158436

3308 East Chapel Hill/Nelson Highway
P.O. Box 12652
Research Triangle Park, NC 27709

Telephone: 919-549-8263
800-334-8525

MeadCompuChem

RECEIVED
FEB 08 1982
US EPA CENTRAL ANALYTICAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

February 4, 1982

U.S. Environmental Protection Agency
HWI/Sample Management Office
Post Office Box 818
Alexandria, Virginia 22313

Attention: Mr. W. Topping
Contracting Officer

Subject: Report of Data - EPA Contract 68-01-6432

Dear Mr. Topping:

Enclosed herewith are the results of analytical work performed in accordance with the referenced contract.

This report covers 3 samples received by Mead CompuChem on 12/18/81. These samples were identified as EPA Case Number 801.

If you have any questions regarding this package, please contact me at 800/334-8525 or 919/549-8263.

Sincerely,

Richard Daff

for Kevin McConnaghy
Government Marketing Manager

KMcC/cw

Enclosures

EPA Numbers: E1202 E1203 E1204

CC Numbers: 11415 11416 11417

cc: Warren Arrington

3308 East Chapel Hill/Nelson Highway
P.O. Box 12652
Research Triangle Park, NC 27709

Telephone: 919-549-8263
800-334-8525

Mead

Enclosures:

Results of Matrix Spike (Low or Medium) Level (Soil or Water)
EPA# for VOA E1203, BN/A E1203, Pest. E1202
CC# for VOA 11416, BN/A 11416, Pest. 11415

Results of Duplicate (Low or Medium) Level (Soil or Water)
EPA# for VOA E1204, BN/A E1204, Pest. E1202
CC# for VOA 11417, BN/A 11417, Pest. 11415

NOTE: Quality Control information contained in this report applies to:

EPA#s: E1202 E1203 E1204

CC#s: 11415 11416 11417

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number
E1202

Sample SF-1401

ORGANICS ANALYSIS DATA SHEET - Page 1

TRANSMITTED 2/12/82 W.S

82WT06S02

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11415

QC Report No. 41-59, 42-58, 46-58

Signature of Person Authorized to Release Data: [signature]

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.2U
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.26
122-83-2	2,4-dichlorophenol	0.2U
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.8U
51-88-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	1.7

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2 LT
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
318-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
181-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
183-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number
E 1202

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11415

QC Report No. 41-59, 42-58, 46-58

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01 LT
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropiene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01 LT
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
78-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gama	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

	DIOXINS	
1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.01U

*Less than 0.2 ug/l
(pesticides less than, 0.01 ug/l)

LIST OF COMMONLY USED FOOTNOTES FOR COMMERCIAL AND EPA

II Indistingushable isomers.

I Presence indicated by extracted ion current profile; definitive spectra not obtainable due to interference.

Q Quantiatated from secondary ion.

CI Concentration estimated; interferences present with primary quantitation ions.

D Sample analysis using a _____ dilution.

SE Sample extract could not be concentrated to 1.0 ml, thus the detection limits are higher than normal.

DL Detection limits are adjusted to show change in sample quantity processed. The surrogate recoveries are not available.

SR Surrogate recoveries are not available because it was necessary to dilute the extract, based on GC screening results.

SC Suspected laboratory contaminant.

LT Less than the specified detection limit but greater than one half of the detection limit (present but BDL).

EV Estimated value (previously j) in house note: This footnote may not be used for PP compounds.

H Volatile vial received with headspace.

SV Amount corrected for sample volume.

TN Acid & BN recoveries adjusted 10/9 for volume change. (medium level 026 only)

DC Compound calculated from a _____ dilution.

CR Compound calculated using total RIC area. All secondary ions saturated.

PC Pesticide or PCB confirmed by GC/MS.

PN Pesticide or PCB cannot be confirmed by GC/MS.

1-04-82

11415-Acid - C# 801-E1202

Acid

FORM 4. ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS

Sample Identification 11415 Calculations by SW

SCAN NUMBER	COMPOUND IDENTIFICATION	CASS NO.	% PURITY	RIC PEAK AREA OF TENT. COMP.	RIC PEAK AREA OF INT. STD.	EST. AMT. OF TENT COMPOUND $Amt.tent = \frac{PKA_{tent.} \text{ Concentration of}}{PKA_{Is} \cdot 1}$ .8
148 (11)	Benzenamine, 2-chloro -	95-51-2	89	372736	434560	.69 EV ug/g
251 (12)	Phenol, 3-chloro	108-43-0	85	994872		1.8

11415-BN-C#801-E1202

B/N

FORM 4. ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS

Sample Identification 11415

Calculations by Dmc

SCAN NUMBER	COMPOUND IDENTIFICATION	CASS NO.	% PUR.	RIC PEAK AREA OF TENT. COMP.	RIC PEAK AREA OF INT. STD.	EST. AMT. OF TENT. COMP. Amt.tent = PKA tent. Conc. of / PKA is. 1
237 (1)	2-chloro benzanamine	95-51-2	900	519139	260368	80/50 = 1.6 EV ug/g
282 (2)	4-chloro benzanamine	106-47-8	757	84472	"	13/50 = 0.26
646 (3)	2-(tetradecyloxy)- Ethanol	2136-70-1	453	293199	351732	33/50 = 0.66
668 (4)	1-tetradecanol	112-72-1	381	388282	"	44/50 = 0.88
694 (5)	2-methyl-1-Hexadecanol	2490-48-4	420	299532	"	34/50 = 0.68

QUALITY CONTROL NOTICE

Internal standard area control charts have been included in this report as required by the contract. Areas outside the stated control limits have triggered an examination of internal standard area ratios (as reported on the Internal Standard Response Verification data sheet), the comparison of raw areas in the affected sample to the corresponding standard, and the comparison of the response factors obtained for the corresponding standard to the initial multipoint calibration data. Corrective action is necessary only if one or more of those checks are outside the established control limits. If no corrective action is noted on the internal standard area control chart, all other factors were within limits and action was not required.

Patty L. Ragsdale
Quality Control Manager

Lab Name: Mead CompuChem

Lab Sample I.D. No. 11415

SAMPLE NUMBER
C#801-E1202

A. SURROGATE SPIKE RESULTS

COMPOUND	FRACTION	CONC (ug/g)	(Surrogates only) Spike Added (ug/g)	% Recovery
* d-$_6$-Benzene	VOA	0.069	0.05	138
* d-$_8$-Toluene	VOA	0.076	0.05	152
Fluorophenol	A	1.86	2.5	74
d-$_6$-Phenol	A	1.88	2.5	75
Pentafluorophenol	A	NF	2.5	—
d-$_5$-Nitrobenzene	B/N	0.44	2.5	18
Fluorobiphenyl	B/N	1.23	2.5	49

* Matrix Problem

Sample No: 11425 / 11416 E1203 / 11415 → 11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAS Comm/Chem
Report No: 41-59
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
0	0	4	V	BENZENE	NO	0.021	0.013 ug/g	162
0	0	7	V	CHLOROBENZENE	NO	0.020	0.013 ug/g	154
0	8	6	V	TOLUENE	NO	0.019	0.013 ug/g	146

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

Sample No: 11426 / 11417 E1204

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAB compu/chem
Report No: 41-59
Page 1 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)						CONCENTRATION (~~µg/l~~)		Relative Percent Difference (RPD)*
P.	P.			#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
				V	d_6-BENZENE	0.036	0.054	40
				V	d_8-TOLUENE	0.049	0.055	12
0	4	4		V	methylene chloride	0.013	0.006	74

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

Sample No: 11428/11416 E1203
11415 → 11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD Compu/Chem
Report No: 42-58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
0	2	7	B	1,4-DICHLOROBENZENE	ND	0.66	1.0	66
0	8	4	B	PYRENE	ND	0.74	1.0	74
0	7	6	B	CHRYSENE	ND	0.88	1.0	88
0	0	1	B	ACENAPHTHENE	ND	0.70	1.0	70
0	0	8	B	1,2,4-TRICHLOROBENZENE	ND	0.62	1.0	62
0	6	8	B	Di-n-Butyl PHTHALATE	ND	0.64	1.0	64
0	3	5	B	2,4-DINITROTOLUENE	ND	0.62	1.0	62
0	6	9	B	Di-n-Octyl PHTHALATE	ND	0.84	1.0	84
0	6	3	B	N-NITROSODI-n-PROPYLAMINE	ND	3.0	4.0	75
0	2	4	A	2-CHLOROPHENOL	0.20	1.6	1.0	140
0	6	5	A	PHENOL	0.50	1.9	1.0	140
0	2	2	A	3-METHYL-4-CHLOROPHENOL	ND	0.92	1.0	92
0	6	4	A	PENTACHLOROPHENOL	ND	0.80	1.0	80
0	5	8	A	4-NITROPHENOL	ND	3.4	6.0	57

This QC Report also covers the following sample numbers: CH801 - E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)}$ X 100

2/15/80

Sample No: 11429/11417 E1204 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: MEAD COMPU/CHEM
Report No: 42-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)						CONCENTRATION (ug/l)		Relative Percent Difference (RPD)*
P.	P.		#		COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
				A	2-FLUOROPHENOL	1.76	1.84	4
				A	d_6-PHENOL	1.77	1.87	5
				A	PENTAFLUOROPHENOL	1.57	1.48	6
				B	d_5-NITROBENZENE	2.59	1.20	73
				B	2-FLUOROBIPHENYL	1.03	1.10	7
0	2	4		A	2-chlorophenol	0.40	0.30	29
0	3	1		A	2,4-dichlorophenol	0.56	0.52	7
0	6	5		A	Phenol	0.42	0.62	38
0	2	1		A	2,4,6-trichlorophenol	0.32	0.15	72

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

Sample No: 11432/11415 E1202 / 11415-11417

Lab Standard IDs: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPUCHEM
Report No: 48 - 58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
1	0	0	P	HEPTACHLOR	ND	0.37	0.43	86
0	8	9	P	ALDRIN	ND	0.37	0.41	90
0	9	0	P	DIELDRIN	ND	0.40	0.40	100

This QC Report also covers the following sample numbers: CA801-E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

Sample No: 11433/11415 E1202

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MERA computkem
Report No: 16-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)						CONCENTRATION (ug/L)		Relative Percent Difference (RPD)*
P.	P.	#			COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
					PESTICIDES / PCB'S	NA	NA	0

This QC Report also covers the following sample numbers: C#901-E1202, E1203, E1204-

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

ORGANICS ANALYSIS DATA SHEET—Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. ER811221CD/INSTRUMENT BLANK for 11415, 11416.

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-6	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

Lab Name: Mead ConouChem Case No: 801

Lab Sample I.D. No. EB81122ICO1 INSTRUMENT BLANK

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.052	0.05 ug/ml	104
d_8-Toluene	VOA	0.059	0.05 ug/ml	118

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates an estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. EB811221C01 INSTRUMENT BLANK

QC Report No: 41-59

Sample Number

8. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11437 COMPOSITE BLANK

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6-Benzene	VOA	0.054	0.05 ug/ml	108
d_8-Toluene	VOA	0.055	0.05 ug/ml	110

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0685

Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. BLANK 11430

QC Report No. 42-58

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.2U
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.2U
122-83-2	2,4-dichlorophenol	0.2U
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.8U
51-88-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
218-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
191-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
193-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42- 58

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
2-Fluorophenol	Acid	2.22	2.5 ug/g	89
d_6-Phenol	Acid	2.28	2.5 ug/g	91
Pentafluorophenol	Acid	1.99	2.5 ug/g	80
d_5-Nitrobenzene	B/N	2.01	2.5 ug/g	80
2-Fluorobiphenyl	B/N	2.05	2.5 ug/g	82

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42-58

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1		NONE	BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11		NONE	ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21			VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. BLANK 11434

QC Report No. 46-58

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
72-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gamma	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

DIOXINS

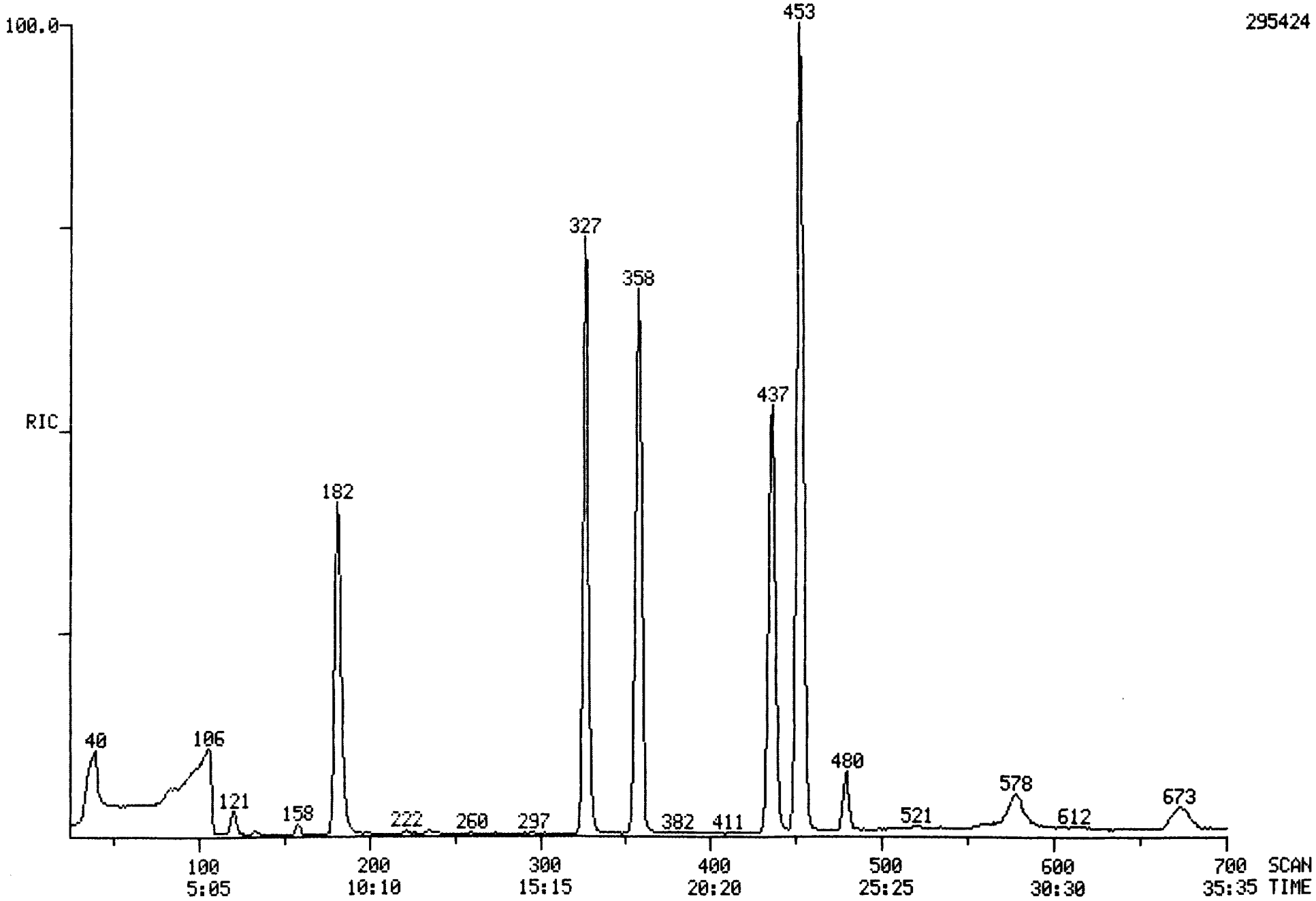
	2,3,7,8-tetrachlorodibenzo-	
1746-01-6	p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

RIC
12/22/81 6:58:00
SAMPLE: SAMPLE 11415 + 5UL@(3370+3374)

DATA: EH011415C01 SCANS 25 TO 700



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EH011415C01

DATA: EH011415C01.TI
12/22/81 6:58:00
SAMPLE: SAMPLE 11415 + 5UL@(3370+3374)
SUBMITTED BY: 01 ANALYST: MBE

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

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1-DICHLOROETHYLENE
12	1,1-DICHLOROETHANE
13	TRANS-1,2-DICHLOROETHYLENE
14	CHLOROFORM
15	1,2-DICHLOROETHANE
16	1,1,1-TRICHLOROETHANE
17	CARBON TETRACHLORIDE
18	BROMODICHLOROMETHANE
19	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
20	1,2-DICHLOROPROPANE
21	TRANS-1,3-DICHLOROPROPENE
22	TRICHLOROETHYLENE
23	BENZENE
24	CIS-1,3-DICHLOROPROPENE
25	1,1,2-TRICHLOROETHANE
26	DIBROMOCHLOROMETHANE
27	BROMOFORM
28	1,1,2,2-TETRACHLOROETHYLENE
29	1,1,2,2-TETRACHLOROETHANE
30	TOLUENE
31	CHLOROBENZENE
32	ETHYLBENZENE
33	2-CHLOROETHYL VINYL ETHER
34	2-BROMO-1-CHLOROPROPANE
35	D6 BENZENE
36	D8 TOLUENE

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	182	9:15	1	1.000	A BB	108843.	0.500 UG	13.66
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	130	182	9:15	8	1.000	A BB	108843.	0.500 UG	13.66

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
9	84	121	6:09	8	0.665	A BB	7586.	0.055	UG.0055	1.49 YES
10	101	158	8:02	8	0.868	A BB	7651.	0.048	UG.0048	1.32 YES BDL
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	83	222	11:17	8	1.220	A BB	2197.	0.005	UG	0.15
15	NOT FOUND									
16	97	260	13:13	8	1.429	A BB	391.	0.001	UG	0.04
17	NOT FOUND									
18	NOT FOUND									
19	55	437	22:13	19	1.000	A BB	250467.	0.500	UG	13.66
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	78	328	16:40	19	0.751	A BB	3624.	0.008	UG	0.22
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	83	431	21:55	19	0.986	A BB	1071.	0.003	UG	0.09
30	92	456	23:11	19	1.043	A BB	348.	0.001	UG	0.03
31	112	480	24:24	19	1.098	A BB	34812.	0.077	UG.0077	2.10 YES
32	NOT FOUND									
33	63	358	18:12	19	0.819	A BB	1297.	0.011	UG	0.31 N/O
34	77	358	18:12	34	1.000	A BB	171853.	0.500	UG	13.66
35	84	327	16:37	34	0.913	A BV	401462.	0.690	UG	18.86
36	100	453	23:02	34	1.265	A BB	280451.	0.761	UG	20.79

