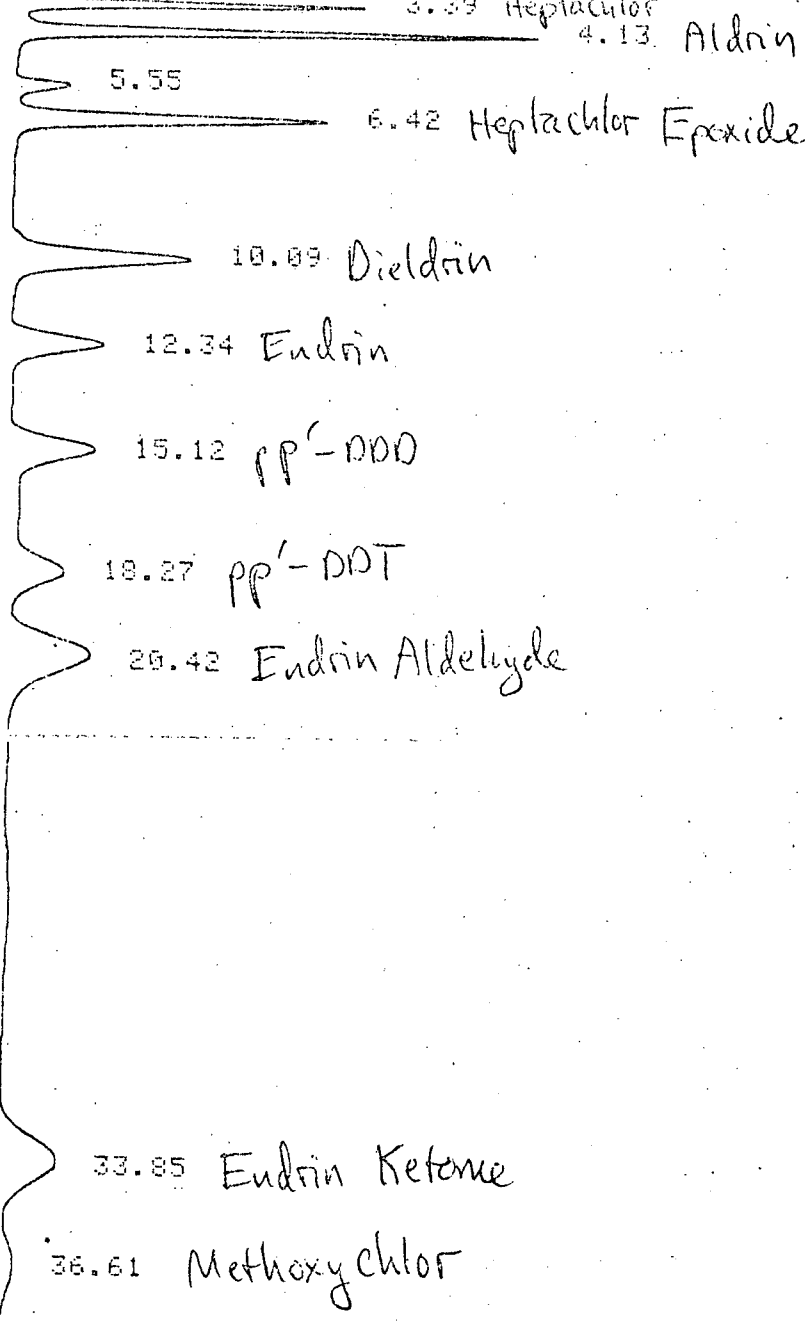
TOTAL AREA = 95697.00
MULTIPLIER = 1

AREA 2
RT

52

AREA TYPE

JL 85



P-30-4
 0.05 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

KMZ 5880A SAMPLER INJECTION @ 11:19 APR 8, 1985
 SAMPLE # : ID CODE :

52

AREA %

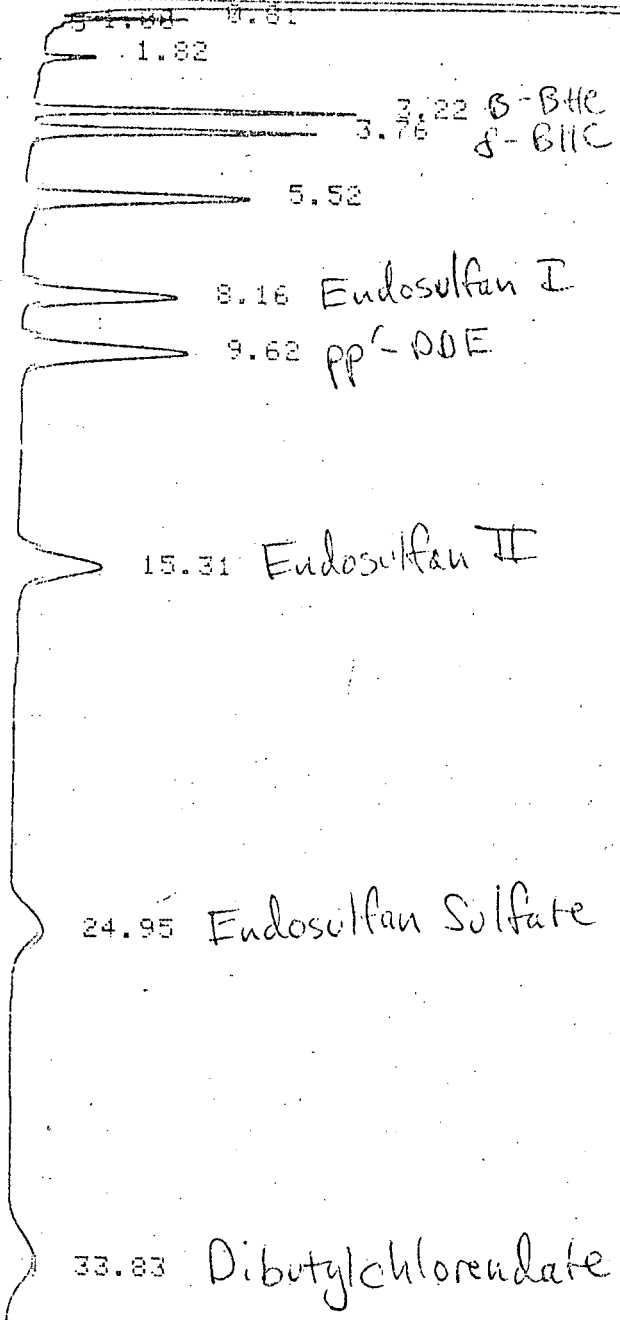
RT	AREA	TYPE	AREA %
0.32	2119810.00	SBV	97.759
0.81	320.60	BB	0.015
1.58	35.18	BV	0.002
1.82	417.15	VV	0.019
2.13	6061.37	VV	0.280
2.75	5511.17	VB	0.254
3.39	2916.25	SV	0.134
4.13	4679.44	VB	0.225
5.55	486.99	SV	0.026
6.42	4636.66	VB	0.214

P-30-4
 0.05 nanograms
 Case 3981
 SP 2250/2401

IV 86

12.04 2582.78 BV 0.118
15.12 3014.66 BV 0.139
18.27 2482.36 VV 0.114
20.42 4700.68 VV 0.217
33.85 4262.61 BV 0.197
36.61 1537.98 A VP 0.071

TOTAL AREA = 2168410.00
MULTIPLIER = 1



P-31-4
 0.05 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

58804 SAMPLER INJECTION @ 12:01 APR 8, 1985

SAMPLE # : ID CODE :

AREA %

RT	AREA	TYPE	AREA %
0.31	34920.58	SBV	61.345
0.81	412.39	BV	0.724
1.00	33.20	VB	0.058
1.82	335.73	BB	0.599
3.22	2300.65	BV	4.042
3.76	2278.16	VB	4.002
5.52	3229.91	BB	5.666
8.16	2993.99	BB	5.306
9.62	3761.83	BB	6.607
15.31	3100.01	BB	5.480

P-31-4
 0.05 nanograms
 Case 3981
 SP 2250/2401

JL 88

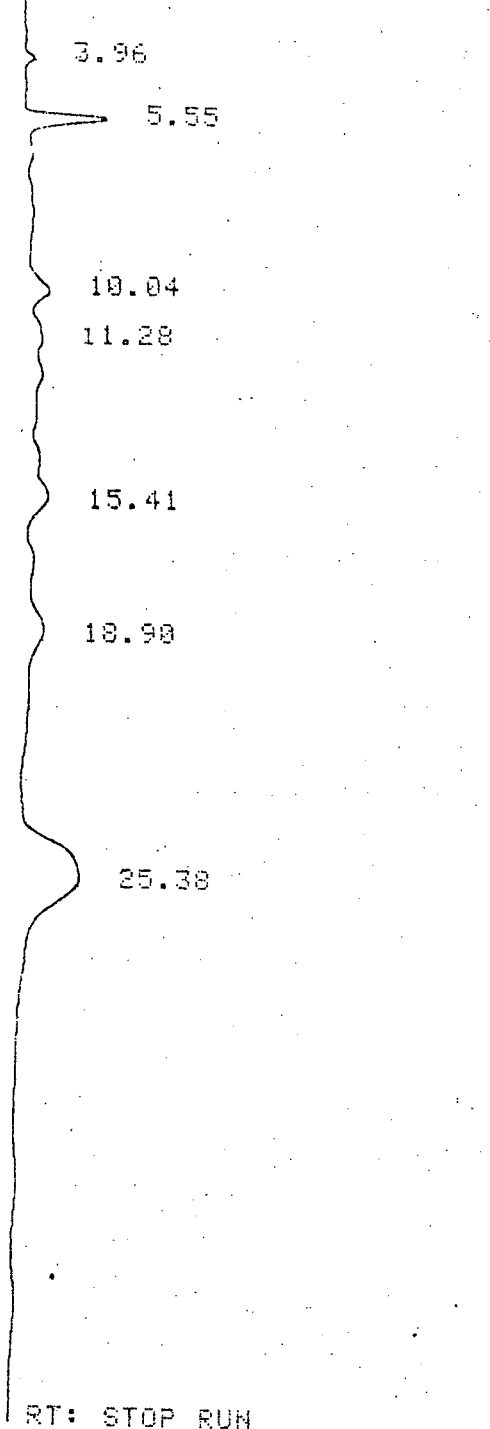
TOTAL AREA = 56924.60
MULTIPLIER = 1

RT: TAN SKIM

RT	AREA	TYPE	AREA %
0.31	223449.00	SBV	95.169
0.60	32.30	BB	
0.81	546.07	BV	0.145
1.22	471.51	BB	

Toxaphene

JL 89



Toxaphene
 0.50 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 12:43 APR 8, 1985

SAMPLE # : ID CODE :

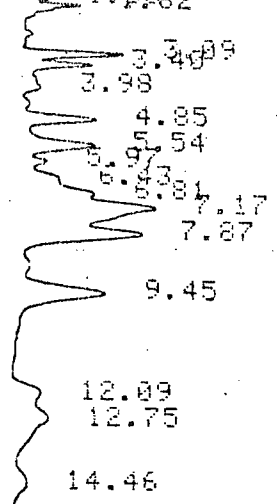
54

AREA %

RT	AREA	TYPE	AREA %
0.31	223449.00	SBV	95.169
0.60	32.39	BB	0.014
0.81	340.07	BV	0.145
1.02	431.51	BB	0.184
3.96	91.18	BB	0.039
5.53	1164.53	BV	0.496
10.04	265.40	BP	0.113
11.28	325.70	BV	0.136
15.41	952.18	VV	0.406
18.98	1382.21	VV	0.578

Toxaphene
 0.50 nanograms
 Case 3981
 SP 2250/2401

1090



Chlordane
 0.25 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 13:25 APR 8, 1985
 SAMPLE # : ID CODE :

55

AREA %

RT	AREA	TYPE	AREA %
0.31	37373.40	SBV	67.561
0.81	495.18	BV	0.694
1.08	48.07	VB	0.087
1.37	86.87	BP	0.157
1.68	89.53	BV	0.162
1.82	438.88	VV	0.793
2.09	847.79	PV	1.531
2.40	848.58	VV	1.532
3.98	238.52	VV	0.425
4.85	857.82	VV	1.532

Chlordane
 0.25 nanograms
 Case 3981
 SP 2250/2401

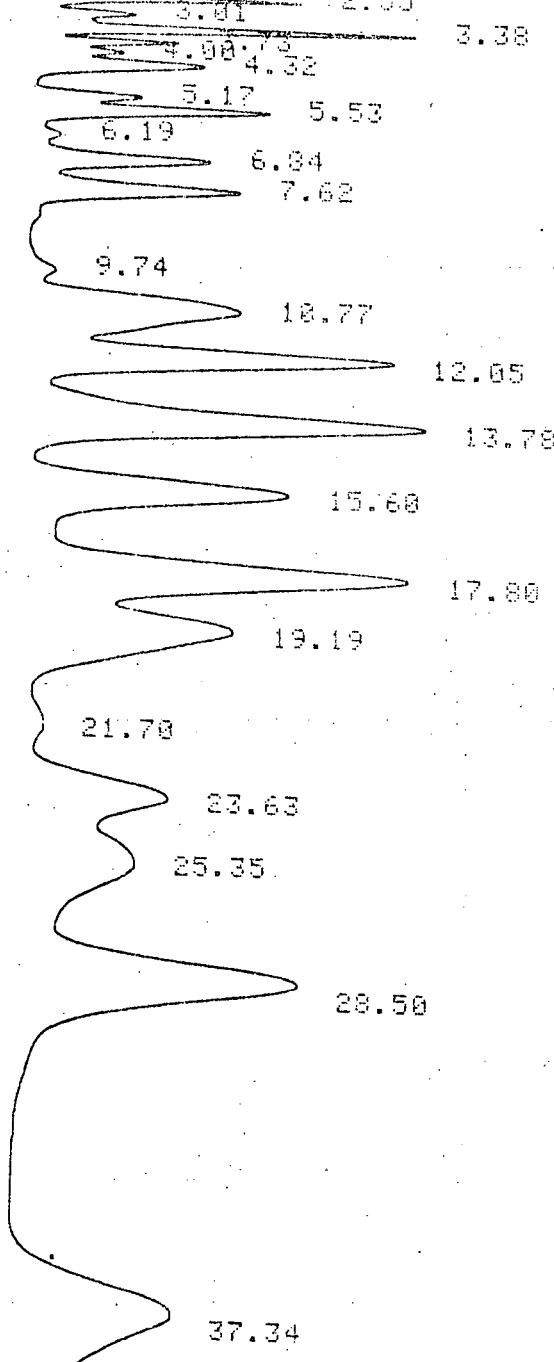
IV 91

6.81	1178.01	VV	2.128
7.17	3545.65	VV	6.484
7.87	2470.88	VV	4.461
9.45	1965.59	VB	3.550
12.09	719.53	EV	1.287
12.75	1644.77	VV	2.97
14.46	640.90	VB	1.158

TOTAL AREA = 55367.60

MULTIPLIER = 1

IV 92



Aroclor 1016/1260
 0.25 / 1.25 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

PI 5888A SAMPLER INJECTION @ 14:07 APR 8, 1985

SAMPLE # : ID CODE :
 56

SEA :

RT	AREA	TYPE	AREA %
3.31	230860.00	SBV	58.442
3.61	242.07	BB	0.061
3.81	663.04	BV	0.168
4.55	86.21	BV	0.022
4.82	875.78	VV	0.222
5.95	1097.41	VP	0.278
6.32	71.17	PV	0.018
6.55	1099.86	VV	0.469
7.01	984.63	VV	0.249
7.88	3300.41	VV	0.338

Aroclor 1016/1260

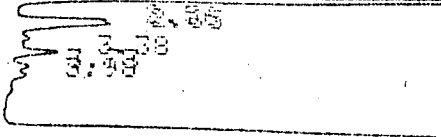
JV 93

4.02	2324.49	VP	0.639
5.17	1319.99	PV	0.334
5.53	3517.98	VV	0.891
6.19	437.77	VV	0.111
6.84	3169.90	VV	0.802
7.62	4229.55	VV	1.087
9.74	678.57	BV	0.172
10.77	9848.84	VV	2.493
12.05	10845.70	VV	2.746
13.78	15003.48	VV	3.798
15.60	10720.80	VV	2.714
17.80	17238.10	VV	4.364
19.19	12743.80	VV	3.225
21.70	1399.33	VV	0.354
23.63	8981.60	VV	2.274
25.35	11234.10	VV	2.844
28.50	20976.90	VB	5.310
37.34	18019.20	A BH	4.562

Case 3981
 SP 2250/2401
 HP 5880

TOTAL AREA = 395021.00
 MULTIPLIER = 1

TV 9/16



5.49

Aroclor 1221 B.L.
~~1232~~

1.25 ~~0.25~~ nanograms
B.L.

Case 3981

SP 2250/2401

HP 5880

6.84
7.67

15.88

25.71

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 14:50 APR 8, 1985

SAMPLE # : ID CODE :
57

AREA %

RT	AREA	TYPE	AREA %
0.31	26551.70	SBV	55.069
0.81	453.13	BV	0.940
1.06	1242.87	VP	2.578
1.35	412.15	PV	0.855
1.55	518.20	VV	1.075
1.70	1406.03	VV	2.918
1.95	5302.19	VV	11.163
2.56	625.50	VV	1.297
3.00	733.05	VV	1.521

Aroclor 1221
~~1232~~

1.25 nanograms

Case 3981

IV 95

SK 2250
HP 5880

3.73	198.02	VV	0.394
3.98	176.75	VV	0.367
5.49	6469.30	BB	13.410
6.84	68.81	BV	0.143
7.67	351.03	VE	0.73
15.88	2550.32	BB	5.289
25.71	663.29	BP	1.376

TOTAL AREA = 48215.10
MULTIPLIER = 1

IV 96

11.89 11.895
 3.81 2.56
 3.38
 4.53
 5.16 9.56
 6.20
 6.61
 7.86

Aroclor 1232
 0.25 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

25.73

RUN TIME = 33.85 MIN

36.52

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 15:32 APR 8, 1985

SAMPLE # : ID CODE :
 58

AREA %

RT	AREA	TYPE	AREA %
0.31	99235.80	SBV	87.988
0.61	117.72	BB	0.104
0.81	555.83	EV	0.492
1.07	528.99	VV	0.469
1.35	231.01	VV	0.205
1.56	219.81	VV	0.195
1.82	1238.66	VV	1.097
1.95	1189.78	VV	1.054
2.54	1024.88	VV	0.908
3.01	500.00	VV	0.442

Aroclor 1232
 0.25 nanograms

IV 97

SP 2250/2401

HP 5880

3.99	438.84	VV	0.388
4.33	883.36	VV	0.783
5.18	494.43	VV	0.438
5.56	1315.48	VV	1.165
6.20	386.43	VV	0.271
6.61	634.82	V8	0.562
7.86	255.39	BB	0.226
25.73	641.29	BB	0.568
36.52	1226.66	A BP	1.087

TOTAL AREA = 112886.00
MULTIPLIER - 1

STOP PRGM
STOP PROGRAM AT LINE 10

STOP AUTO SEQ

DELETE PRGM
DELETE ALL (1=YES)? 1

LIST PRGM
AVAILABLE MEMORY (BYTES): 18592

LIST REPORT TBL
AVAILABLE MEMORY (BYTES): 18592

LIST RUN TBL

RUN TABLE:
0.00 TAN SKIM
40.00 STOP

AVAILABLE MEMORY (BYTES): 18592

DELETE RUN TIME 40
1 LINE DELETED

RUN TIME 42
* ↑ ERROR: INVALID RUN TABLE COMMAND

RUN TIME 42
↑ ERROR: INVALID RUN TABLE COMMAND

40
40

RUN TIME 42 STOP

LIST REPORT TBL
AVAILABLE MEMORY (BYTES): 18592

LIST RUN TBL
RUN TABLE:
0.00 TAN SKIM
42.00 STOP

AVAILABLE MEMORY (BYTES): 18592

START AUTO SEQ 00, 00

01.00 TAN SKIM

TH 98

1.79 2.56
3.01 3.38
4.00
4.33

5.47

6.19
6.61

7.85

Aroclor 1242

0.25 nanograms

Case 3981

SP 2250 / 2401

HP 5880

25.68

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 16:45 APR 8, 1985

SAMPLE # : ID CODE :
59

AREA %

RT	AREA	TYPE	AREA %
1.79	1.79	1.79	1.79
2.56	2.56	2.56	2.56
3.01	3.01	3.01	3.01
3.38	3.38	3.38	3.38
4.00	4.00	4.00	4.00
4.33	4.33	4.33	4.33
5.47	5.47	5.47	5.47
6.19	6.19	6.19	6.19
6.61	6.61	6.61	6.61
7.85	7.85	7.85	7.85
25.68	25.68	25.68	25.68

0.25 nanograms

0.25 nanograms

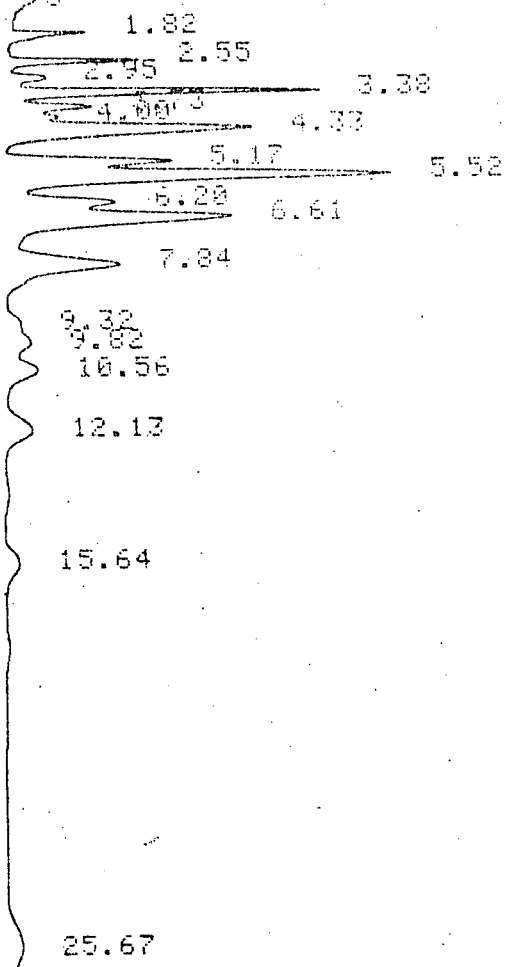
JR 99

SP 2250/2401
HP 5870

3.38	1913.00	VV	2.358
3.73	785.84	VV	0.966
4.00	482.11	VV	0.592
4.33	1278.56	VP	1.571
5.47	12463.00	PV	15.313
6.19	617.34	VV	0.759
6.61	1207.93	VB	1.484
7.85	497.04	BB	0.611
25.68	1491.99	BB	1.833

TOTAL AREA = 81387.60
MULTIPLIER = 1

IV 100



Atoclor 1248
 0.50 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 17:29 APR 8, 1985

SAMPLE # : ID CODE :
60

AREA %

RT	AREA	TYPE	AREA %
0.31	36118.90	SBV	53.813
0.61	69.27	BB	0.103
0.81	342.59	BB	0.510
1.82	533.87	F	0.798
2.55	861.10	VV	1.283
2.80	445.83	VV	0.663

IV 108

4.00	438.55	VV	5.478
4.33	3671.26	VP	2.989
5.17	1952.70	PV	8.628
5.52	5791.25	VV	2.290
6.20	1536.79	VV	6.951
6.61	4668.87	VV	4.226
7.84	2836.63	VV	8.461
9.32	309.61	VV	1.093
9.82	733.52	VV	1.345
10.56	982.65	VV	1.407
12.13	1064.91	VV	0.857
15.64	575.22	BB	1.426
25.67	957.38	BB	

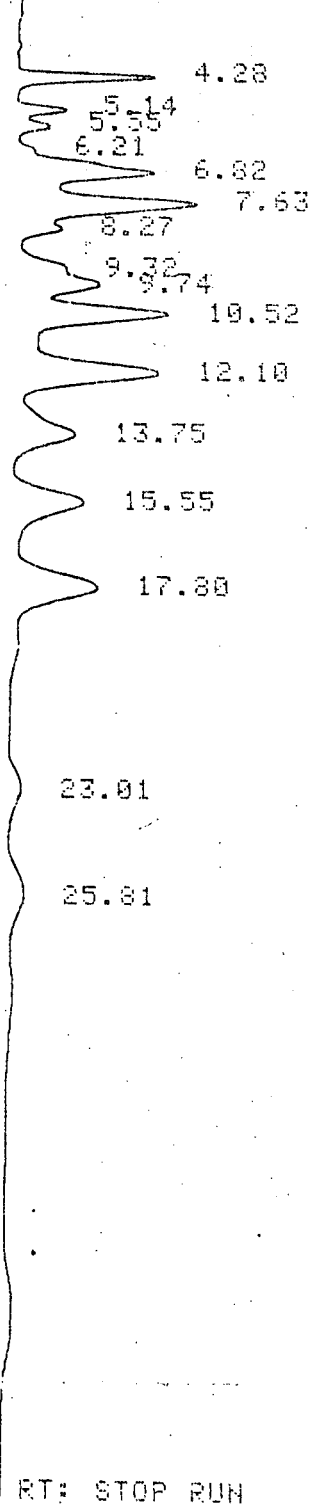
0.50 nanograms
Case 3981
SP 2250 / 2401
HP 5880

TOTAL AREA = 67119.00
MULTIPLIER = 1

PT. TOL. CKIM

0.71

IV 102



Aroclor 1254
 0.50 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 18:13 APR 8, 1995
 SAMPLE # : ID CODE :

61

AREA %

RT	AREA	TYPE	AREA %
0.31	42336.50	SBV	53.678
0.61	115.86	BB	0.147
0.81	328.36	BB	0.406
1.01	552.90	BB	0.701
4.28	1519.35	BB	1.926
5.14	642.05	BB	0.812
5.55	478.48	BB	0.607
6.21	201.82	BB	0.255

Aroclor 1254 II 103

8.27	851.00	VV	1.079
9.32	961.24	VV	1.219
9.74	2220.03	VV	2.815
10.52	4161.27	VV	5.276
12.10	4916.76	VV	6.234
13.75	2534.13	VV	3.213
15.55	2907.75	VV	3.687
17.80	3880.30	VV	4.920
23.01	776.77	PH	0.965
25.81	1340.45	HH	1.700

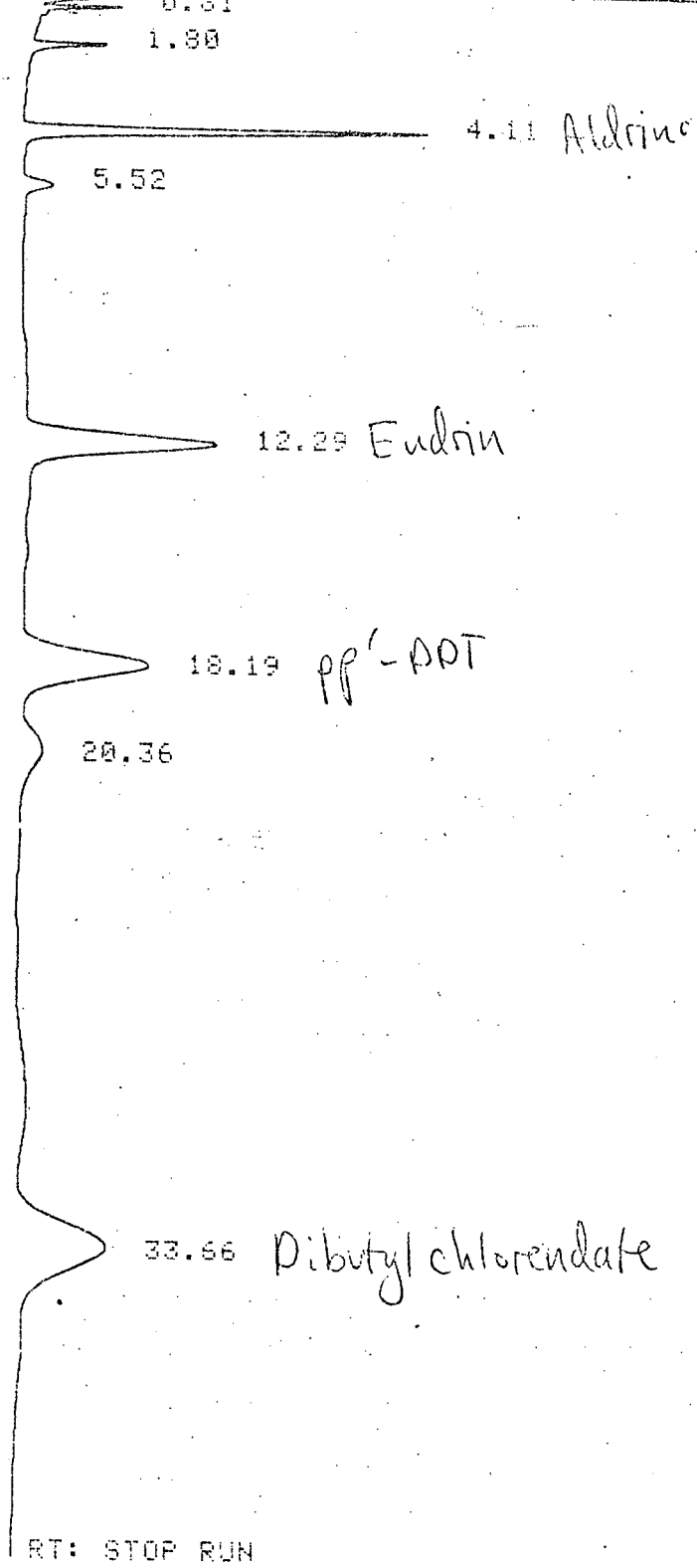
Case 3981
 SP 2250/2401
 HP 5880

TOTAL AREA = 78870.90
 MULTIPLIER = 1

BT: TAN SKIM

6 29

JK 104



Eval. Mix B
 Case 3981
 SP 2250/2401
 HP 5880 Sul

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 22:38 APR 8, 1985

SAMPLE # : ID CODE :
 67

AREA %

RT	AREA	TYPE	AREA %
0.31	20531.00	SBV	46.791
0.81	245.46	BB	0.559
1.80	468.60	BB	1.068
4.11	3696.14	SB	8.424
5.52	408.74	BB	0.931
12.29	5100.13	BB	11.623
18.19	5235.38	SV	11.973

Eval. Mix B
 Case 3981
 SP 2250/2401

JD 105

TOTAL AREA = 43878.50
MULTIPLIER = 1

RT: TAN SKIM

SAMPLE # : ID CODE :
68

AREA %

RT

AREA TYPE AREA %

AF 106

0.31
 1.81
 2.12 α -BHC
 2.74 γ -BHC
 3.38 Heptachlor
 4.11 Aldrin
 5.48
 6.49 Heptachlor Epoxide

10.04 Dieldrin
 12.29 Endrin
 15.05 pp'-DDE
 18.18 pp'-DDT
 20.32 Endrin Aldehyde
 33.89 Endrin Ketone
 36.36 Methoxychlor

P-30-5
 0.025 nanograms
 Case 3981
 SP 2250/2401
 HP 5880 5 μ l

RT: STOP RUN

KAP 5880A SAMPLER INJECTION @ 23:22 APR 8, 1985
 SAMPLE # : ID CODE :
 68

AREA %

RT	AREA	TYPE	AREA %
0.31	34317.20	SBV	62.828
0.60	14.48	BB	0.027
0.81	370.43	SV	0.678
1.81	320.32	PV	0.591
2.12	1591.59	VA	2.937
2.74	1206.74	SB	2.259
3.38	1426.22	SV	2.631

P-30-5
 0.025 nanograms

TH 107

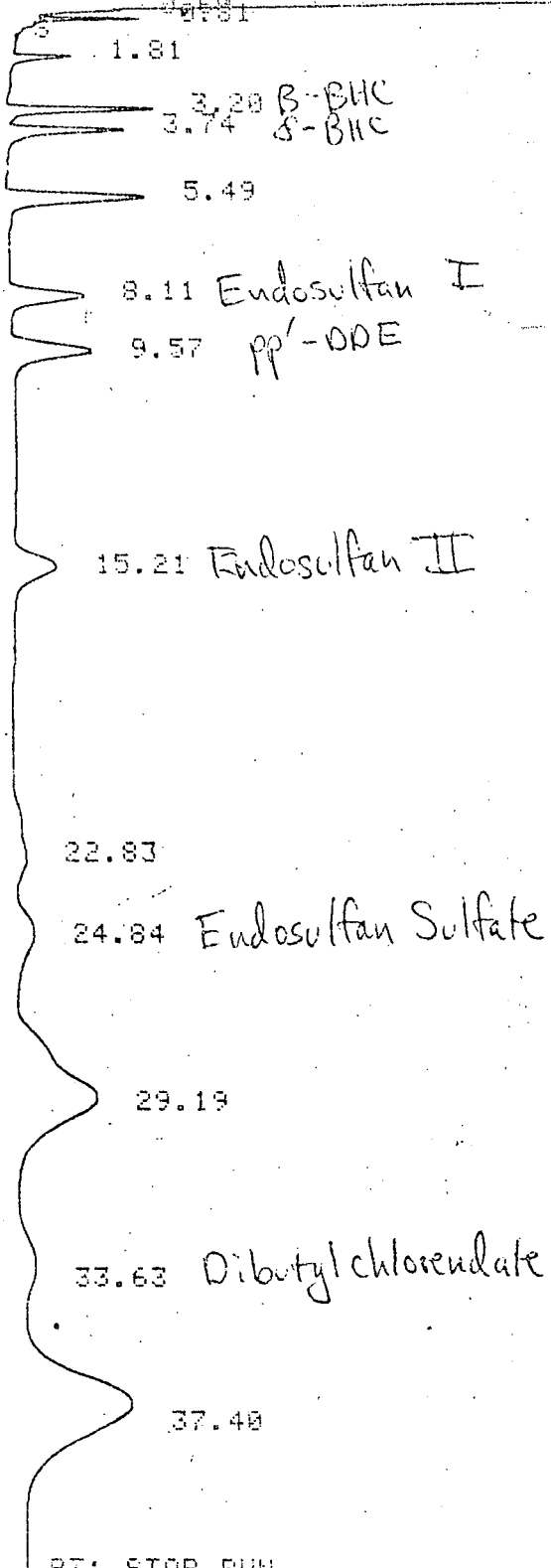
2.74	1288.74	BB	2.359
3.38	1426.22	BV	2.611
4.11	1529.30	VB	2.800
5.48	3570.10	BV	6.536
6.40	1550.01	VV	2.833
10.04	1407.14	BB	2.576
12.29	914.51	BB	1.67
15.05	1809.36	BB	1.848
18.18	1103.26	BV	2.028
20.32	1679.02	VB	3.074
33.69	1630.34	BV	2.985
36.36	1188.78	VB	2.176