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -57 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUS

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUS

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	181	182	997	454	1	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -57 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUO

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUO

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
8	181	182	997	454	1	1	1	0
9	120	120	989	581	2	1	1	0
10	158	158	999	684	3	1	1	0
14	221	222	998	471	7	1	1	0
16	259	259	879	127	9	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -68 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUI

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUI

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
19	436	437	962	451	1	1	1	0
23	329	328	992	4	5	1	1	0
29	430	430	975	189	11	1	1	0
30	456	456	991	5	12	1	1	0
31	479	480	997	408	13	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
32	520	521	988	176	14	1	0	0
33	355	358	782	2	15	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -67 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
34	357	358	999	298	1	1	1	0
35	326	327	999	450	2	1	1	0
36	452	453	997	595	3	1	1	0

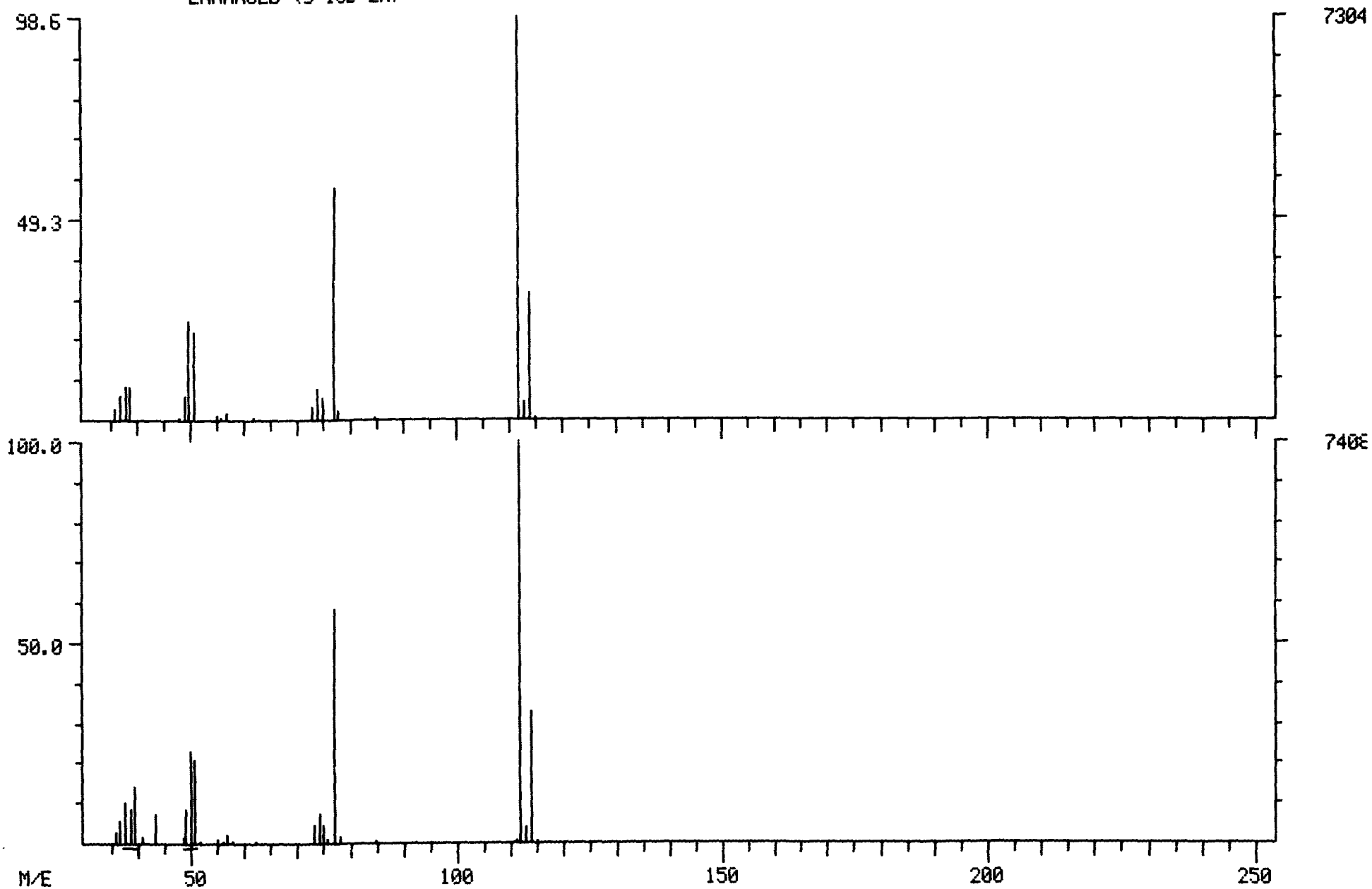
NUMBER OF COMPOUNDS IDENTIFIED 16

DATA PROCESSING OF EH011415C01 COMPLETED ON 12/22/81 7:40:51

108-90-7
207

DUAL MASS SPECTRUM
12/22/81 6:58:00 + 24:24
SAMPLE: SAMPLE 11415 + 5UL@(3370+3374)
ENHANCED (S 15B 2N)

DATA: EH011415C01 #480 BASE M/E: 112/ 112
RIC: 21759./ 24095.

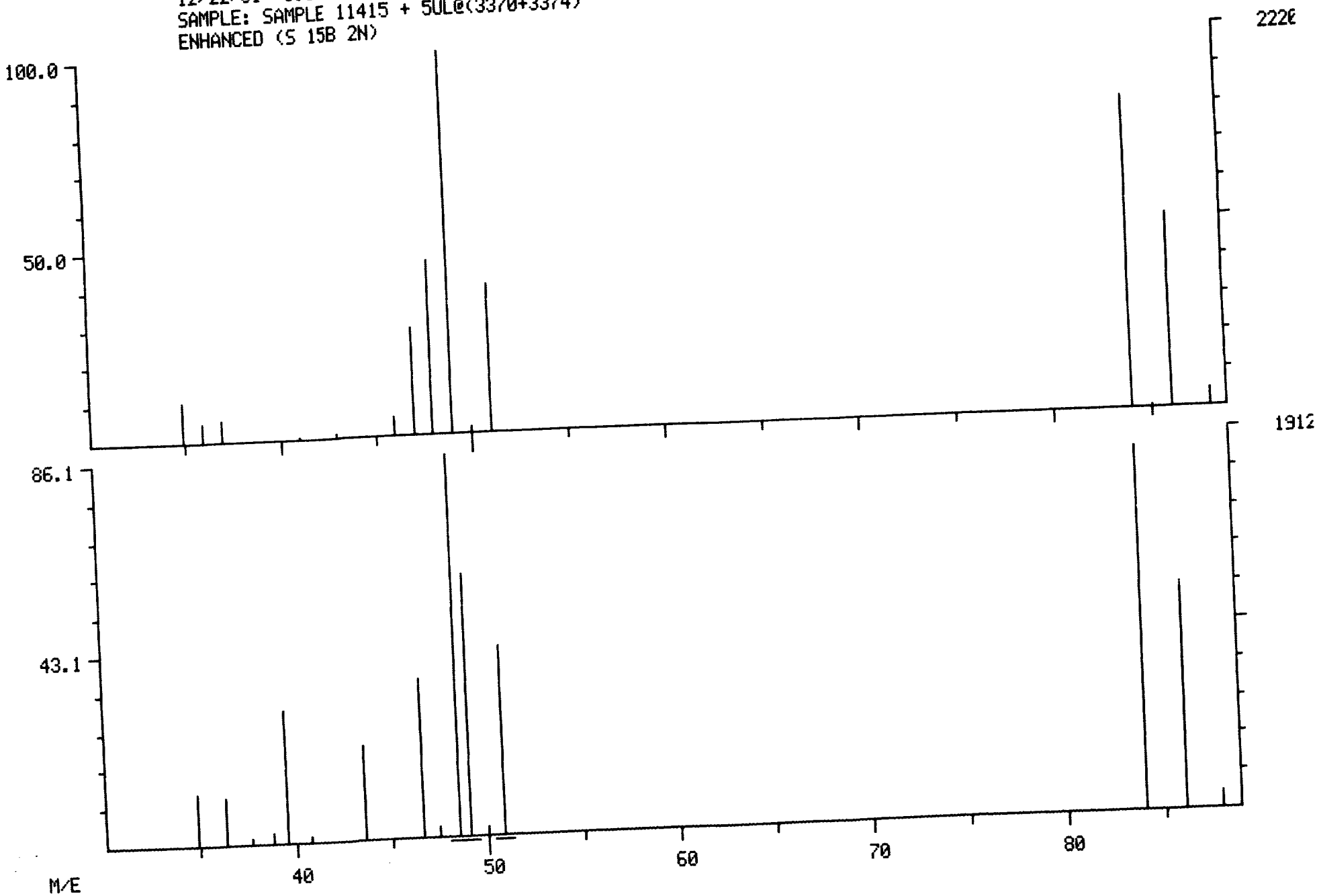


75-09-2

222

DATA: EH011415C01 #121 BASE M/E: 49/ 48
RIC: 8447./ 9855.

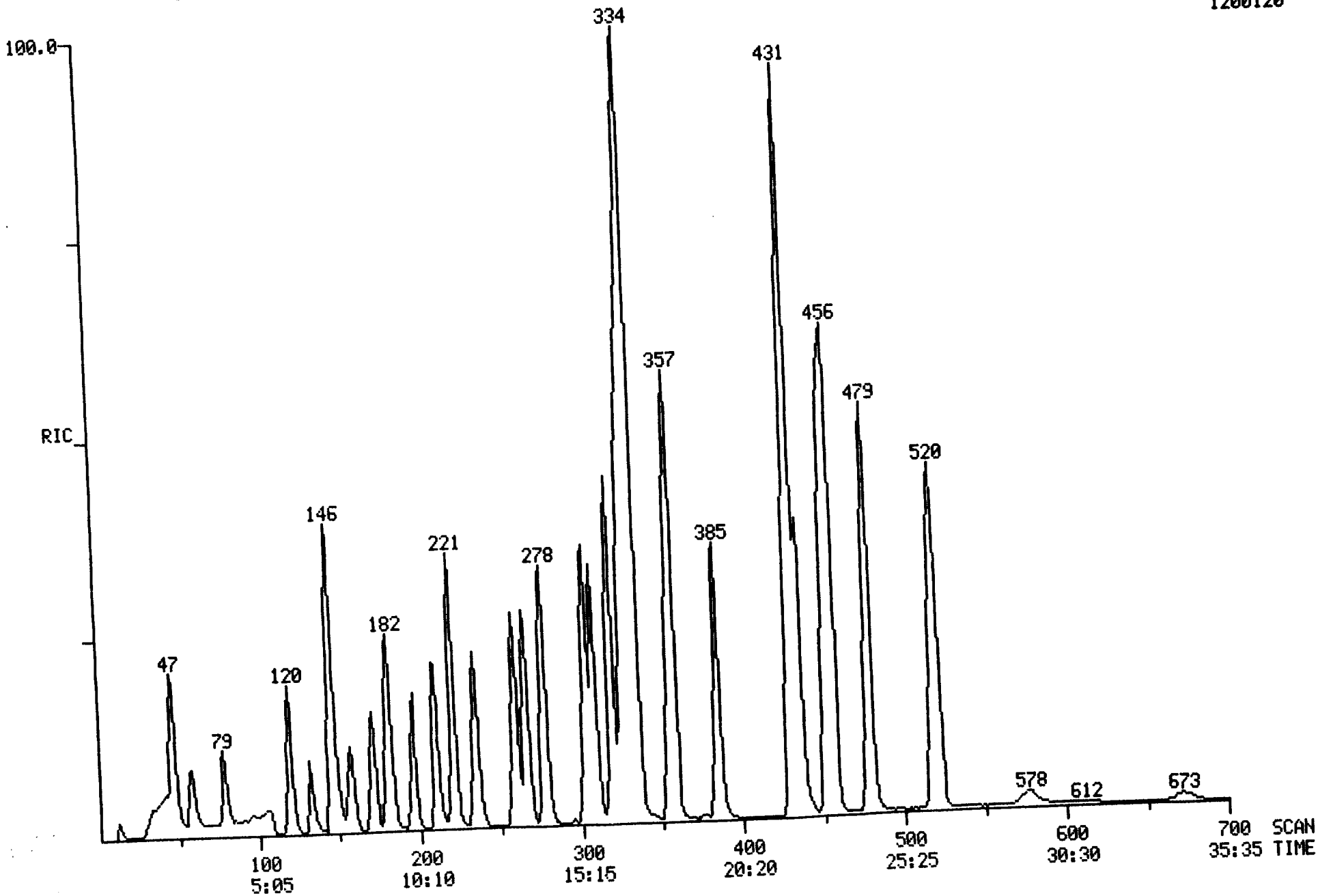
DUAL MASS SPECTRUM
12/22/81 6:58:00 + 6:09
SAMPLE: SAMPLE 11415 + 5UL@(3370+3374)
ENHANCED (S 15B 2N)



DATA: ES811221C01 SCANS 1 TO 700

RIC
12/22/81 4:03:00
SAMPLE: 10 ML DIH2O + 5UL@(3370+3374) + 6UL@(3343+3349) + 3UL@(3342+3339

1200120



FORM 2

GC/MS PERFORMANCE STANDARD - BROMOFLUOROBENZENE

DATE 12/21/81 RUN NO. BF811221C01 ANALYST MBS

m/e	Ion Abundance Criteria	% Relative Abundance
50	15-40% of the base peak	24.60
75	30-60% of the base peak	50.60
95	Base Peak, 100% relative abundance	100.00
96	5-9% of the base peak	6.03
173	Less than 1% of the base peak	0.00
174	Greater than 50% of the base peak	85.56
175	5-9% of mass 174	5.78 (6.76)
176	Greater than 50% of the base peak	85.17
177	5-9% of mass 176	4.45 (5.22)

MASS LIST DATA: BF811221C01 # 182 BASE M/E: 95
12/22/81 2:34:00 + 9:15 RIC: 27040.
SAMPLE: 2 UL BFB # 3355
#182 - #188 X1.00

36 0.00 MINIMA MIN INTEN: 0.
281 # 0 MAXIMA
MASS % RA

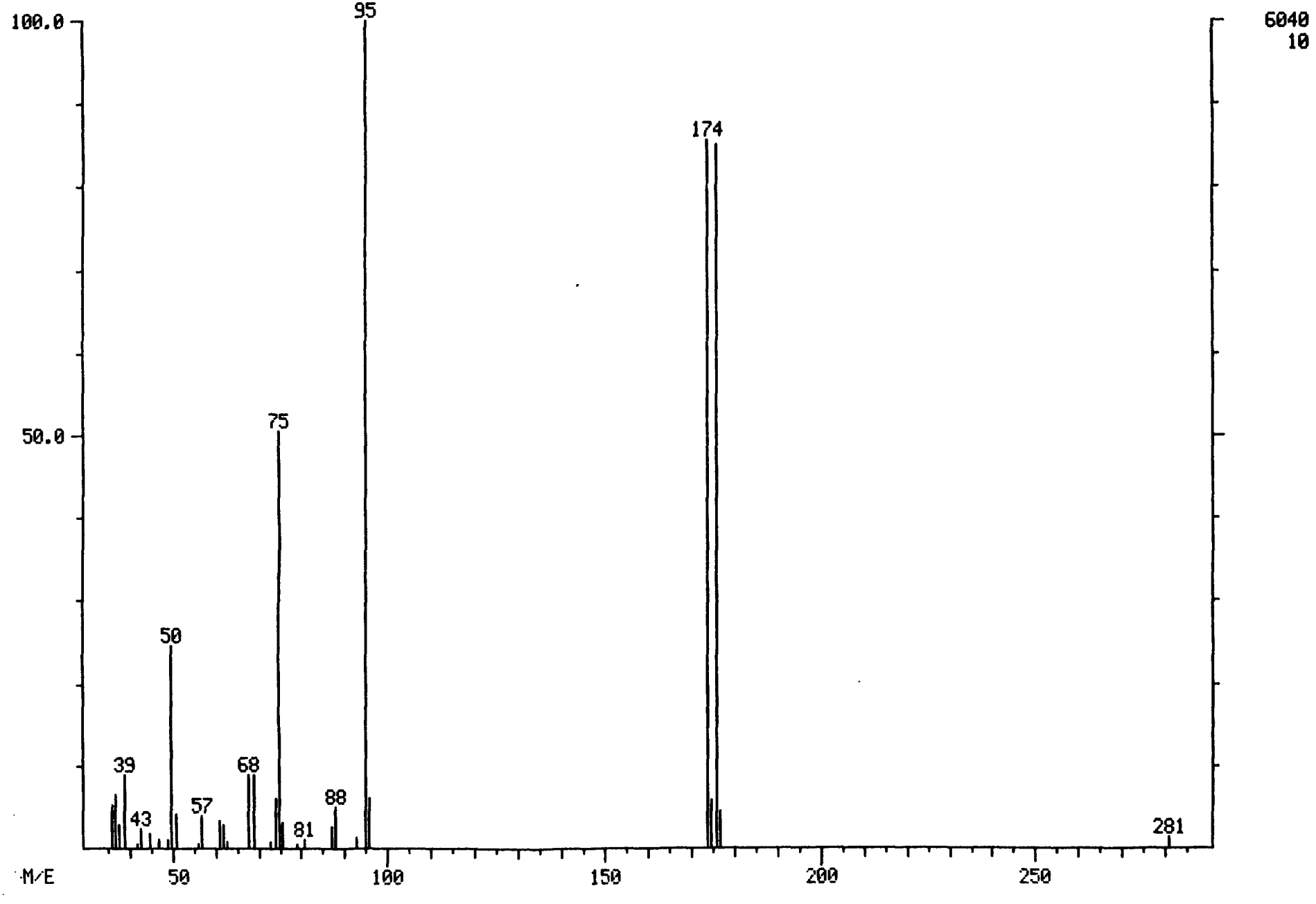
MASS	% RA
36	5.22
37	6.51
38	2.91
39	8.86
42	0.55
43	2.38
45	1.77
47	1.18
49	0.93
50	24.60
51	4.17
56	0.50
57	3.86
61	3.31
62	2.95
63	0.75
68	8.94
69	8.87
73	0.91
74	5.93
75	50.60
76	3.25
79	0.53
81	1.09
87	2.53
88	4.88
93	1.29
95	100.00
96	6.03
174	85.56
175	5.78
176	85.17
177	4.45
281	1.24

VOA

MASS SPECTRUM
12/22/81 2:34:00 + 9:15
SAMPLE: 2 UL BFB # 3355
#182 - #188 X1.00

DATA: BF811221C01 #182

BASE M/E: 95
RIC: 27040.