0.025 nanograms
 Case 3981
 SP 2250 / 2401
 HP 5880

TOTAL AREA = 54620.60

MULTIPLIER = 1

RT: TAN SKIN



P-31-5
 0.025 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

5880A SAMPLER INJECTION @ 00:06 APR 9, 1985
 SAMPLE # : ID CODE :
 69

AREA %

RT	AREA	TYPE	AREA %
1.81	41085.60	SBV	56.178
3.20	50.02	BB	0.068
3.74	358.79	BY	0.491
5.49	375.67	BB	0.514
8.11	1110.26	BY	1.519
9.57	1121.97	VB	1.534
15.21	1595.33	BB	2.177

P-31-5
 0.025 nanograms
 AF 109

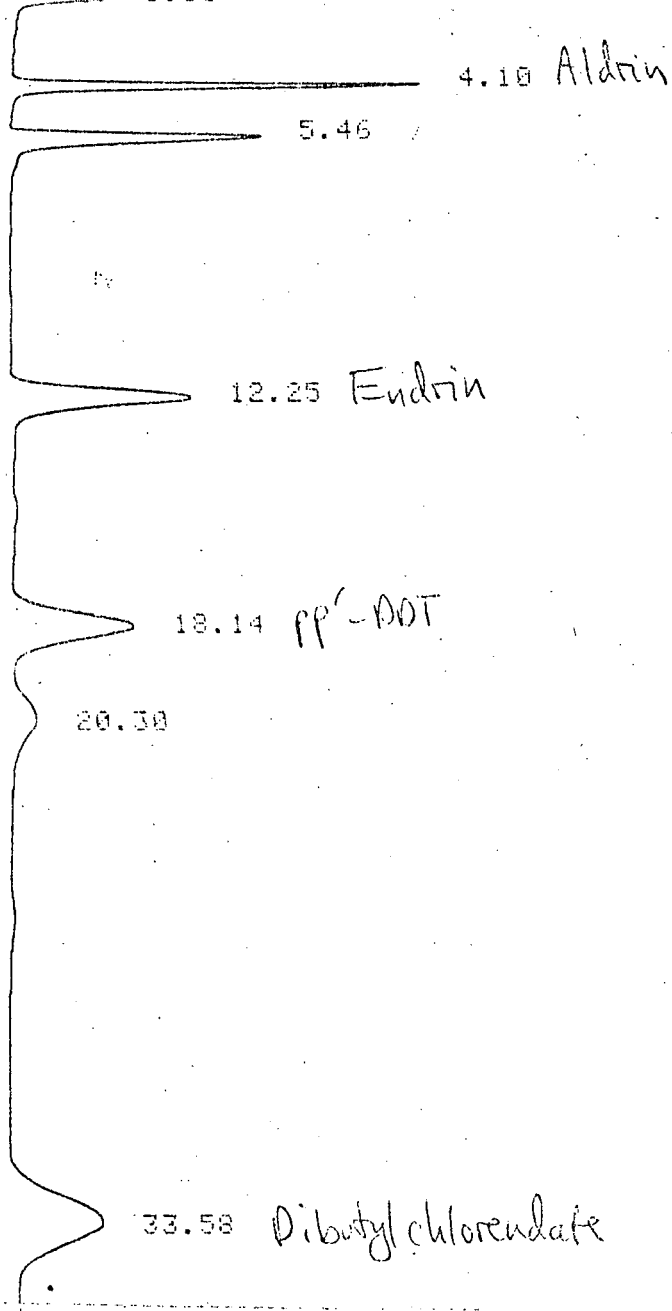
19.21	1487.91	SS	0.000
22.83	273.66	BP	0.374
24.84	1095.48	VV	1.498
29.19	7613.14	VP	10.418
33.63	1495.50	PH	2.045
37.40	11867.10	HH	16.226

SI 22307 2101
HP 5880

TOTAL AREA = 73134.70
MULTIPLIER = 1

HP 5880A SAMPLER INJECTED @ 00:50 APR 9, 1985
SAMPLE # : ID CODE :

JK 110



Eval. Mix B
 Case 3981
 SP 2250/2401
 HP 5880 Sul

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 07:19 APR 9, 1985

SAMPLE # : ID CODE :

75

AREA %

RT	AREA	TYPE	AREA %
0.31	20834.70	SEV	43.419
0.61	381.80	BV	0.796
0.99	148.48	VV	0.309
1.88	535.34	BB	1.116
4.10	2780.43	BB	7.097
5.46	2563.57	BB	7.426
12.25	4822.53	BB	10.050

Eval. Mix B
 Case 3981
 SP 2250/2401

111

33.58 7468.12 BA 15.563

TOTAL AREA = 47984.90
MULTIPLIER = 1

RT. TOX. CKJM

SAMPLE # : ID CODE :
76

AREA %

RT	AREA	TYPE	AREA %
0.52	683090.00	SMV	91.221

JV 112

5.50

8.13 Endosulfan I

9.58 pp'-DDE

P-31-3

0.125 nanograms

Case 3981

SP 2250/2401

HP 5880

15.24 Endosulfan II

24.82 Endosulfan Sulfate

33.71 Dibutylchloroendate

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 09:32 APR 9, 1985

SAMPLE # : ID CODE :
77

AREA %

RT	AREA	TYPE	AREA %
0.31	37004.60	SBV	38.964
0.81	432.69	BV	0.456
1.00	27.51	VB	0.029
1.81	363.66	BB	0.382
3.20	6071.07	BV	6.314
3.75	6804.36	VB	7.127
5.50	2346.18	BB	2.470
8.13	2338.20	BB	2.440

P-31-3

0.125 nanograms

Case 3981

II 113

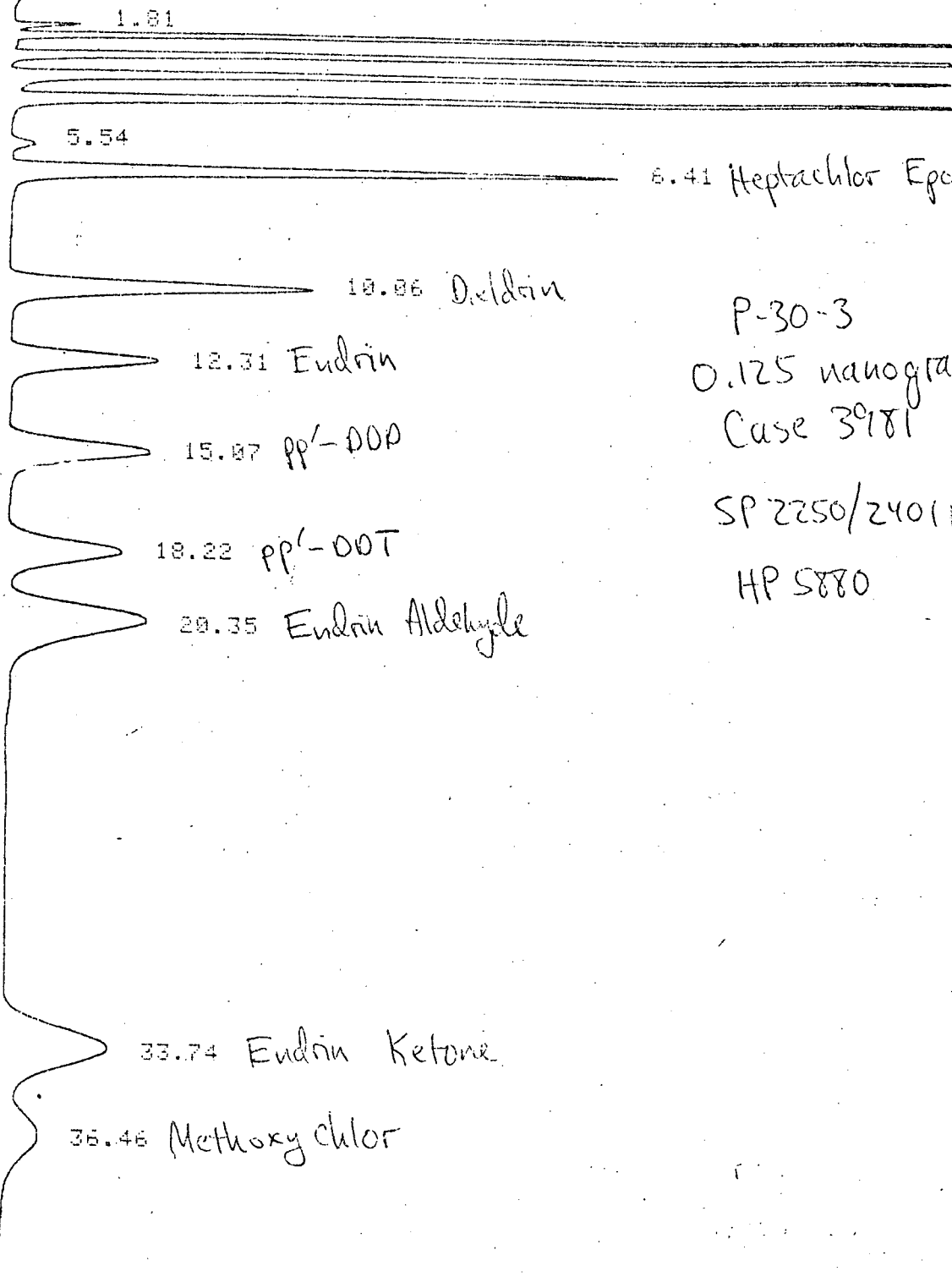
15.24	8456.24	BV	8.904
24.82	5859.47	BB	6.170
33.71	5801.24	BH	6.188

SP 2250721
HP 5880

TOTAL AREA = 94978.40
MULTIPLIER = 1

Area 5880A SAMPLER INJECTION @ 10:16 APR 9, 1985
SAMPLE # : ID CODE :
78
AREA :

IV 114



0.1 a-BHC
 0.1 δ-BHC
 0.1 Heptachlor
 0.1 Aldrin

P-30-3
 0.125 nanograms
 Case 3981
 SP 2250/2401
 HP 5880

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 10:16 APR 9, 1985

SAMPLE # : ID CODE :
78

AREA %

RT	AREA	TYPE	AREA %
0.31	53780.50	SBV	33.563
0.81	292.95	VB	0.183
1.81	483.67	BV	0.302
2.13	15164.10	VV	9.473
2.24	13624.88	VB	8.507
3.38	9927.49	BV	6.196
3.72	11065.10	VB	6.977

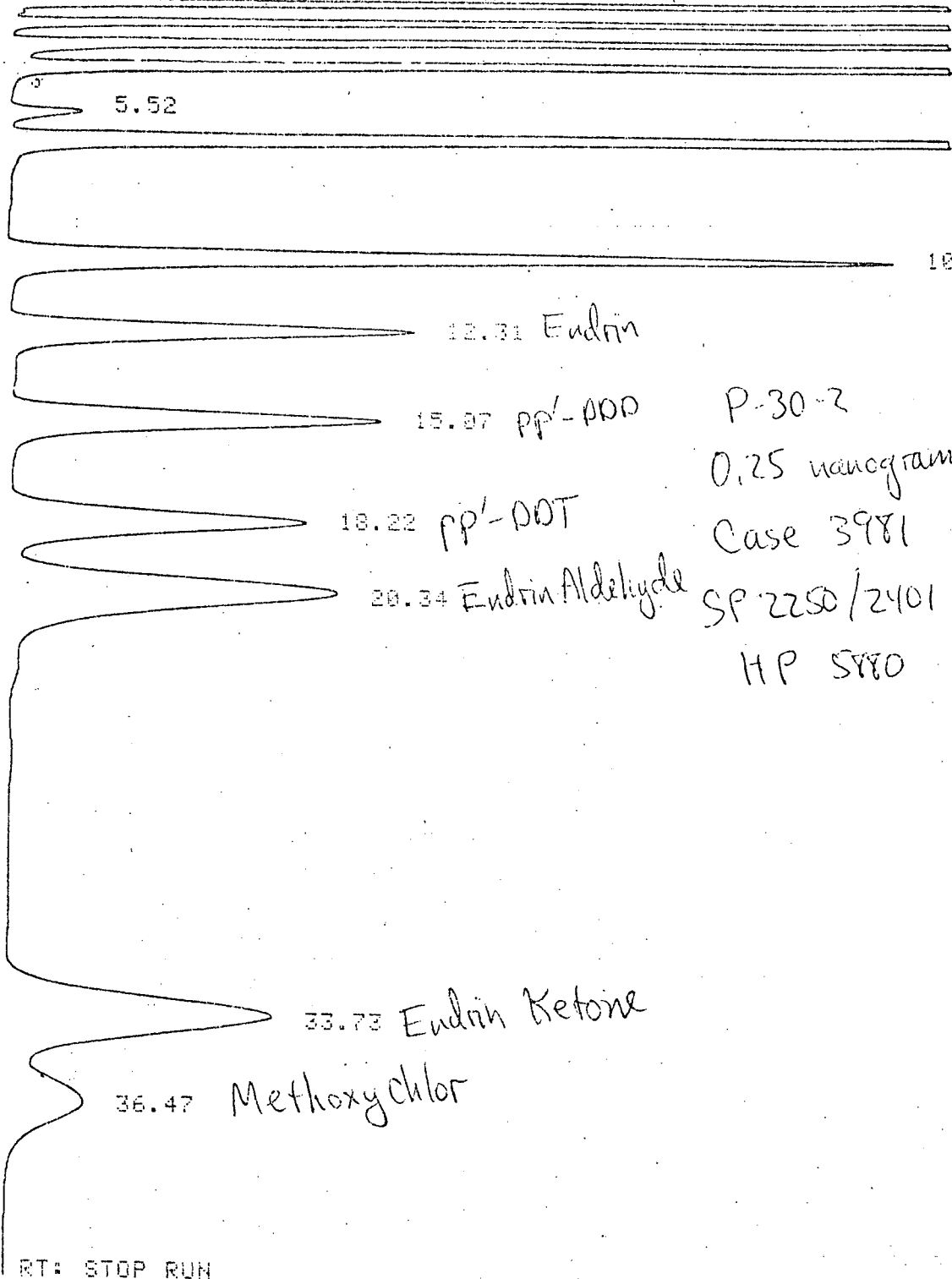
P-30-3
 0.125 nanograms

TH 115

10.06	7872.84	BB	4.912
12.31	4771.96	BV	2.977
15.07	5533.77	VB	3.452
18.22	5471.81	BV	3.414
20.35	9446.06	WV	5.893
33.74	9010.54	BV	5.622
36.46	3751.10	VB	2.340

Case 5781
 SP 2250 / 2401
 HP STTO

TOTAL AREA = 160283.00
 MULTIPLIER = 1



0.31 a-BHC
 0.81 ̑-BHC
 1.46 Heptachlor
 1.81 Aldrin

P-30-2
 0.25 nanograms
 Case 3981
 SP 2250/2401
 HP 5780

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 11:00 APR 9, 1985
 SAMPLE # : ID CODE :

79

RT	AREA	TYPE	AREA %
0.31	997586.00	SBV	78.358
0.81	465.19	BB	0.037
1.46	13.30	BP	0.001
1.81	483.07	BV	0.038
2.13	39885.00	VV	3.133
2.74	92875.90	VB	7.449
3.38	26182.70	BV	2.097

P-30-2
 0.25 nanograms

IV 117

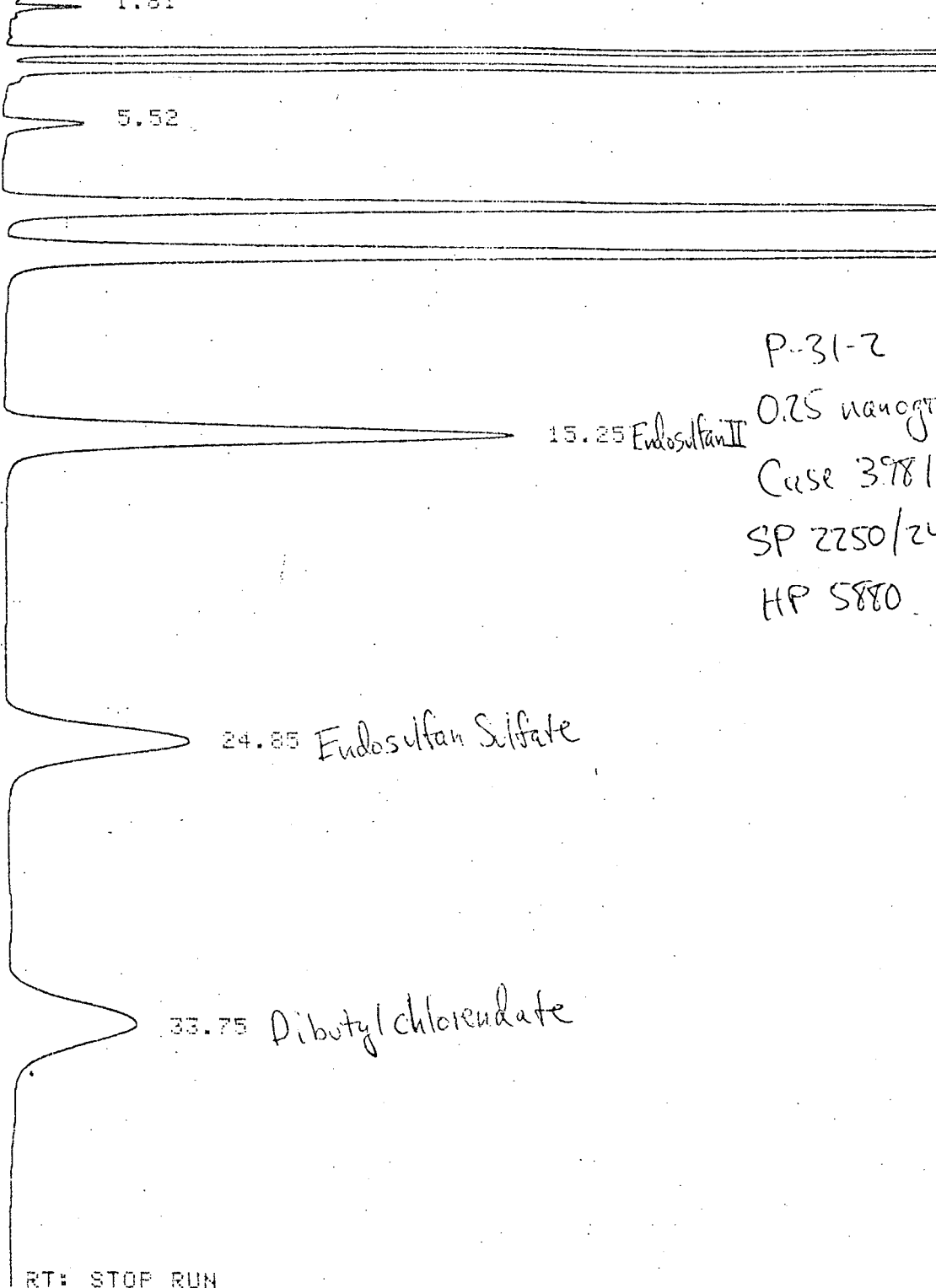
6.41	27103.00	VB	2.129
10.06	21060.00	BB	1.654
12.31	12274.79	BV	0.964
15.07	13591.00	VB	1.068
18.22	13520.90	BV	1.062
20.34	21681.10	VV	1.703
33.73	21791.40	BV	1.712
36.47	7826.92	VB	0.615

SP 2250 12101
HP 5880

TOTAL AREA = 1273110.00
MULTIPLIER = 1

RT. TON. OVM.

JWL 1/8



3.21 B-BHC
3.75 δ-BHC

8.14 Endosulfan
9.59 pp'-DD

P-31-2
0.25 nanograms
Case 3981
SP 2222/2401
HP 5880

24.85 Endosulfan Sulfate

33.75 Dibutylchloroendate

RT: STOP RUN

HP 5600A SAMPLER INJECTION @ 11:44 APR 9, 1985

SAMPLE # : ID CODE :
80

AREA %

RT	AREA	TYPE	AREA %
0.31	39011.10	SBV	22.694
0.60	21.56	BB	0.013
0.81	362.82	BB	0.211
1.81	495.54	SV	0.289
3.21	10113.98	SV	5.792
5.52	25215.70	VV	14.668
8.14	1732.92	BB	0.103

P-31-2
0.25 nanograms

IV 119

07.2	21735.80	BY	12.843
9.53	25563.40	VB	14.871
15.25	19136.50	BB	11.132
24.01	12024.00	BB	6.995
33.75	11889.30	PH	6.916

Case 5781
 SP 2250/2401
 HP 5880

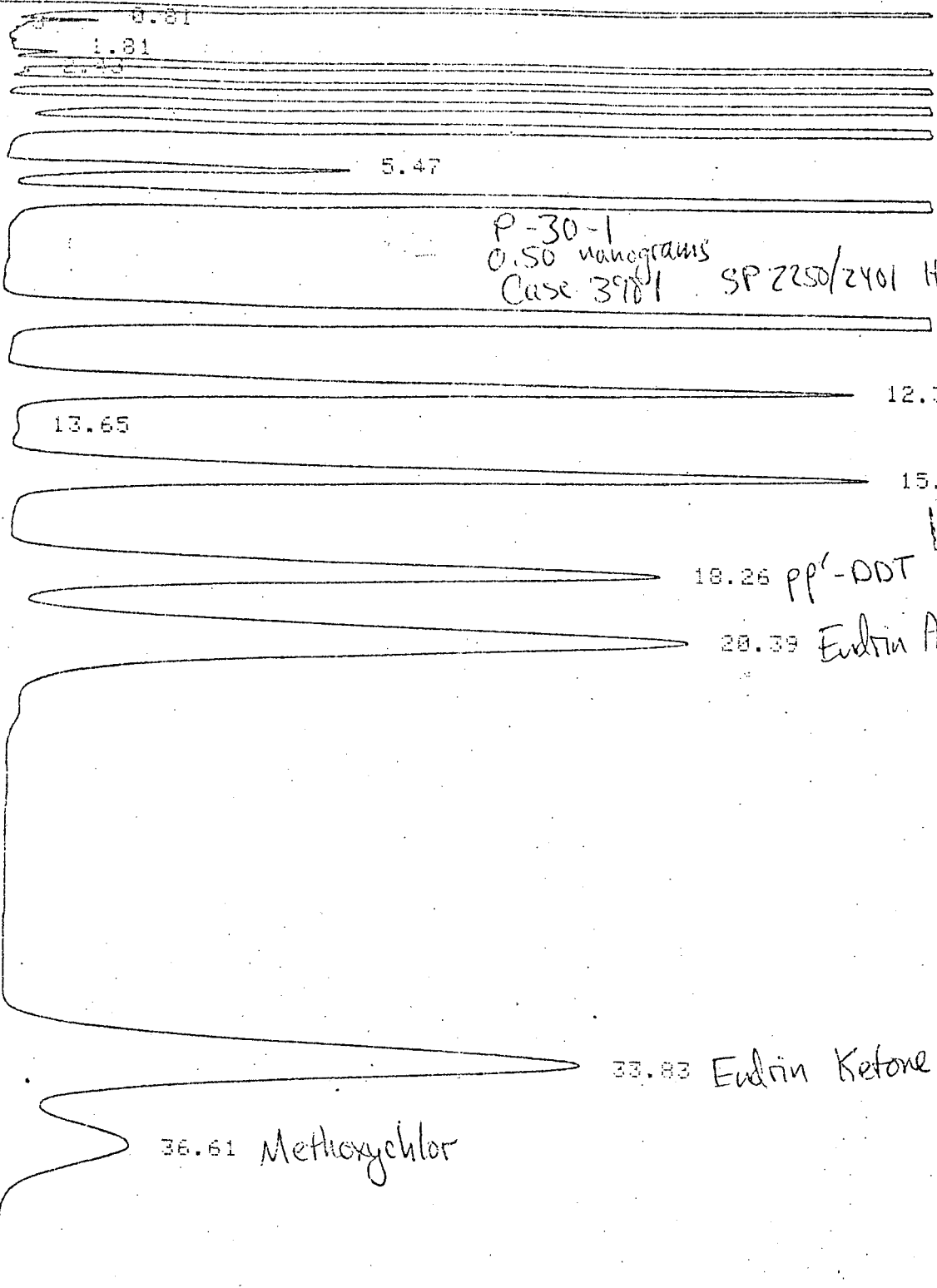
TOTAL AREA = 171904.00
 MULTIPLIER = 1

ST. JUAN SKIM

8.71

SAMPLE # : 10' COHE :
 81

IV 120



P-30-1
 0.50 nanograms
 Case 3901 SP 2250/2401 HP5870

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 12:28 APR 9, 1985
 SAMPLE # : ID CODE :

AREA % 81

RT	AREA	TYPE	AREA %
0.31	32517.70	SBV	5.455
0.81	303.79	BV	0.051
1.81	476.48	VV	0.008
2.13	76199.70	VV	2.779
2.43	210.52	VV	0.035
2.75	69842.90	VV	11.716

P-30-1

0.50 nanograms

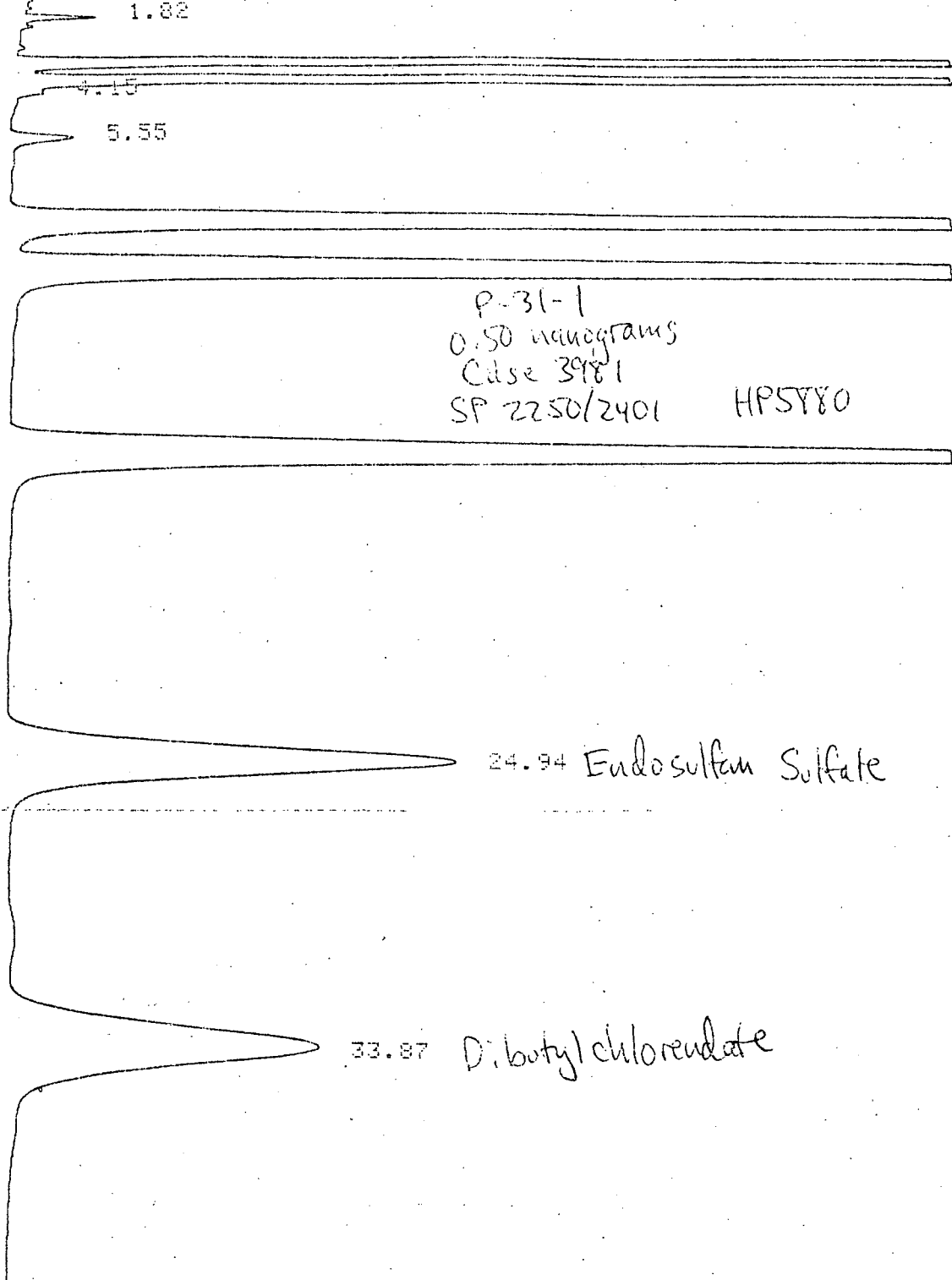
II 121

4.13	65239.70	VB	10.942
5.47	6140.60	BV	1.030
6.42	57084.40	VB	9.576
10.08	47286.10	BB	7.932
12.34	25111.60	BV	4.212
13.65	385.38	VV	0.065
15.11	30193.90	VB	5.065
18.26	28899.60	BV	4.848
20.39	44588.30	VV	7.480
33.83	46016.60	BV	7.719
36.61	12538.30	VB	2.103

Case 3981
 SP 2250 / 2401
 HP 5880

TOTAL AREA = 596136.00
 MULTIPLIER = 1

LRT: TAN SKIN



3.22 B-BHC
3.77 J-BHC

8.17 Endosulfan I

9.63 pp'-DDE

P-31-1
0.50 nanograms
Case 3981
SP 2250/2401 HPST80

15.31 pp Endosulf II
B.L.

24.94 Endosulfan Sulfate

33.87 Dibutylchloroendate

RT: STOP RUN

HP1 5880A SAMPLER INJECTION @ 13:12 APR 9, 1985

SAMPLE # : ID CODE :
82

AREA %

RT	AREA	TYPE	AREA %
0.31	59670.30	SBV	15.021
0.61	72.72	BB	0.018
0.81	358.56	BB	0.090
1.82	959.48	VV	0.242
3.22	33891.00	VV	8.531
3.77	65664.80	VV	16.530
4.16	433.56	VV	0.110

P-31-1
0.50 nanograms
Case 3981

IV 723

15.51 34213.50 BB 12.852
24.94 28412.70 BB 7.152
33.87 28332.40 PB 7.132

TOTAL AREA = 397247.00

MULTIPLIER = 1

RT: TAN SKIM

AREA 000000 SAMPLER INJECTION @ 10:00 AM 01 1990

SAMPLE # : ID CODE :

83

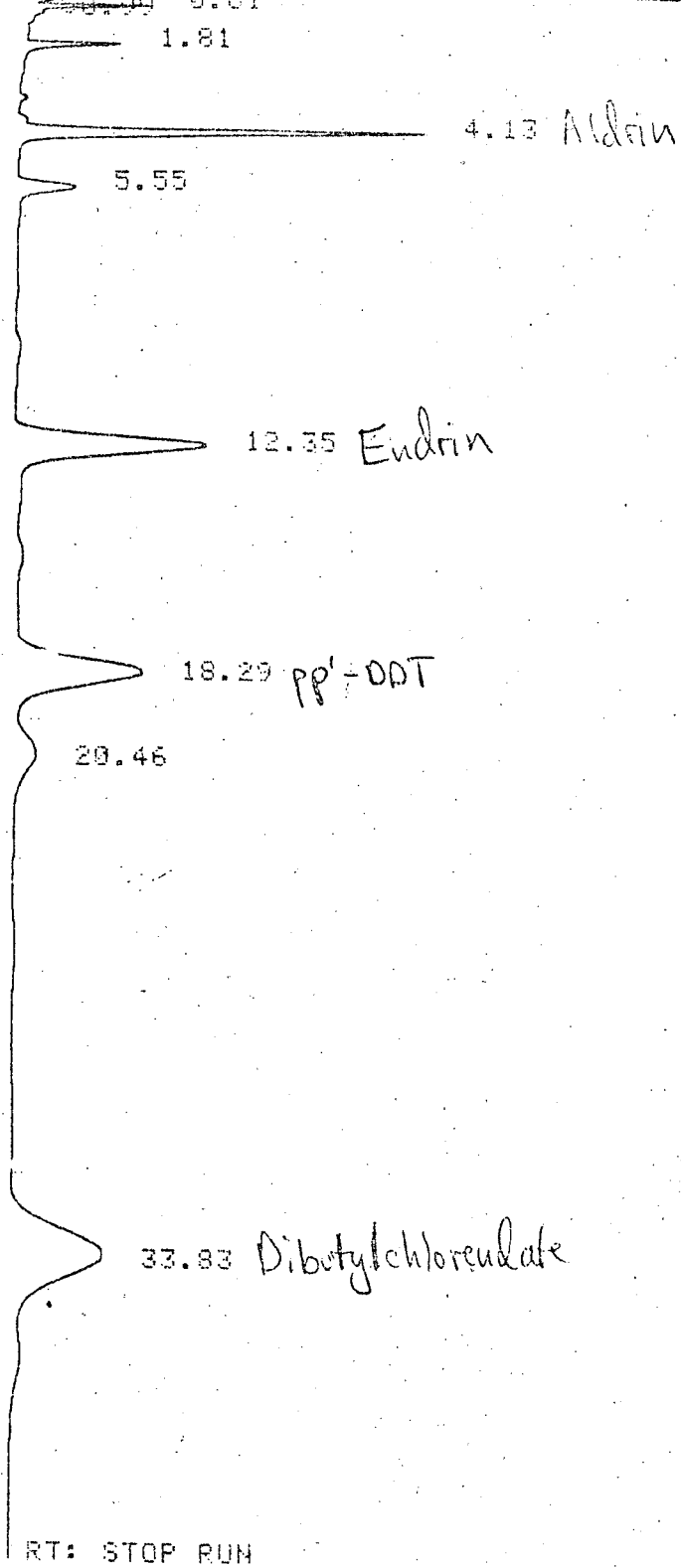
AREA %

RT

AREA TYPE

AREA %

TC 124



Eval. Mix B
 Case 3981
 SP 2250/2401
 HP 5880 Sul

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 13:56 APR 9, 1985
 SAMPLE # : ID CODE :
 83

AREA %

RT	AREA	TYPE	AREA %
0.31	21888.80	SBV	47.273
0.91	382.16	SV	0.825
0.99	61.41	VB	0.133
1.91	588.84	SB	1.272
5.55	371.11	VB	0.793
12.35	884.98	SB	1.909
18.29	5128.88	SB	11.073

Eval. Mix B
 Case 3981
 SP 2250/2401

JH 125

TOTAL AREA = 46302.50
MULTIPLIER = 1

File 5886A SAMPLER INJECTION @ 14:40 APR 9, 1985

SAMPLE # : ID CODE :

84

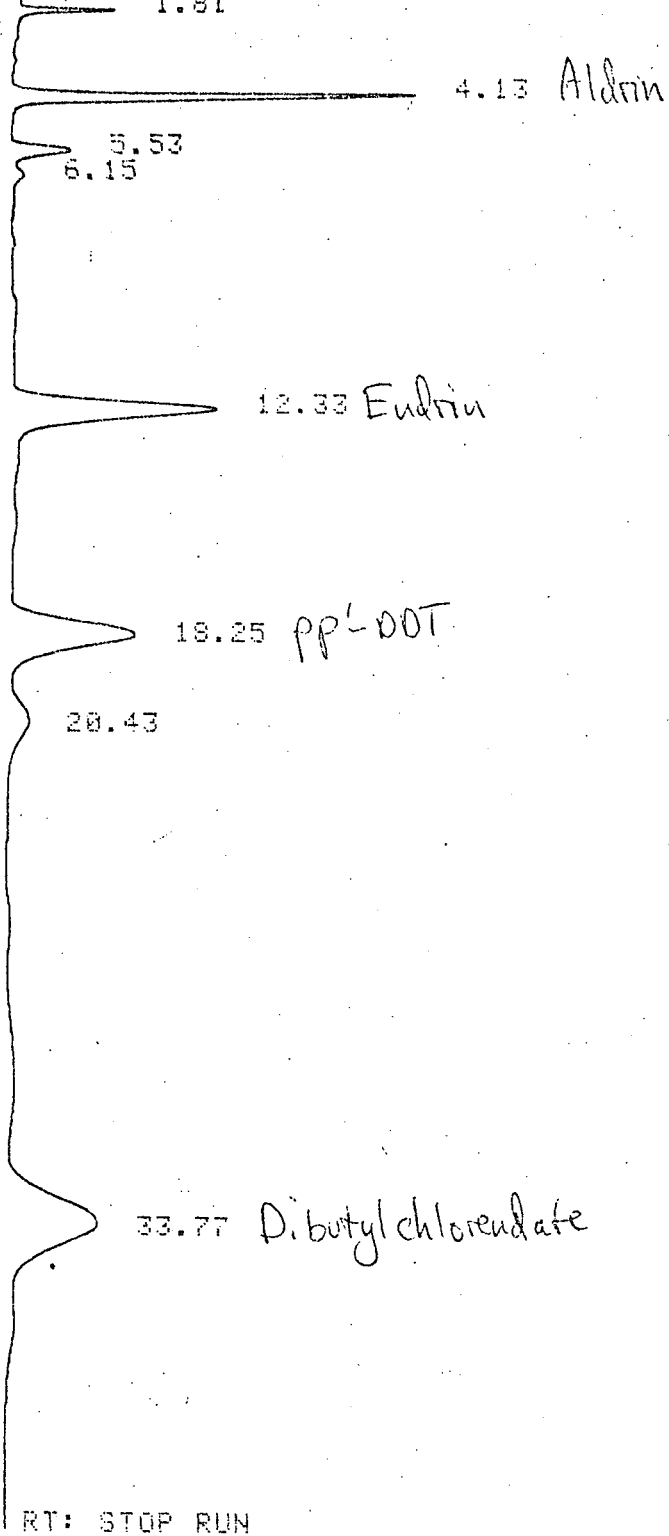
AREA %

RT

AREA TYPE

AREA %

RF 126



Eval. Mix B
 Case 3981
 SP 2250 / 2401
 HP 5770 Sml

RT: STOP RUN

API 5880A SAMPLER INJECTION @ 15:24 APR 9, 1985

SAMPLE # : ID CODE :
 85

AREA %

RT	AREA	TYPE	AREA %
0.31	20087.30	SBV	44.787
0.81	432.56	BV	0.964
0.99	62.04	VB	0.138
1.81	616.31	BB	1.374
4.13	3799.92	BB	8.373
5.53	841.06	BV	1.876

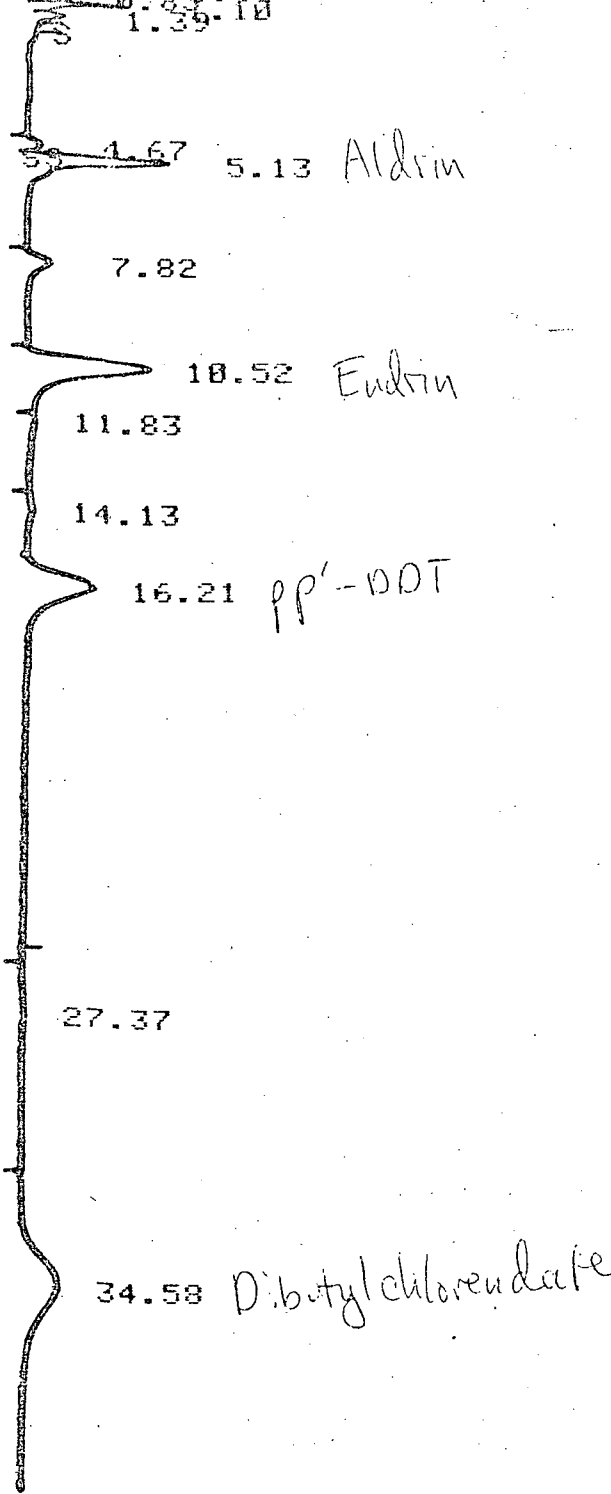
Eval. Mix B
 Case 3981
 SP 2250 / 2401
 HP 5770 Sml

IV 127

12.33	5562.52	BB	12.462
18.25	5170.83	BV	11.529
20.43	1242.15	V8	2.770
33.77	6794.63	BH	15.150

TOTAL AREA = 44850.30

MULTIPLIER = 1



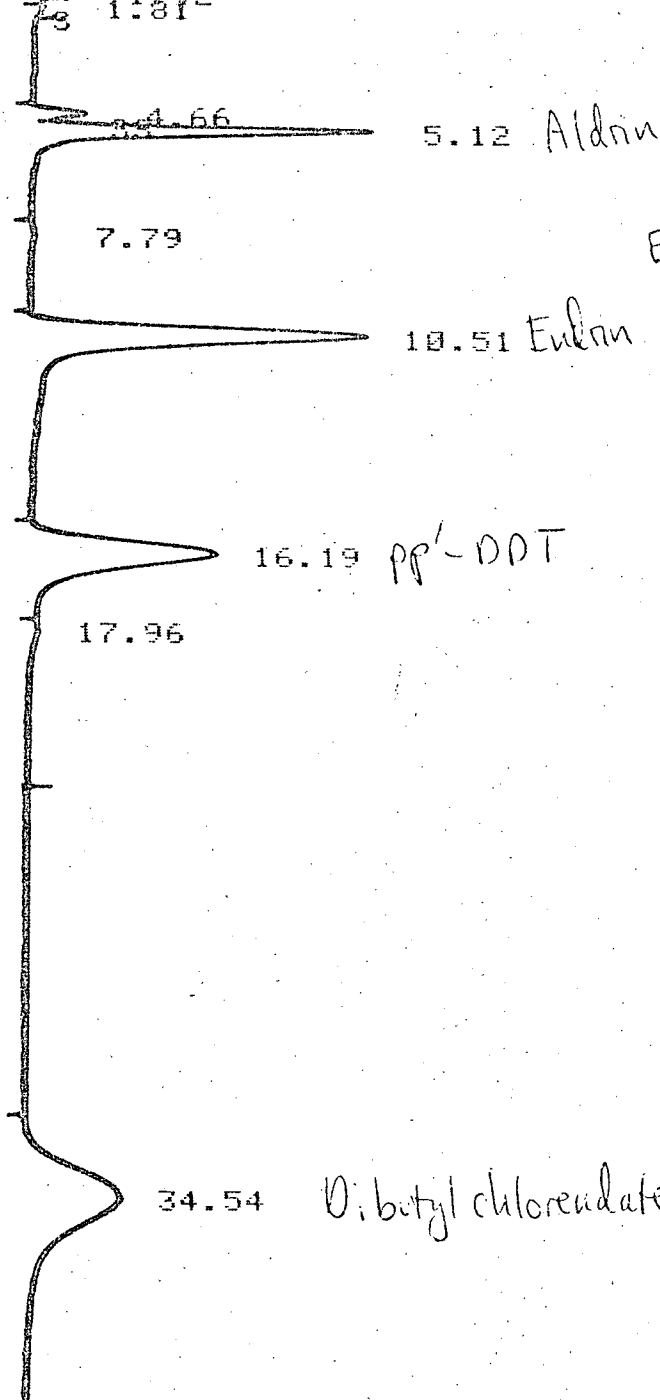
Eval. Mix A
 Case 3981
 SP 2100
 HP ~~5870~~ 5ul
 5840 BL

RUN # 1 APR/09/85 TIME 16:07:41
 TITLE 1
 AREA %

RT	AREA	AREA %
0.61	1356	0.274
1.10	13150	2.661
1.39	6892	1.395
4.67	5591	1.132
5.13	72540	14.681
7.82	18450	3.734
8.52	115900	23.457
11.83	13940	2.821
14.13	9806	1.985
16.21	112600	22.789
27.37	4473	0.905

Eval. Mix A
 Case 3981
 SP 2100
 HP ~~5870~~ 5ul
 5840 BL

II 129



Evalo Mix B
 Case 3981
 SP 2100
 HP 5880 Sul
 5840 BL

HP # 2
 BOTTLE # 2
 AREA %

APR 09/85

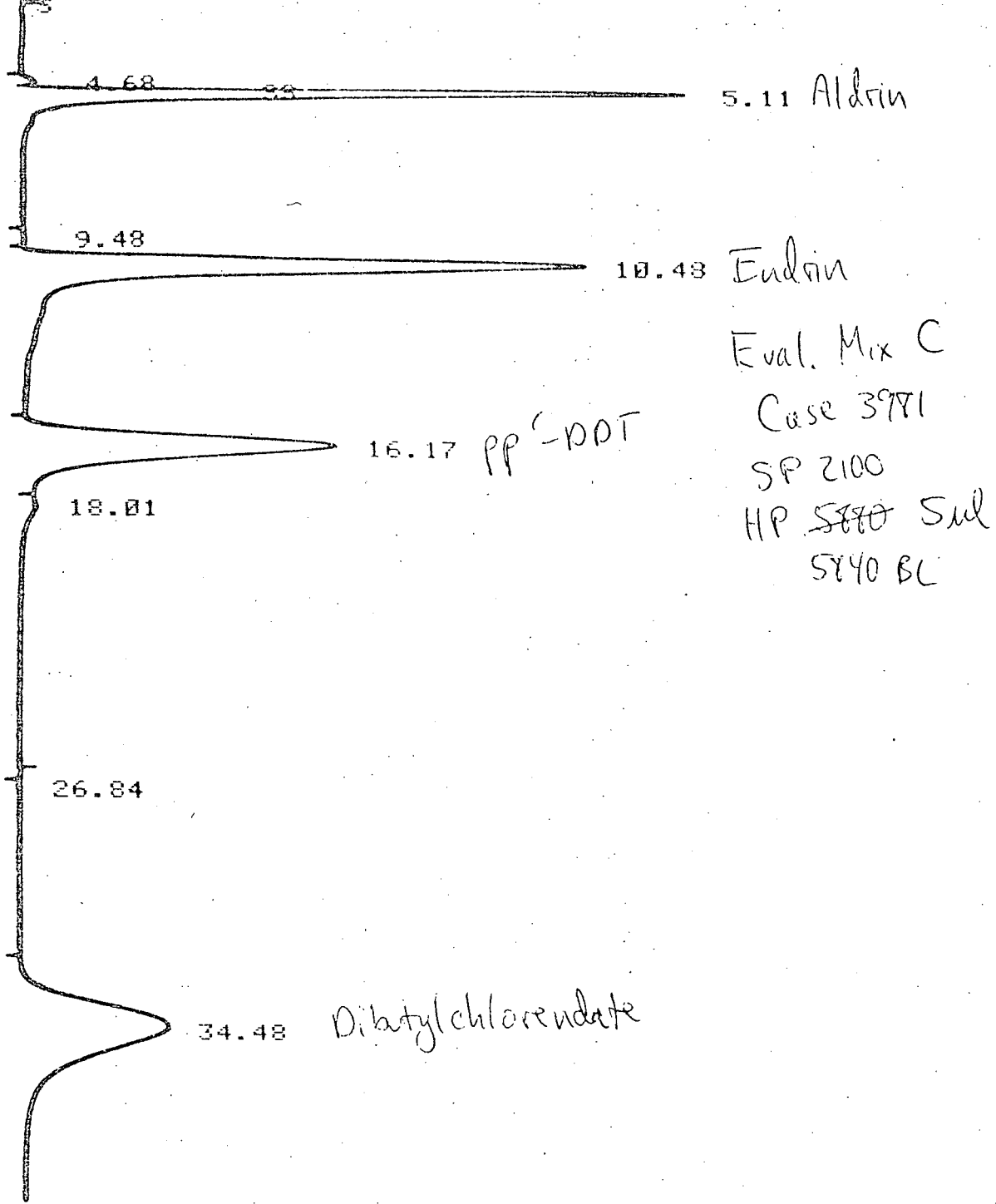
TIME 16:50:22

RT	AREA	AREA %
0.61	1505	0.133
0.99	12510	1.104
1.42	7578	0.669
1.81	1222	0.108
2.66	21910	1.933
3.12	161300	14.232
3.99	3674	0.324
5.11	345800	30.512
7.19	260100	22.950
9.66	18730	1.653
11.54	299000	26.383

Eval. Mix B
 Case 3981
 SP 2100
 HP 5880 Sul
 5840 BL

FACTOR: 1.0000 E+ 0

130



HP RUN # 3
 BOTTLE 3
 AREA %

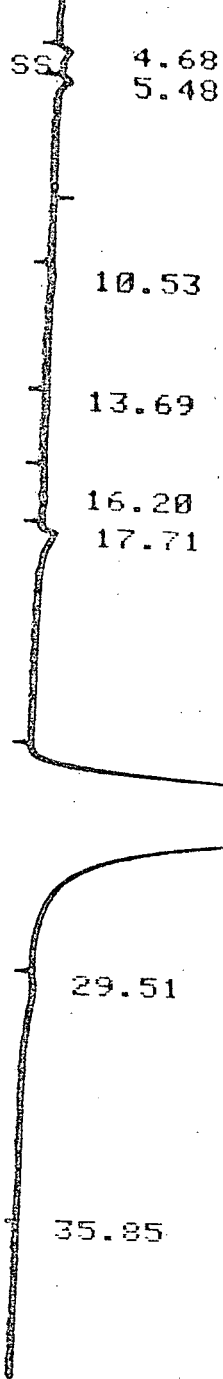
APR/09/85

TIME 17:32:59

RT	AREA	AREA %
0.60	1562	0.071
1.09	14140	0.640
1.39	7326	0.331
1.81	1989	0.090
4.68	5618	0.254
5.11	366300	16.570
9.48	1836	0.083
10.48	687600	31.185
16.17	523800	23.695
18.01	40680	1.840
26.84	1154	0.052
34.48	558600	25.269

Eval. Mix C
 Case 3971
 SP 2100
 HP 5870 Sul
 5840 BL

JH 131



24.96 Methoxychlor
 1.0 nanogram
 Case 3981
 SP 2100
 HP 5880
 5840 BL.

HP RUN # 4
 BOTTLE 4
 AREA %

APR/09/85

TIME 18:15:40

RT	AREA	AREA %
0.84	590	0.036
1.09	10320	0.635
1.39	5830	0.359
2.48	5728	0.352
4.68	7670	0.472
5.48	4163	0.256
10.53	2133	0.131
13.69	2203	0.136
16.20	5750	0.354
17.71	25340	1.559
24.96	1517000	93.342
29.51	35230	2.168
35.85	3245	0.201

Methoxychlor
 1.0 nanogram
 Case 3981
 SP 2100
 HP 5880
 5840 BL

132

SS 4.66
5.47

17.71

24.95 Methoxychlor 100 ppb
0.50 nanograms
Case 3981
SP-2100
HP ~~5880~~
5840 BL

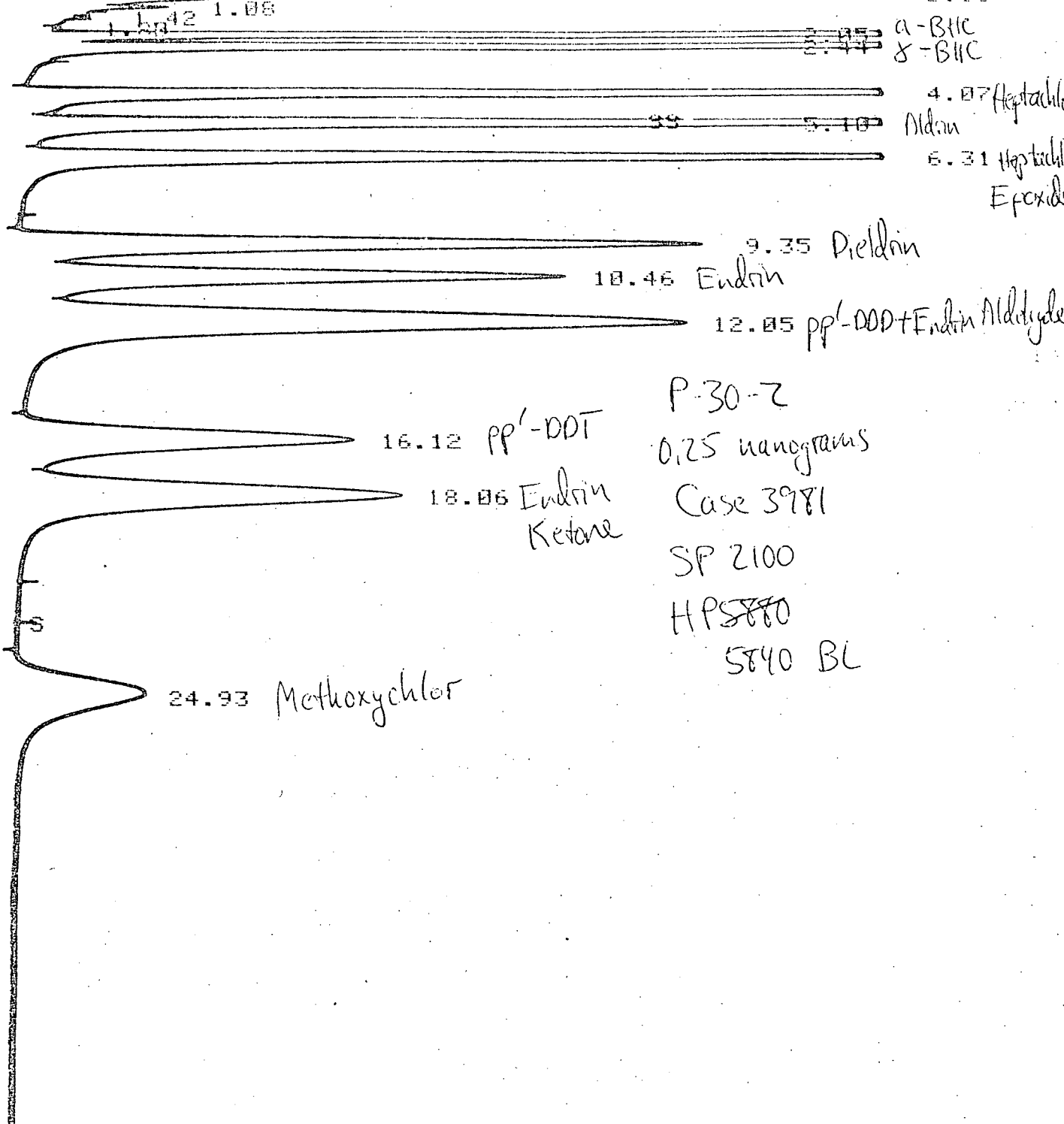
HP RUN # 5 APR/09/85 TIME 18:58:26
BATTLE # 5
AREA %

RT	AREA	AREA %
1.09	14810	1.954
1.42	6900	0.910
2.48	2736	0.361
2.76	4984	0.658
4.66	12390	1.635
7.71	10380	1.369
24.95	705800	93.114

Methoxychlor
0.50 nanograms
Case 3981
SP-2100
HP ~~5880~~
5840 BL

DIL FACTOR: 1.0000 E+ 0

II 132



P-30-2
 0.25 nanograms
 Case 3981
 SP 2100
 HPS 880
 5840 BL

HP
 BOT RUN # 7
 ARE TLE 7
 A %

APR/09/85

TIME 20:23:39

RT	AREA	AREA %
0.31	11183000	56.675
0.63	29720	0.151
1.08	11900	0.060
1.42	1101	0.006
1.80	620	0.003
2.05	871300	4.416
2.44	811300	4.111
2.87	856800	4.343
3.10	783200	3.970
3.31	792000	4.012
3.35	693200	3.511
4.07	811300	4.111

P-30-2
 0.25 nanograms
 Case 3981
 SP 2100

JK 13K

10.46	656800	3.330
12.05	1260000	6.387
16.12	593500	3.009
18.06	791800	4.014
24.93	392900	1.992

ST 2100
 HP 8870
 5840 BL

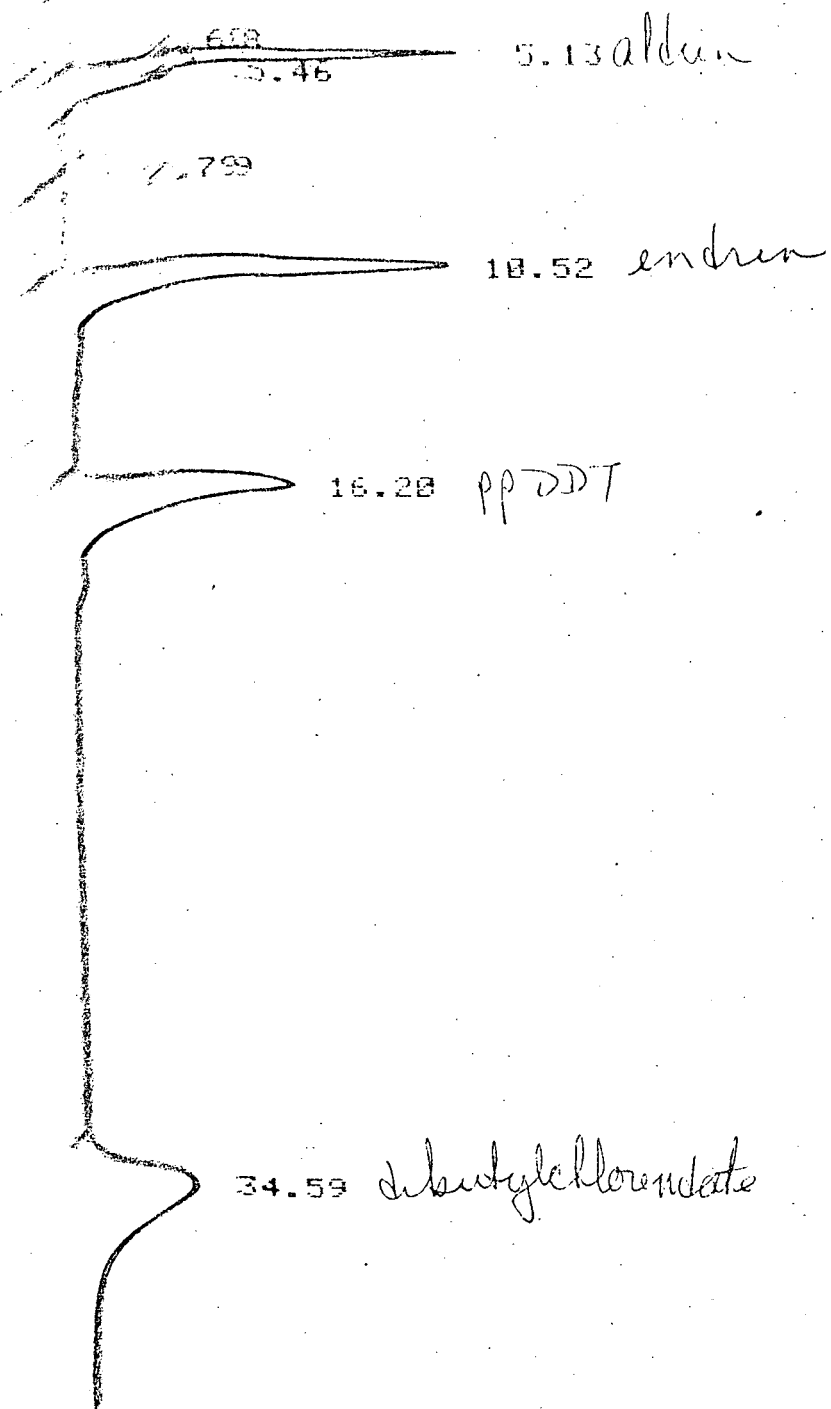
DIL FACTOR: 1.0000 E+ 0

START

RT	AREA	AREA %
0.34	1018000	20.664
0.62	3550	0.072

IV 135

Case 3981 Sul
 SP2100
 HP5840



UN # 6
 P. LE 20
 INT. %

APR/10/85

TIME 12:52:20

T	AREA	AREA %
84	615	0.049
08	14630	1.162
27	995	0.079
50	9356	0.743
66	47600	3.780
21	3171	0.252
68	4260	0.338
13	150400	11.944
46	39690	3.152
79	2378	0.189
50	363700	28.884
21	315000	25.116

Eval mix B
 Case 3981
 SP2100
 HP5840

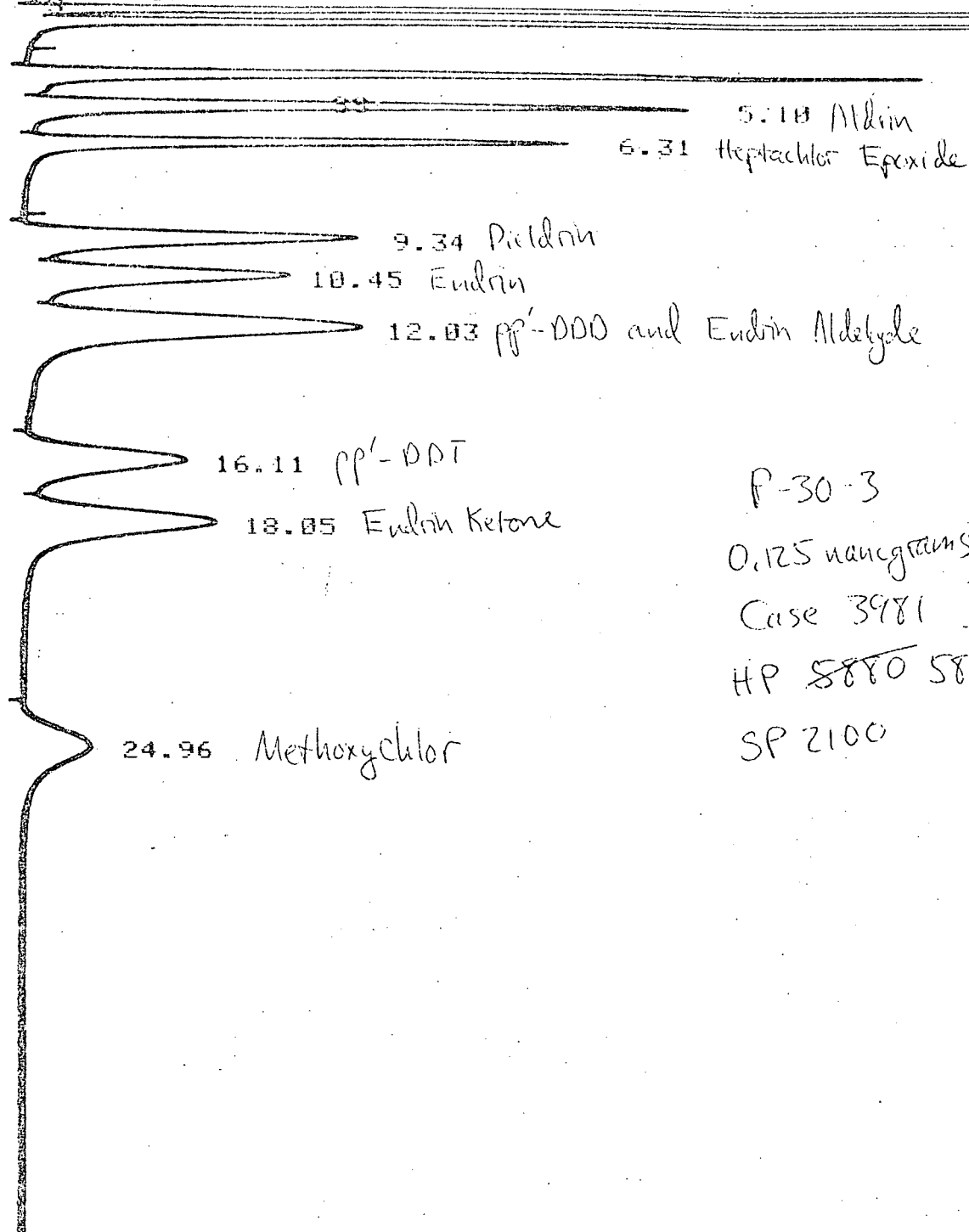
Sul

IF 136

7.79	2378	0.189
10.52	363700	28.894
16.20	315000	25.016
34.59	307400	24.412

DIL FACTOR: 1.0000 E+ 0

JE 137



P-30-3
 0.125 nanograms
 Case 3971
 HP ~~5880~~ 5840 BL
 SP 2100

HP RUN # 8
 BOTTLE 8
 AREA %

APR-09-75

TIME 21:06:39

RT	AREA	AREA %
0.34	1018000	20.664
0.62	3550	0.072
0.82	1095	0.022
1.07	17290	0.351
1.37	6086	0.124
2.05	400600	8.132
2.44	382200	7.758
4.07	400100	8.122
5.10	349300	7.090
6.31	368400	7.478
9.34	303000	6.151
10.45	290300	5.893

P-30-3
 0.125 nanograms
 Case 3971
 SP 2100
 HP ~~5880~~

10.11 205700 5.288
18.05 366900 7.448
24.96 181100 3.676

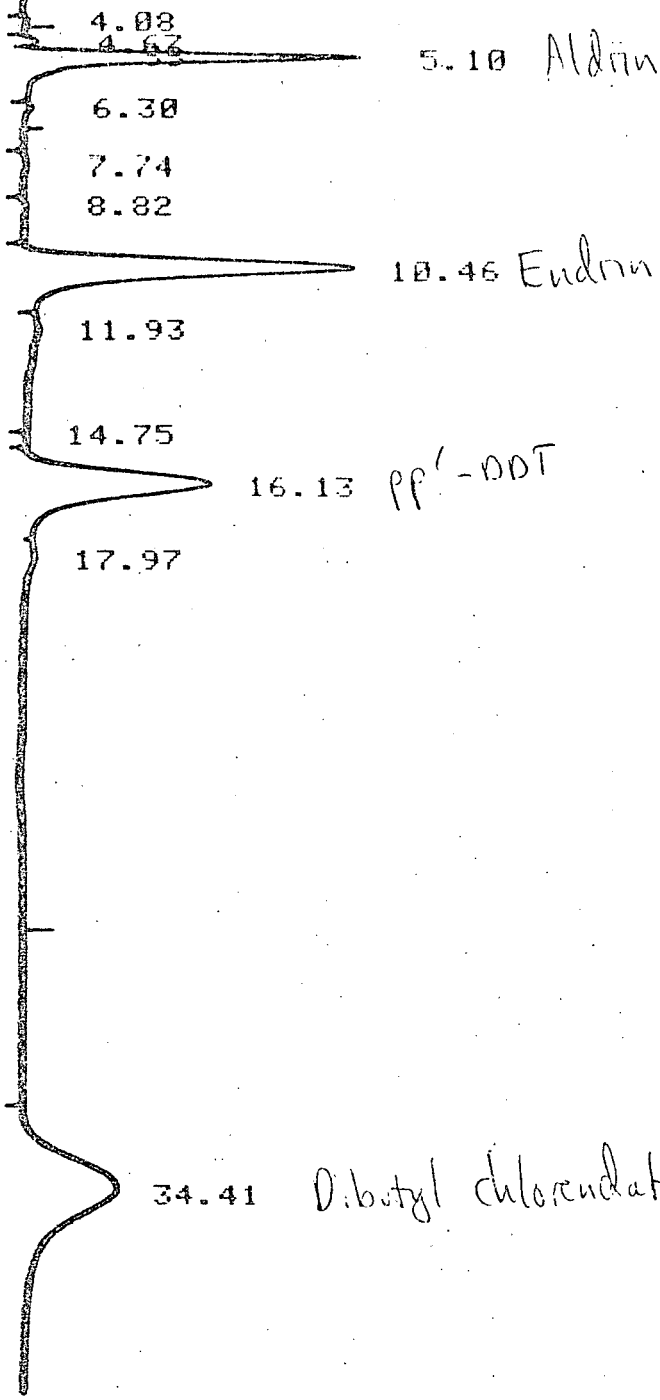
5690 DC

DIL FACTOR: 1.0000 E+ 0

BOTTLE 2
AREA %

RT	AREA	AREA %
0.60	1372	0.118

IV 139



Eval Mix B
 Case 3981
 SP 2100
 HP ~~5880~~ Sul
 5840 BL.