11415

Mead CompuChem

30-JAN-82 INITIAL CALIBRATION DATA REPORT Time: 21: 3

Research Triangle Park
Instrument: 1
Library: 5
Version: 5
Fraction: Volatile

Compounds		Lab ID: ET811221A01 Std ID: 1801 (LOW) Conc	Area	Lab ID: ES811221A01 Std ID: 1802 (MED) Conc	Area	Lab ID: EU811221A01 Std ID: 1803 (HIGH) Conc	Area
BROMOCHLOROMETHANE	(IS)	.50	260521	.50	250780	.50	276342
BROMOCHLOROMETHANE	(IS)	.50	260521	.50	250780	.50	276342
1,4-DICHLOROBUTANE	(IS)	.50	713060	.50	785782	.50	792163
2-BROMO-1-CHLOROPROPANE	(IS)	.50	468024	.50	494331	.50	541374

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
METHYL CHLORIDE	.20	.450	.182	.40	.440	.181	.60	.414	.181	-.964
VINYL CHLORIDE	.20	.674	.315	.40	.664	.324	.60	.652	.324	-.998
CHLOROETHANE	.20	.590	.431	.40	.585	.434	.60	.550	.434	-.990
METHYL BROMIDE	.20	.615	.260	.40	.751	.264	.60	.747	.264	-.890
ACROLEIN	1.00	.095	.729	4.00	.096	.731	6.00	.092	.725	-.795
ACRYLONITRILE	2.00	.259	.807	4.00	.250	.802	6.00	.253	.802	-.645
METHYLENE CHLORIDE	.20	.831	.657	.40	.761	.659	.60	1.155	.659	.771
TRICHLOROFLUOROMETHANE	.20	.952	.873	.40	.946	.868	.60	1.004	.868	.813
1,1-DICHLOROETHYLENE	.20	.525	.945	.40	.543	.945	.60	.619	.945	.995
1,1-DICHLOROETHANE	.20	.408	1.088	.40	.468	1.082	.60	.512	1.082	.995
1,2-TRANS-DICHLOROETHYLENE	.20	.719	1.160	.40	.761	1.159	.60	.788	1.159	.992
CHLOROFORM	.20	1.850	1.221	.40	2.014	1.220	.60	2.029	1.220	.901
1,2-DICHLOROETHANE	.20	1.650	1.298	.40	1.830	1.291	.60	1.775	1.297	.676
1,1,1-TRICHLOROETHANE	.20	1.287	1.431	.40	1.346	1.429	.60	1.421	1.429	.997
CARBON TETRACHLORIDE	.20	1.194	1.470	.40	1.279	1.467	.60	1.398	1.467	.995
DICHLOROBROMOMETHANE	.20	1.625	1.536	.40	1.792	1.527	.60	1.907	1.527	.995
1,2-DICHLOROPROPANE	.20	.088	.697	.40	.085	.696	.60	.101	.697	.753
TRANS-1,3-DICHLOROPROPYLENE	.20	.423	.709	.40	.420	.709	.60	.502	.711	.849
TRICHLOROETHYLENE	.20	.430	.734	.40	.401	.735	.60	.453	.734	.448
BENZENE	.20	1.057	.757	.40	.967	.755	.60	1.095	.757	.290
CIS-1,3-DICHLOROPROPYLENE	.20	.466	.766	.40	.476	.767	.60	.562	.768	.912
1,1,2-TRICHLOROETHANE	.20	.379	.766	.40	.364	.767	.60	.402	.768	.590
CHLORODIBROMOMETHANE	.20	.458	.761	.40	.464	.762	.60	.534	.764	.894
BROMOFORM	.20	.558	.883	.40	.561	.883	.60	.665	.883	.879
TETRACHLOROETHYLENE	.20	.451	.989	.40	.411	.989	.60	.475	.989	.379
1,1,2,2-TETRACHLOROETHANE	.20	.736	.986	.40	.673	.986	.60	.766	.989	.319
TOLUENE	.20	.716	1.046	.40	.657	1.046	.60	.749	1.048	.351
CHLOROBENZENE	.20	.990	1.099	.40	.888	1.096	.60	1.001	1.099	.092
ETHYLBENZENE	.20	.454	1.193	.40	.417	1.190	.60	.476	1.193	.375
2-CHLOROETHYLVINYL ETHER	.20	.250	.814	.40	.263	.815	.60	.268	.817	.969
D-6 BENZENE	.50	2.235	.913	.50	2.090	.913	.50	2.025	.913	-.000
D-8 TOLUENE	.50	1.240	1.265	.50	1.142	1.265	.50	1.115	1.265	-.000

Mead CompuChem

30-JAN-82 STANDARD RESPONSE FACTOR CHECK REPORT Time: 15:50

Research Triangle Park
Instrument: 1
Library: 5
Version: 5
Fraction: Volatile

STD ID 1803 (HIGH) ID: ES811221C01 Analyst: 584

Compounds		Area(C)	Area(CK)	RXD **
BROMOCHLOROMETHANE	(IS)	276342	249877	10.1
BROMOCHLOROMETHANE	(IS)	276342	249877	10.1
1,4-DICHLOROBUTANE	(IS)	792163	774741	2.2
2-BROMO-1-CHLOROPROPANE	(IS)	541374	511807	5.6

	RF (C)	RF (CK)	RXD **
METHYL CHLORIDE	.414	.396	-4.3
VINYL CHLORIDE	.652	.692	6.0
CHLOROETHANE	.550	.613	10.[illegible]
METHYL BROMIDE	.747	.973	26.[illegible]
ACROLEIN	.092	.044	-52.4
ACRYLONITRILE	.253	.212	-17.8
METHYLENE CHLORIDE	1.155	.639	-57.6
TRICHLOROFLUOROMETHANE	1.004	.726	-32.2
1,1-DICHLOROETHYLENE	.619	.463	-28.[illegible]
1,1-DICHLOROETHANE	.512	.430	-17.3
1,2-TRANS-DICHLOROETHYLENE	.788	.686	-13.8
CHLOROFORM	2.029	1.869	-7.1
1,2-DICHLOROETHANE	1.775	1.622	-9.0
1,1,1-TRICHLOROETHANE	1.421	1.276	-10.8
CARBON TETRACHLORIDE	1.398	1.213	-14.2
DICHLOROBROMOMETHANE	1.907	1.749	-8.7
1,2-DICHLOROPROPANE	.101	.087	-15.1
TRANS-1,3-DICHLOROPROPYLENE	.502	.428	-15.9
TRICHLOROETHYLENE	.453	.395	-13.7
BENZENE	1.095	.915	-17.9
CIS-1,3-DICHLOROPROPYLENE	.562	.497	-12.3
1,1,2-TRICHLOROETHANE	.402	.363	-10.0
CHLORODIBROMOMETHANE	.534	.466	-13.7
BROMOFORM	.665	.587	-12.5
TETRACHLOROETHYLENE	.475	.418	-12.7
1,1,2,2-TETRACHLOROETHANE	.766	.682	-11.5
TOLUENE	.749	.660	-12.7
CHLOROBENZENE	1.001	.904	-10.2
ETHYLBENZENE	.476	.423	-11.7
2-CHLOROETHYLVINYL ETHER	.268	.231	-14.8
D-6 BENZENE	2.025	1.692	-17.9
D-8 TOLUENE	1.115	1.072	-3.9

$$** \quad RXD = \frac{(CK-C)}{(CK+C)\ /\ 2} \times 100$$

30-JAN-82 Mead CompuChem Time: 16: 3

STANDARDS RELATIVE RETENTION REPORT

Research Triangle Park
Instrument: 1
Library: 5
Version: 5
Fraction: Volatile

Compounds		Initial Run ID: EUB11221A01 STD Conc	RRT	Check Standards ID: ESB11221C01 RRT	Diff
BROMOCHLOROMETHANE	(IS)	.50	1.000	1.000	.000
METHYL CHLORIDE		.60	.181	.182	-.001
VINYL CHLORIDE		.60	.324	.326	-.002
CHLOROETHANE		.60	.434	.436	-.002
METHYL BROMIDE		.60	.264	.260	.004
ACROLEIN		6.00	.725	.735	-.010
ACRYLONITRILE		6.00	.802	.807	-.004
BROMOCHLOROMETHANE	(IS)	.50	1.000	1.000	.000
METHYLENE CHLORIDE		.60	.859	.863	-.004
TRICHLOROFLUOROMETHANE		.60	.868	.873	-.005
1,1-DICHLOROETHYLENE		.60	.945	.950	-.005
1,1-DICHLOROETHANE		.60	1.082	1.088	-.006
1,2-TRANS-DICHLOROETHYLENE		.60	1.159	1.160	-.001
CHLOROFORM		.60	1.220	1.221	-.001
1,2-DICHLOROETHANE		.60	1.297	1.298	-.002
1,1,1-TRICHLOROETHANE		.60	1.429	1.431	-.002
CARBON TETRACHLORIDE		.60	1.467	1.470	-.003
DICHLOROBROMOMETHANE		.60	1.527	1.536	-.008
1,4-DICHLOROBUTANE	(IS)	.50	1.000	1.000	.000
1,2-DICHLOROPROPANE		.60	.697	.695	.002
TRANS-1,3-DICHLOROPROPYLENE		.60	.711	.709	.002
TRICHLOROETHYLENE		.60	.734	.734	.000
BENZENE		.60	.757	.755	.002
CIS-1,3-DICHLOROPROPYLENE		.60	.768	.766	.002
1,1,2-TRICHLOROETHANE		.60	.768	.766	.002
CHLORODIBROMOMETHANE		.60	.764	.761	.002
BROMOFORM		.60	.883	.883	.000
TETRACHLOROETHYLENE		.60	.989	.989	.000
1,1,2,2-TETRACHLOROETHANE		.60	.989	.986	.002
TOLUENE		.60	1.048	1.046	.002
CHLOROBENZENE		.60	1.099	1.099	.000
ETHYLBENZENE		.60	1.193	1.193	.000
2-CHLOROETHYLVINYL ETHER		.60	.817	.814	.002
2-BROMO-1-CHLOROPROPANE	(IS)	.50	1.000	1.000	.000
D-6 BENZENE		.50	.913	.913	.000
D-8 TOLUENE		.50	1.265	1.266	-.001

NEAD COMPUCHEM

30-JAN-82 21:03 Internal Standard Response Verification Report Page 1

Research Triangle Park

Fraction: Volatile 21-DEC-81 17:09 - 22-DEC-81 18:17

Instrument# 1

Library# 5

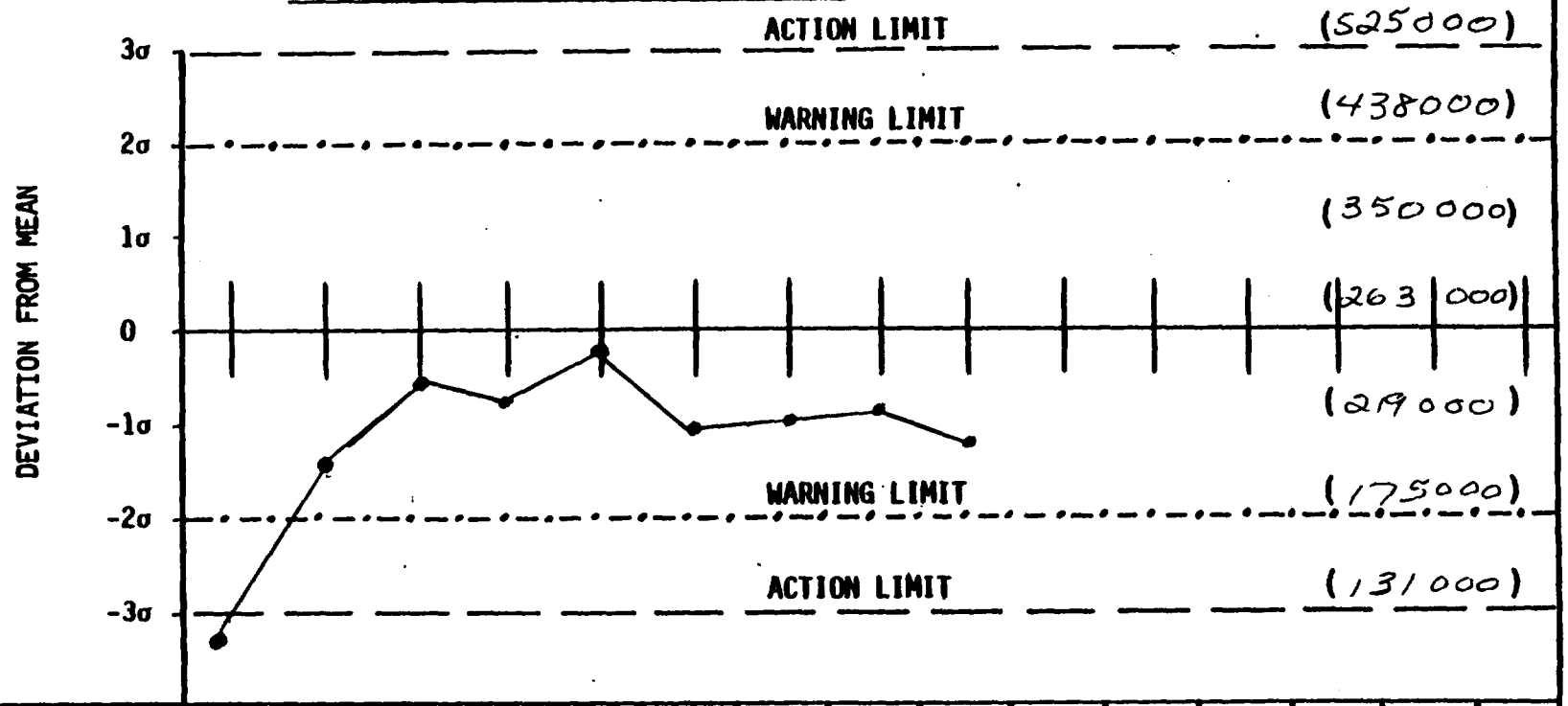
Version# 5

			Int. Std. A			Int. Std. B				Int. Std. C			
			BROMOCHLOROMETHANE Conc: .5000			1,4-DICHLOROBUTANE Conc: .5000				2-BROMO-1-CHLOROPROP Conc: .5000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
ET811221A01	21-DEC-81	586	181	260521.	.4151	436	713060.	1.0000	.3654	358	468024.	.8211	1.5236
ES811221A01	21-DEC-81	586	182	250780.	.4165	437	785782.	1.0000	.3191	358	494351.	.8192	1.5895
EU811221A01	21-DEC-81	586	182	274342.	.4174	436	792169.	1.0000	.3488	358	541374.	.8211	1.4632
EB811221B01	21-DEC-81	670	182	272422.	.4165	437	677088.	1.0000	.4023	358	440892.	.8192	1.5358
ES811221B01	21-DEC-81	670	182	253778.	.4174	436	705268.	1.0000	.3598	358	485609.	.8211	1.4525
EH011309B01	21-DEC-81	670	181	245331.	.4161	435	573462.	1.0000	.4278	356	407383.	.8184	1.4077
EH011310B01	21-DEC-81	670	182	207530.	.4174	436	488824.	1.0000	.4246	358	333362.	.8211	1.4663
EH011311B01	21-DEC-81	670	182	213738.	.4165	437	550845.	1.0000	.4027	358	353687.	.8192	1.5003
EH011332B01	21-DEC-81	670	182	226095.	.4165	437	587845.	1.0000	.4845	358	393596.	.8192	1.4935
EH011340C01	21-DEC-81	584	182	228685.	.4174	436	639084.	1.0000	.3484	358	367094.	.8211	1.7409
EH011331C01	22-DEC-81	584	182	205543.	.4155	438	461746.	1.0000	.4451	358	326226.	.8174	1.4154
EB811221C01	22-DEC-81	584	182	246038.	.4165	437	648322.	1.0000	.3795	358	414363.	.8192	1.5646
ES811221C01	22-DEC-81	584	181	249827.	.4151	436	774741.	1.0000	.3225	357	317807.	.8188	1.5137
EH011335C01	22-DEC-81	584	182	186713.	.4174	436	438987.	1.0000	.4253	358	297693.	.8211	1.4746
EH011336C01	22-DEC-81	584	182	156945.	.4165	437	335538.**	1.0000	.4677	358	229637.**	.8192	1.4612
EH011415C01	22-DEC-81	584	182	108843.**	.4165	437	250467.**	1.0000	.4346	358	171853.**	.8192	1.4574
EH011416A01	22-DEC-81	586	181	213660.	.4151	436	573177.	1.0000	.3728	358	362221.	.8211	1.5824
EH011170A01	22-DEC-81	586	182	230067.	.4165	437	860209.	1.0000	.3485	358	407414.	.8192	1.6205
EB811222A01	22-DEC-81	586	184	221172.	.4211	437	542374.	1.0000	.4078	358	368964.	.8192	1.4700
ES811222A01	22-DEC-81	586	182	243832.	.4174	436	730969.	1.0000	.3336	358	458391.	.8211	1.5946
EH011325A01	22-DEC-81	586	181	196965.	.4151	436	513013.	1.0000	.3839	357	319957.	.8188	1.6034
EH011327B01	22-DEC-81	670	182	216261.	.4174	436	631282.	1.0000	.3426	358	357534.	.8211	1.7657
EH011329B01	22-DEC-81	670	181	220948.	.4151	436	592268.	1.0000	.3731	357	378424.	.8188	1.5651
EI011312B01	22-DEC-81	670	182	207463.	.4165	437	402590.	1.0000	.5153*	358	312252.	.8192	1.2893