HP RUN # 9 APR/09/85 TIME 21:49:39
 BOTTLE 9
 AREA %

RT	AREA	AREA %
0.60	1372	0.118
0.84	731	0.063
1.07	23290	2.008
1.38	7362	0.635
2.05	1075	0.093
2.45	1381	0.119
4.08	924	0.080
4.67	3920	0.338
5.10	156400	13.481
6.30	4093	0.353
7.74	22225	1.920
8.82	24000	2.070
10.46	24000	2.070
11.93	24000	2.070
14.75	24000	2.070
16.13	24000	2.070
17.97	24000	2.070
34.41	24000	2.070

Eval Mix B
 Case 3981
 SP 2100
 HP ~~5880~~ Sul
 5840 BL

IV 140

34.41

297.460

23.655

DIL FACTOR: 1.0000 E+ 0

IV 141

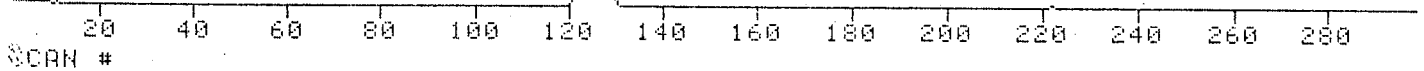
V. RAW QC DATA PACKET



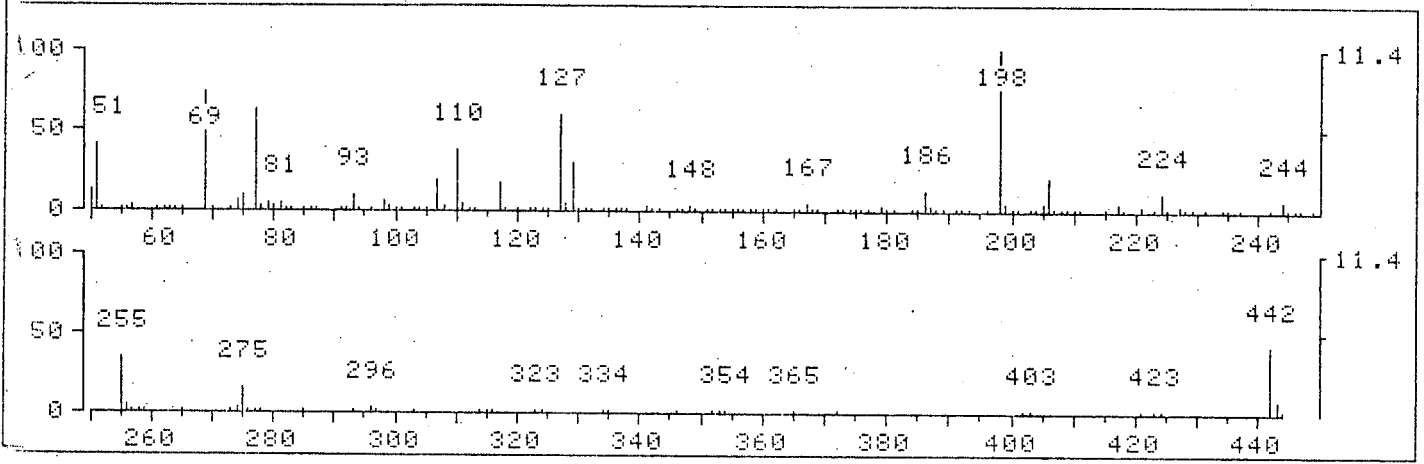
GCA CORPORATION
Technology Division

8/29/85
px 1.0

299 SCANS (299 SCANS, 6.23 MINS)
MASS RANGE: 44.0, 464.1 TOTAL ABUND= 1003003.



126 RET. TIME: 5.63 TOT ABUND= 190451. BASE PK/ABUND: 198.0/ 21771.



II - 1

URN: 14791
SPECTRUM: 126

Mass	Rel. Abund.	Criterion
51	41.7023	
68	0	30-60% MASS 198
69	74.241	< 2% MASS 69
70	.45014	
127	59.4598	< 2% MASS 69
197	0	40-60% MASS 198
198	100	< 1% MASS 198
199	6.08148	BASE PEAK
275	16.2096	5-9% MASS 198
365	1.59846	10-30% MASS 198
441	0	> 1% MASS 198
442	43.3145	< MASS 443
443	8.10252	> 40% MASS 198
		17-23% MASS 442

NOTE: '**' indicates out of range!

PRESS <RETURN> TO RERUN...

V-2

SAMPLE: 42 0.00 MINIMA MIN INTEN: 0. MAX INTEN: 7064.
207 # 0 MAXIMA

MASS	% RA
42	2.65
43	16.36
44	20.58
45	8.00
47	2.89
49	7.26
50	31.82
51	8.82
56	3.44
57	6.21
58	4.06
61	6.82
62	7.84
63	5.68
68	15.01
69	14.64
70	1.68
73	8.21
74	21.23
75	60.48
76	5.11
79	4.43
81	4.12
87	2.90
88	3.34
92	3.79
93	5.63
94	13.18
95	100.00
96	7.69
174	54.19
175	4.70
176	52.55
177	4.67
207	2.58

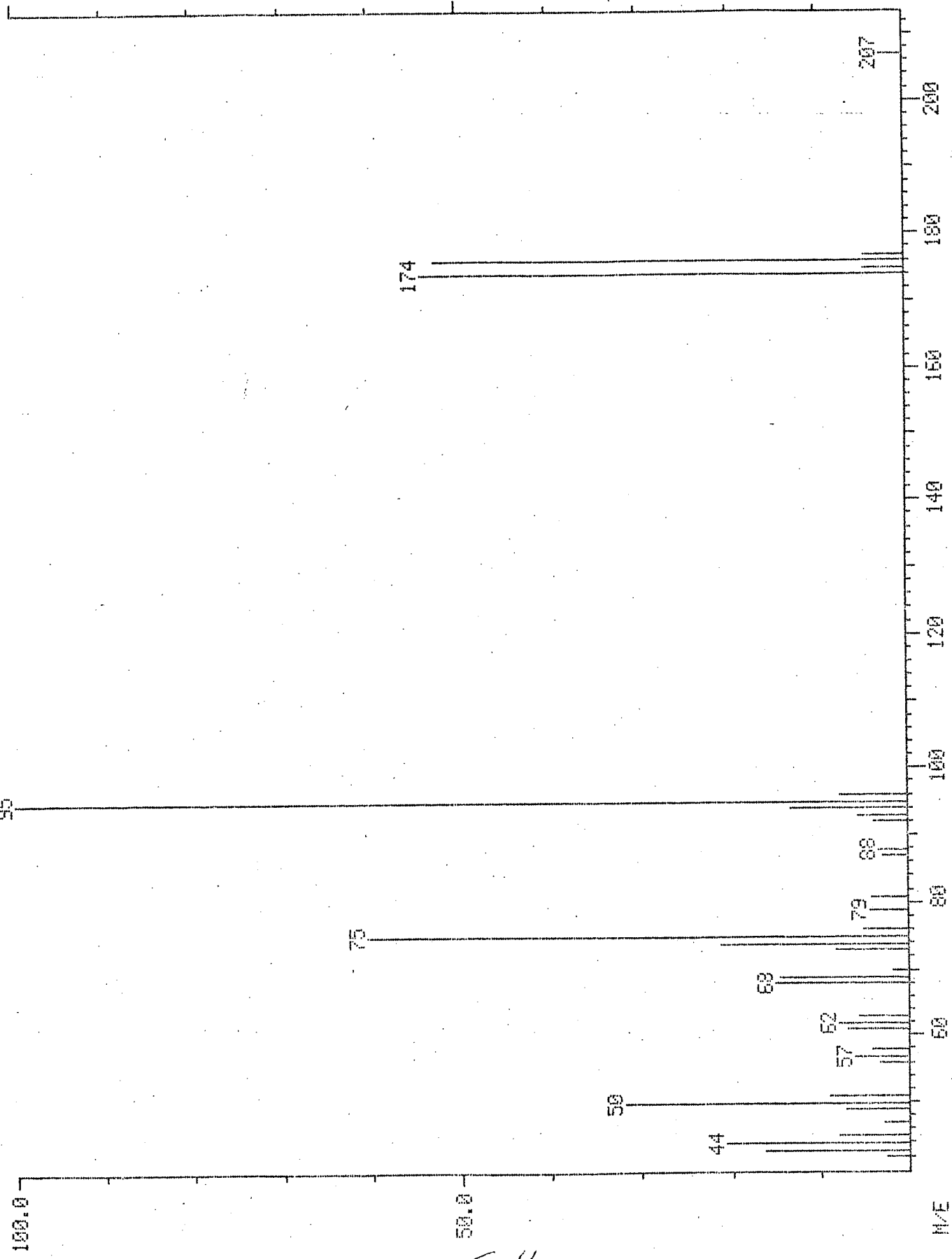
II-3

BASE N/E: 95
RIC: 35854.

DATA: U2834 #966

MASS SPECTRUM
03/15/85 20:13:00 + 03:00
SAMPLE: 2F3 CASE 3751
95

7054
10



V-4

Sample Number
MB1

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/11/85

Date Analyzed: 3/28/85

Conc/Dil Factor: 1000mls → 1.0ml

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamini	10u
108-95-2	Phenol	10u
62-53-3	Aniline	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
68-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4 Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
83-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Aconaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Aconaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
66-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
36-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
205-44-0	Fluoranthene	10u
92-87-5	Benzidine	50u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-37-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenz(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

IV-C

Sample Number
 Method Blank

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration: low Medium (Circle One)

Date Extracted/Prepared: 3/12/85

Date Analyzed: 4/5/85

Conc/Dil Factor: 1

CAS Number ug/l or ug/Kg (Circle One)

319-84-6	Alpha-BHC	0.05U
319-85-7	Beta-BHC	0.05U
319-86-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	0.10U
72-55-9	4, 4'-DDE	0.10U
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4, 4'-DDD	0.10U
7421-93-4	Endrin Aldehyde	0.10U
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4, 4'-DDT	0.10U
72-43-5	Methoxychlor	0.50U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.50U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.50U
11104-28-2	Aroclor-1221	0.50U
11141-16-5	Aroclor-1232	0.50U
53469-21-9	Aroclor-1242	0.50U
12672-29-6	Aroclor-1248	0.50U
11097-69-1	Aroclor-1254	1.0U
11096-82-5	Aroclor-1260	1.0U

J. M. Hall
 4/10/85

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

v_s 1000 ml or W_s _____ v_i 10,000 ul v_t 5.0 ul

401

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scen Number	Estimated Concentration (ug/l or ug/kg)
1.	1,4 Dioxane	VOA	444	29
2.				
3.				
4.				
6.				
5.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1001 1-8
57-29

MBI

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	HT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	<i>No compounds found</i>	<i>N/A</i>		
2.				
3.				
4.				
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.				

12/11/01 77-209
12-9

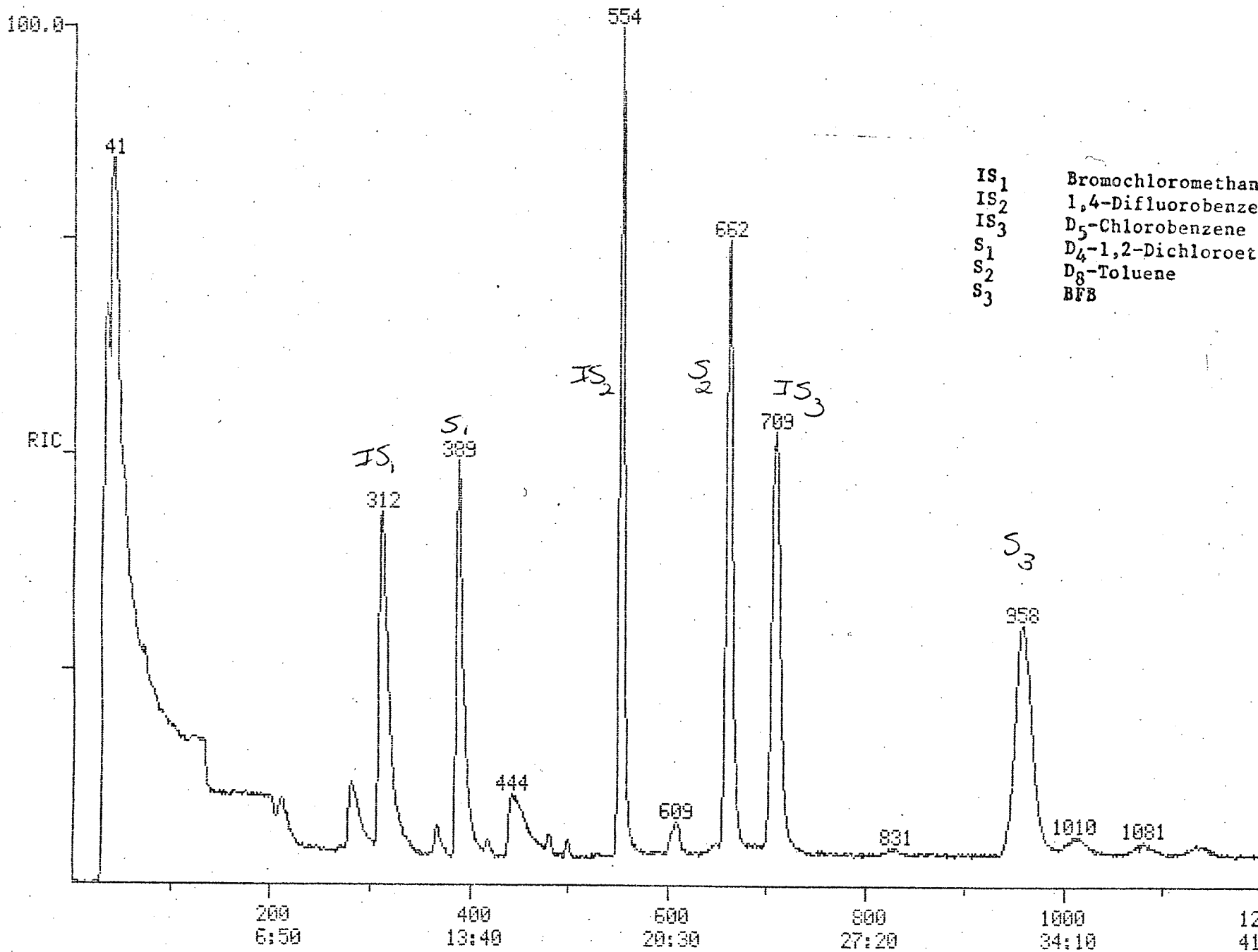
1/1/04

RIC
03/15/85 12:55:00
SAMPLE: MBI CASE 3981

DATA: U2326

SCANS 1 TO 1200

117376.



DATA: V2326.TI
03/15/85 12:55:00

MB1 case 3981

SAMPLE:
SUBMITTED BY:

ANALYST:

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LIBRARY ENTRY

- NO NAME
- 1 BROMOCHLOROMETHANE(I. S. #1)
- 2 CHLOROMETHANE
- 3 BROMOMETHANE
- 4 VINYL CHLORIDE
- 5 CHLOROETHANE
- 6 METHYLENE CHLORIDE
- 7 ACETONE
- 8 CARBON DISULFIDE
- 9 1, 1-DICHLOROETHENE
- 10 1, 1-DICHLOROETHANE
- 11 TRANS 1, 2-DICHLOROETHENE
- 12 CHLOROFORM
- 13 1, 2-DICHLOROETHANE
- 14 D4-1, 2-DICHLOROETHANE
- 15 1, 1, 1-TRICHLOROETHANE
- 16 1, 4-DIFLUOROBENZENE(I. S. #2)
- 17 CARBON TETRACHLORIDE
- 18 VINYL ACETATE
- 19 2-BUTANONE
- 20 BROMODICHLOROMETHANE
- 21 1, 2-DICHLOROPROPANE
- 22 TRANS 1, 3-DICHLOROPROPANE
- 23 TRICHLOROETHENE
- 24 DIBROMOCHLOROMETHANE
- 25 1, 1, 2-TRICHLOROETHANE
- 26 BENZENE
- 27 CIS-1, 3-DICHLOROPROPENE
- 28 BROMOFORM
- 29 D8-TOLUENE(SURR#2)
- 30 2-CHLOROETHYL VINYLETHER
- 31 D5-CHLOROBENZENE(I. S. #3)
- 32 4 METHYL 2 PENTANONE
- 33 2-HEXANONE
- 34 TETRACHLOROETHENE
- 35 1, 1, 2, 2, TETRACHLOROETHANE
- 36 TOLUENE
- 37 CHLOROBENZENE
- 38 ETHYLBENZENE
- 39 BFB(SURR#3)
- 40 STYRENE
- 41 TOTAL XYLENES

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	128	311	10:38	1	1.000	A BB	43450.	50.000 UG/L	13.94
2	NOT FOUND								
3	NOT FOUND								

NO	VE	SCAN	TIME	REF	RRT	METH	AREA (HGHT)	AMOUNT	%TOT
9	OT	FOUND							
10	OT	FOUND							
11	OT	FOUND							
12	OT	FOUND							
13	93	368	12:34	1	1.183	A BB	11552.	2.583 UG/L	0.72
14	OT	FOUND							
15	95	389	13:17	1	1.251	A BB	181589.	95.661 %REC	26.67
16	OT	FOUND							
17	14	554	18:56	16	1.000	A BB	173374.	50.000 UG/L	13.94
18	OT	FOUND							
19	OT	FOUND							
20	OT	FOUND							
21	OT	FOUND							
22	OT	FOUND							
23	OT	FOUND							
24	OT	FOUND							
25	OT	FOUND							
26	OT	FOUND							
27	OT	FOUND							
28	OT	FOUND							
29	OT	FOUND							
30	OT	FOUND							
31	OT	FOUND							
32	17	709	24:13	31	1.000	A BB	113307.	50.000 UG/L	13.94
33	OT	FOUND							
34	OT	FOUND							
35	84	608	20:46	31	0.858	A BB	955.	0.921 UG/L	0.26
36	93	611	20:53	31	0.862	A BB	2447.	2.236 UG/L	0.62
37	92	669	22:51	31	0.944	A BB	2218.	0.931 UG/L	0.26
38	12	714	24:24	31	1.007	A BB	2363.	0.966 UG/L	0.27
39	86	826	28:13	31	1.165	A BB	341.	0.288 UG/L	0.08
40	95	957	32:42	31	1.350	A BB	88109.	98.774 %REC	27.54
41	94	1081	36:56	31	1.525	A BB	6421.	4.175 UG/L	1.16
	91	1138	38:53	31	1.605	A BV	6258.	2.138 UG/L	0.60

MBI case 3981 3/15/85

MASS CHROMATOGRAM
03/15/85 12:55:00
SAMPLE:

MB1 Case 3481

DATA: U2326

SCANS 150 TO 250

100.0

84

13

215
986.
10972.

6

$$\frac{10972}{43450} \times \frac{50}{1.91} = 6.6$$

986.

84.025
± 0.500

160
5:28

180
6:09

200
6:50

220
7:31

240
8:12

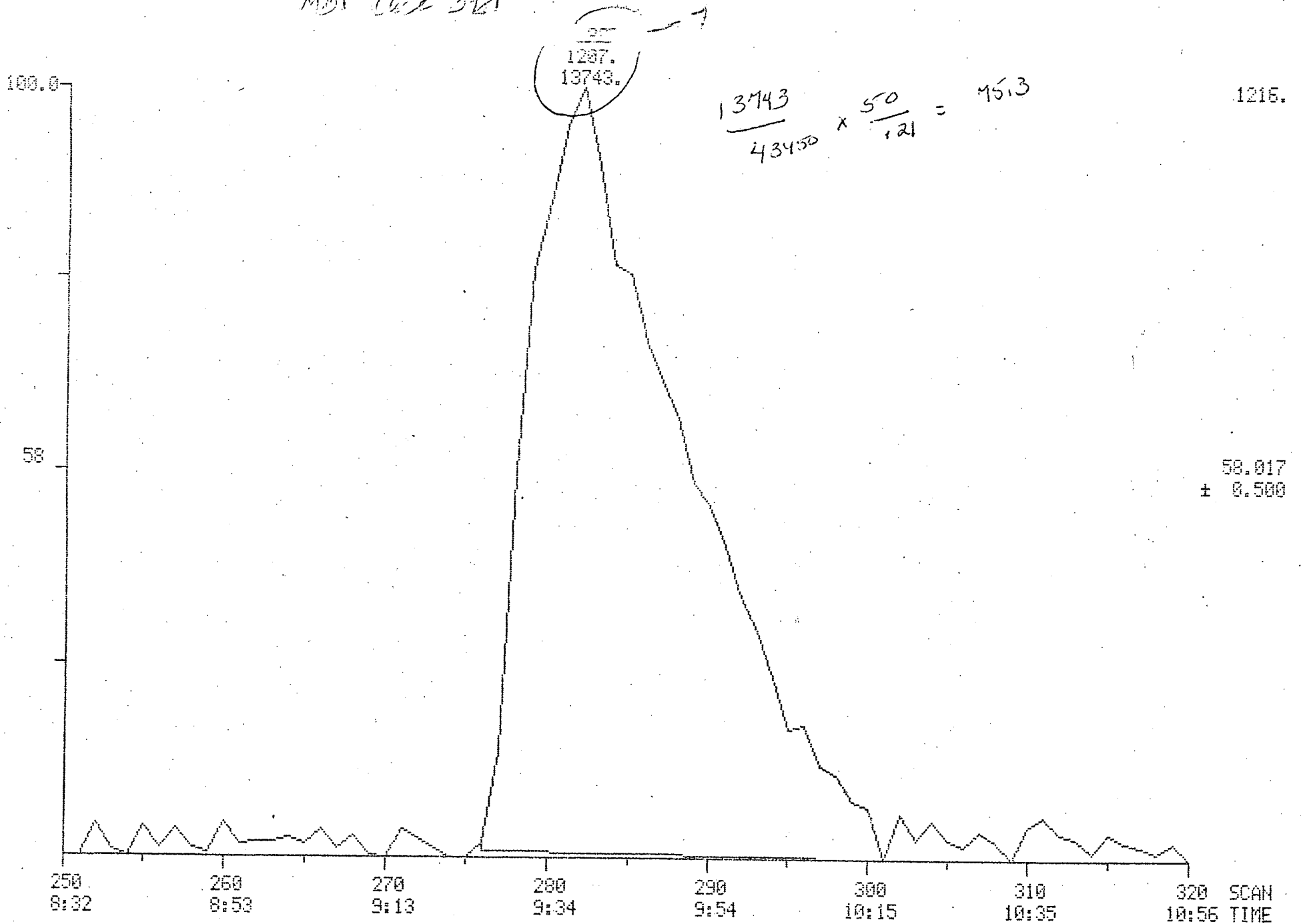
SCAN
TIME

MASS CHROMATOGRAM
03/15/85 12:55:00
SAMPLE: MBI Case 3921

DATA: U2326

SCAN 250 TO 320

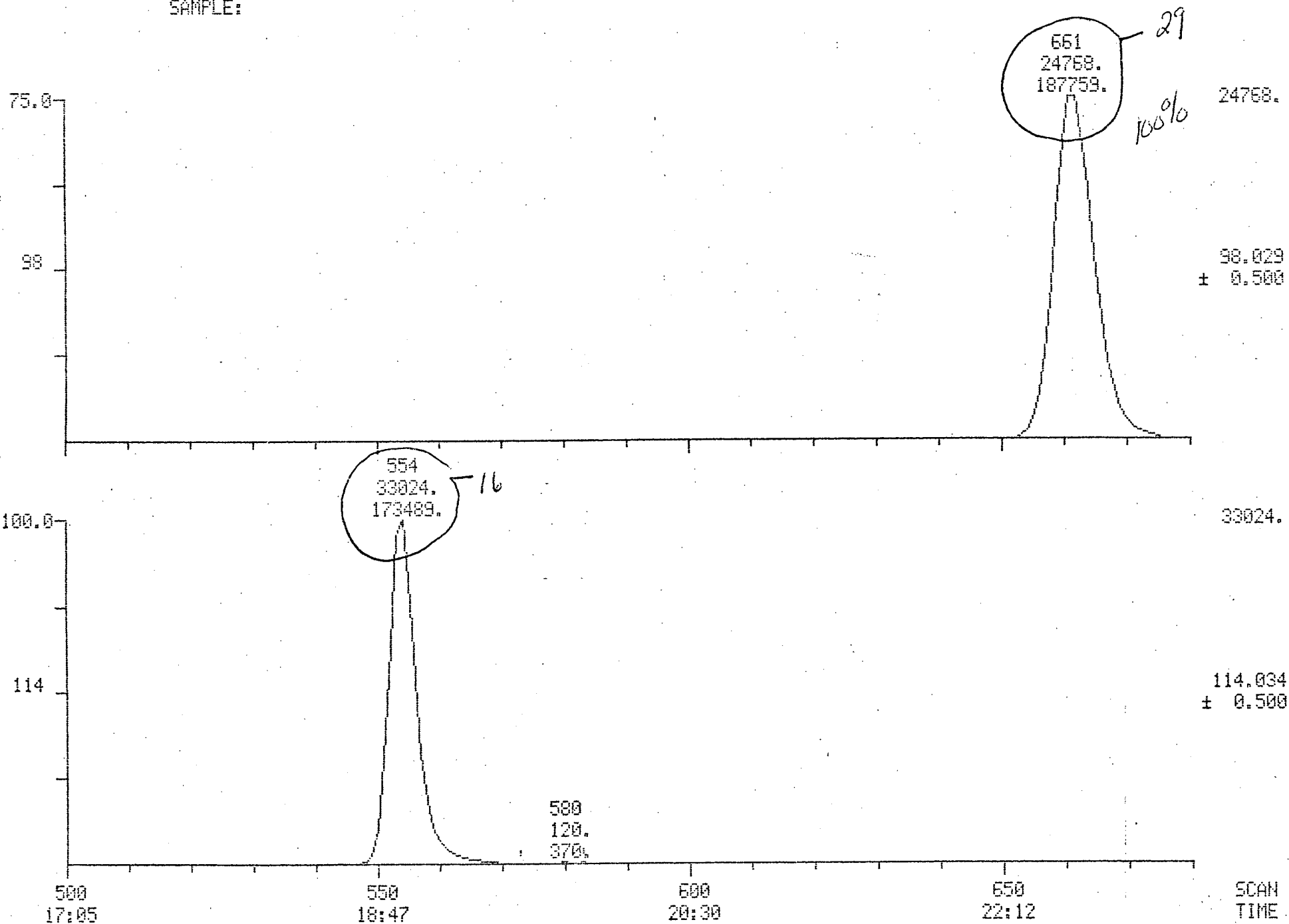
AI



MASS CHROMATOGRAMS
03/15/85 12:55:00
SAMPLE:

DATA: U2326

SCANS 500 TO 680



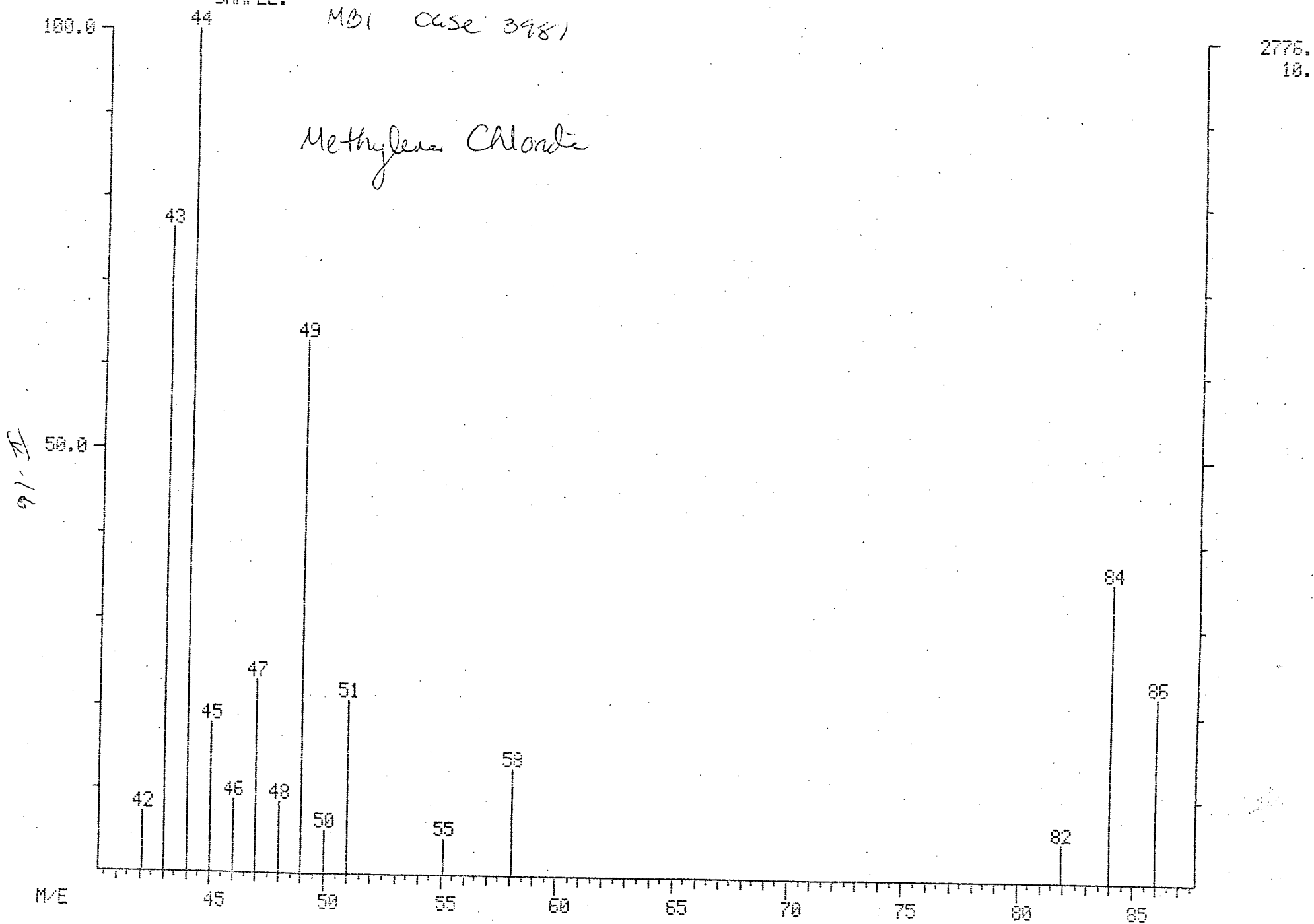
MASS SPECTRUM
03/15/85 12:55:00 + 7:21
SAMPLE:

DATA: U2325 #215

BASE M/E: 44
RIC: 11392.

MBI Case 3981

Methylene Chloride



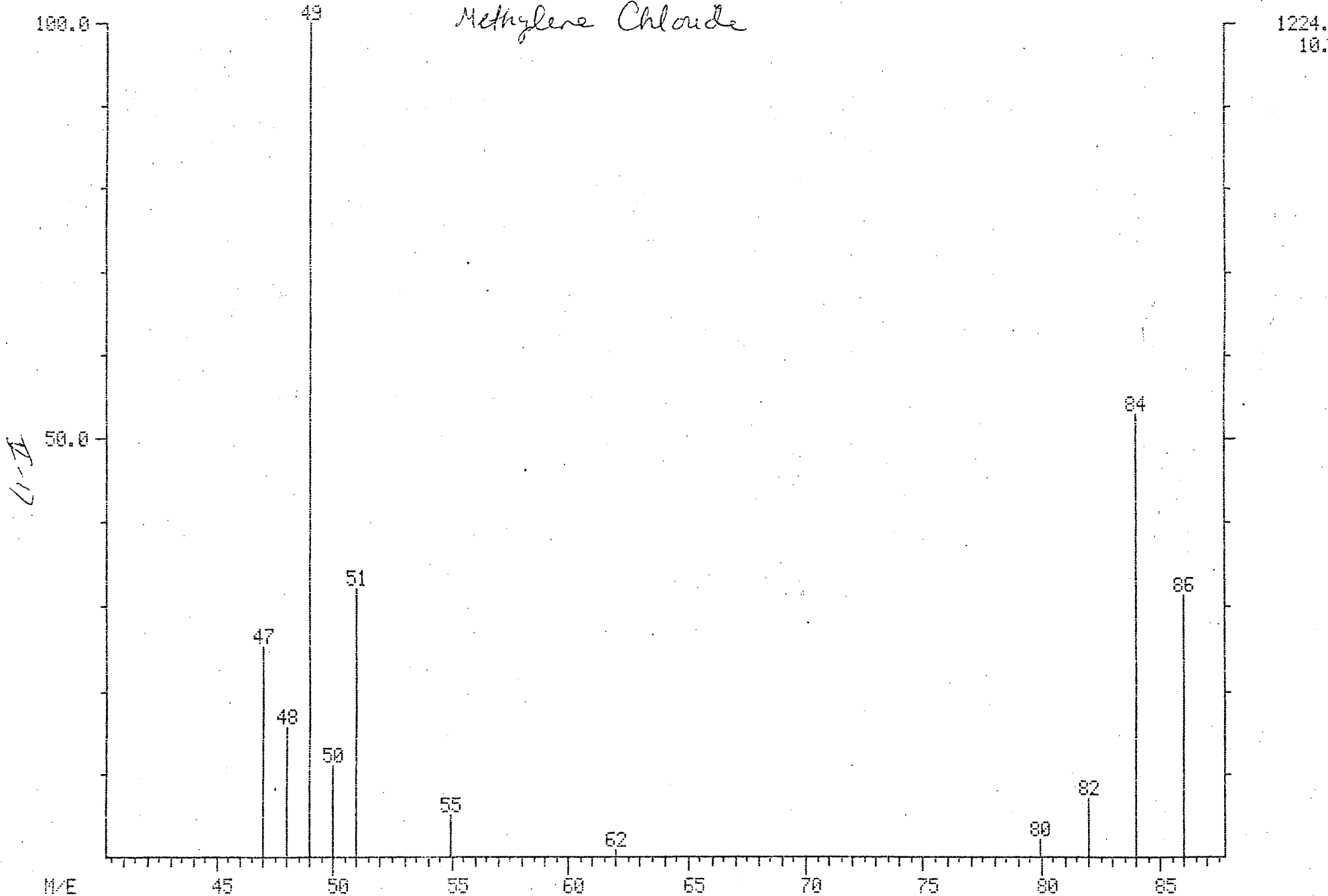
MASS SPECTRUM

DATA: 110225 2015

DATE: 11-17-83
TIME: 3:45:33

11-17-83 12:05:00 v 112
SAMPLE: MBI CASE 3981
ENHANCED (S 15B 2M)

Methylene Chloride



MASS SPECTRUM

DATA: U2708 #248

BASE M/E: 49

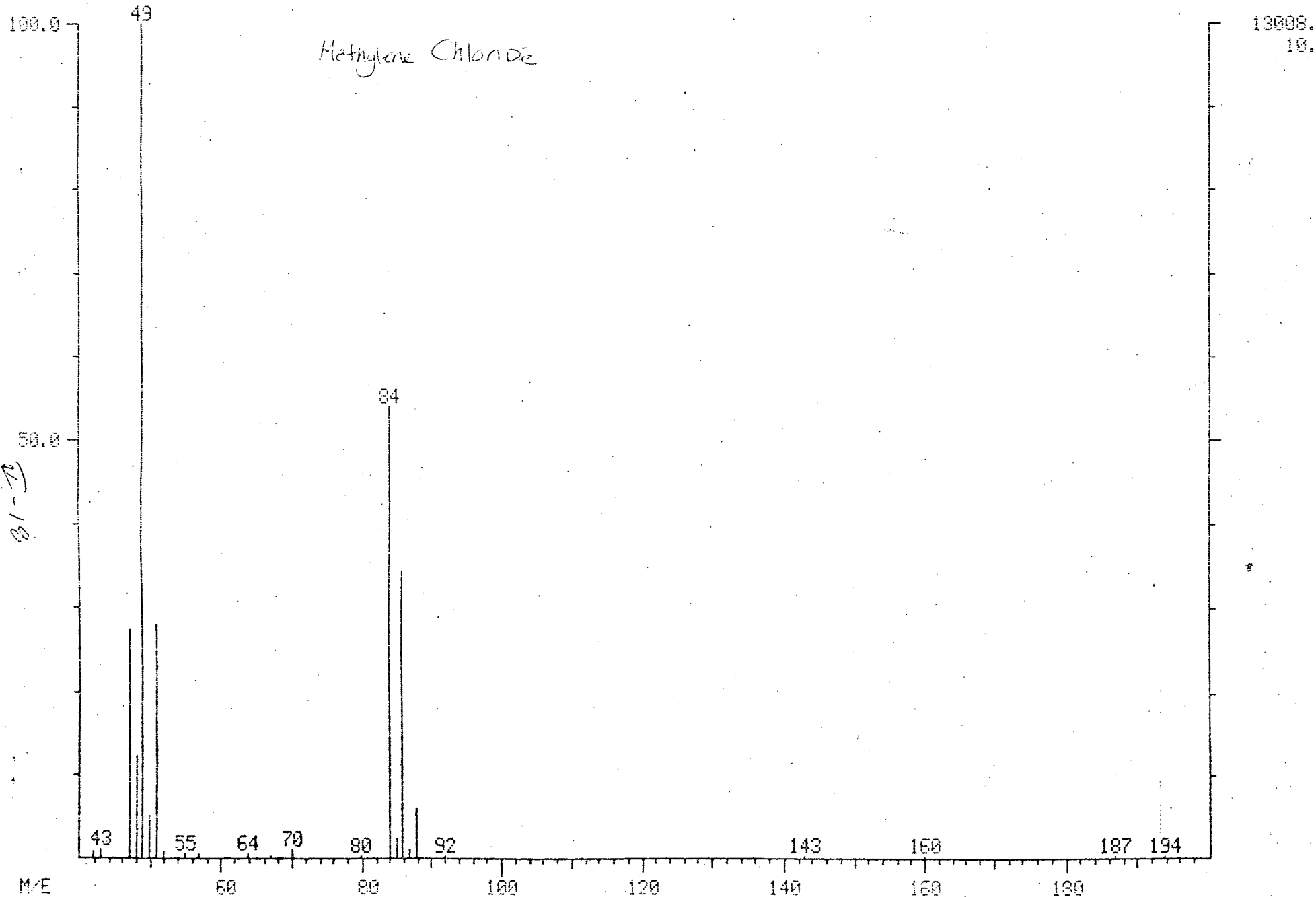
03/03/85 12:41:00 + 0:28

RIC: 35224.