PAGE # 1-2

METHOD VOLATILE #1-V

I. STD BROMOCHLOROMETHANE

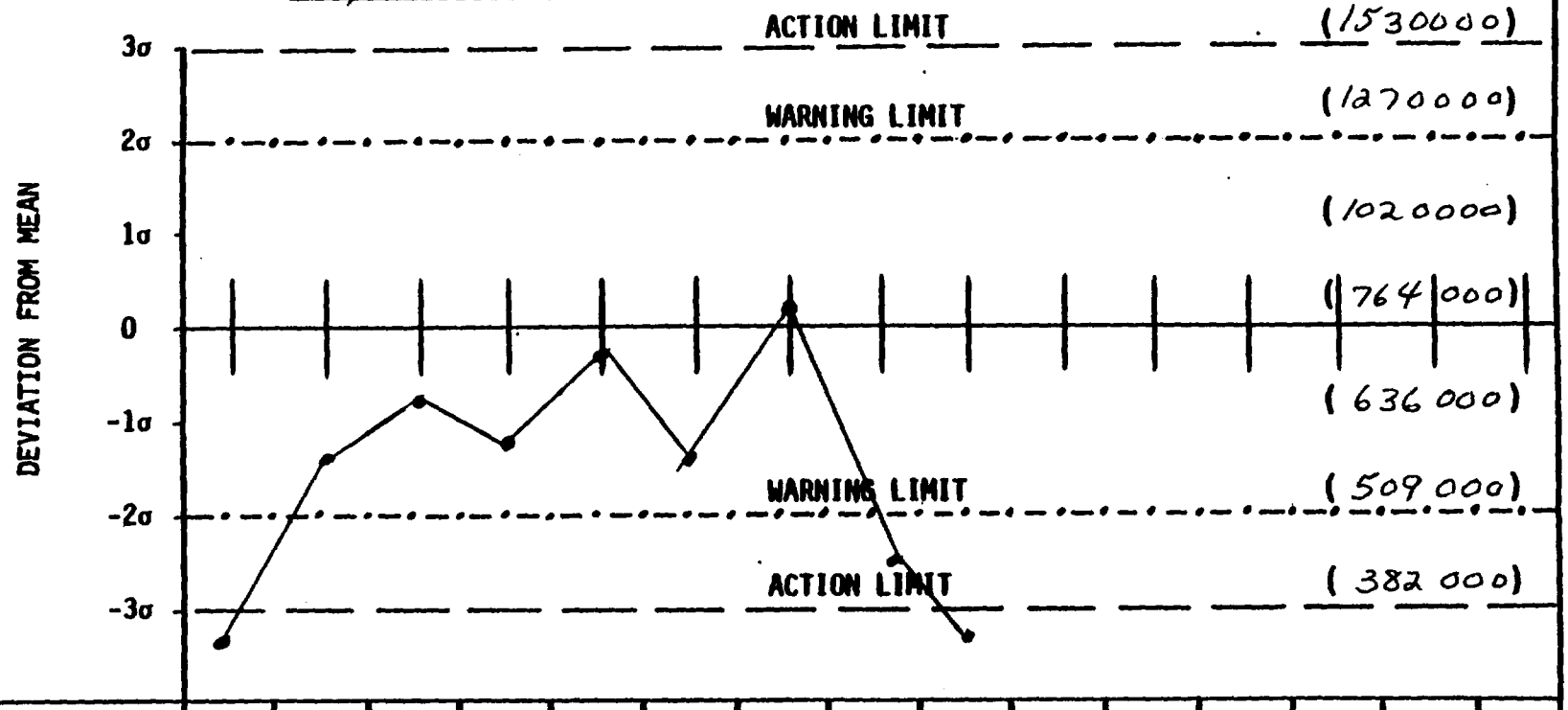


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81						
OPERATOR	584	586	586	586	586	586	670	670	670						
PROBLEM AND CORRECTIVE ACTION															

PAGE # 12

METHOD VOLATILE #1-V

I. STD 1,4-DICHLOROBUTANE

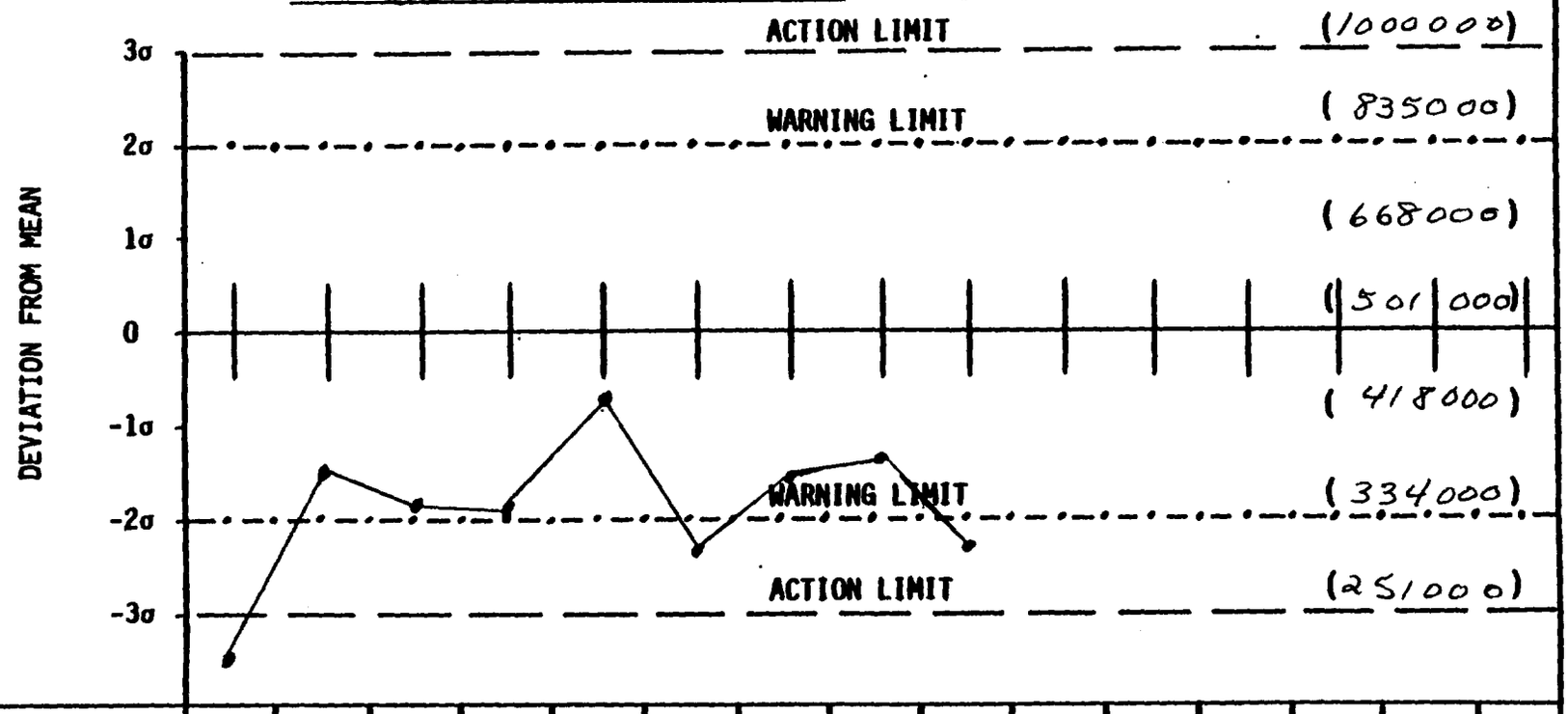


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81						
OPERATOR	584	586	586	586	586	586	670	670	670						
PROBLEM AND CORRECTIVE ACTION															

PAGE # 1-2

METHOD VOLATILE # 1-V

I. STD 2-BROMO-1-CHLOROPROPANE

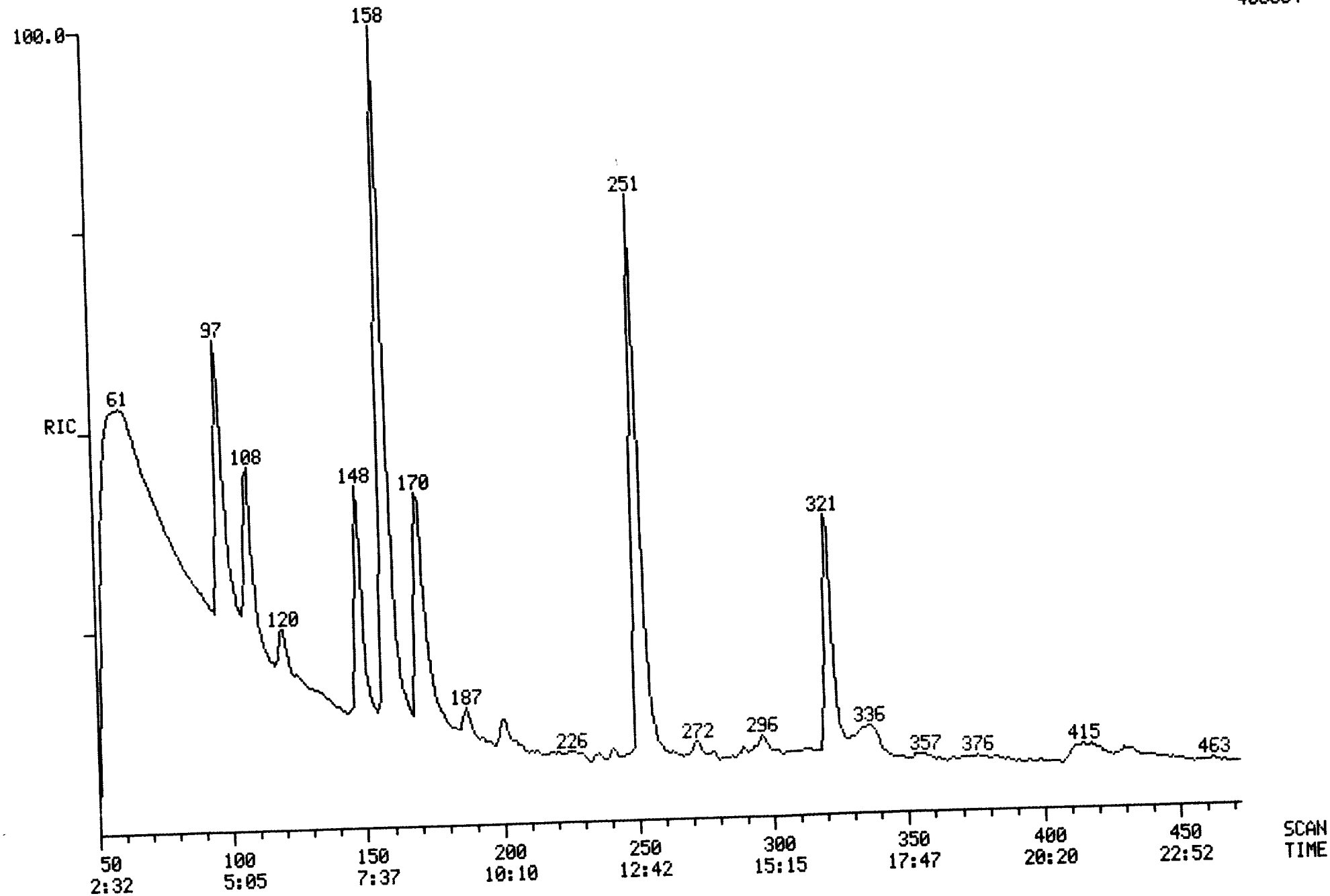


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/21/81	12/22/81	12/24/81	12/24/81						
OPERATOR	584	586	586	586	586	586	670	670	670						
PROBLEM AND CORRECTIVE ACTION															

DATA: AH011415A05 SCANS 50 TO 472

RIC
01/14/82 13:41:00
SAMPLE: 2 UL 11415 ON OWA#5

408064



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: AH011415A05

DATA: AH011415A05.TI
01/14/82 13:41:00
SAMPLE: 2 UL 11415 ON OWA#5
SUBMITTED BY: 5 ANALYST: LRF

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE . RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	FLUOROPHENOL (SURROGATE STANDARD)
3	D-6 PHENOL (SURROGATE STANDARD)
4	PENTAFLUOROPHENOL (SURROGATE)
5	2-FLUOROBIPHENYL (SURROGATE)
6	D-5 NITROBENZENE (SURROGATE)
7	D-8 NAPHTHALENE (INTERNAL STANDARD)
8	2-CHLOROPHENOL
9	2-NITROPHENOL
10	PHENOL
11	2,4-DIMETHYLPHENOL
12	2,4-DICHLOROPHENOL
13	D10-ANTHRACENE (INTERNAL STANDARD)
14	2,4,6-TRICHLOROPHENOL
15	P-CHLORO-M-CRESOL
16	2,4-DINITROPHENOL
17	4,6-DINITRO-O-PHENOL
18	PENTACHLOROPHENOL
19	4-NITROPHENOL

8-17%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	108	5:29	1	1.000	A BB	114809.	40.000	NG/UL	9.23
2	112	97	4:56	1	0.898	A BB	109439.	92.938	NG/UL	21.44
3	99	158	8:02	1	1.463	A BB	134143.	94.193	NG/UL	21.73
4	NOT	FOUND								
5	172	171	8:42	1	1.583	A BB	37794.	17.237	NG/UL	3.98
6	82	108	5:29	1	1.000	A VB	8615.	5.205	NG/UL	1.20
7	136	108	5:29	7	1.000	A BB	118524.	40.000	NG/UL	9.23
8	128	120	6:06	7	1.111	A BB	15606.	12.518	NG/UL	2.89%
9	NOT	FOUND								
10	94	158	8:02	7	1.463	A BB	128114.	87.022	NG/UL	20.08%
11	NOT	FOUND								
12	162	201	10:13	7	1.861	A BB	530.	0.515	NG/UL	0.12
13	188	321	16:19	13	1.000	A BB	152451.	40.000	NG/UL	9.23
14	196	241	12:15	13	0.751	A BB	1730.	2.064	NG/UL	0.48
15	142	271	13:47	13	0.844	A BB	269.	0.299	NG/UL	0.07
16	NOT	FOUND								
17	NOT	FOUND								
18	NOT	FOUND								
19	65	449	22:49	13	1.399	A BV	513.	1.430	NG/UL	0.33

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -17 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUJ

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUJ

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	109	108	995	205	1	1	1	0
2	101	97	997	232	2	1	1	0
3	158	158	998	165	3	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
4	171	170	997	254	4	1	0	0
5	171	171	998	92	5	1	1	0
						**		
6	106	104	983	2	6	2	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -14 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUK

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUK

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
7	109	108	995	205	1	1	1	0
8	119	120	998	81	2	1	1	0
10	158	158	997	197	4	1	1	0
12	199	202	999	35	6	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -4 PERCENT OF THE LAST STANDAR
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
13	322	321	995	355	1	1	1	0
14	240	241	995	34	2	1	1	0
						**		
15	268	276	863	3	3	2	1	0
						**		
19	456	464	779	13	7	2	1	0

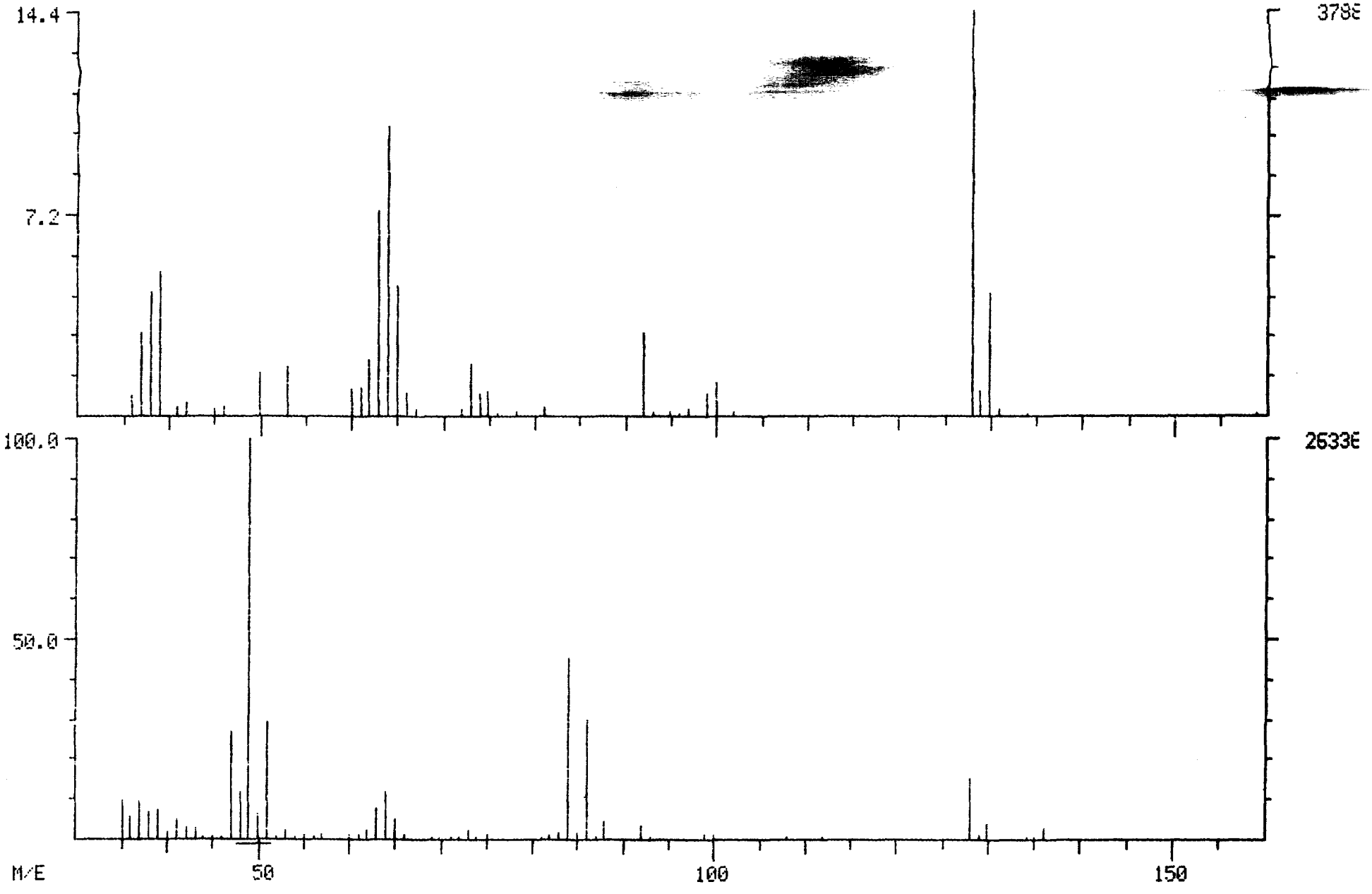
NUMBER OF COMPOUNDS IDENTIFIED 14

DATA PROCESSING OF AH011415A05 COMPLETED ON 1/14/82 14:06:27

601 95-57-8

DUAL MASS SPECTRUM
01/14/82 13:41:00 + 6:06
SAMPLE: 2 UL 11415 ON DWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011415A05 #120 BASE M/E: 128/ 49
CALI: AH011415A05 #1 RIC: 19999./ 102143.



ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11425 SPIKE

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.021
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.020
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.0[illegible]
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01 K
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.019
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11425 SPIKE

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.054	0.05 ug/g	108
d_8-Toluene	VOA	0.055	0.05 ug/g	110

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 114255PIKE

QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

Sample No: 11425 / 11416 E1203 / 11415 → 11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAN Comm/Chem
Report No: 41-59
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
0	0	4	V	BENZENE	ND	0.021	0.013 ug/g	162
0	0	7	V	CHLOROBENZENE	ND	0.020	0.013 ug/g	154
0	8	6	V	TOLUENE	ND	0.019	0.013 ug/g	146

This QC Report also covers the following sample numbers:

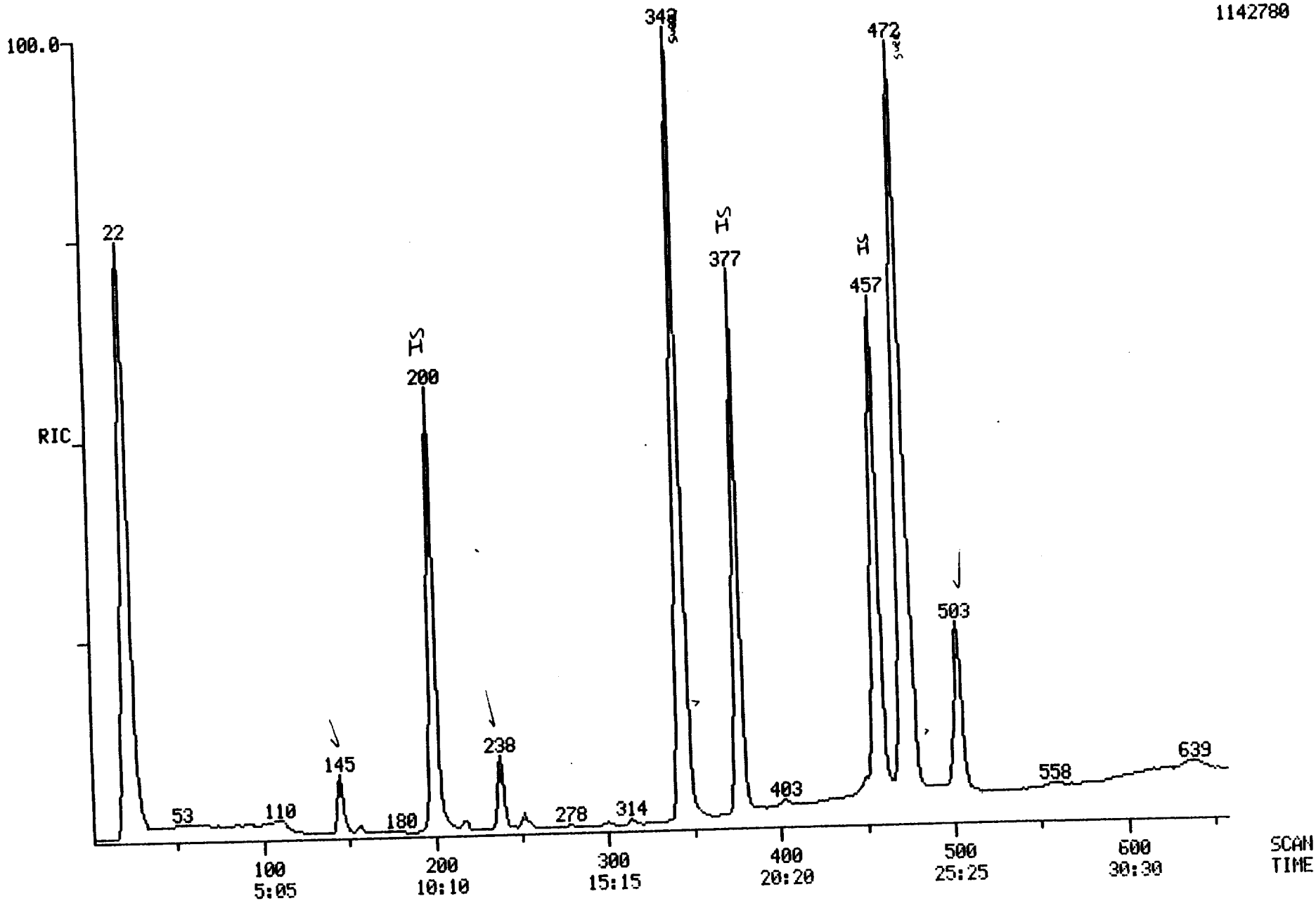
*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

DATA: EH011425A02 SCANS 1 TO 657

RIC
12/22/81 8:48:00
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP

1142780



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EH011425A02

DATA: EH011425A02.TI
12/22/81 8:48:00
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP
SUBMITTED BY: 02 ANALYST: NC

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

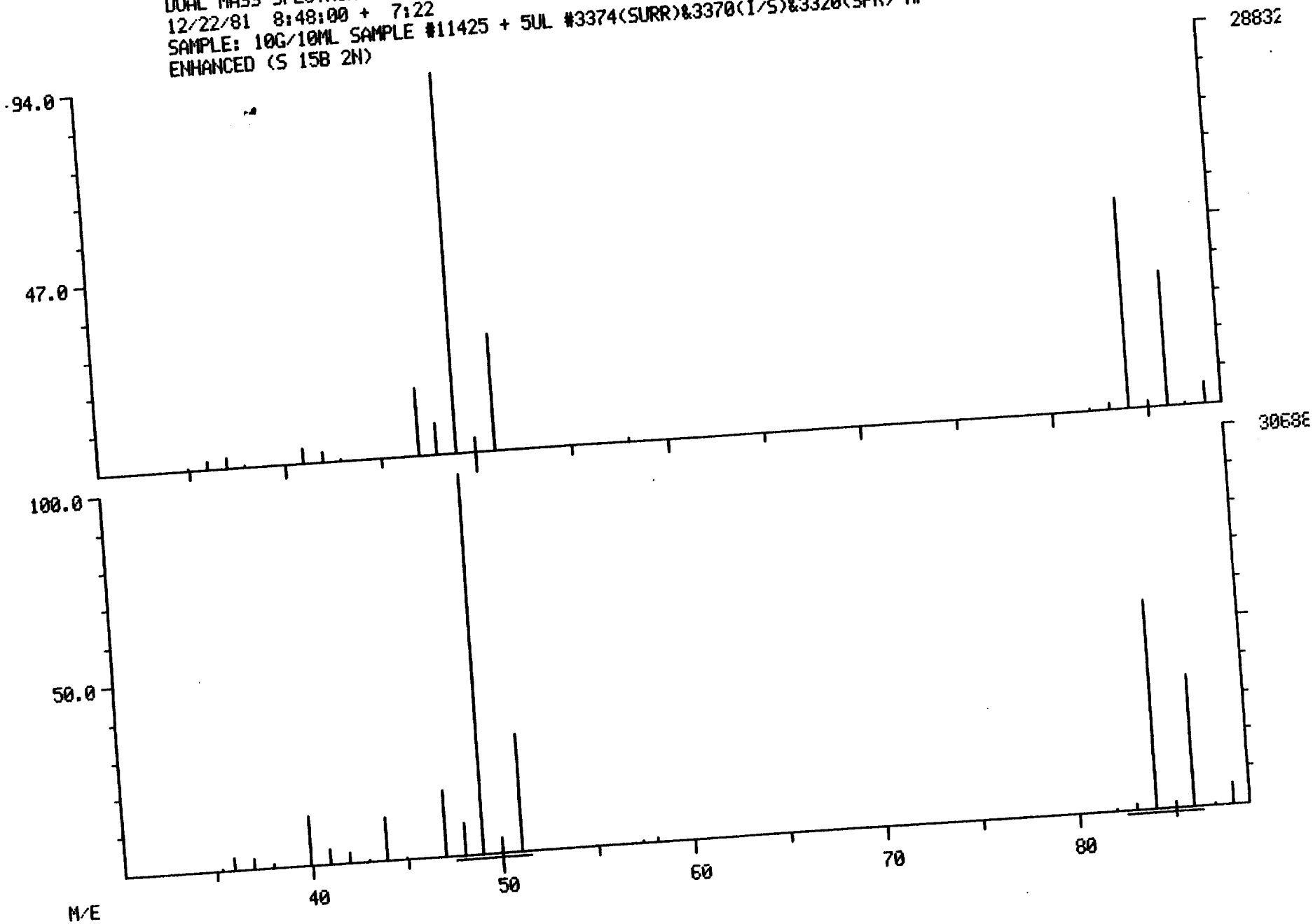
NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1-DICHLOROETHYLENE
12	1,1-DICHLOROETHANE
13	TRANS-1,2-DICHLOROETHYLENE
14	CHLOROFORM
15	1,2-DICHLOROETHANE
16	1,1,1-TRICHLOROETHANE
17	CARBON TETRACHLORIDE
18	BROMODICHLOROMETHANE
19	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
20	1,2-DICHLOROPROPANE
21	TRANS-1,3-DICHLOROPROPENE
22	TRICHLOROETHYLENE
23	BENZENE
24	CIS-1,3-DICHLOROPROPENE
25	1,1,2-TRICHLOROETHANE
26	DIBROMOCHLOROMETHANE
27	BROMOFORM
28	1,1,2,2-TETRACHLOROETHYLENE
29	1,1,2,2-TETRACHLOROETHANE
30	TOLUENE
31	CHLOROBENZENE
32	ETHYLBENZENE
33	2-CHLOROETHYL VINYL ETHER
34	2-BROMO-1-CHLOROPROPANE(INTERNAL STANDARD)
35	D6 BENZENE (SURROGATE STD)
36	D8 TOLUENE (SURROGATE STD)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	200	10:10	1	1.000	A BB	358316.	0.500 UG	12.66
2	50	54	2:45	1	0.270	A BB	620.	0.002 UG	0.05
3	62	87	4:25	1	0.435	A BB	175.	0.000 UG	0.01
4	64	112	5:42	1	0.560	A VB	823.	0.004 UG	0.10
5	NOT FOUND								
6	NOT FOUND								
7	53	170	8:38	1	0.850	A BB	319.	0.001 UG	0.02
8	130	200	10:10	8	1.000	A BB	358316.	0.500 UG	12.66

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT			%TOT	
9	84	145	7:22	8	0.725	A BB	69720.	0.083	UG	LT	2.11	-YES
10	101	180	9:09	8	0.900	A BB	4138.	0.009	UG		0.22	- ~~YES BDL~~
11	NOT	FOUND										
12	NOT	FOUND										
13	NOT	FOUND										
14	83	238	12:06	8	1.190	A BB	159045.	0.096	UG	LT	2.44	-YES
15	62	252	12:49	8	1.260	A BB	883.	0.001	UG		0.02	
16	97	278	14:08	8	1.390	A BB	6050.	0.007	UG		0.17	
17	117	278	14:08	8	1.390	A BB	505.	0.001	UG		0.02	
18	83	294	14:57	8	1.470	A BB	465.	0.000	UG		0.01	
19	55	457	23:14	19	1.000	A BV	1183480.	0.500	UG		12.66	
20	NOT	FOUND										
21	NOT	FOUND										
22	130	337	17:08	19	0.737	A BB	578.	0.001	UG		0.02	
23	78	346	17:35	19	0.757	A BB	547885.	0.209	UG	0.021	5.30	-YES
24	NOT	FOUND										
25	97	352	17:54	19	0.770	A BB	14619.	0.017	UG		0.42	
26	NOT	FOUND										
27	NOT	FOUND										
28	164	449	22:49	19	0.982	A BB	721.	0.001	UG		0.03	
29	83	449	22:49	19	0.982	A BB	33192.	0.019	UG		0.47	- ~~YES BDL~~
30	92	476	24:12	19	1.042	A BB	301632.	0.190	UG	0.019	4.81	- YES
31	112	503	25:34	19	1.101	A BB	359116.	0.200	UG	0.020	5.08	-YES
32	106	557	28:19	19	1.219	A BB	5579.	0.006	UG		0.16	
33	63	377	19:10	19	0.825	A BB	10702.	0.015	UG		0.38	- ~~NO BDL~~
34	77	377	19:10	34	1.000	A BB	903035.	0.500	UG		12.66	
35	84	343	17:26	34	0.910	A BB	1938420.	0.541	UG		13.69	
36	100	472	24:00	34	1.252	A BB	1007450.	0.546	UG		13.82	

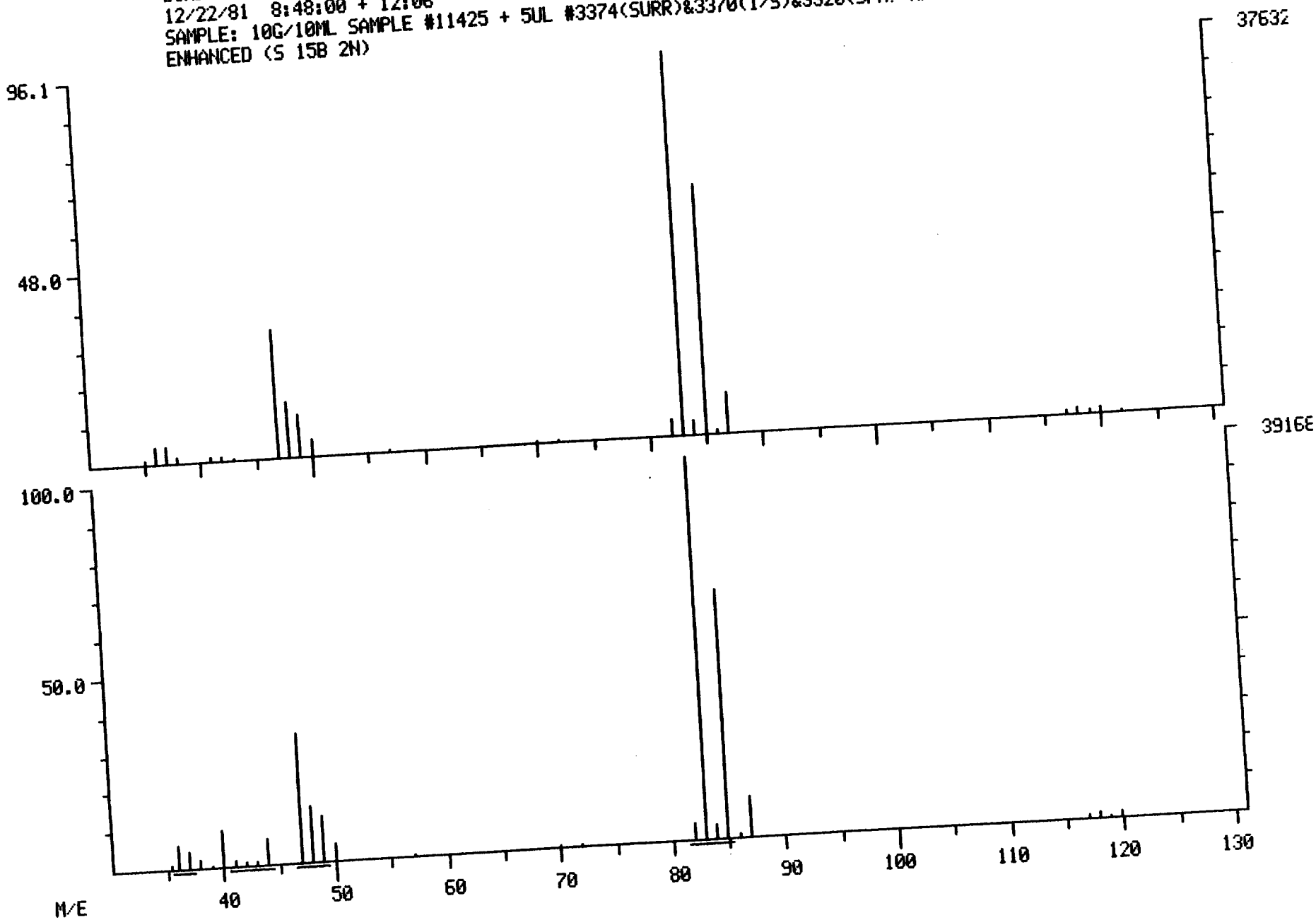
DATA: EH011425A02 #145 BASE M/E: 49/ 49
RIC: 80127./ 93055.