SAMPLE:

ENHANCED (S 15B 2N)

396.9
CASE ~~315~~ CM 100 ppb



MASS SPECTRUM
03/15/85 12:55:00 + 9:35
SAMPLE:

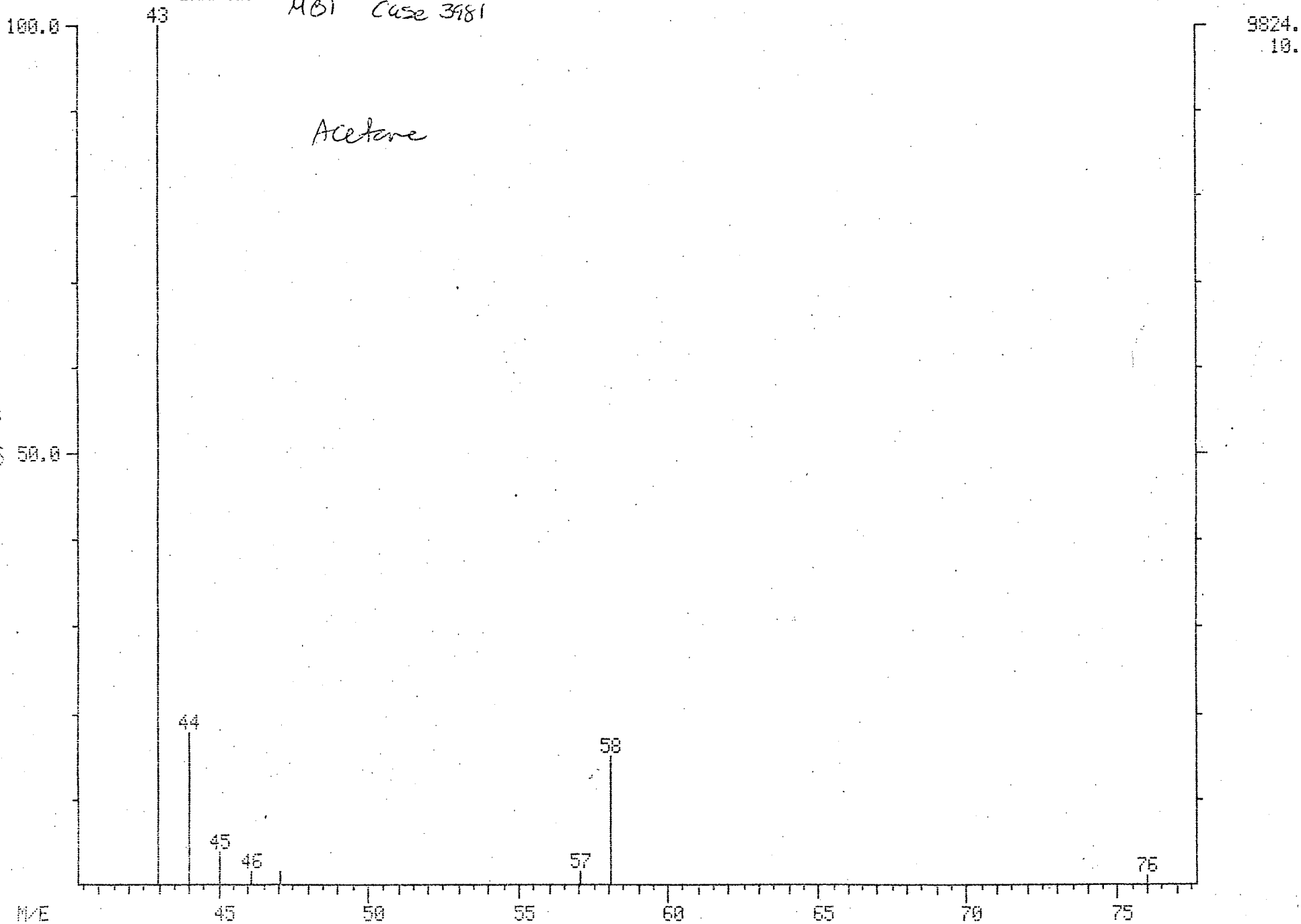
DATA: U2326 #281

BASE M/E: 43
RIC: 14016.

MB1 Case 3981

Acetone

61-A

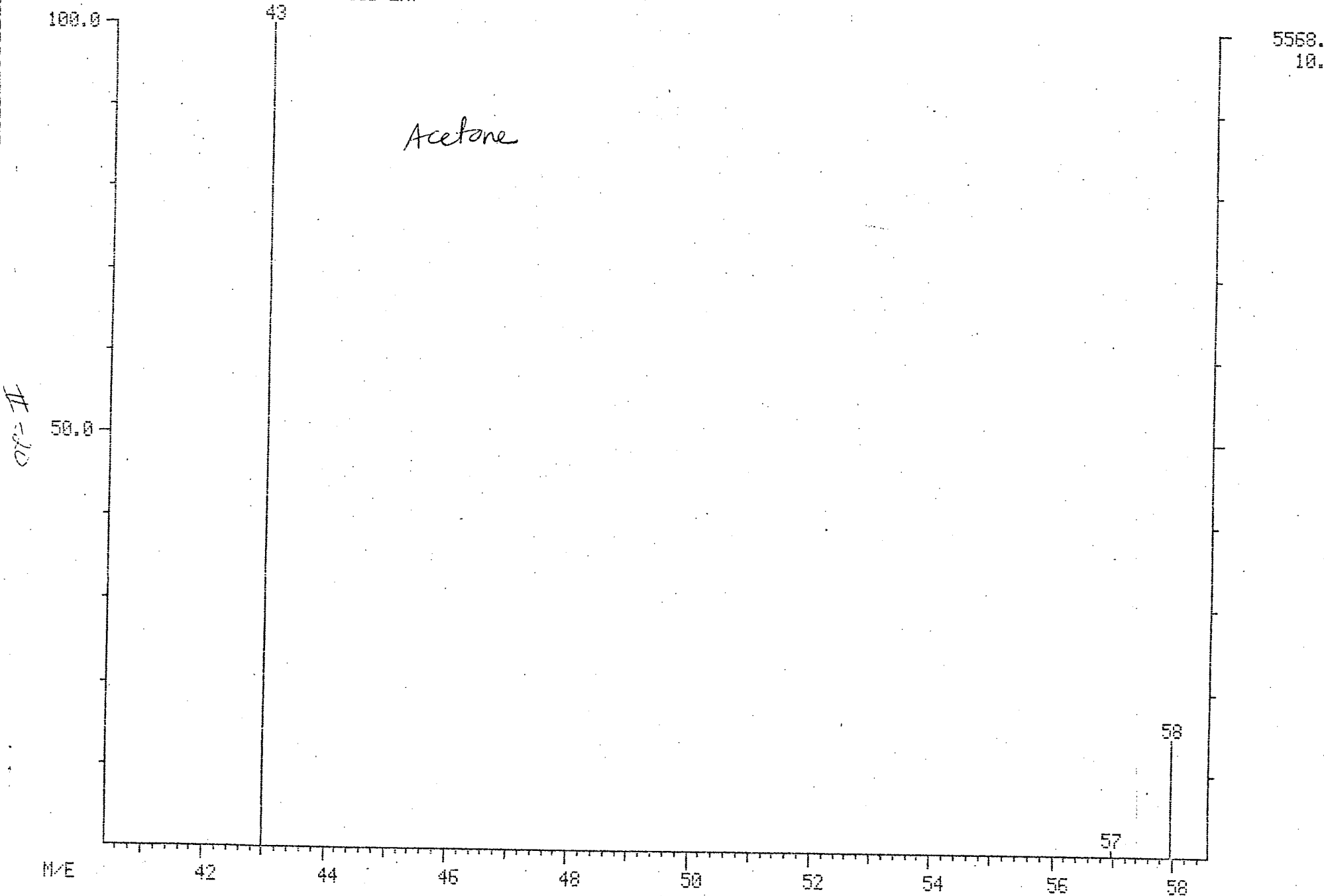


MASS SPECTRUM

25/11/05 12:03:00 # 3136
SAMPLE:
ENHANCED (S 15B 2N) MBI case 3881

DATA: 12226 1221

PREP: 40
RID: 5416.



MASS SPECTRUM

DATA: U2865 #309

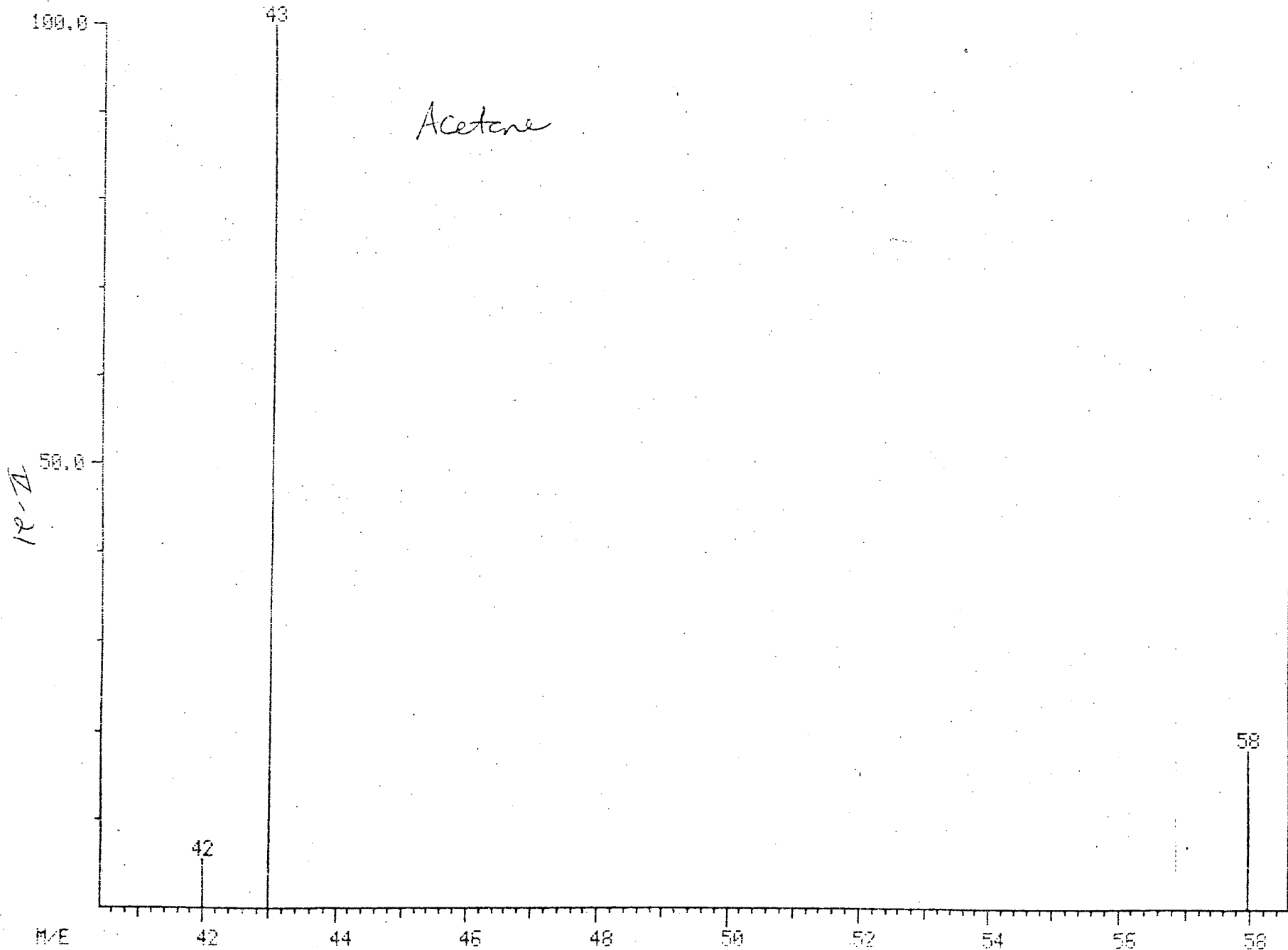
BASE P/E: 43
RIC: 4656.

03/19/95 14:37:00 + 10:33

SAMPLE: 100 PPB STD

ENHANCED (S 15B 2N)

Case 2981



378

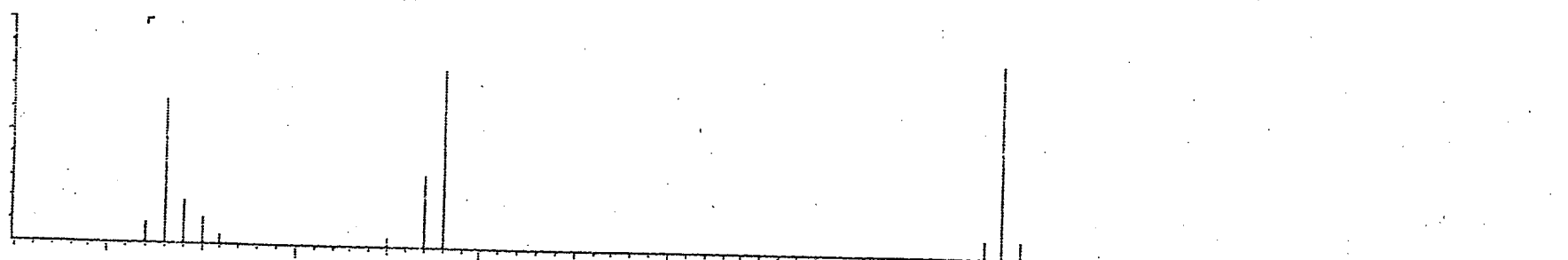
LIBRARY SEARCH
03/15/85 12:55:00 + 15:10
SAMPLE:
ENHANCED (S 15B 2N 0T)

DATA: U2326 # 444

BASE M/E: 88
RIC: 4975.

MBI case 3981

1159
SAMPLE



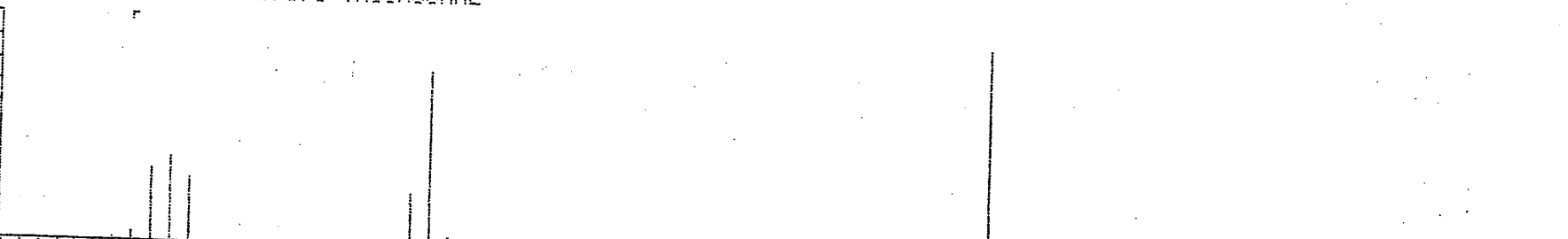
C4.H8.O2
1159
M WT 1160
D PK 0000
RANK 1
IN 551
FIT 954

1,4-DIOXANE



C5.H10.O3
1159
M WT 1160
D PK 0000
RANK 2
IN 234
FIT 925

1,3,6-TRIOXOCANE



C3.H4.O3
1159
M WT 1160
D PK 0000
RANK 0000
IN 55
FIT 774

1,3-DIOXOLAN-2-ONE



M/E

40 50 60 70 80 90 100 110

MASS CHROMATOGRAM

83/15/85 12:55:00

SAMPLE: MBI Case 3481

DATA: U2325

SCANS 400 TO 500

100.0

58

II-23

443
1896.
25525.

$$\frac{25525}{43150} \times \frac{50}{1} = 29.$$

1896.

58.017
± 0.500

400
13:40

420
14:21

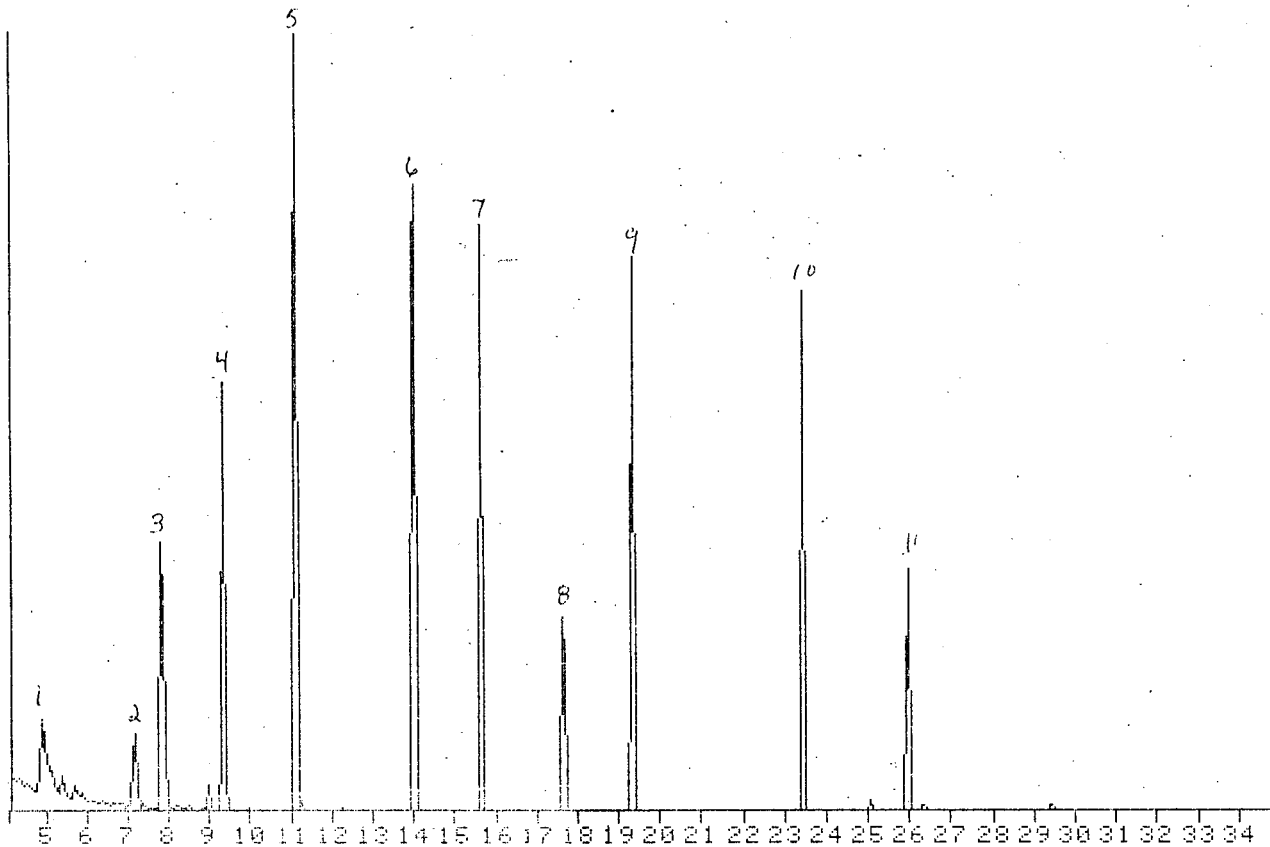
440
15:02

460
15:43

480
16:24

500 SCAN
17:05 TIME

19484



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				D4-1,4-DICHLOROBENZENE(20)
8.9	74.0	.046	.0000				N-NITROSODIMETHYLAMINE
7.2	93.0	1.095	.0000				ANILINE
7.4	93.0	.814	.0000				BIS(2-CHLOROETHYL)ETHER
7.8	146.0	.635	.0000				1,3-DICHLOROBENZENE
7.9	146.0	.682	.0000				1,4-DICHLOROBENZENE
8.4	108.0	.459	.0000				BENZYL ALCOHOL
8.4	146.0	.652	.0000				1,2-DICHLOROBENZENE
8.8	45.0	.573	.0000				BIS(2-CHLOROISOPROPYL)ETHER
9.1	70.0	.564	.0000				N-NITROSODIINPROPYLAMINE
9.1	117.0	.324	.0000				HEXACHLOROETHANE
9.4	77.0	.870	.0000				NITROBENZENE
11.1	136.0	1.000	80.0000				D8-NAPHTHALENE(20)
10.0	82.0	.724	.0000				ISOPHORONE
10.7	93.0	.484	.0000				BIS(2-CHLOROETHOXY)METHANE
11.0	100.0	.201	.0000				1,2,4-TRICHLOROBENZENE
11.2	129.0	.105	.0000				NAPHTHALENE
11.5	127.0	.401	.0000				4-CHLOROANILINE
11.7	225.0	.099	.0000				HEXACHLOROBUTADIENE
13.0	142.0	.564	.0000				2-METHYLNAPHTHALENE
15.7	164.0	1.000	80.0000				D10-ACENAPHTHENE
13.6	237.0	.248	.0000				HEXACHLOROCYCLOPENTADIENE
14.2	162.0	1.060	.0000				2-CHLORONAPHTHALENE
14.6	65.0	.507	.0000				2-NITROANILINE
15.3	163.0	1.158	.0000				DIMETHYL PHTHALATE
15.3	152.0	1.874	.0000				ACENAPHTHYLENE
15.4	165.0	.334	.0000				2,6-DINITROTOLUENE
15.7	138.0	.433	.0000				3-NITROANILINE
15.8	153.0	1.236	.0000				ACENAPHTHENE
16.2	168.0	1.476	.0000				DIBENZOFURAN
16.3	89.0	.392	.0000				2,4-DINITROTOLUENE
17.0	149.0	1.429	.0000				DIETHYL PHTHALATE
17.0	166.0	1.132	.0000				FLUORENE
17.1	204.0	.510	.0000				4-CHLOROPHENYLPHENYL ETHER
17.3	138.0	.461	.0000				4-NITROANILINE
16.2	169.0	.192	.0000				DIPHENYLAMINE

FILE NUMBER 14812
 QC 977 MB1 METHOD BLANK
 3/28/85/FM HPBTL#13 Q14812 D14812

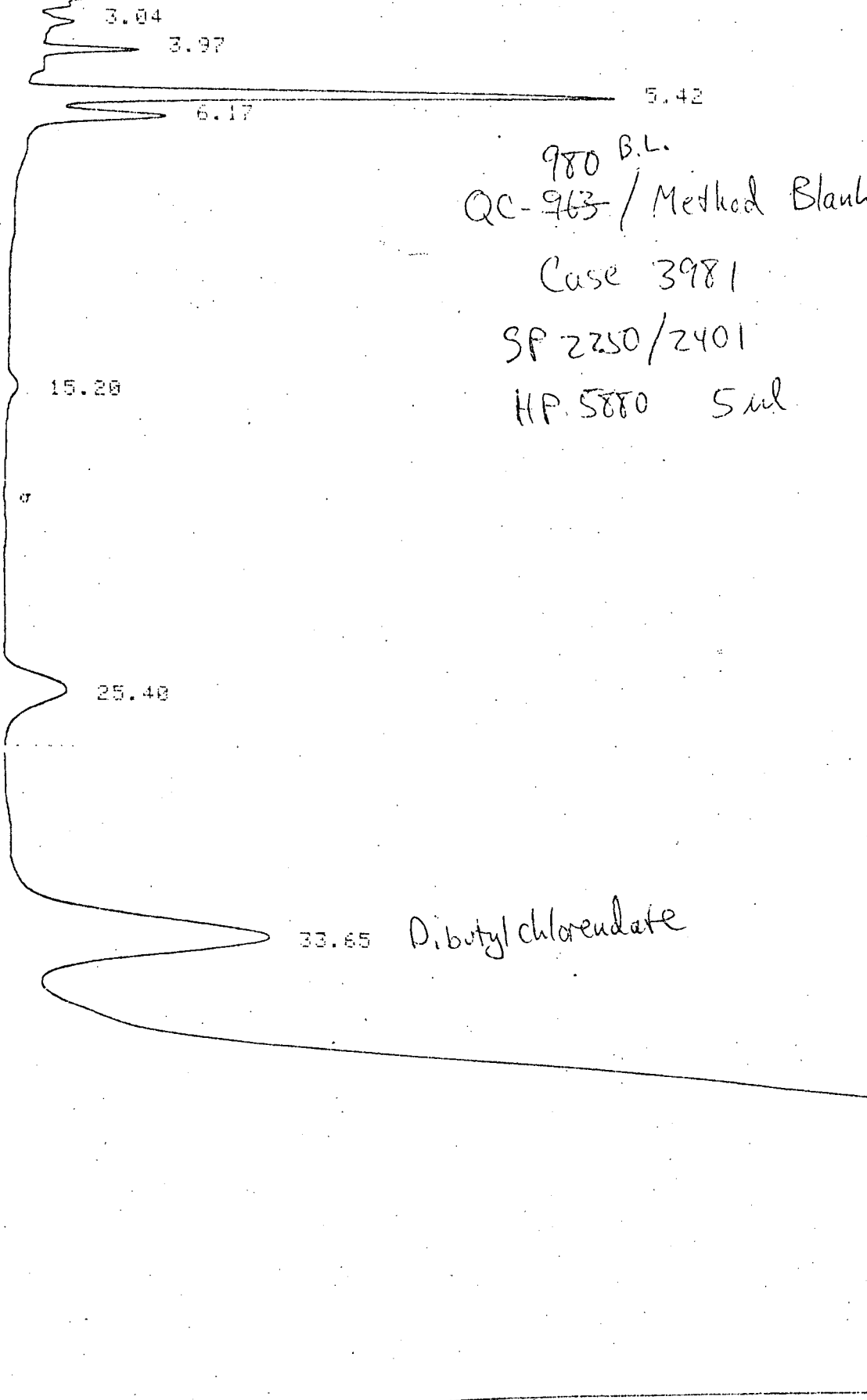
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
19.4	188.0	1.000	80.0000				D10-PHENANTHRENE(20)
18.3	248.0	.166	.0000				4-BROMOPHENYLPHENYL ETHER
18.6	284.0	.193	.0000				HEXACHLOROBENZENE
19.5	178.0	.574	.0000				PHENANTHRENE/ANTHRACENE
21.2	149.0	1.004	.0000				DIBUTYL PHTHALATE
22.4	202.0	.968	.0000				FLUORANTHENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
23.0	202.0	3.049	.0000				PYRENE
24.8	149.0	1.411	.0000				BUTYL BENZYL PHTHALATE
26.0	228.0	.555	.0000				BENZO(A)ANTHRACENE/CHRYSENE
26.3	149.0	1.345	2.2257EM				BIS(2-ETHYLHEXYL)PHTHALATE

29.4	264.0	1.000	80.0000				D12-PERYLENE
27.7	149.0	7.056	.0000				DIOCTYL PHTHALATE
28.5	252.0	1.758	.0000				BENZO(B)/(K)FLUORANTHENE
29.3	252.0	1.077	.0000				BENZO(A)PYRENE
32.7	276.0	.468	.0000				INDENO(123-CD)PYRENE
32.8	278.0	.268	.0000				DIBENZO(AH)ANTHRACENE
33.7	276.0	.341	.0000				BENZO(GHI)PERYLENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
22.8	184.0	1.004	.0000				BENZIDINE
26.0	252.0	.357	.0000				DICHLOROBENZIDINE

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				
7.2	94.0	1.311	.0000				D4-1,4-DICHLOROBENZENE(20)
7.4	128.0	.997	.0000				PHENOL
8.7	108.0	.963	.0000				2-CHLOROPHENOL
9.1	108.0	1.027	.0000				2-METHYLPHENOL
							4-METHYLPHENOL
11.1	136.0	1.000	80.0000				
10.2	139.0	.198	.0000				D8-NAPHTHALENE(20)
10.5	122.0	.299	.0000				2-NITROPHENOL
11.1	122.0	.131	.0000				2,4-DIMETHYLPHENOL
10.9	162.0	.240	.0000				BENZOIC ACID
12.8	107.0	.317	.0000				2,4-DICHLOROPHENOL
							4-CHLORO-M-CRESOL
15.7	164.0	1.000	80.0000				
13.8	196.0	.347	.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	.0000				2,4,5-TRICHLOROPHENOL
15.9	184.0	.165	.0000				2,4,6-TRICHLOROPHENOL
17.3	198.0	.197	.0000				2,4-DINITROPHENOL
16.2	65.0	.310	.0000				4,6-DINITRO-O-CRESOL
							4-NITROPHENOL
19.4	188.0	1.000	80.0000				
19.1	266.0	.122	.0000				D10-PHENANTHRENE
							PENTACHLOROPHENOL



980 B.L.
QC-963 / Method Blank
Case 3981
SP-2250/2401
HP-5880 5ul

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 23:26 APR 5, 1985

SAMPLE # : ID CODE :

15

AREA %

II-29

0.99	376.53	BB	0.046
1.13	272.20	BB	0.033
1.30	135.77	BV	0.017
1.65	45.37	FP	0.006
1.78	110.18	BB	0.013
2.04	80.92	BB	0.010
3.04	1415.35	VV	0.172
3.97	1409.77	VB	0.171
5.42	11846.00	PV	1.440
6.17	3331.39	VB	0.405
15.20	445.00	BP	0.054
25.40	4991.64	BB	0.607
33.65	27594.00	HH	3.355

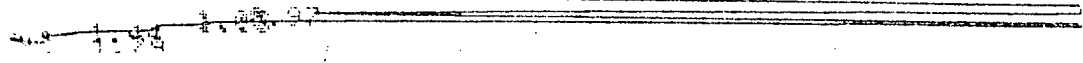
Case 3981

SP 2250 / 2401

HP 5880 Sml

TOTAL AREA = 822496.00
MULTIPLIER = 1

SI: IAN SMIM



0.31
0.00

3.96

5.43

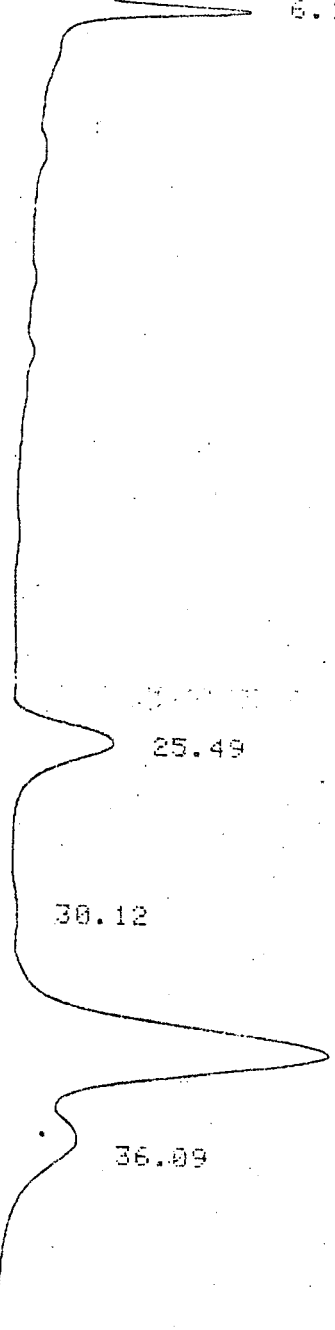
6.16

QC-980/ Method Blank

Case 3981

SP 2250/2401

HP 5880 Sml



33.74 Dibutyl chloroendate

RT: STOP RUN

HP 5880A SAMPLER INJECTION @ 18:58 APR 8, 1985

SAMPLE # : ID CODE :

62

AREA %

RT	AREA	TYPE	AREA %
0.32	417962.00	SBV	83.027
0.42	4133.47	BB	0.821
0.56	642.67	BB	0.128
0.66	4793.75	BB	0.952
0.81	13339.00	BB	2.659
0.99	538.63	BB	0.008
1.13	229.76	BB	0.046
1.30	117.52	BB	0.023

QC-980/ Method Blank

Case 3981 #31

5.46	13260.98	BV	2.804
6.16	3518.44	VB	0.699
25.49	6475.03	BB	1.236
39.12	550.74	BW	0.101
33.74	26158.60	VW	5.196
36.89	6994.42	A VP	1.369

TOTAL AREA = 503405.00

MULTIPLIER = 1

Laboratory Name: GCA Case No: 3981
 Lab Sample ID No: 43334 OC Report No: 3981
 Sample Matrix: water Contract No: 68-01-6767
 Data Release Authorized By: _____ Date Sample Received: 3-8-85

Volatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 3/15/85
 Date Analyzed: 3/15/85
 Conc/Dil Factor: 1 pH: NA
 Percent Moisture: NA
 Percent Moisture (Decanted): NA

CAS Number	Compound	ug/l or ug/kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	7.5
67-64-1	Acetone	5.9
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethane	
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-56-3	Chloroform	12
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number	Compound	ug/l or ug/kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
75-97-5	1, 2-Dichloropropane	5U
10061-07-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-7	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylmethyl ether	10U
75-25-2	Bromoform	5U
591-78-6	2-Hexanone	10U
108-10-1	4-Methyl-2-Pentanone	10U
127-18-4	Tetrachloroethene	5U
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylene	5U

Units: ug/l or ug/kg (circle one)
 The following table lists the following quality standards:
 A: as a guide to the following quality standards:
 B: as a guide to the following quality standards:
 C: as a guide to the following quality standards:

- V: If the result is a value greater than or equal to the detection limit, report the value.
- U: Indicates compound was analyzed but not detected. Report the maximum detection limit for the compound. (e.g., 10U based on maximum detection limit of 10 ug/l). The test was performed at the detection limit. The test was performed at the detection limit. The number is the maximum detection limit for the sample.
- J: Indicates an estimated value. The following is a list of compounds which are estimated values for tentatively identified compounds when a 10% response is observed or when the mass spectrum of the compound is similar to that of a compound in the library. The test was performed at the detection limit.
- C: The following is a list of pesticide parameters where the detection limit has been confirmed by GC-MS. Single component pesticides: 10 ng/l in the final extract detected by GC-MS.
- P: The following is a list of pesticides where the blank was not analyzed. It indicates possible probable blank contamination and warns the data user to take appropriate action.
- O: Other specific organics and pesticides may be required to properly define the results. If used, they must be fully described in the test report description and added to the data laboratory report.

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Organics Analysis Data Sheet

(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/11/95

Date Analyzed: 3/28/95

Conc/Dil Factor: 500ml -> 1.0ml

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10u
108-95-2	Phenol	
62-53-3	Aniline	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	10u
108-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	10u
95-50-1	1,2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39530-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
68-75-5	2-Nitrophenol	10u
105-67-9	2,4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2,4-Dichlorophenol	10u
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
83-06-2	2,4,6-Trichlorophenol	10u
95-95-4	2,4,5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-9	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

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	10u
121-14-2	2,4-Dinitrotoluene	10u
606-20-2	2,6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4,6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
92-87-5	Benzidine	50u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	10u
91-94-1	3,3'-Dichlorobenzidine	50u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1,2,3-cd)Pyrene	10u
53-70-3	Dibenzo(a,h)Anthracene	10u
191-24-2	Benzo(g,h,i)Perylene	10u

(1) Cannot be separated from diphenylamine

Sample Number
AB042MS.

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/12/85

Date Analyzed: 4/8/85

Conc/Dil Factor: 1

CAS Number ug/l or ug/Kg (Circle One)

319-84-6	Alpha-BHC	0.050
319-85-7	Beta-BHC	0.050
319-86-8	Delta-BHC	0.050
58-89-9	Gamma-BHC (Lindane)	0.268
76-44-8	Heptachlor	0.270
309-00-2	Aldrin	0.256
1024-57-3	Heptachlor Epoxide	0.050
959-98-8	Endosulfan I	0.050
60-57-1	Dieldrin	0.726
72-55-9	4, 4'-DDE	0.100
72-20-8	Endrin	1.09
33213-65-9	Endosulfan II	0.100
72-54-8	4, 4'-DDD	0.100
7421-93-4	Endrin Aldehyde	0.100
1031-07-8	Endosulfan Sulfate	0.100
50-29-3	4, 4'-DDT	0.758
72-43-5	Methoxychlor	0.500
53494-70-5	Endrin Ketone	0.100
57-74-9	Chlordane	0.500
8001-35-2	Toxaphene	1.00
12674-11-2	Aroclor-1016	0.500
11104-28-2	Aroclor-1221	0.500
11141-16-5	Aroclor-1232	0.500
53469-21-9	Aroclor-1242	0.500
12672-29-6	Aroclor-1248	0.500
11097-69-1	Aroclor-1254	1.00
11096-82-5	Aroclor-1260	1.00

J. M. Hall
 4/10/85

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500 ml or W_s _____ V_i 10,000 ul V_t 5.0 ul

Sample Number
AB 054 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.	<i>1,1,1-Trichloroethane</i>	<i>NOA</i>	<i>1025</i>	<i>6.5</i>
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
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16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Printed on 5-29-84 Page 36

AB043MS

Tentatively Identified Compounds

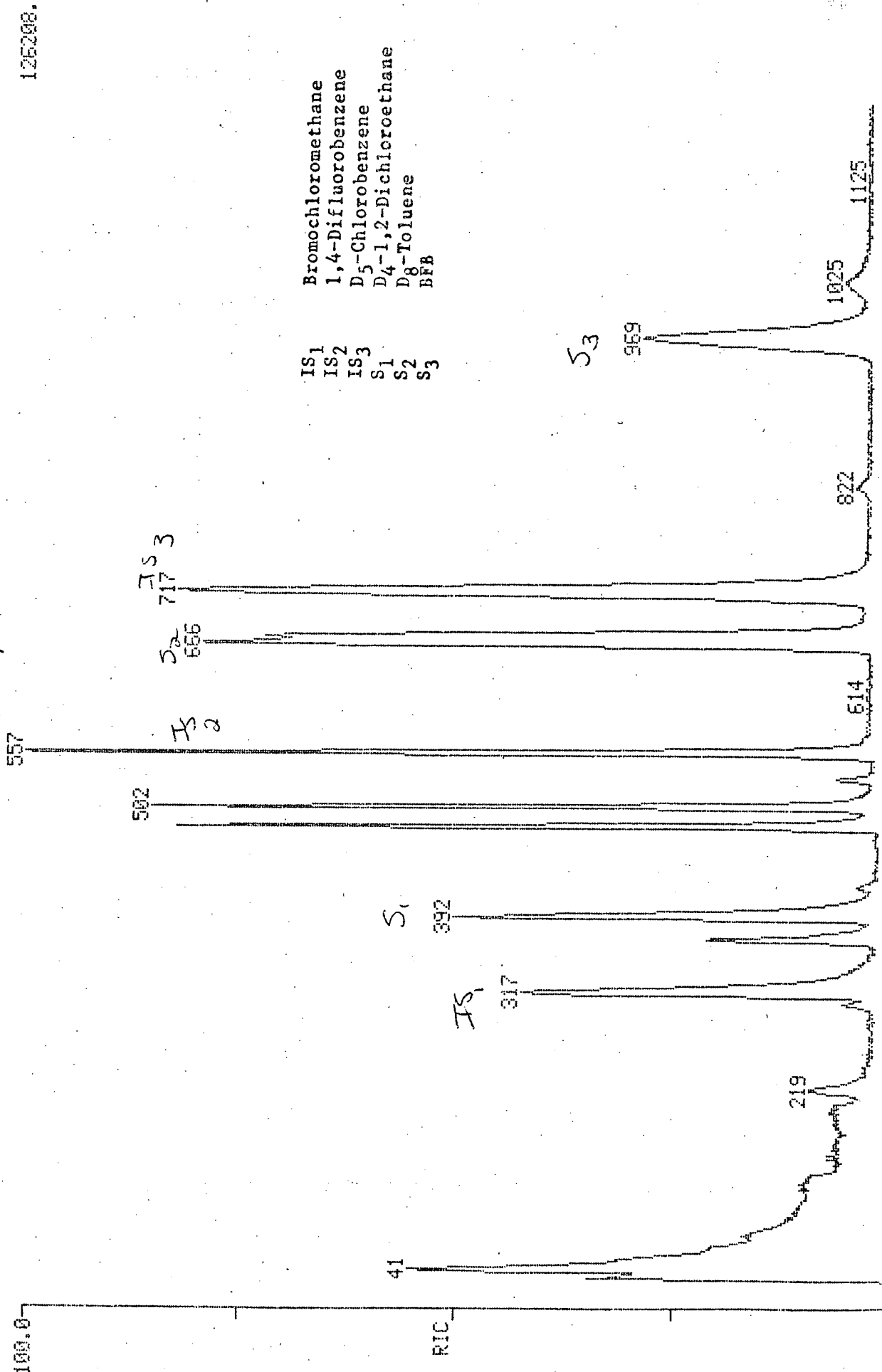
CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No compound found	B/N/A		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.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

RIC
03/16/85 4:46:00
SAMPLE: AB 654 MS case 3981 43337

DATA: U2844

SCANS 1 TO 1200

100.0



200 400 600 800 1000 1200 SCAN
6:50 13:40 20:30 27:20 34:10 41:00 TIME

2-30

DATA: V2844.TI
 03/16/85 4:46:00
 SAMPLE:

AB 054 MS CAS 3981

SUBMITTED BY: ANALYST:

AMOUNT=AREA(HGHT) * REF.AMNT/(REF.AREA(HGHT)* RESP.FACT)
 RESP.FAC. FROM LIBRARY ENTRY

- NO NAME
- 1 BROMOCHLOROMETHANE (I. S. #1)
- 2 CHLOROMETHANE
- 3 BROMOMETHANE
- 4 VINYL CHLORIDE
- 5 CHLOROETHANE
- 6 METHYLENE CHLORIDE
- 7 ACETONE
- 8 CARBON DISULFIDE
- 9 1, 1-DICHLOROETHENE
- 10 1, 1-DICHLOROETHANE
- 11 TRANS 1, 2-DICHLOROETHENE
- 12 CHLOROFORM
- 13 1, 2-DICHLOROETHANE
- 14 D4-1, 2-DICHLOROETHANE
- 15 1, 1, 1-TRICHLOROETHANE
- 16 1, 4-DIFLUOROBENZENE (I. S. #2)
- 17 CARBON TETRACHLORIDE
- 18 VINYL ACETATE
- 19 2-BUTANONE
- 20 BROMODICHLOROMETHANE
- 21 1, 2-DICHLOROPROPANE
- 22 TRANS 1, 3-DICHLOROPROPANE
- 23 TRICHLOROETHENE
- 24 DIBROMOCHLOROMETHANE
- 25 1, 1, 2-TRICHLOROETHANE
- 26 BENZENE
- 27 CIS-1, 3-DICHLOROPROPENE
- 28 BROMOFORM
- 29 D8-TOLUENE (SURR#2)
- 30 2-CHLOROETHYL VINYLETHER
- 31 D5-CHLOROBENZENE (I. S. #3)
- 32 4 METHYL 2 PENTANONE
- 33 2-HEXANONE
- 34 TETRACHLOROETHENE
- 35 1, 1, 2, 2, TETRACHLOROETHANE
- 36 TOLUENE
- 37 CHLOROBENZENE
- 38 ETHYLBENZENE
- 39 BFB (SURR#3)
- 40 STYRENE
- 41 TOTAL XYLENES

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	128	317	10:50	1	1.000	A BB	50044.	50.000 UG/L	10.52
2	NOT FOUND								
3	NOT FOUND								

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
4		NOT FOUND							
5		NOT FOUND							
6		NOT FOUND							
7	58	297	10:09	1	0.937	A VV	1226.	5.879 UG/L	1.24
8		NOT FOUND							
9		NOT FOUND							
10		NOT FOUND							
11		NOT FOUND							
12	83	370	12:38	1	1.167	A BB	64460.	12.514 UG/L	2.63
13		NOT FOUND							
14	65	392	13:24	1	1.237	A BB	196158.	89.720 %REC	18.87
15		NOT FOUND							
16	114	556	19:00	16	1.000	A BB	213565.	50.000 UG/L	10.52
17		NOT FOUND							
18		NOT FOUND							
19		NOT FOUND							
20		NOT FOUND							
21		NOT FOUND							
22		NOT FOUND							
23	130	482	16:28	16	0.867	A BB	71484.	44.011 UG/L	9.26
24		NOT FOUND							
25		NOT FOUND							
26	78	502	17:09	16	0.903	A BB	194767.	38.865 UG/L	8.17
27		NOT FOUND							
28		NOT FOUND							
29	98	665	22:43	16	1.196	A BB	217793.	89.397 %REC	18.80
30		NOT FOUND							
31	117	714	24:24	31	1.000	A BB	139287.	50.000 UG/L	10.52
32		NOT FOUND							
33		NOT FOUND							
34		NOT FOUND							
35		NOT FOUND							
36	92	672	22:58	31	0.941	A BB	131934.	45.072 UG/L	9.48
37		NOT FOUND							
38		NOT FOUND							
39		NOT FOUND							
40		NOT FOUND							
41		NOT FOUND							

AB 054 MS Case 3981 3/16/85

II-40

MASS CHROMATOGRAM

03/16/85 4:46:00

SAMPLE: AB054 MS CASE 3981

DATA: U2844

SCANS 180 TO 250

219
1626.
18242

$$\frac{18242}{50044} \times \frac{50}{1.91} = 9.5$$

1626.

14-11

100.0

84

84.025
± 0.500

243
165.
165.

180 190 200 210 220 230 240 250 SCAN
6:09 6:29 6:50 7:10 7:31 7:51 8:12 8:32 TIME

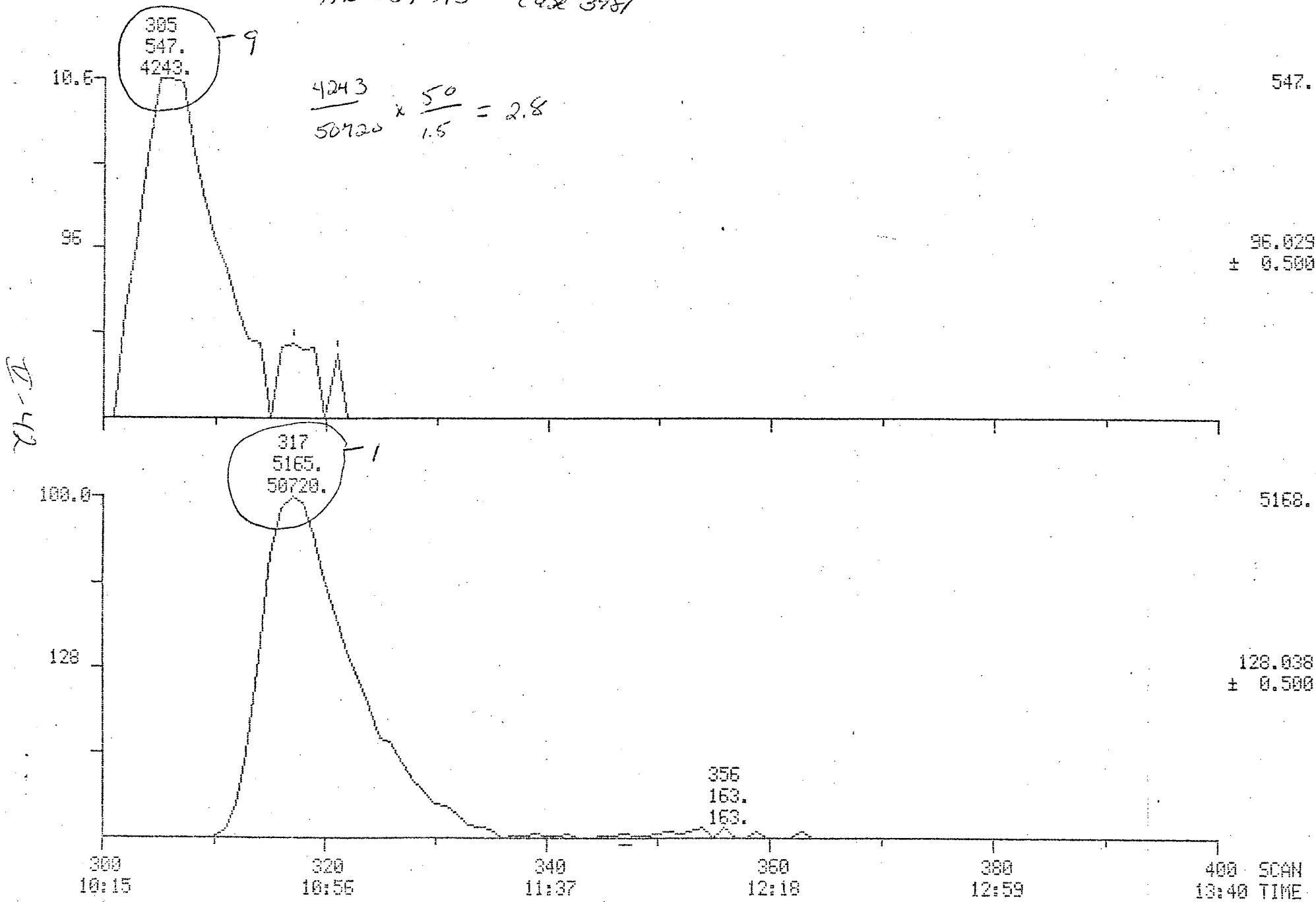
MASS CHROMATOGRAMS

DATA: U2844

SCANS 380 TO 400

03/15/85 4:46:00

SAMPLE: AB 054 MS CASE 3981

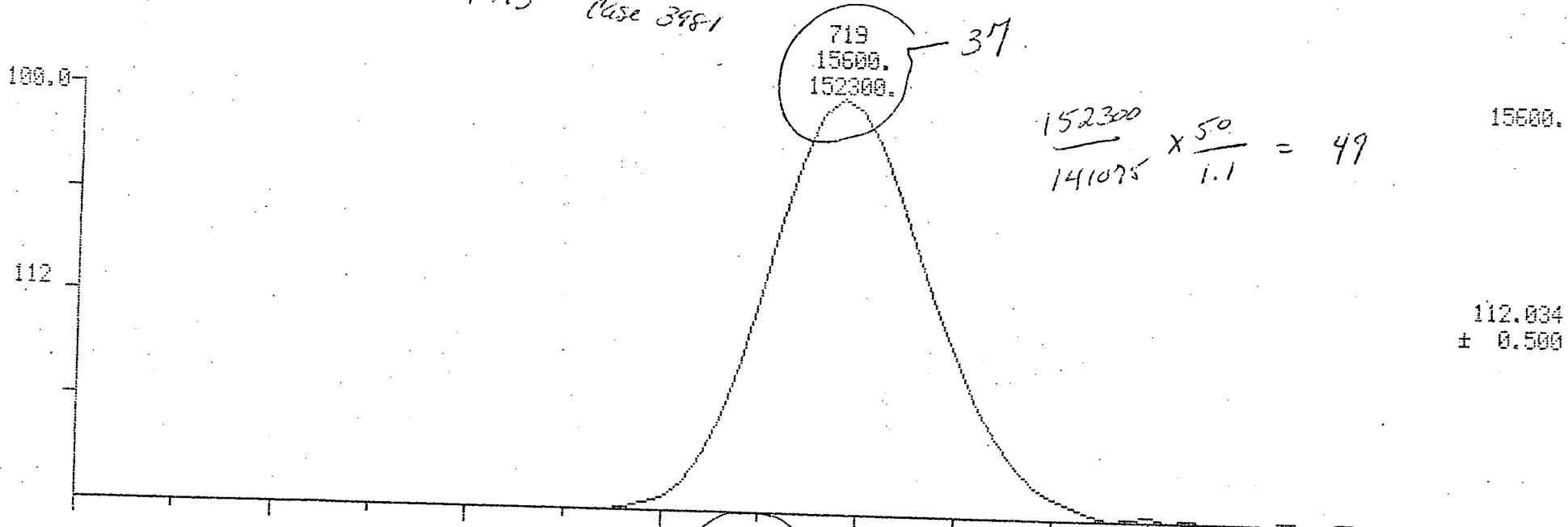


MASS CHROMATOGRAMS
03/15/85 4:45:00
SAMPLE:

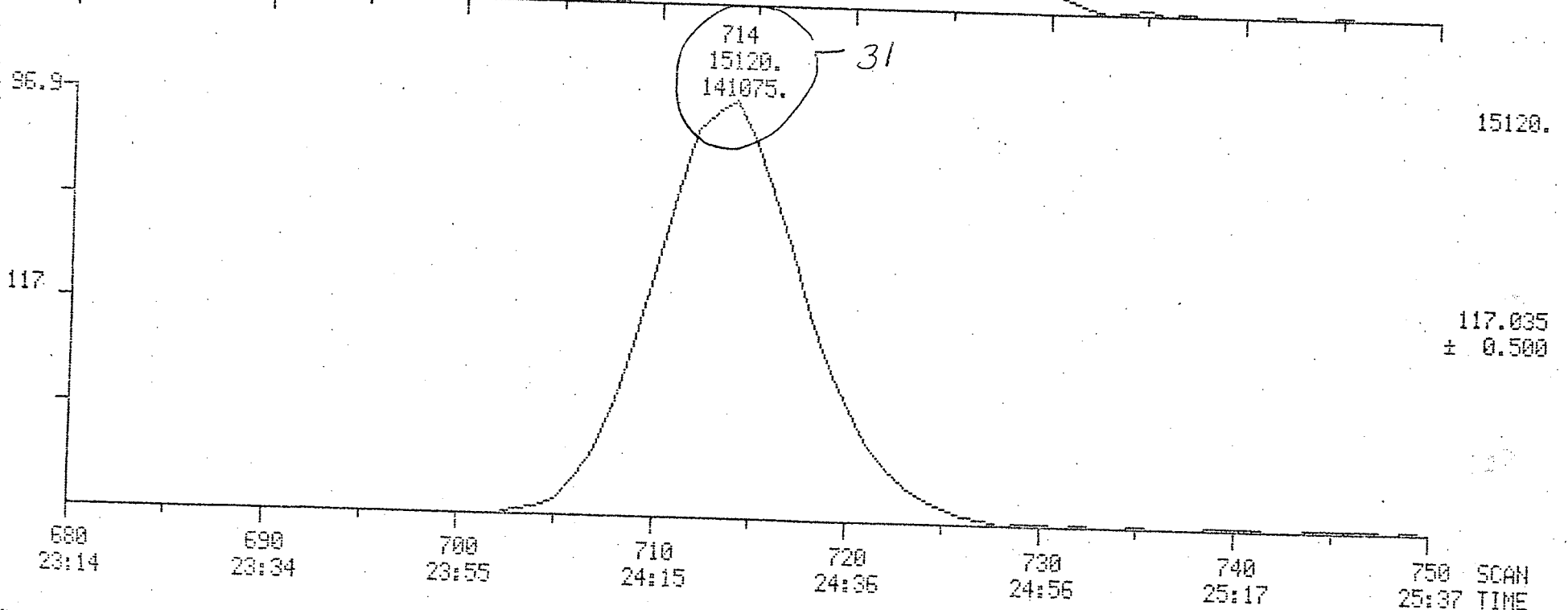
DATA: U2844

SCANS 680 TO 750

AB 054 MS Case 3981



II-43



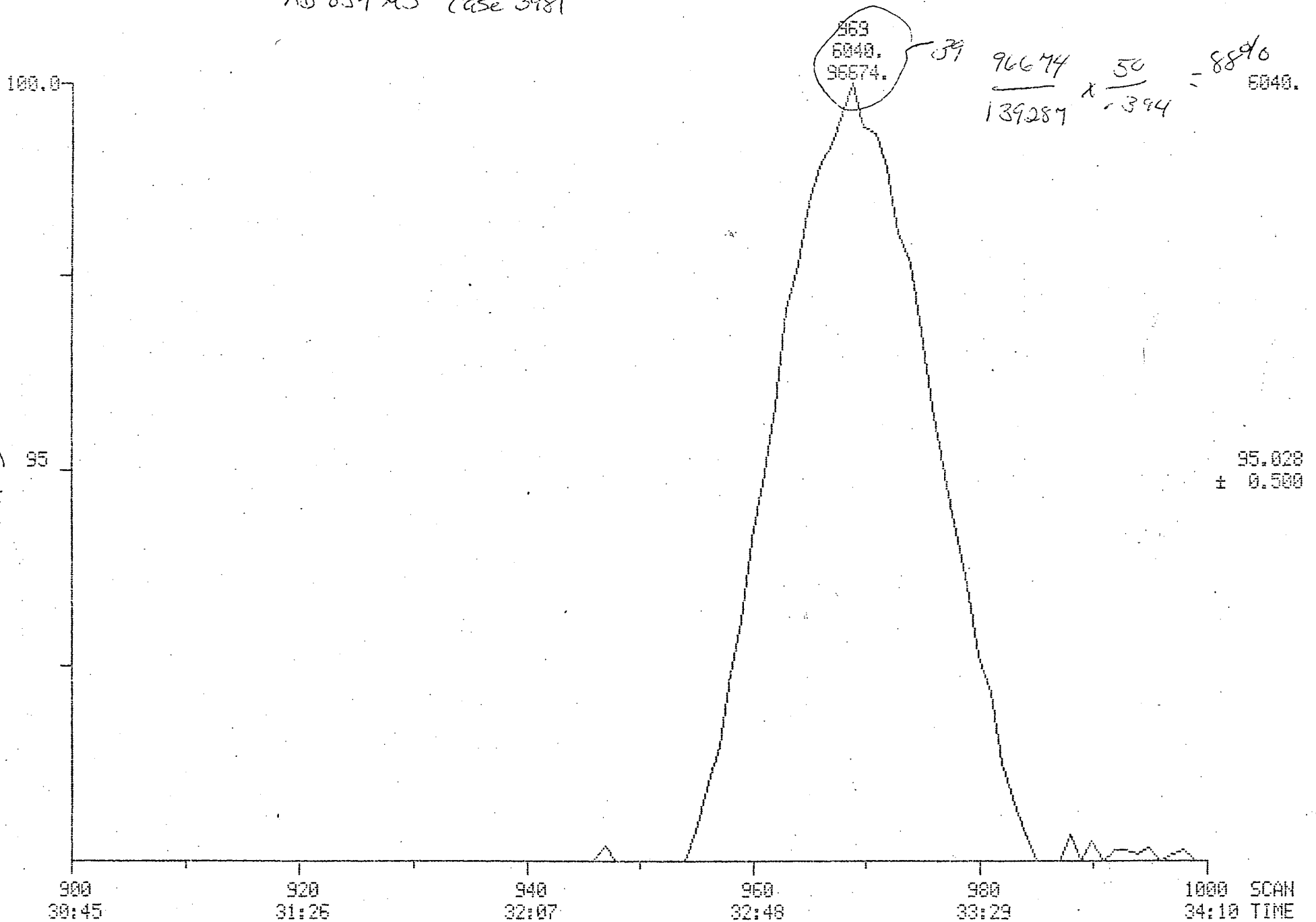
MASS CHROMATOGRAM

03/15/85 4:45:00

SAMPLE: AB 054 MS Case 3981

DATA: U2844

SCANS 900 TO 1000



LIBRARY SEARCH

DATA: U2844 #1025

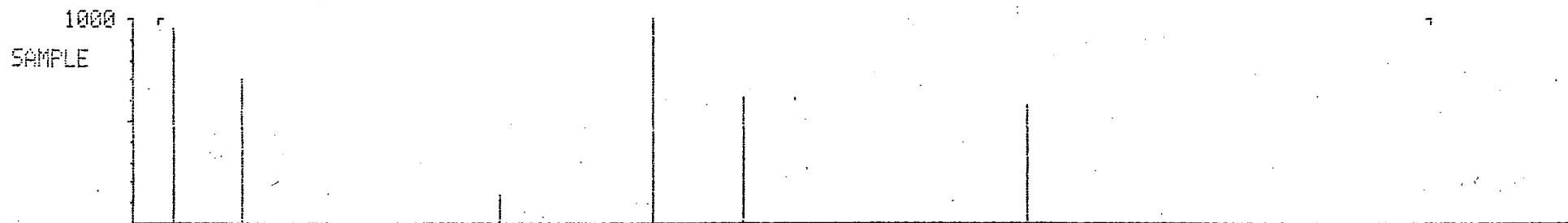
BASE M/E: 119

03/16/85 4:45:00 + 35:01

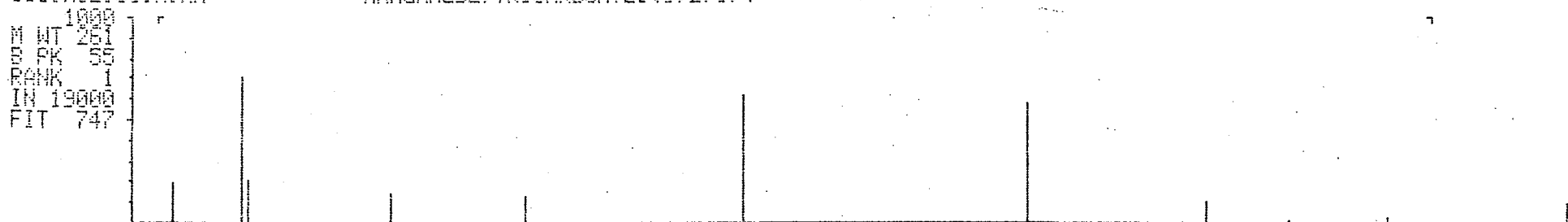
RIC: 514.

SAMPLE: AB 054 MS CASE 3781

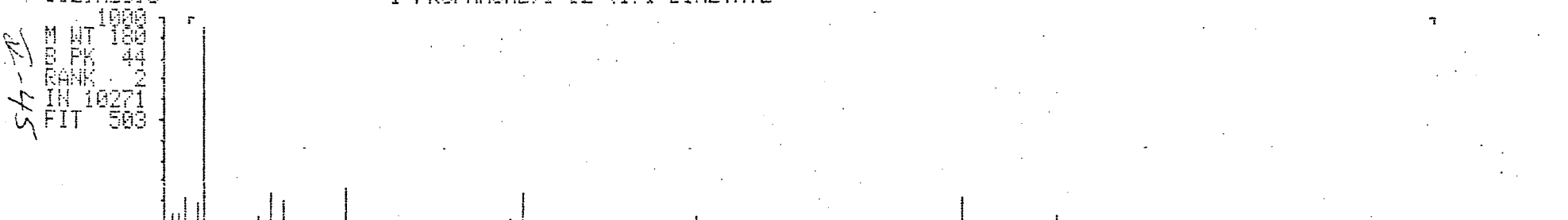
ENHANCED (S 15B 2N 0T)



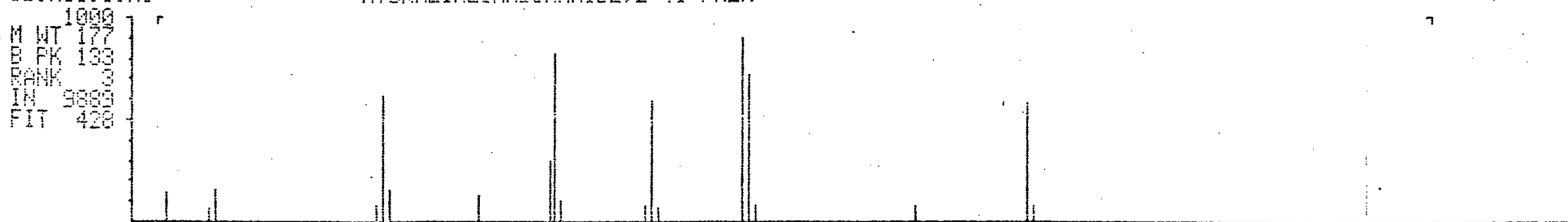
C11.H12.O3.N.MN MANGANESE,TRICARBONYL(1,2,3,4



C12.H20.O 1-PROPANONE,1-[2-(1,1-DIMETHYL



C9.H11.O.N3 HYDRAZINECARBOXYAMIDE,2-(1-PHEN

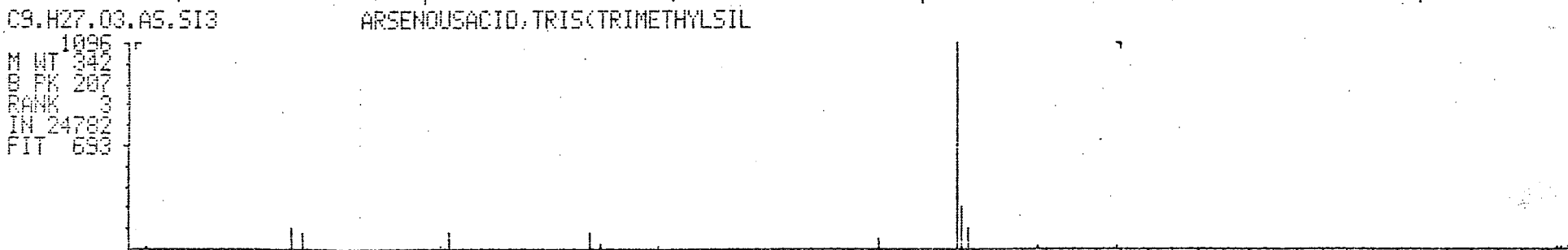
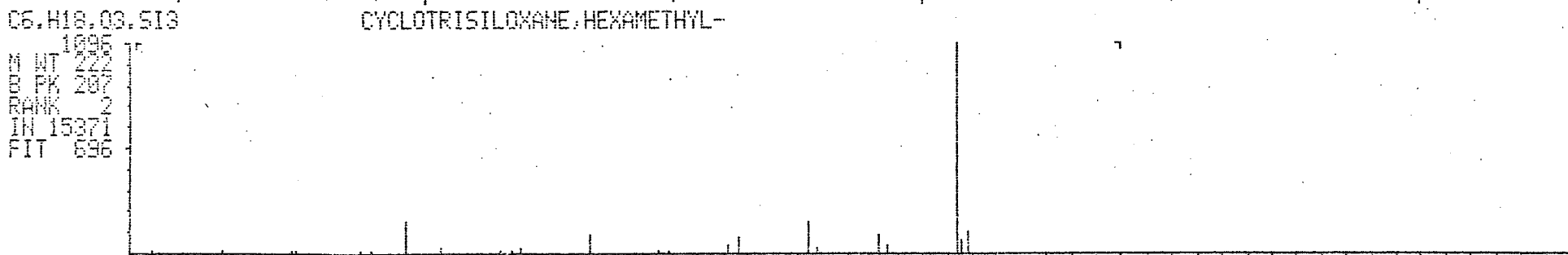
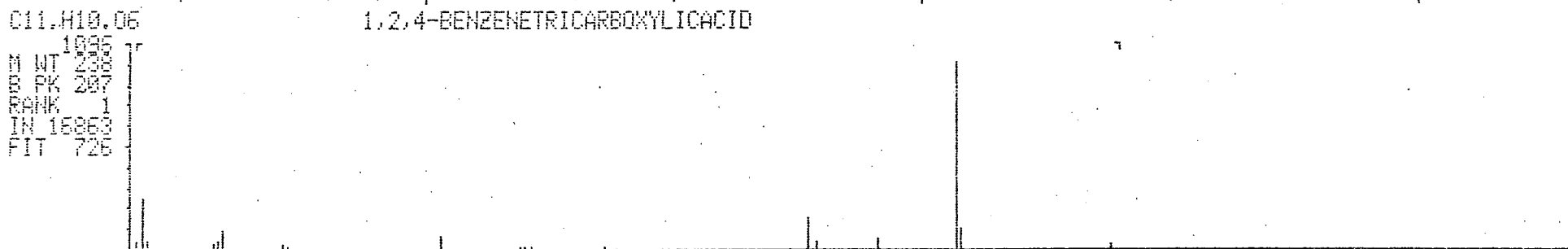
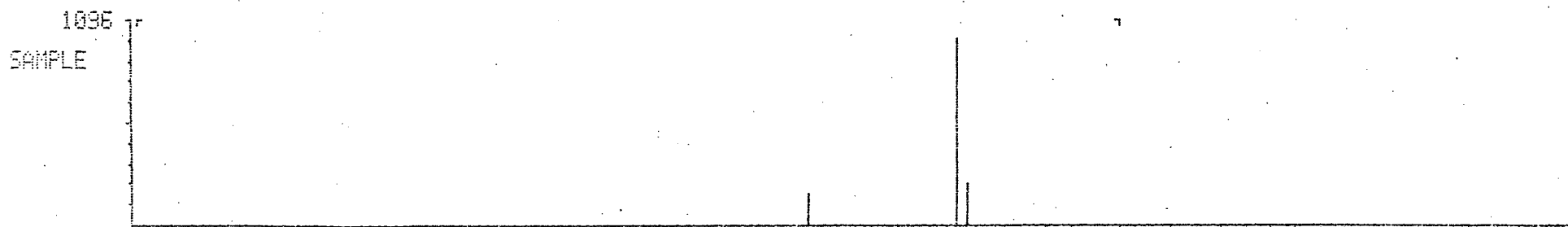


M/E 50 100 150 200 250

LIBRARY SEARCH
03/16/85 6:29:00 + 34:53
SAMPLE: *AB 054 MS Case 3981*
ENHANCED (S 15B 2N 0T)

DATA: U2846 #1021

BASE M/E: 207
RIC: 457.