DUAL MASS SPECTRUM
12/22/81 8:48:00 + 7:22
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP
ENHANCED (S 15B 2N)



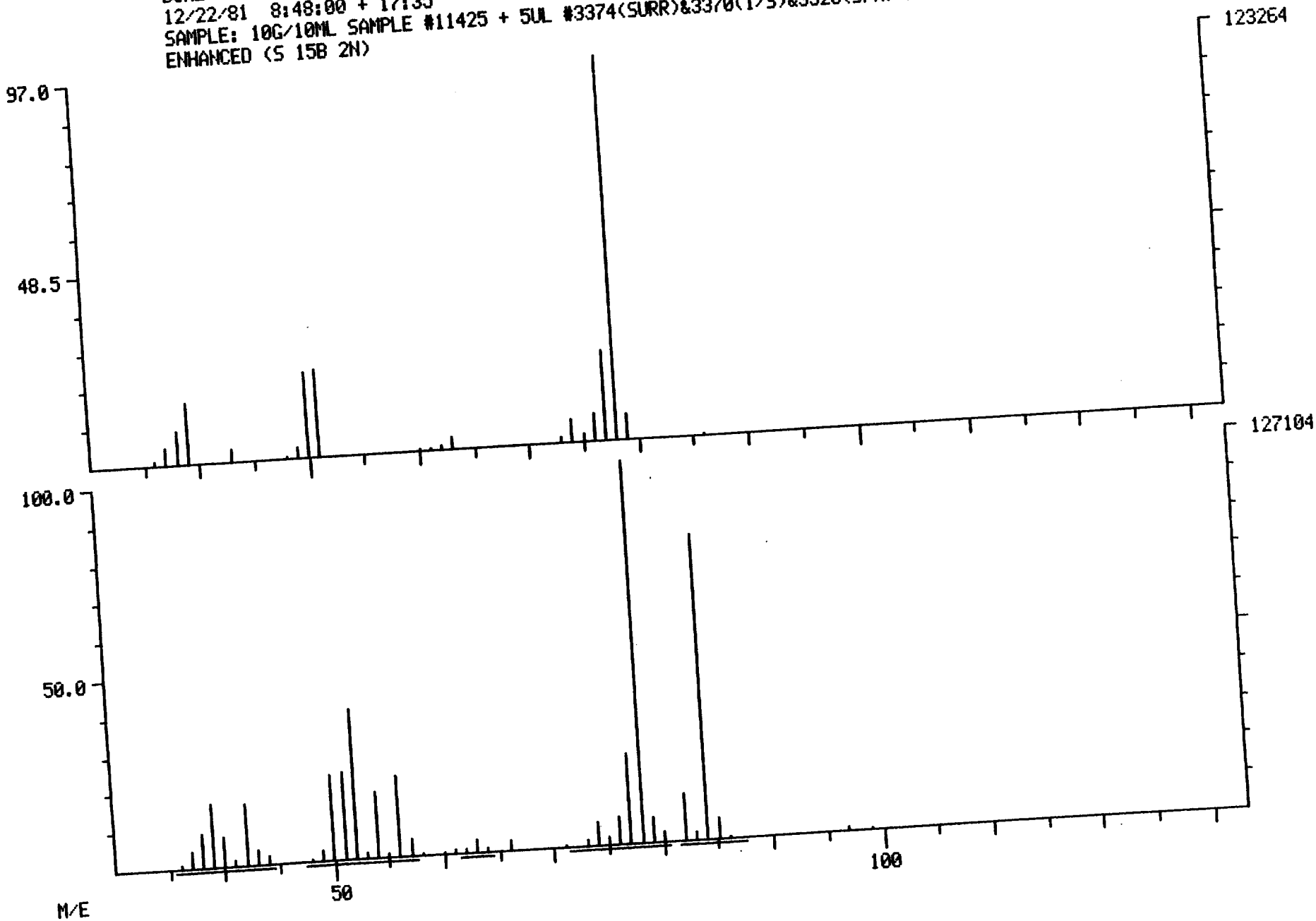
DATA: EH011425A02 #238 BASE M/E: 83/ 83
RIC: 101887./ 114559.

DUAL MASS SPECTRUM
12/22/81 8:48:00 + 12:06
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP
ENHANCED (S 15B 2N)



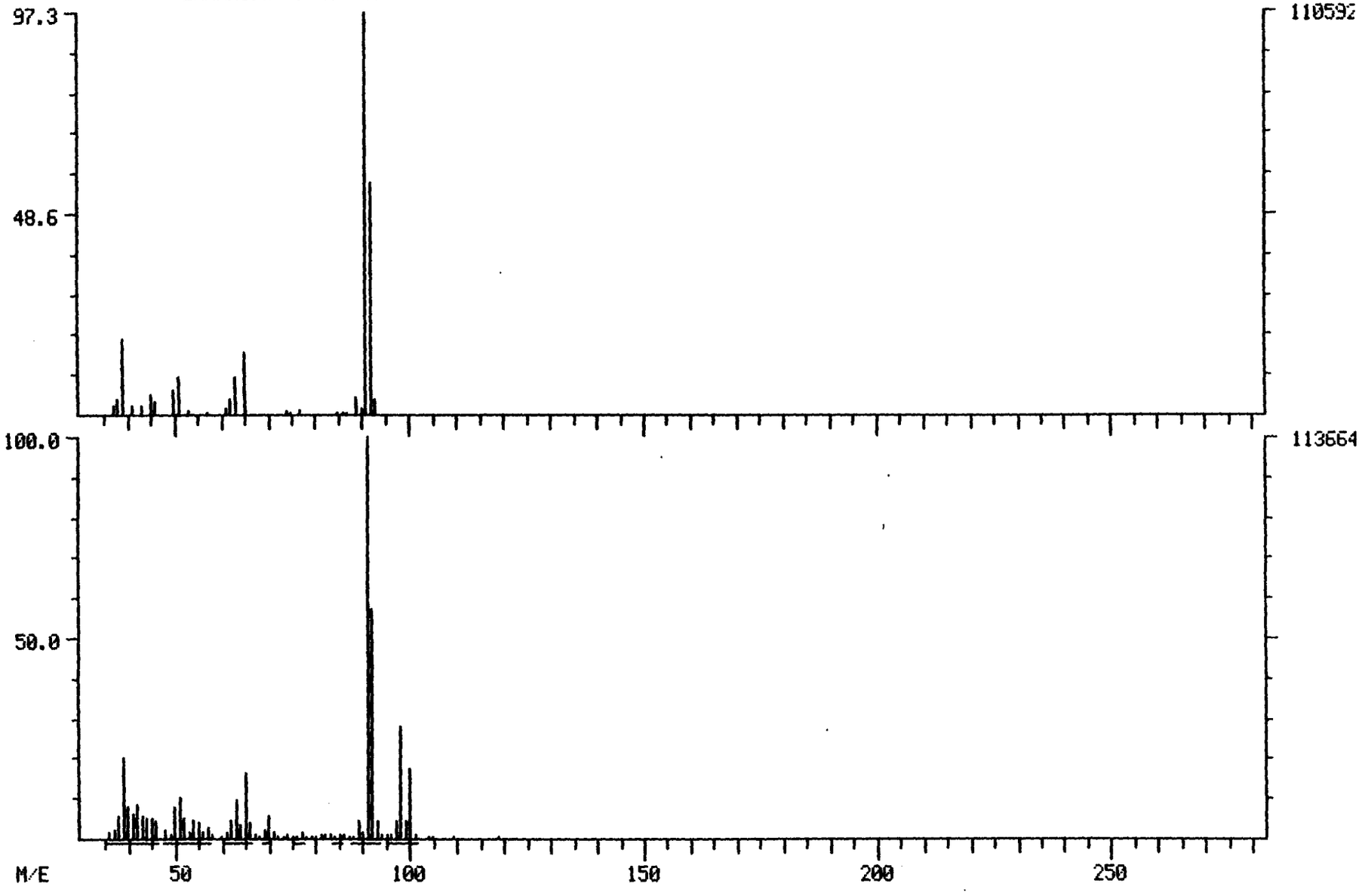
DATA: EH011425A02 #346 BASE M/E: 78/ 78
RIC: 291839./ 587775.

DUAL MASS SPECTRUM
12/22/81 8:48:00 + 17:35
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP
ENHANCED (S 15B 2N)



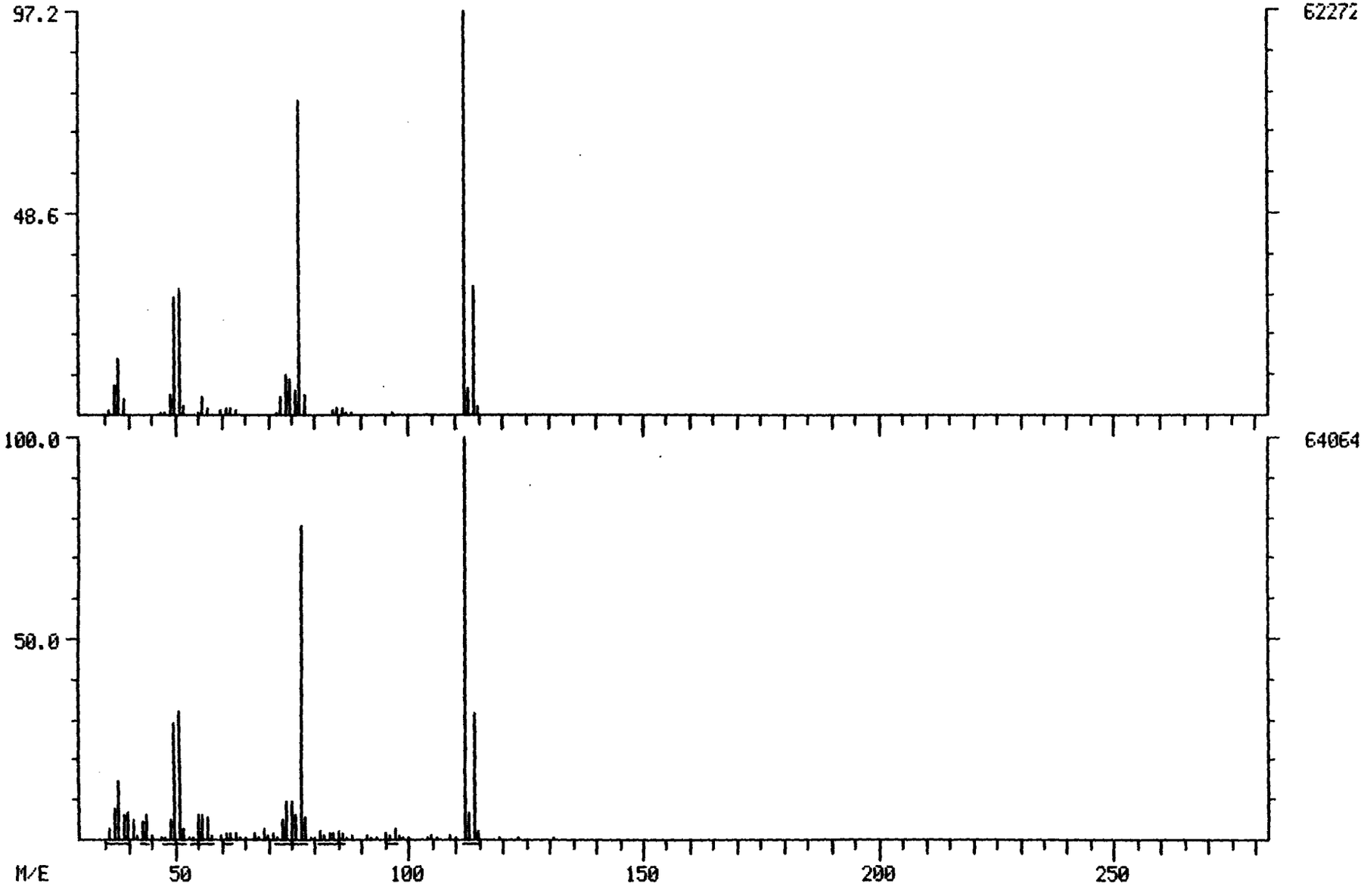
DUAL MASS SPECTRUM
12/22/81 8:48:00 + 24:12
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP
ENHANCED (S 15B 2N)

DATA: EH011425A02 #476 BASE M/E: 91/ 91
RIC: 286719./ 462335.



DUAL MASS SPECTRUM
12/22/81 8:48:00 + 25:34
SAMPLE: 10G/10ML SAMPLE #11425 + 5UL #3374(SURR)&3370(I/S)&3320(SPK)-HP
ENHANCED (S 15B 2N)

DATA: EH011425A02 #503 BASE M/E: 112/ 112
RIC: 229631./ 286207.



ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11426 DUPLICATE

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01 K
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropiene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01 K
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01 K
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11426 DUPLICATE

QC Report No: 41- 59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.054	0.05 ug/g	108
d_8-Toluene	VOA	0.055	0.05 ug/g	110

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11426 DUP

QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

Sample No: 11426 / 11417 E1204 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: MEAS Compu/Chem
Report No: 41-59
Page 1 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)						CONCENTRATION (µg/l)		Relative Percent Difference (RPD)*
P.	P.	#			COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
				V	d_6-BENZENE	0.036	0.054	40
				V	d_8-TOLUENE	0.049	0.055	12
0	4	4		V	methylene chloride	0.013	0.006	74

This QC Report also covers the following sample numbers:

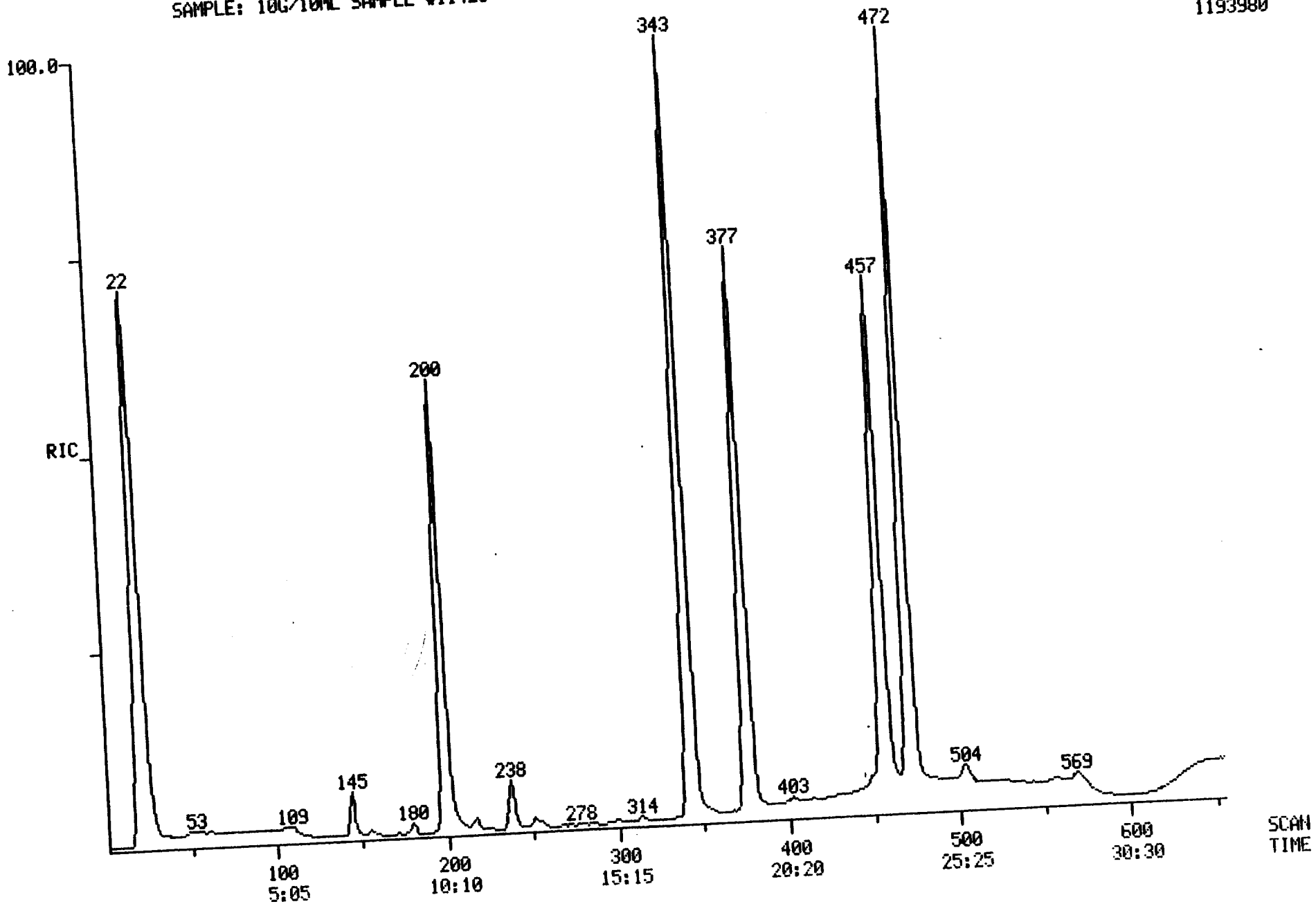
$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

DATA: EH011426A02 SCANS 1 TO 654

RIC
12/22/81 10:41:00
SAMPLE: 10G/10ML SAMPLE #11426 + 5UL #3370&3374-DUPLIC

1193980



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EH011426A02

DATA: EH011426A02.TI
12/22/81 10:41:00
SAMPLE: 10G/10ML SAMPLE #11426 + 5UL #3370&3374-DUPLIC
SUBMITTED BY: 02 ANALYST: NC

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

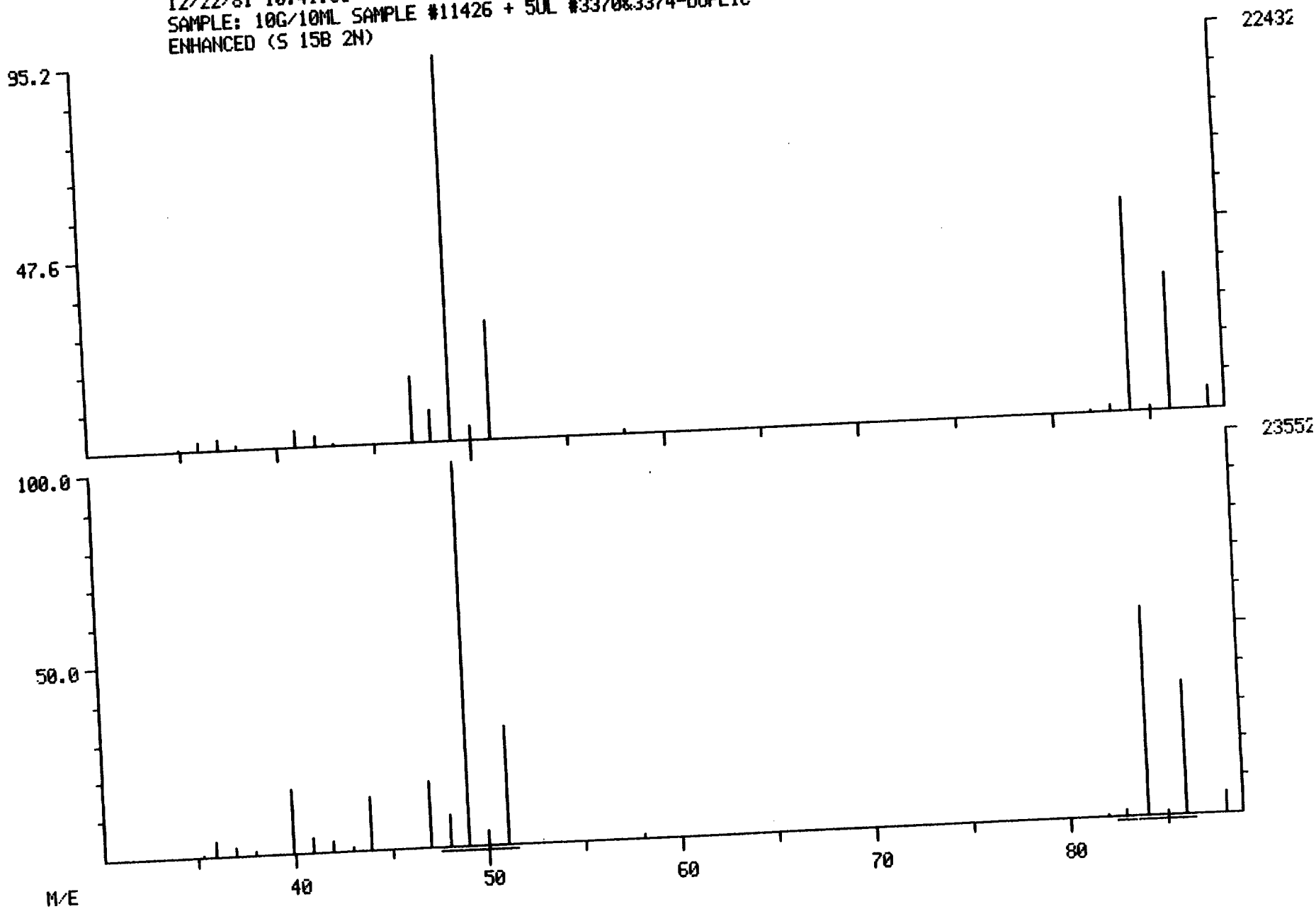
NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1-DICHLOROETHYLENE
12	1,1-DICHLOROETHANE
13	TRANS-1,2-DICHLOROETHYLENE
14	CHLOROFORM
15	1,2-DICHLOROETHANE
16	1,1,1-TRICHLOROETHANE
17	CARBON TETRACHLORIDE
18	BROMODICHLOROMETHANE
19	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
20	1,2-DICHLOROPROPANE
21	TRANS-1,3-DICHLOROPROPENE
22	TRICHLOROETHYLENE
23	BENZENE
24	CIS-1,3-DICHLOROPROPENE
25	1,1,2-TRICHLOROETHANE
26	DIBROMOCHLOROMETHANE
27	BROMOFORM
28	1,1,2,2-TETRACHLOROETHYLENE
29	1,1,2,2-TETRACHLOROETHANE
30	TOLUENE
31	CHLOROBENZENE
32	ETHYLBENZENE
33	2-CHLOROETHYL VINYL ETHER
34	2-BROMO-1-CHLOROPROPANE(INTERNAL STANDARD)
35	D6 BENZENE (SURROGATE STD)
36	D8 TOLUENE (SURROGATE STD)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	200	10:10	1	1.000	A BB	403692.	0.500 UG	14.98
2	50	52	2:39	1	0.260	A BB	233.	0.001 UG	0.02
3	NOT FOUND								
4	64	111	5:39	1	0.555	A VB	1326.	0.005 UG	0.16
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	130	200	10:10	8	1.000	A BB	403692.	0.500 UG	14.98

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT	
9	84	145	7:22	8	0.725	A BB	53311.	0.057 UG	0.006	1.70	-YES ~~DDC~~
10	101	180	9:09	8	0.900	A BB	24283.	0.046 UG	0.006	1.37	-YES ~~DDC~~
11	NOT	FOUND									
12	NOT	FOUND									
13	NOT	FOUND									
14	83	238	12:06	8	1.190	A BB	107341.	0.058 UG	0.006	1.73	-YES ~~DDL~~
15	62	252	12:49	8	1.260	A BB	713.	0.001 UG		0.02	
16	97	278	14:08	8	1.390	A BB	3951.	0.004 UG		0.12	
17	NOT	FOUND									
18	83	295	15:00	8	1.475	A BB	333.	0.000 UG		0.01	
19	55	457	23:14	19	1.000	A BV	1285990.	0.500 UG		14.98	
20	NOT	FOUND									
21	NOT	FOUND									
22	130	336	17:05	19	0.735	A BB	389.	0.000 UG		0.01	
23	78	343	17:26	19	0.751	A BB	20732.	0.007 UG		0.22	
24	NOT	FOUND									
25	97	352	17:54	19	0.770	A BB	12268.	0.013 UG		0.39	~~-YES DDL~~
26	NOT	FOUND									
27	NOT	FOUND									
28	164	450	22:52	19	0.985	A BB	394.	0.001 UG		0.02	
29	83	450	22:52	19	0.985	A BB	25476.	0.013 UG		0.39	~~-YES DDL~~
30	92	476	24:12	19	1.042	A BB	3743.	0.002 UG		0.07	
31	112	503	25:34	19	1.101	A BB	38848.	0.020 UG		0.60	~~-YES DDL~~
32	106	558	28:22	19	1.221	A BB	3993.	0.004 UG		0.13	
33	63	377	19:10	19	0.825	A BB	11650.	0.015 UG		0.45	~~-NO DDL~~
34	77	377	19:10	34	1.000	A BB	997801.	0.500 UG		14.98	
35	84	343	17:26	34	0.910	A BB	2154390.	0.544 UG		16.29	
36	100	472	24:00	34	1.252	A BB	1116930.	0.548 UG		16.41	

DATA: EH011426A02 #145 BASE M/E: 49/ 49
RIC: 61887./ 72319.

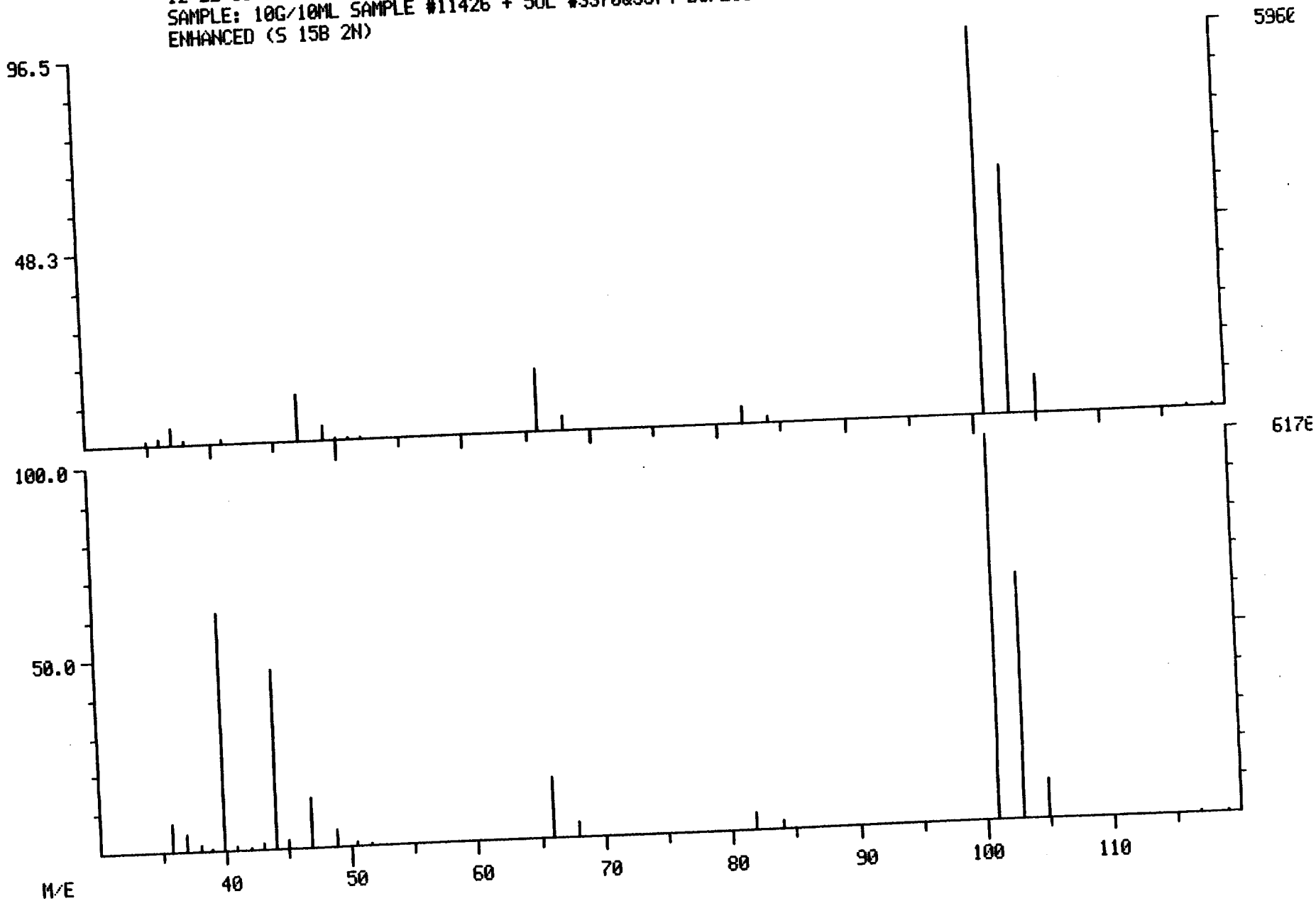
DUAL MASS SPECTRUM
12/22/81 10:41:00 + 7:22
SAMPLE: 10G/10ML SAMPLE #11426 + 5UL #3370&3374-DUPLIC
ENHANCED (S 15B 2N)



φ230

DATA: EH011426A02 #180 BASE M/E: 101/ 101
RIC: 13647./ 21471.

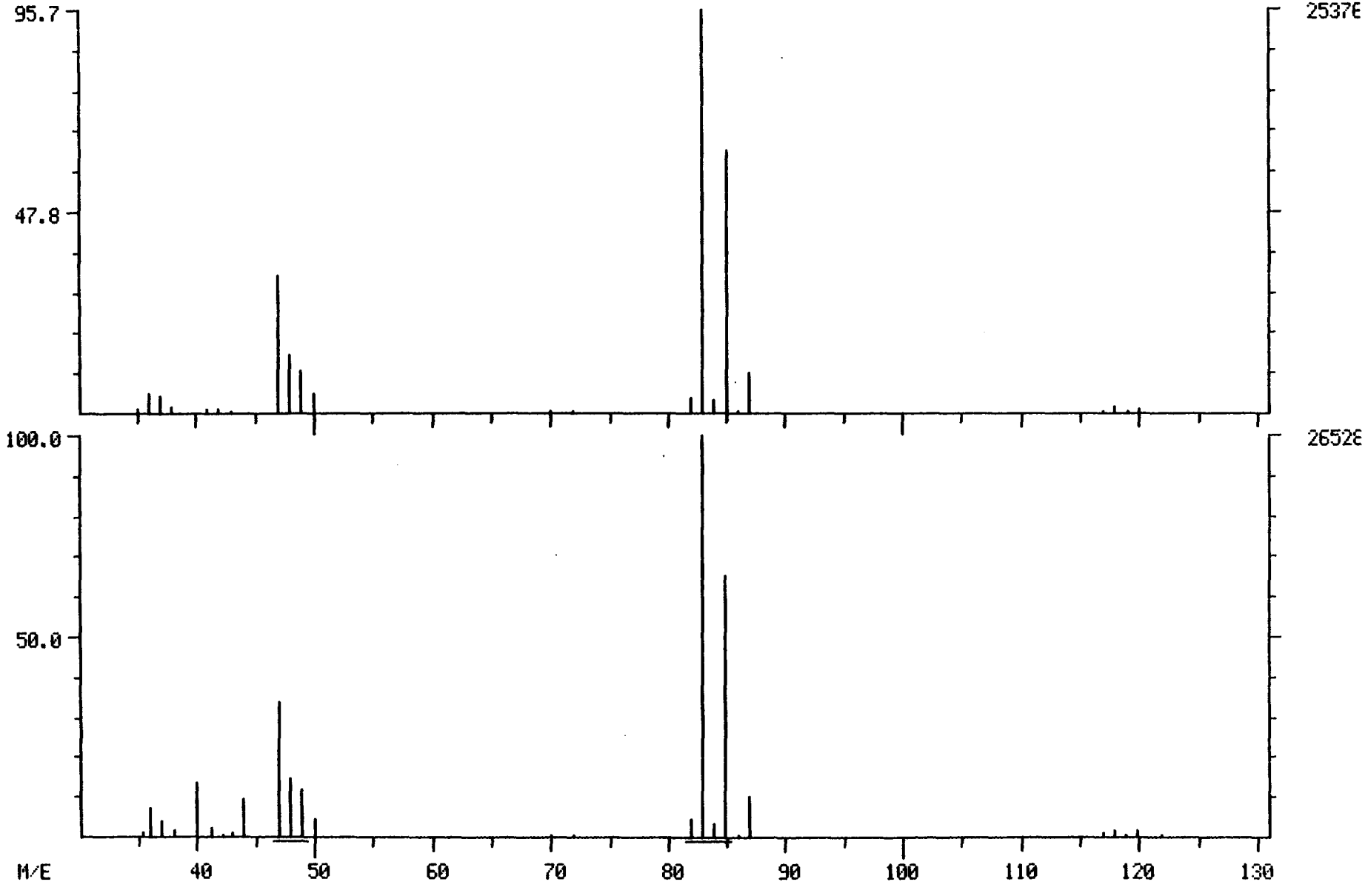
DUAL MASS SPECTRUM
12/22/81 10:41:00 + 9:09
SAMPLE: 10G/10ML SAMPLE #11426 + 5UL #3370&3374-DUPLIC
ENHANCED (S 15B 2N)



ϕ211

DUAL MASS SPECTRUM
12/22/81 10:41:00 + 12:06
SAMPLE: 10G/10ML SAMPLE #11426 + 5UL #3370&3374-DUPLIC
ENHANCED (S 15B 2N)

DATA: EH011426A02 #238 BASE M/E: 83/ 83
RIC: 68351./ 79103.