M/E 50 100 150 200 250 300

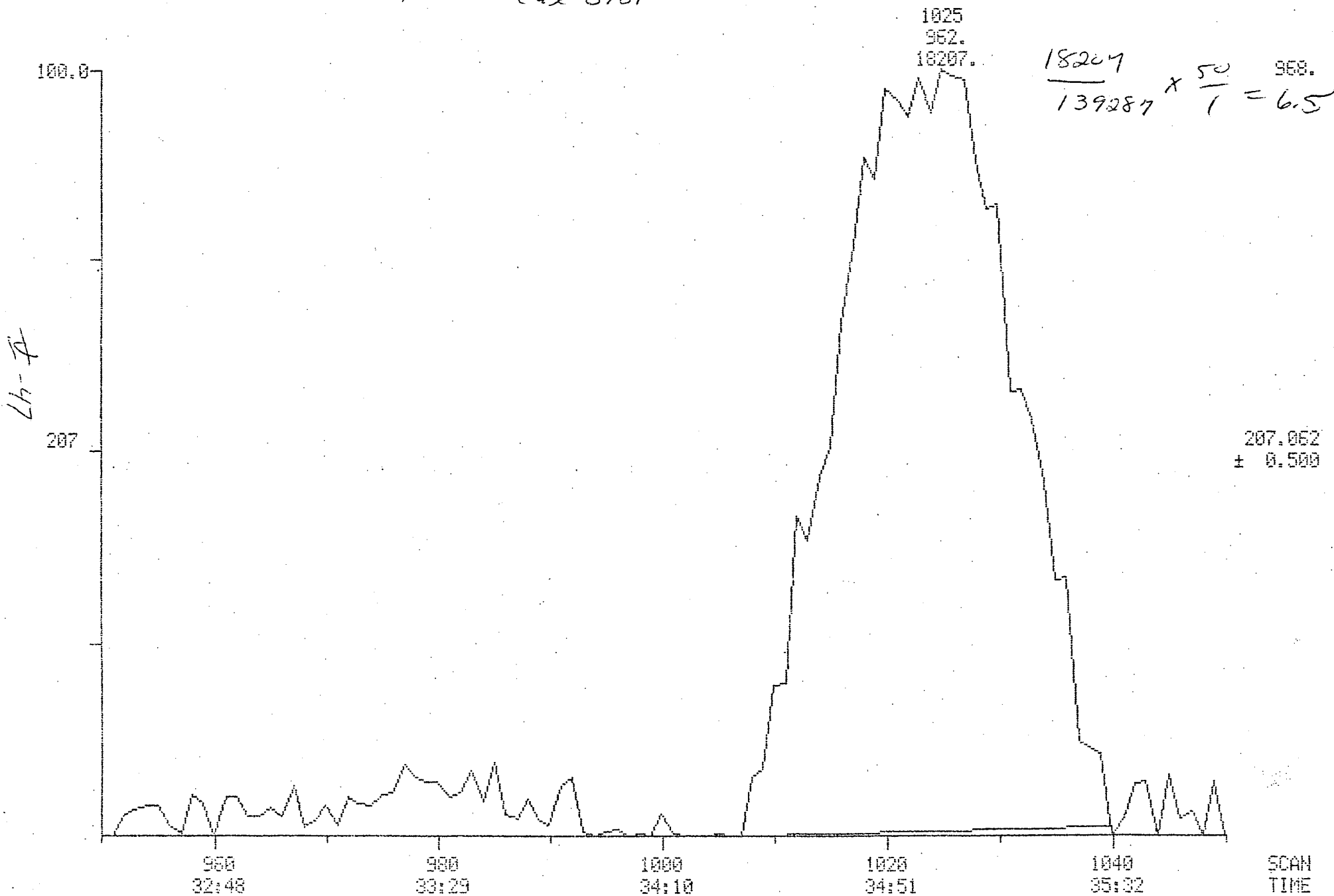
MASS CHROMATOGRAM

DATA: U2844

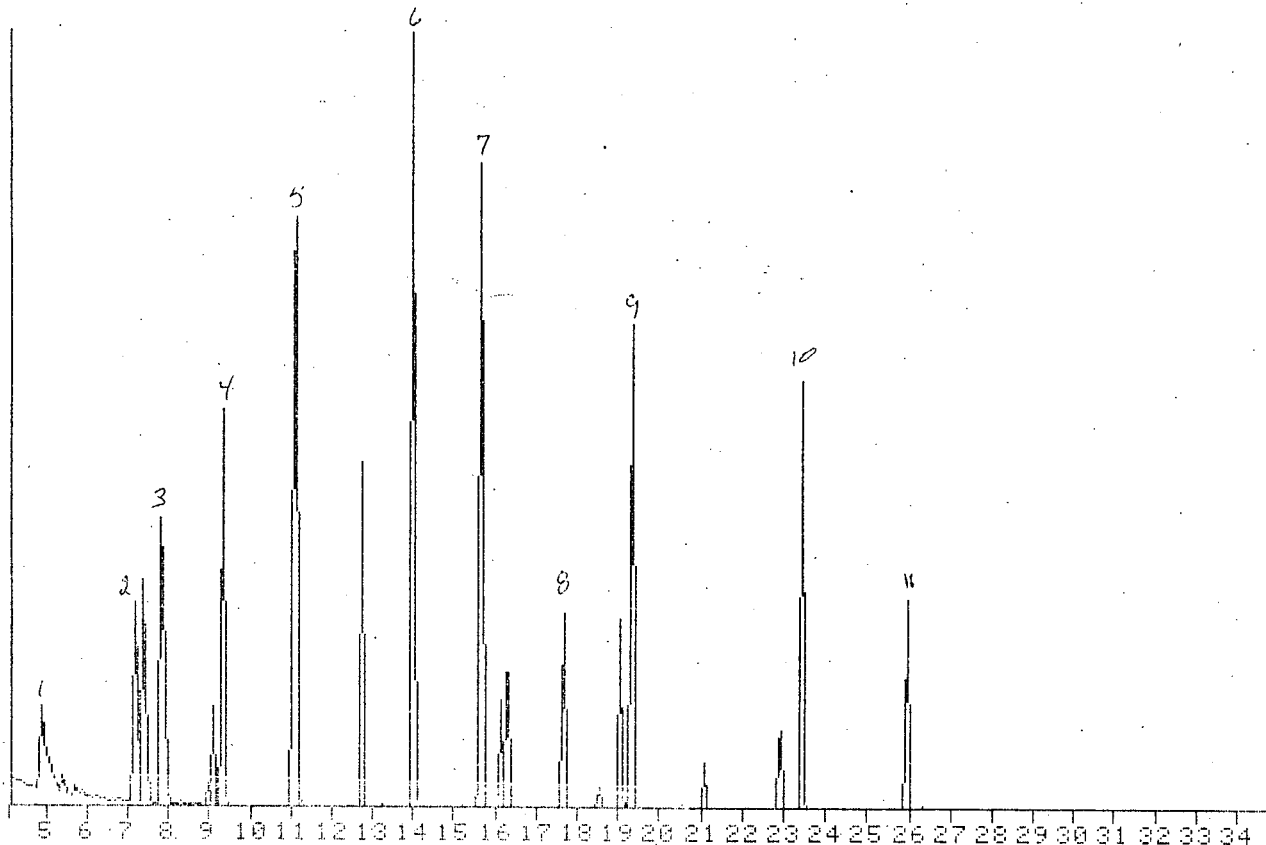
SCANS 950 TO 1050

03/16/85 4:45:00

SAMPLE: ABOSY MS Case 3981



22248



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

QC 978 M.S. CASE 3981

FILE NUMBER 14813

3/28/85/PM HPBTL#14 014813

D14813



AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	158.0	1.000	80.0000			D4-1,4-DICHLORO	BENZENE(20)
8.9	74.0	.046	.0000			N-NITROSODIMETHYL	AMINE
7.2	93.0	1.095	.0000			ANILINE	
7.4	93.0	.814	.0000			BIS(2-CHLOROETHYL)	ETHER
7.8	146.0	.635	.0000			1,3-DICHLORO	BENZENE
7.9	146.0	.682	39.0282			1,4-DICHLORO	BENZENE
8.4	108.0	.459	.0000			BENZYL ALCOHOL	
8.4	146.0	.652	.0000			1,2-DICHLORO	BENZENE
8.8	45.0	.573	.0000			BIS(2-CHLOROISOPROPYL)	ETHER
9.1	70.0	.564	63.0840			N-NITROSODI	PROPYLAMINE
9.1	117.0	.324	.0000			HEXACHLOROETHANE	
9.4	77.0	.870	.0000			NITROBENZENE	

11.1	136.0	1.000	80.0000			D8-NAPHTHALENE(20)	
10.0	82.0	.724	.0000			ISOPHORONE	
10.7	93.0	.484	.0000			BIS(2-CHLOROETHOXY)	METHANE
11.0	180.0	.201	36.5466			1,2,4-TRICHLORO	BENZENE
11.2	129.0	.105	.0000			NAPHTHALENE	
11.5	127.0	.401	.0000			4-CHLOROANILINE	
11.7	225.0	.099	.0000			HEXACHLORO	BUTADIENE
13.0	142.0	.564	.0000			2-METHYLNAPHTHALENE	

15.6	164.0	1.000	80.0000			D10-ACENAPHTHENE	
13.6	237.0	.248	.0000			HEXACHLORO	CYCLOPENTADIENE
14.2	162.0	1.060	.0000			2-CHLORONAPHTHALENE	
14.6	65.0	.507	.0000			2-NITROANILINE	
15.3	163.0	1.158	.0000			DIMETHYL PHTHALATE	
15.2	152.0	1.874	1.1771			ACENAPHTHYLENE	
15.4	165.0	.334	.0000			2,6-DINITROTOLUENE	
15.7	138.0	.433	.0000			3-NITROANILINE	
15.7	153.0	1.236	34.5986			ACENAPHTHENE	
16.2	168.0	1.476	.0000			DIBENZOFURAN	
16.3	89.0	.392	46.5352			2,4-DINITROTOLUENE	
17.0	149.0	1.429	.0000			DIETHYL PHTHALATE	
17.0	166.0	1.132	.0000			FLUORENE	
17.1	204.0	.510	.0000			4-CHLOROPHENYLPHENYL	ETHER
17.3	138.0	.461	.0000			4-NITROANILINE	
16.2	169.0	.192	.0000			DIPHENYLAMINE	

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
19.3	188.0	1.000	80.0000				D10-PHENANTHRENE(20)
18.3	248.0	.166	.0000				4-BROMOPHENYLPHENYL ETHER
18.6	284.0	.193	.0000				HEXACHLOROBENZENE
19.5	178.0	.574	.0000				PHENANTHRENE/ANTHRACENE
21.1	149.0	1.804	7.6291				DIBUTYL PHTHALATE
22.4	202.0	.968	.0000				FLUORANTHENE

26.0	240.0	1.000	80.0000				D12-CHRYSENE
22.9	202.0	3.049	11.2655				PYRENE
24.8	149.0	1.411	.0000				BUTYL BENZYL PHTHALATE
26.0	228.0	.555	.0000				BENZO(A)ANTHRACENE/CHRYSENE
26.3	149.0	1.345	.0000				BIS(2-ETHYLHEXYL)PHTHALATE

29.4	264.0	1.000	80.0000				D12-PERYLENE
27.7	149.0	7.056	.0000				DIOCTYL PHTHALATE
28.5	252.0	1.758	.0000				BENZO(B)/(K)FLUORANTHENE
29.3	252.0	1.077	.0000				BENZO(A)PYRENE
32.7	276.0	.468	.0000				INDENO(1,2,3-CD)PYRENE
32.8	278.0	.268	.0000				DIBENZO(AH)ANTHRACENE
33.7	276.0	.341	.0000				BENZO(GHI)PERYLENE

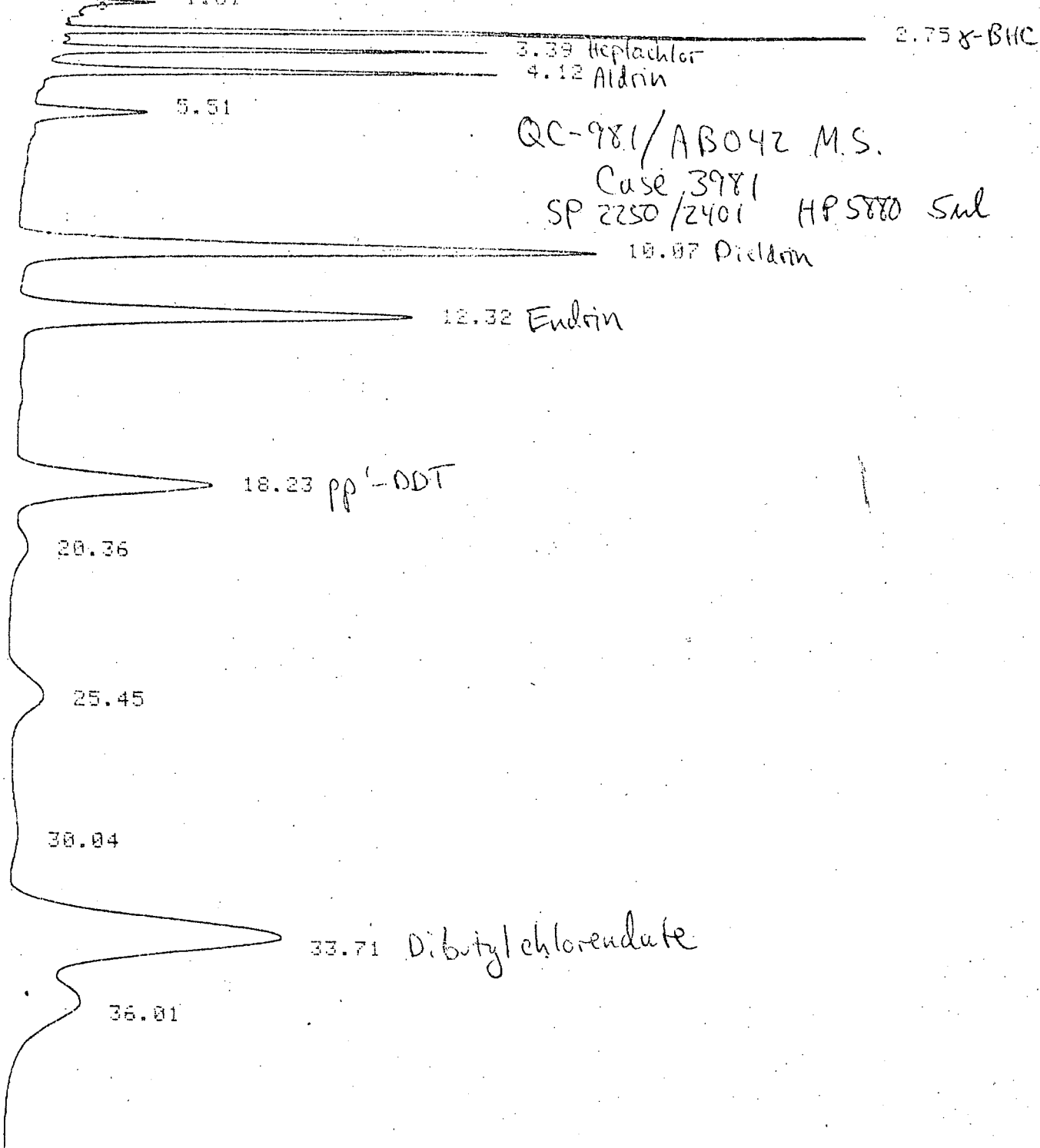
26.0	240.0	1.000	80.0000				D12-CHRYSENE
22.8	184.0	1.084	.0000				BENZIDINE
26.0	252.0	.357	.0000				DICHLOROBENZIDINE

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000				D4-1,4-DICHLOROBENZENE(20)
7.2	94.0	1.311	44.6700	✓			PHENOL
7.4	128.0	.997	74.8689	✓			2-CHLOROPHENOL
8.7	108.0	.963	.0000				2-METHYLPHENOL
9.1	108.0	1.027	.0000				4-METHYLPHENOL

11.1	136.0	1.000	80.0000				D8-NAPHTHALENE(20)
10.2	139.0	.198	.0000				2-NITROPHENOL
10.5	122.0	.299	.0000				2,4-DIMETHYLPHENOL
11.1	122.0	.131	.0000				BENZOIC ACID
10.9	162.0	.240	.0000				2,4-DICHLOROPHENOL
12.7	107.0	.317	66.3212	✓			4-CHLORO-M-CRESOL

15.6	164.0	1.000	80.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	.0000				2,4,5-TRICHLOROPHENOL
13.8	196.0	.347	.0000				2,4,6-TRICHLOROPHENOL
15.9	184.0	.165	.0000				2,4-DINITROPHENOL
17.3	198.0	.197	.0000				4,6-DINITRO-O-CRESOL
16.2	65.0	.310	47.4588	✓			4-NITROPHENOL

19.3	188.0	1.000	80.0000				D10-PHENANTHRENE
19.1	266.0	.122	67.4240	✓			PENTACHLOROPHENOL



QC-981/AB042 M.S.
 Case 3981
 SP 2250/2401 HP5880 Sul

RT: STOP RUN

API 5880A SAMPLER INJECTION @ 19:42 APR 8, 1985

SAMPLE # : ID CODE :
 63

AREA :

RT	AREA	TYPE	AREA %
0.01	253230.00	SBV	68.482
0.06	88.61	BB	0.024
0.01	12724.20	BB	3.441
0.08	24.76	BB	0.007
1.01	481.08	PB	0.133
2.75	4386.10	VV	1.198
3.00	5357.73	VV	1.456
4.12	3373.39	BT	0.923

QC-981/AB042 MS.
 Case 3981 II-53

18.23	10266.10	BV	2.776
20.36	1294.07	VB	0.350
25.45	3490.38	BV	0.944
30.04	1990.71	VV	0.530
33.71	27134.10	VV	7.338
36.01	9398.27	A VP	2.542

TOTAL AREA = 749775.00
MULTIPLIER = 1

D-54

Laboratory Name: GCA
Lab Sample ID No: 43337
Sample Matrix: Water
Data Release Authorized By _____

Case No. 3981
QC Report No. 3981
Contract No. 68-01-6767
Date Sample Received: 3-8-85

Volatile Compounds

Concentration: Low Method: (Circle One)
Date Extracted/Prepared: 3/15/85
Date Analyzed: 3/16/85
Conc/Dil Factor: 1 pH: NA
Percent Moisture: NA
Percent Moisture (Dec intent): NA

CAS Number	Compound	ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	100
74-83-9	Bromomethane	100
75-01-4	Vinyl Chloride	100
75-00-3	Chloroethane	100
75-09-2	Methylene Chloride	96
67-64-1	Acetone	58
75-15-0	Carbon Disulfide	50
75-35-4	1, 1-Dichloroethane	---
75-34-3	1, 1-Dichloroethane	50
156-60-5	Trans-1, 2-Dichloroethene	50
67-66-3	Chloroform	13
107-06-2	1, 2-Dichloroethane	50
78-93-3	2-Butanone	100
71-55-6	1, 1, 1-Trichloroethane	50
56-23-5	Carbon Tetrachloride	50
108-05-4	Vinyl Acetate	100
75-27-4	Bromochloromethane	50

CAS Number	Compound	ug/L or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	50
78-87-5	1, 2-Dichloropropane	50
10061-02-6	Trans-1, 3-Dichloropropene	50
79-01-6	Trichloroethene	---
124-48-1	Dibromochloromethane	50
79-00-5	1, 1, 2-Trichloroethane	50
71-43-7	Benzene	---
10061-01-5	cis-1, 3-Dichloropropene	50
110-75-8	2-Chloroethylvinylether	100
75-25-2	Bromoform	50
591-78-6	2-Hexanone	100
108-10-1	4-Methyl-2-Pentanone	100
127-18-4	Tetrachloroethene	50
108-88-3	Toluene	---
108-90-7	Chlorobenzene	---
100-41-4	Ethylbenzene	---
100-42-5	Styrene	50
	Total Xylenes	50

Qualitative Indications
For this report, results to U.C. (the following results qualify) are listed
As an aid to the user, the following explanation of results are provided. However, the
detection limit is a function of the method used.

- Value: If the result is a value greater than or equal to the detection limit, report the value.
- U: Indicates compound was only detected but did not report the maximum detectable concentration (e.g., 100) based on only 10% concentration detection method. (This is not to be confused with the maximum detection limit.) The first value is the amount of compound analyzed. The second value is the number is the maximum detectable detection limit for the sample.
- J: Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where the purpose is to indicate when the mass is small and the detection limit is of a certain level. The user should be aware of the reporting method used for the detection.
- Q: This flag is used to indicate parameters where the detection limit has been confirmed by GC-MS. Single component parameters >10 ug/l 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 in the sample. It indicates possible contamination. Black text is used and warns the data user to take a precautionary action.
- Other: Other specific flag and footnotes may be required to explain the data results. If used, they must be fully described in the report description attached to the data summary report.

D-55

Sample Number
AB043MSD

Organics Analysis Data Sheet
 (Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)
 Date Extracted/Prepared: 3/11/95
 Date Analyzed: 3/29/95
 Conc/Dil Factor: 500 ml → 1.0 ml

CAS Number		ug/l or ug/kg (Circle One)
62-75-9	N-Nitrosodimethylamine	10u
108-95-2	Phenol	
62-53-3	Aniline	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39538-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclohexadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
83-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

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	10u
64-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
85-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
119-74-1	Hexachlorobenzene	10u
97-86-5	Pentachlorophenol	
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	
205-44-0	Fluoranthene	10u
92-87-5	Benizidine	50u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenzo(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1) Cannot be separated from diphenylamine

Sample Number
AB042 MSP.

Organics Analysis Data Sheet
 (Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 3/12/85

Date Analyzed: 4/8/85

Conc/Dil Factor: 1

CAS Number ug/l or ug/Kg (Circle One)

319-84-6	Alpha-BHC	0.050
319-85-7	Beta BHC	0.050
319-86-8	Delta-BHC	0.050
58-89-9	Gamma-BHC (Lindane)	0.276
76-44-8	Heptachlor	0.312
309-00-2	Aldrin	0.240
1024-57-3	Heptachlor Epoxide	0.050
959-98-8	Endosulfan I	0.050
60-57-1	Dieldrin	0.750
72-55-9	4, 4'-DDE	0.100
72-20-8	Endrin	1.13
33213-65-9	Endosulfan II	0.100
72-54-8	4, 4'-DDD	0.100
7421-93-4	Endrin Aldehyde	0.100
1031-07-8	Endosulfan Sulfate	0.100
50-29-3	4, 4'-DDT	0.746
72-43-5	Methoxychlor	0.500
53494-70-5	Endrin Ketone	0.100
57-74-9	Chlordane	0.500
8001-35-2	Toxaphene	1.00
12674-11-2	Aroclor-1016	0.500
11104-28-2	Aroclor-1221	0.500
11141-16-5	Aroclor-1232	0.500
53469-21-9	Aroclor-1242	0.500
12672-29-6	Aroclor-1248	0.500
11097-69-1	Aroclor-1254	1.00
11096-82-5	Aroclor-1260	1.00

J. M. Hall
 4/10/85

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500 ml or W_s _____ V_i 10,000 ul V_t 5.0 ul

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	unknown	V04	1023	6.7
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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10.				
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19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

IV-58

10/24/81

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	<i>No compounds found</i>	<i>BWA</i>		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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29.				
30.				

IV-59

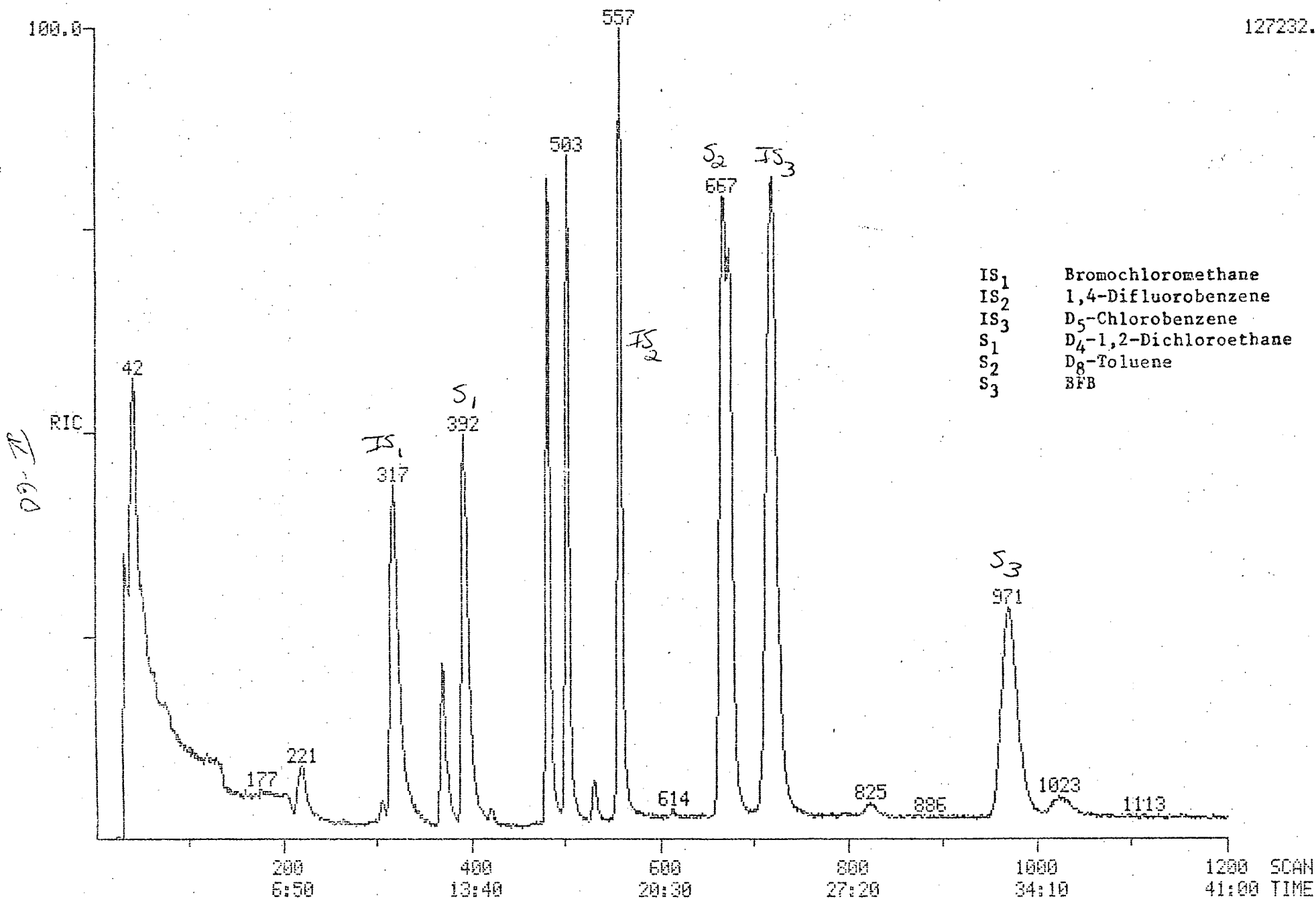
1001-1-57-29

RIC
03/16/85 5:37:00
SAMPLE: AB 054 MSD CASE 3981 43337

DATA: U2845

SCANS 1 TO 1200

127232.



DATA: V2845.TI
03/16/85 5:37:00

SAMPLE:
SUBMITTED BY: ANALYST:

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LIBRARY ENTRY

- NO NAME
- 1 BROMOCHLOROMETHANE(I. S. #1)
- 2 CHLOROMETHANE
- 3 BROMOMETHANE
- 4 VINYL CHLORIDE
- 5 CHLOROETHANE
- 6 METHYLENE CHLORIDE
- 7 ACETONE
- 8 CARBON DISULFIDE
- 9 1, 1-DICHLOROETHENE
- 10 1, 1-DICHLOROETHANE
- 11 TRANS 1, 2-DICHLOROETHENE
- 12 CHLOROFORM
- 13 1, 2-DICHLOROETHANE
- 14 D4-1, 2-DICHLOROETHANE
- 15 1, 1, 1-TRICHLOROETHANE
- 16 1, 4-DIFLUOROBENZENE(I. S. #2)
- 17 CARBON TETRACHLORIDE
- 18 VINYL ACETATE
- 19 2-BUTANONE
- 20 BROMODICHLOROMETHANE
- 21 1, 2-DICHLOROPROPANE
- 22 TRANS 1, 3-DICHLOROPROPANE
- 23 TRICHLOROETHENE
- 24 DIBROMOCHLOROMETHANE
- 25 1, 1, 2-TRICHLOROETHANE
- 26 BENZENE
- 27 CIS-1, 3-DICHLOROPROPENE
- 28 BROMOFORM
- 29 DB-TOLUENE(SURR#2)
- 30 2-CHLOROETHYLVINYLEETHER
- 31 D5-CHLOROBENZENE(I. S. #3)
- 32 4 METHYL 2 PENTANONE
- 33 2-HEXANONE
- 34 TETRACHLOROETHENE
- 35 1, 1, 2, 2, TETRACHLOROETHANE
- 36 TOLUENE
- 37 CHLOROBENZENE
- 38 ETHYLBENZENE
- 39 BFB(SURR#3)
- 40 STYRENE
- 41 TOTAL XYLENES

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	128	317	10:50	1	1.000	A BB	48874.	50.000 UG/L	9.34
2	NOT FOUND								
3	NOT FOUND								

5	NOT FOUND								
6	NOT FOUND								
7	58 298	10:11	1	0.940	A BV	1801.	8.844 UG/L	1.65	
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	83 370	12:38	1	1.167	A BE	66805.	13.279 UG/L	2.48	
13	NOT FOUND								
14	65 392	13:24	1	1.237	A BE	201510.	94.373 %REC	17.63	
15	NOT FOUND								
16	114 557	19:02	16	1.000	A BE	215827.	50.000 UG/L	9.34	
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	130 482	16:28	16	0.865	A BE	71092.	43.311 UG/L	8.09	
24	NOT FOUND								
25	NOT FOUND								
26	78 503	17:11	16	0.903	A BE	200787.	39.646 UG/L	7.40	
27	NOT FOUND								
28	NOT FOUND								
29	98 667	22:47	16	1.197	A BE	216781.	88.049 %REC	16.45	
30	NOT FOUND								
31	117 716	24:28	31	1.000	A BE	136959.	50.000 UG/L	9.34	
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	92 674	23:02	31	0.941	A BE	134351.	46.678 UG/L	8.72	
37	112 721	24:38	31	1.007	A BE	151421.	51.227 UG/L	9.57	
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								

AB 054 MSD Case 3981 3/16/85

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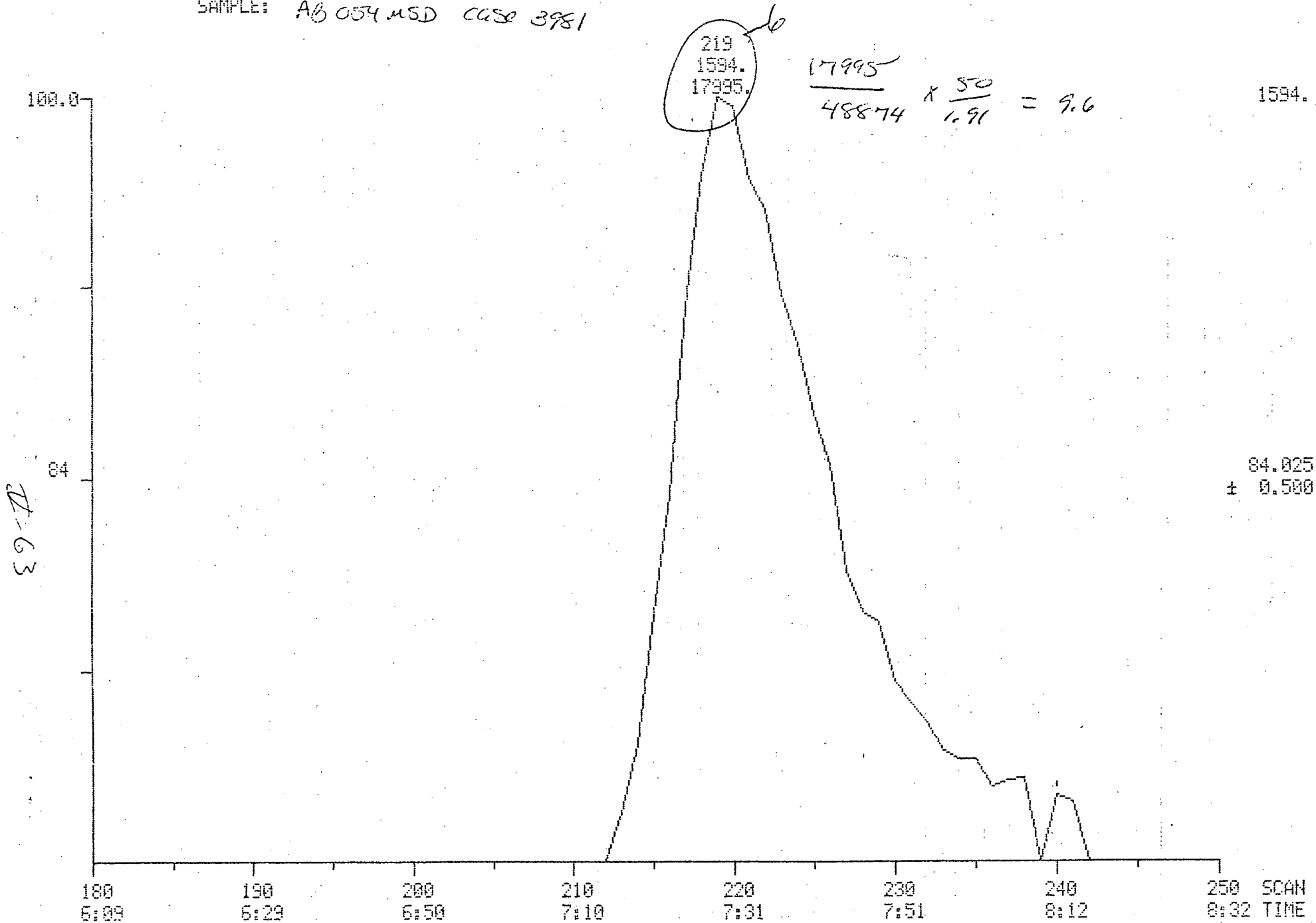
MASS CHROMATOGRAM

DATA: U2845

SCANS 180 TO 250

08/16/85 5:37:00

SAMPLE: AB 054 MSD CASE 3781



MASS CHROMATOGRAMS

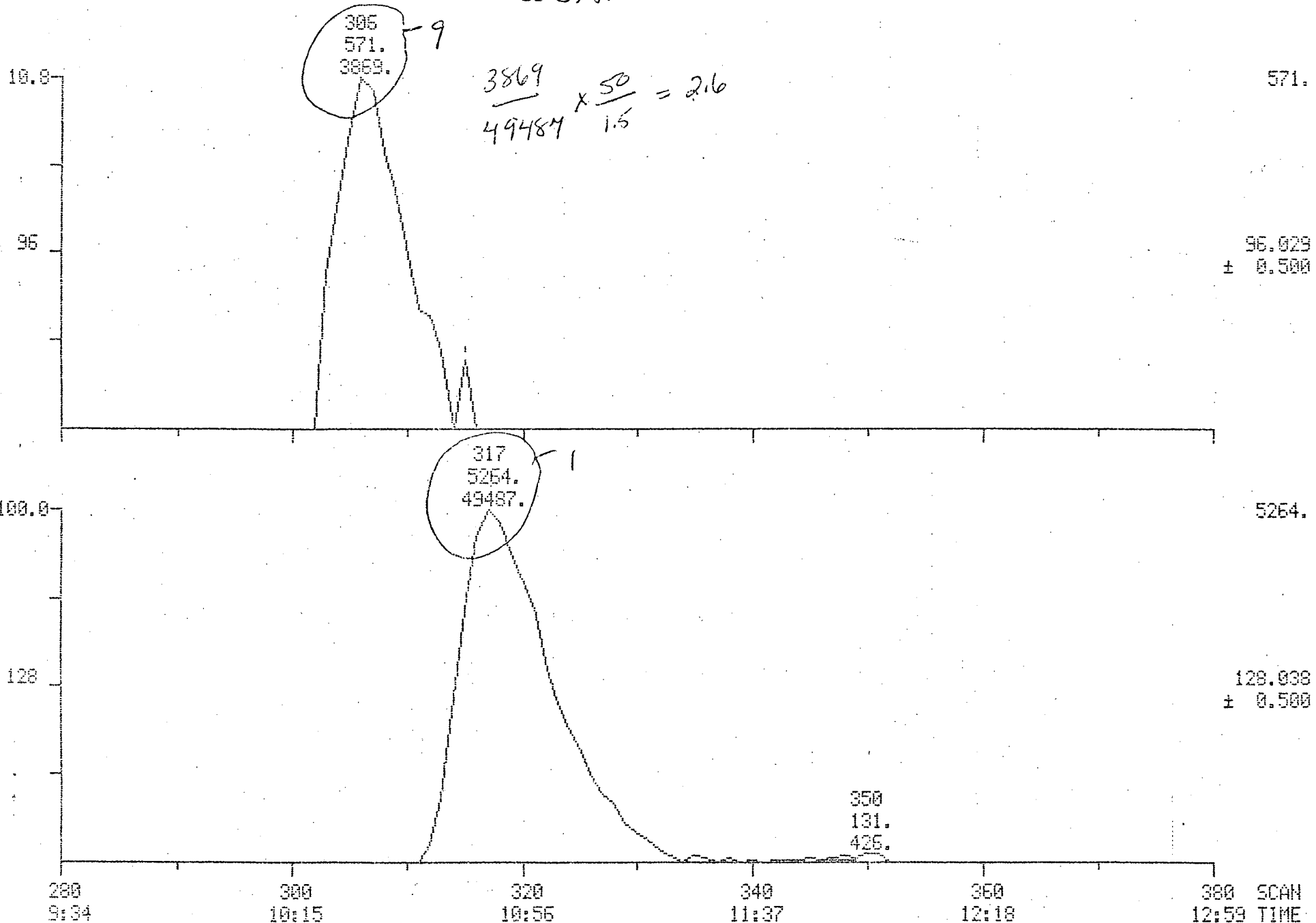
DATA: U2845

SCANS 280 TO 380

03/16/85 5:37:00

SAMPLE:

AB 054MSD CASE 3981



h.g. A

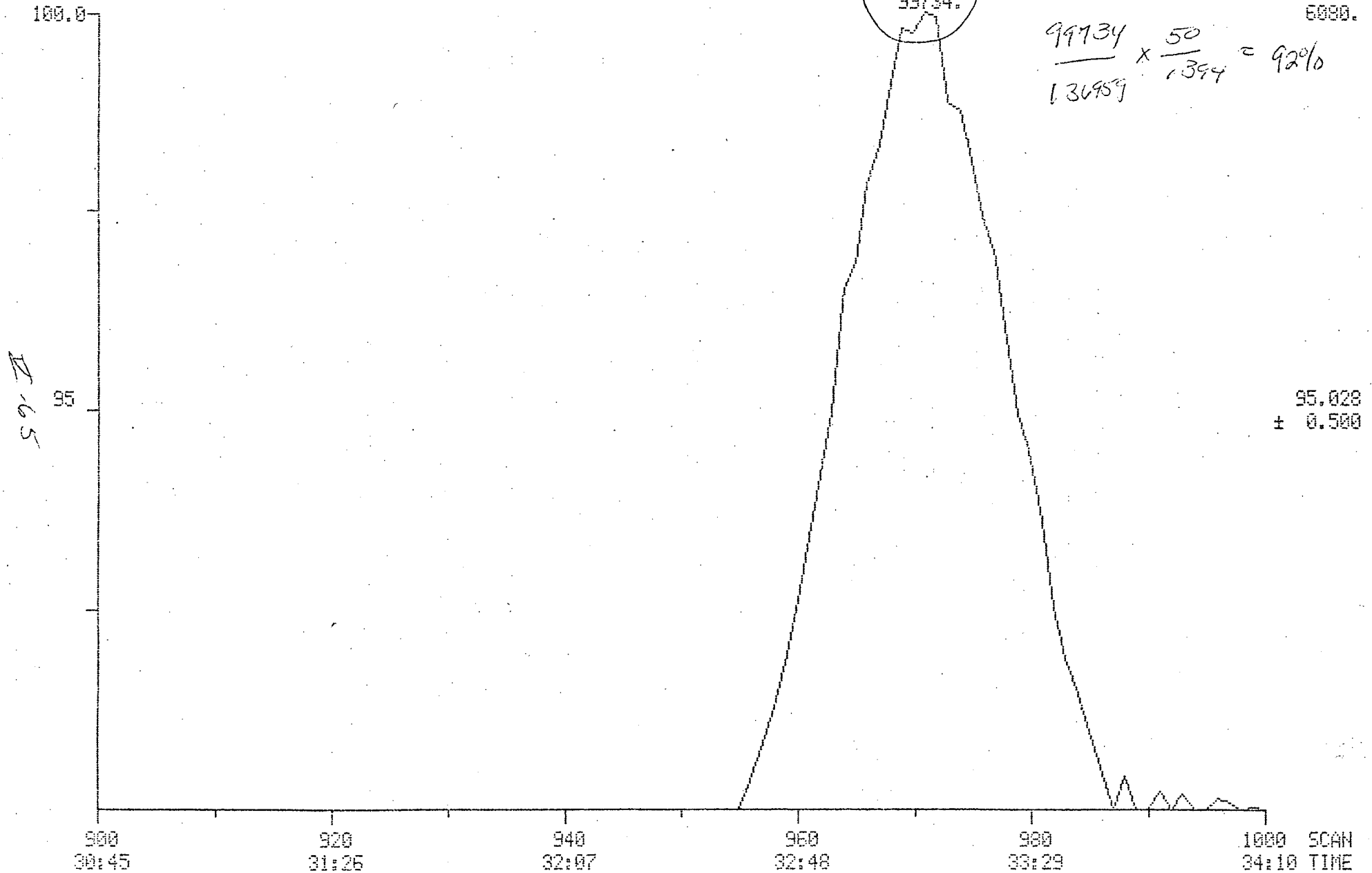
MASS CHROMATOGRAM

DATA: U2845

SCANS 900 TO 1000

03/16/85 5:37:00

SAMPLE: AB 054 MSD Case 3981

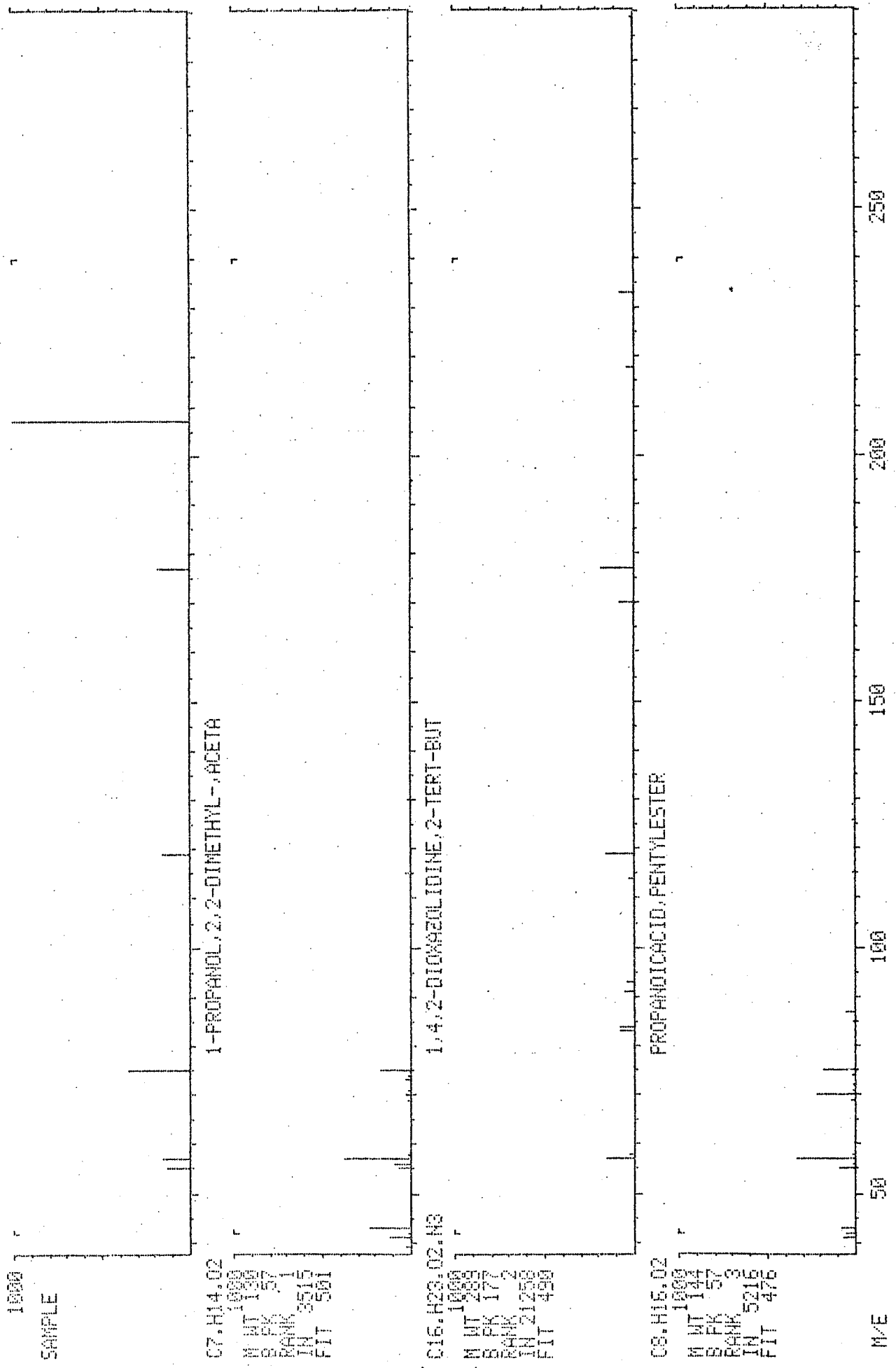


LIBRARY SEARCH
03/16/85 5:37:00 + 35:01
SAMPLE: AB 05945D
ENHANCED (S 158 2N 0T)

DATA: U2845 #1025

BASE M/E: 207
RIC: 554

Case 3881



99-66

MASS CHROMATOGRAM
03/16/85 5:37:00
SAMPLE: AB 054 MSD (Case 3781)

DATA: V2845

SCANS 950 TO 1050

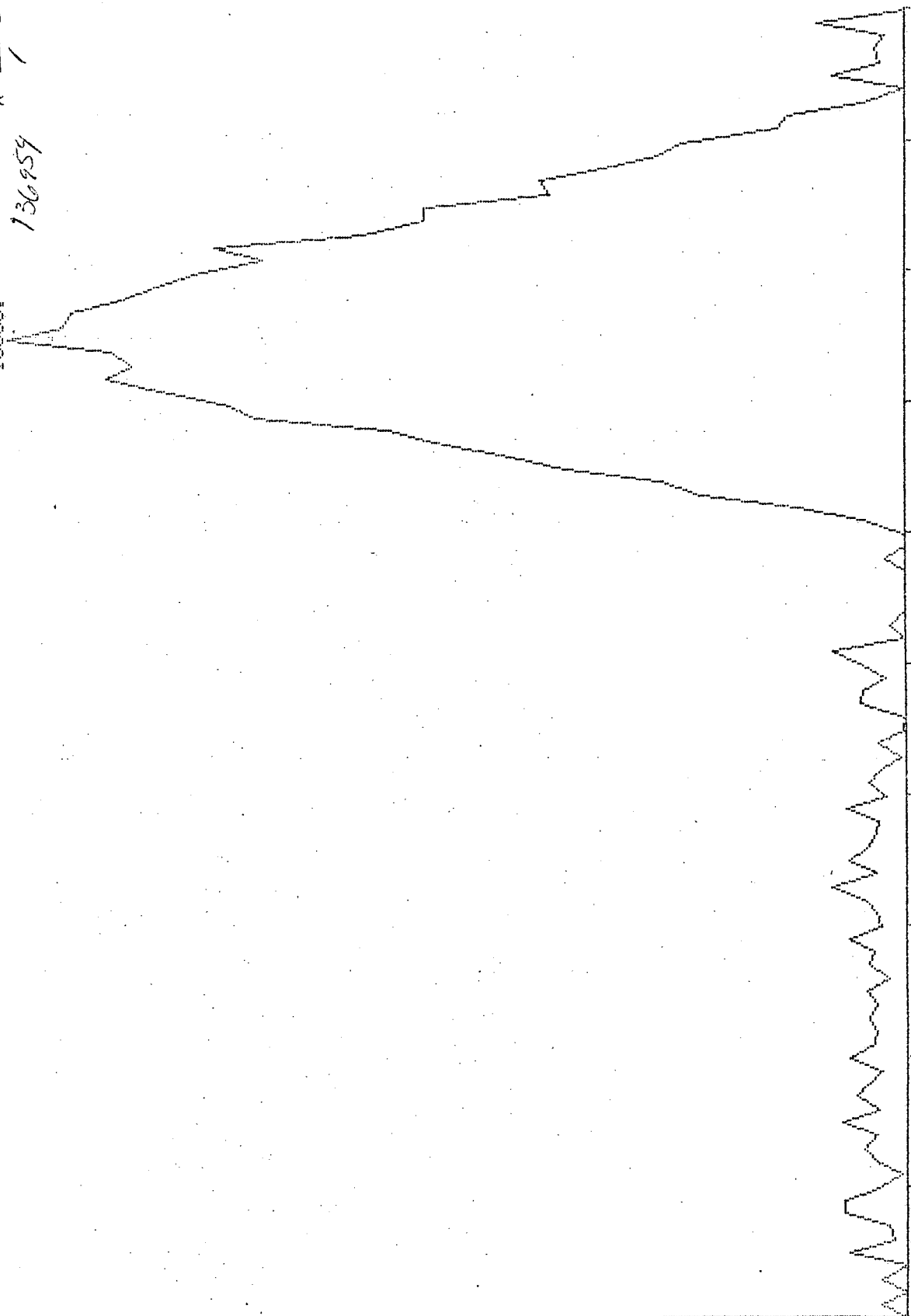
1025
1020
10300

$$\frac{18383}{136954} \times \frac{50}{1} = 6.7$$

100.0

D-67207

207.062
± 0.500



1020
34:51

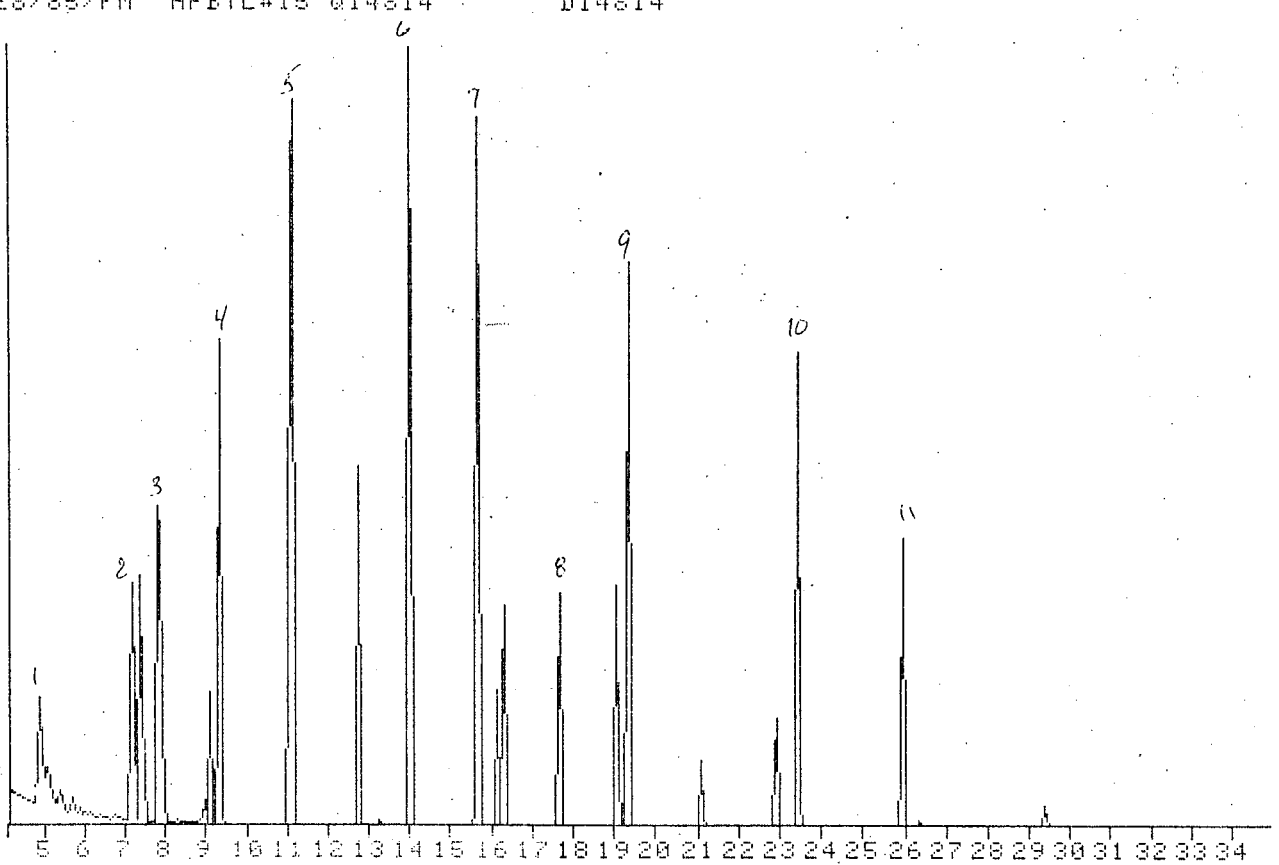
1000
34:10

980
33:29

960
32:48

1040
35:32

SCAN
TIME



1. 2-FLUOROPHENOL (SURR)
2. PHENOL-D6 (SURR)
3. 1,4-DICHLOROBENZENE-D4 (IS)
4. NITROBENZENE-D5 (SURR)
5. NAPHTHALENE-D8 (IS)
6. 2-FLUOROBIPHENYL (SURR)
7. ACENAPHTHENE-D10 (IS)
8. 2,4,6-TRIBROMOPHENOL (SURR)
9. PHENANTHRENE-D10 (IS)
10. TERPHENYL-D14 (SURR)
11. CHRYSENE-D12 (IS)
12. PERYLENE-D12 (IS)

AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	150.0	1.000	80.0000			D4-1,4-DICHLORO BENZENE(20)	
8.9	74.0	.046	.0000			N-NITROSODIMETHYLAMINE	
7.2	93.0	1.095	.0000			ANILINE	
7.4	93.0	.814	.0000			BIS(2-CHLOROETHYL)ETHER	
7.8	146.0	.635	.0000			1,3-DICHLORO BENZENE	
7.9	146.0	.682	43.2970			1,4-DICHLORO BENZENE	
8.4	108.0	.459	.0000			BENZYL ALCOHOL	
8.4	146.0	.652	.0000			1,2-DICHLORO BENZENE	
8.8	45.0	.573	.0000			BIS(2-CHLOROISOPROPYL)ETHER	
9.1	70.0	.564	59.1793			N-NITROSODINPROPYLAMINE	
9.1	117.0	.324	.0000			HEXACHLOROETHANE	
9.4	77.0	.870	.0000			NITROBENZENE	

11.1	136.0	1.000	80.0000			D8-NAPHTHALENE(20)	
10.0	82.0	.724	.0000			ISOPHORONE	
10.7	93.0	.484	.0000			BIS(2-CHLOROETHOXY)METHANE	
11.0	180.0	.201	39.8379			1,2,4-TRICHLORO BENZENE	
11.2	129.0	.105	.0000			NAPHTHALENE	
11.5	127.0	.401	.0000			4-CHLOROANILINE	
11.7	225.0	.099	.0000			HEXACHLORO BUTADIENE	
13.0	142.0	.564	.0000			2-METHYLNAPHTHALENE	

15.6	164.0	1.000	80.0000			D10-ACENAPHTHENE	
13.6	237.0	.248	.0000			HEXACHLORO CYCLOPENTADIENE	
14.2	162.0	1.060	.0000			2-CHLORONAPHTHALENE	
14.6	65.0	.507	.0000			2-NITROANILINE	
15.3	163.0	1.158	.0000			DIMETHYL PHTHALATE	
15.3	152.0	1.074	.0000			ACENAPHTHYLENE	
15.4	165.0	.334	.0000			2,6-DINITROTOLUENE	
15.7	138.0	.433	.0000			3-NITROANILINE	
15.7	153.0	1.236	41.8758			ACENAPHTHENE	
16.2	168.0	1.476	.0000			DIBENZOFURAN	
16.3	89.0	.392	45.7789			2,4-DINITROTOLUENE	
17.0	149.0	1.429	.0000			DIETHYL PHTHALATE	
17.0	166.0	1.132	.0000			FLUORENE	
17.1	204.0	.510	.0000			4-CHLOROPHENYLPHENYL ETHER	
17.3	138.0	.461	.0000			4-NITROANILINE	
16.2	169.0	.192	.0000			DIPHENYLAMINE	

AREA	R. TIME	START	STOP	MAXIMA	#	SUMS	MASS	BASE
19.3	188.0	1.000	80.0000					D10-PHENANTHRENE(20)
18.3	248.0	.166	.0000					4-BROMOPHENYLPHENYL ETHER
18.6	284.0	.193	.0000					HEXACHLOROBENZENE
19.5	178.0	.574	.0000					PHENANTHRENE/ANTHRACENE
21.1	149.0	1.804	7.9122					DIBUTYL PHTHALATE
22.4	202.0	.968	.0000					FLUORANTHENE

26.0	240.0	1.000	80.0000					D12-CHRYSENE
22.9	202.0	3.049	10.9951					PYRENE
24.8	149.0	1.411	.0000					BUTYL BENZYL PHTHALATE
26.0	228.0	.555	.0000					BENZO(A)ANTHRACENE/CHRYSENE
26.3	149.0	1.345	.0000					BIS(2-ETHYLHEXYL)PHTHALATE

29.4	264.0	1.000	80.0000					D12-PERYLENE
27.7	149.0	7.056	.0000					DIOCTYL PHTHALATE
28.5	252.0	1.758	.0000					BENZO(B)/(K)FLUORANTHENE
29.3	252.0	1.077	.0000					BENZO(A)PYRENE
32.7	276.0	.468	.0000					INDENO(123-CD)PYRENE
32.8	278.0	.268	.0000					DIBENZO(AH)ANTHRACENE
33.7	276.0	.341	.0000					BENZO(GHI)PERYLENE

26.0	240.0	1.000	80.0000					D12-CHRYSENE
22.8	184.0	1.084	.0000					BENZIDINE
26.0	252.0	.357	.0000					DICHLOROBENZIDINE

2-20

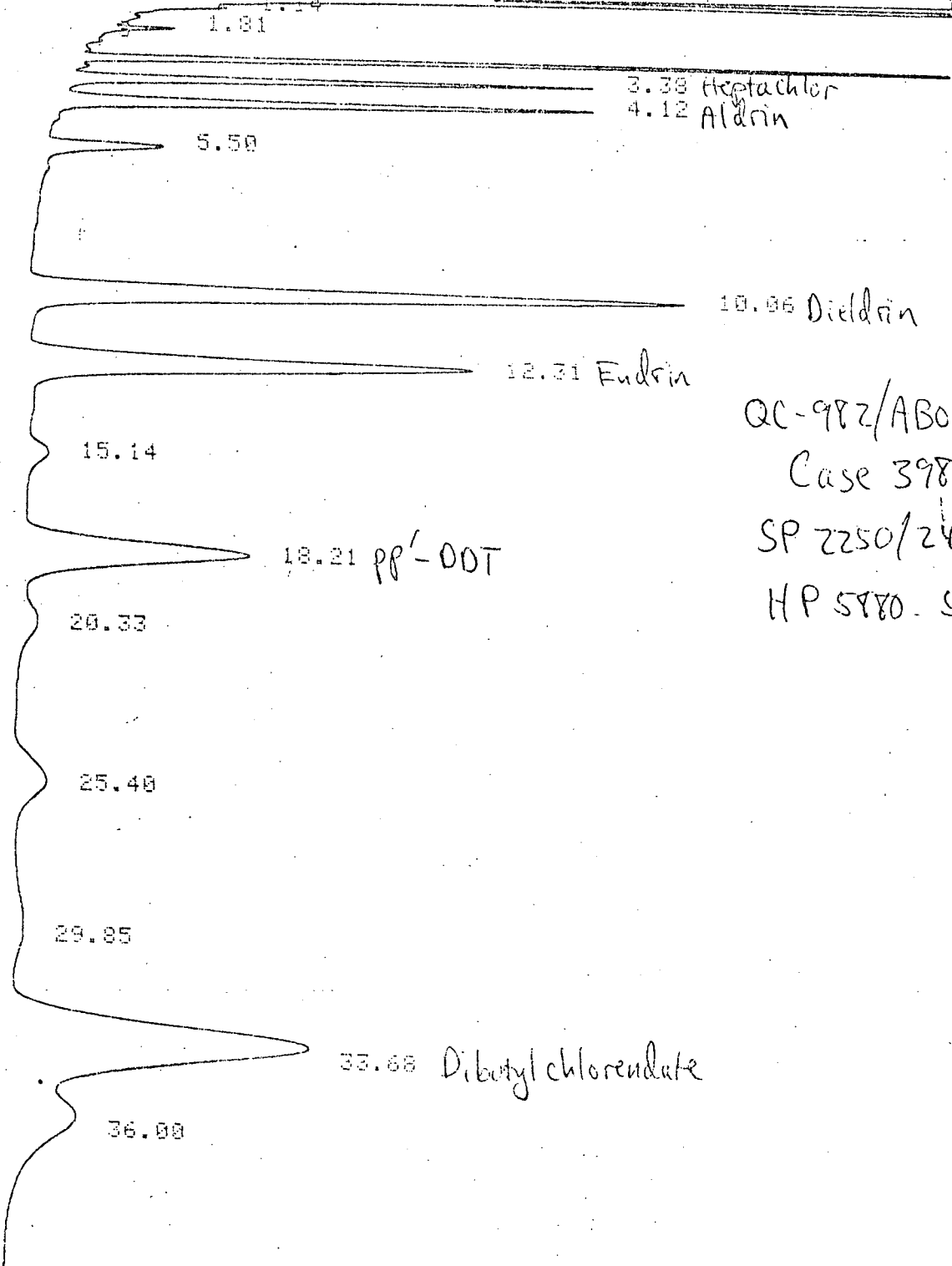
AREA	R. TIME	START	STOP	MAXIMA	# SUMS	MASS	BASE
7.8	158.0	1.000	80.0000				
7.2	94.0	1.311	45.6248	✓			D4-1,4-DICHLORO BENZENE(20)
7.4	128.0	.997	73.1845	✓			PHENOL
8.7	108.0	.963	.0000				2-CHLOROPHENOL
9.1	108.0	1.027	.0000				2-METHYLPHENOL
							4-METHYLPHENOL

11.1	136.0	1.000	80.0000				
10.2	139.0	.198	.0000				D8-NAPHTHALENE(20)
10.5	122.0	.299	.0000				2-NITROPHENOL
11.1	122.0	.131	.0000				2,4-DIMETHYLPHENOL
10.9	162.0	.240	.0000				BENZOIC ACID
12.7	107.0	.317	63.7519	✓			2,4-DICHLOROPHENOL
							4-CHLORO-M-CRESOL

15.6	164.0	1.000	80.0000				
13.8	196.0	.347	.0000				D10-ACENAPHTHENE(20)
13.8	196.0	.347	.0000				2,4,5-TRICHLOROPHENOL
15.9	184.0	.165	.0000				2,4,6-TRICHLOROPHENOL
17.3	198.0	.197	.0000				2,4-DINITROPHENOL
16.2	65.0	.310	44.4341	✓			4,6-DINITRO-O-CRESOL
							4-NITROPHENOL

19.3	188.0	1.000	80.0000	✓			D10-PHENANTHRENE
19.1	266.0	.122	70.0205	✓			PENTACHLOROPHENOL

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2.75 t-BHC

QC-982/AB042 MSD.
 Case 3981
 SP 2250/2401
 HP 5980. 5 ml

RT: STOP RUN

INSTR 5880A SAMPLER INJECTION @ 20:26 APR 8, 1985
 SAMPLE # : ID CODE :
 64

AREA %

RT	AREA	TYPE	AREA %
0.31	366266.00	SBV	75.854
0.56	442.54	BB	0.091
0.81	13415.10	BB	2.749
1.14	115.58	VB	0.024
1.81	237.18	BB	0.049
2.75	8050.04	VV	1.658
3.38	8275.00	BB	1.700

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GC 762/115092 MSD.

4.12	6969.72	VV	1.423
5.50	1973.50	BV	0.404
10.06	16194.20	BB	3.318
12.31	13787.90	BV	2.825
15.14	943.04	VB	0.193
18.21	10814.40	BV	2.217
20.33	1365.73	VB	0.280
25.40	2997.21	BV	0.614
29.85	2200.12	VV	0.451
33.68	27498.90	VV	5.635
36.00	8263.86	VP	1.693

Case 3981
SP 2250/2401
HP 5880 5ul

TOTAL AREA = 488005.00
MULTIPLIER = 1

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