ORGANICS ANALYSIS DATA SHEET—Page 2

Sample Number

Laboratory Name Hood CompuChem

Case Number 801

Lab Sample ID NO. 11429 COMPOSITE BLANK

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.054	0.05 ug/ml	108
d_8-Toluene	VOA	0.055	0.05 ug/ml	110

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

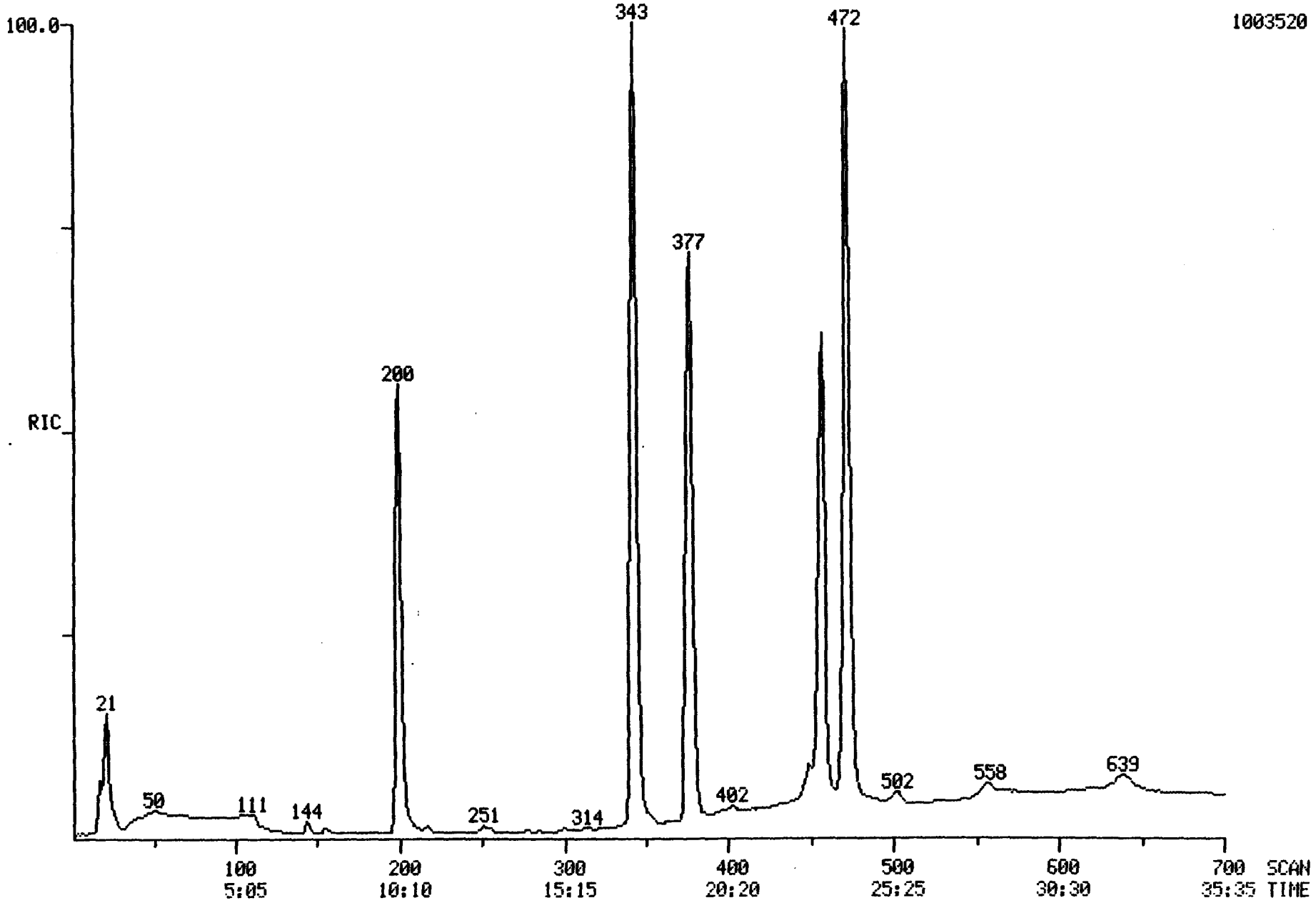
Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

RIC
12/22/81 6:47:00
SAMPLE: SAMPLE 11427 + 5UL@(3370+3374)

DATA: EH011427C02 SCANS 1 TO 700



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EH011427C02

DATA: EH011427C02.TI
12/22/81 6:47:00
SAMPLE: SAMPLE 11427 + 5UL@(3370+3374)
SUBMITTED BY: 02 ANALYST: MBE

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

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1-DICHLOROETHYLENE
12	1,1-DICHLOROETHANE
13	TRANS-1,2-DICHLOROETHYLENE
14	CHLOROFORM
15	1,2-DICHLOROETHANE
16	1,1,1-TRICHLOROETHANE
17	CARBON TETRACHLORIDE
18	BROMODICHLOROMETHANE
19	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
20	1,2-DICHLOROPROPANE
21	TRANS-1,3-DICHLOROPROPENE
22	TRICHLOROETHYLENE
23	BENZENE
24	CIS-1,3-DICHLOROPROPENE
25	1,1,2-TRICHLOROETHANE
26	DIBROMOCHLOROMETHANE
27	BROMOFORM
28	1,1,2,2-TETRACHLOROETHYLENE
29	1,1,2,2-TETRACHLOROETHANE
30	TOLUENE
31	CHLOROBENZENE
32	ETHYLBENZENE
33	2-CHLOROETHYL VINYL ETHER
34	2-BROMO-1-CHLOROPROPANE(INTERNAL STANDARD)
35	D6 BENZENE (SURROGATE STD)
36	D8 TOLUENE (SURROGATE STD)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	199	10:07	1	1.000	A BB	327570.	0.500 UG	15.32
2	50	51	2:36	1	0.256	A BB	514.	0.002 UG	0.05
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	56	157	7:59	1	0.789	A BB	317.	0.004 UG	0.12
7	53	170	8:38	1	0.854	A BB	1961.	0.005 UG	0.15
8	130	199	10:07	8	1.000	A BB	327570.	0.500 UG	15.32

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		L/10	%TOT	
9	84	144	7:19	8	0.724	A BB	9854.	0.013	UG	.0013	0.40	YES BDL
10	NOT	FOUND										
11	NOT	FOUND										
12	NOT	FOUND										
13	NOT	FOUND										
14	83	238	12:06	8	1.196	A BB	352.	0.000	UG		0.01	
15	NOT	FOUND										
16	97	278	14:08	8	1.397	A BB	3402.	0.004	UG		0.13	
17	NOT	FOUND										
18	83	295	15:00	8	1.482	A VB	367.	0.000	UG		0.01	
19	55	457	23:14	19	1.000	A BV	989878.	0.500	UG		15.32	
20	65	322	16:22	19	0.705	A BB	311.	0.001	UG		0.03	
21	75	327	16:37	19	0.716	A VB	603.	0.001	UG		0.02	
22	NOT	FOUND										
23	78	343	17:26	19	0.751	A VB	18505.	0.008	UG		0.26	
24	75	352	17:54	19	0.770	A VB	997.	0.001	UG		0.03	
25	97	352	17:54	19	0.770	A VB	11987.	0.016	UG	.0016	0.50	YES BDL
26	127	348	17:41	19	0.761	A VB	639.	0.001	UG		0.03	
27	173	400	20:20	19	0.875	A BB	8096.	0.011	UG	.0011	0.33	
28	164	448	22:46	19	0.980	A BB	5501.	0.010	UG	.0010	0.32	YES BDL
29	83	449	22:49	19	0.982	A VB	66632.	0.044	UG	.0044	1.36	YES BDL
30	92	475	24:09	19	1.039	A BB	12296.	0.009	UG		0.28	
31	112	502	25:31	19	1.098	A BB	22652.	0.015	UG	.0015	0.46	YES BDL
32	106	557	28:19	19	1.219	A BB	13406.	0.018	UG	.0018	0.56	YES BDL
33	63	377	19:10	19	0.825	A BB	9314.	0.016	UG		0.48	NO
34	77	377	19:10	34	1.000	A VB	827879.	0.500	UG		15.32	
35	84	343	17:26	34	0.910	A BB	1765640.	0.537	UG		16.46	
36	100	472	24:00	34	1.252	A BB	922490.	0.545	UG		16.71	

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CombuChem

Case Number 801

Lab Sample ID NO. EB811221C01 INSTRUMENT BLANK for 11415, 11416.

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-6	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. EB81122IC01 INSTRUMENT BLANK

GC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.052	0.05 ug/ml	104
d_8-Toluene	VOA	0.059	0.05 ug/ml	118

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. EB811221C01 INSTRUMENT BLANK

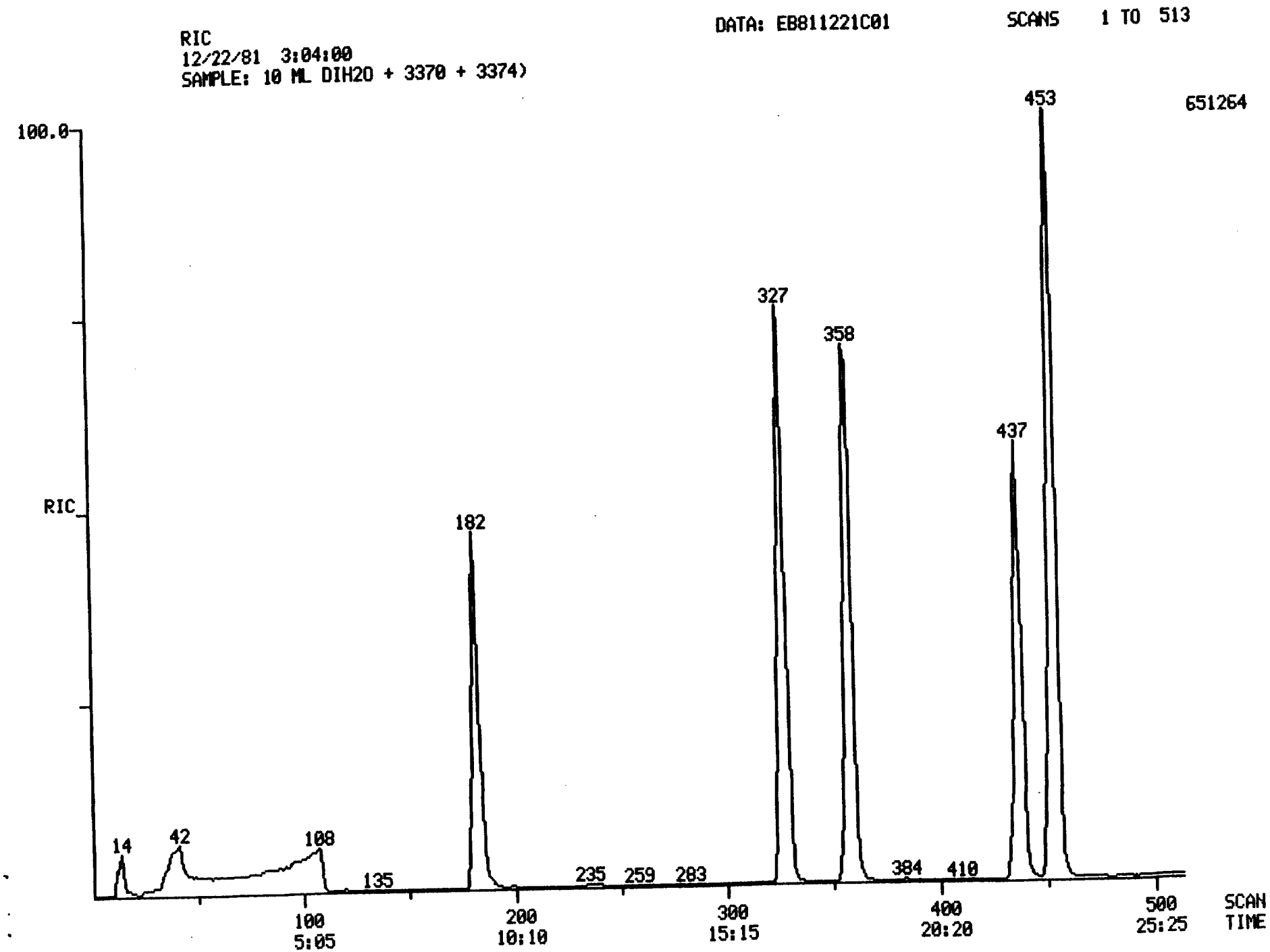
QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

Used 12/21/81 MBE



FINNIGAN ORGANICS IN WATER ANALYZER
FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EB811221C01

DATA: EB811221C01.TI
12/22/81 3:04:00
SAMPLE: 10 ML DIH20 + 3370 + 3374)
SUBMITTED BY: 01 ANALYST: MBE

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

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1,1-TRICHLOROETHANE
12	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
13	BENZENE
14	1,1,2,2-TETRACHLOROETHANE
15	2-CHLOROETHYL VINYL ETHER
16	2-BROMO-1-CHLOROPROPANE
17	D6 BENZENE
18	D8 TOLUENE

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	182	9:15	1	1.000	A BB	246038.	0.500 UG	15.96
2	50	36	1:50	1	0.198	A BB	71.	0.000 UG	0.01
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	130	182	9:15	8	1.000	A BB	246038.	0.500 UG	15.96
9	84	121	6:09	8	0.665	A BB	1358.	0.003 UG	0.11
10	101	159	8:05	8	0.874	A BB	103.	0.000 UG	0.01
11	97	260	13:13	8	1.429	A BB	1335.	0.002 UG	0.06
12	55	437	22:13	12	1.000	A BB	648322.	0.500 UG	15.96
13	78	328	16:40	12	0.751	A BB	6639.	0.004 UG	0.14
14	83	431	21:55	12	0.986	A BB	1615.	0.002 UG	0.05
15	63	358	18:12	12	0.819	A BB	4859.	0.012 UG	0.39
16	77	358	18:12	16	1.000	A BB	414363.	0.500 UG	15.96
17	84	327	16:37	16	0.913	A BB	910110.	0.522 UG	16.67
18	100	453	23:02	16	1.265	A BB	619658.	0.587 UG	18.73

ORGANICS ANALYSIS DATA SHEET—Page 2

Sample Number

Laboratory Name Mead CompuChem Case Number 801

Lab Sample ID NO. EB8[illegible]022A02 INSTRUMENT BLANK for QC Report No. 41-59

11417.

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-6	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. EB81122A02 INSTRUMENT BLANK

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.050	0.05 ug/ml	100
d_8-Toluene	VOA	0.050	0.05 ug/ml	100

Form I (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. EB8113222A001 INSTRUMENT BLANK

QC Report No: 41-59

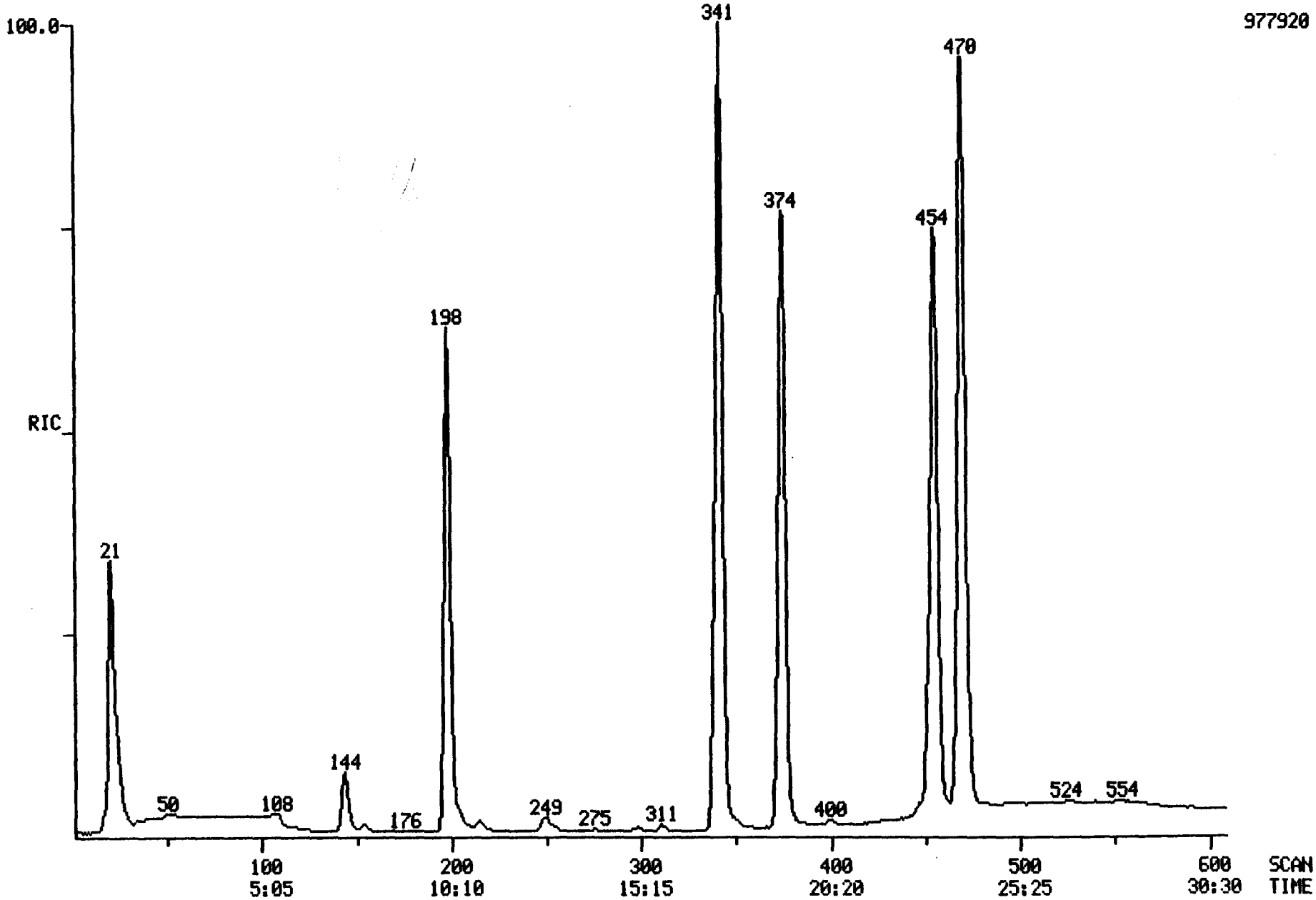
Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		DONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

RIC
12/22/81 13:05:00
SAMPLE: 10ML DIH2O + 5UL #3370(I/S) & 3374(SURR)-EPA H P

DATA: EB811222A02 SCANS 1 TO 609



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EB811222A02

DATA: EB811222A02.TI
12/22/81 13:05:00
SAMPLE: 10ML DIH20 + 5UL #3370(I/S) & 3374(SURR)-EPA H P
SUBMITTED BY: 02 ANALYST: NC

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

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1-DICHLOROETHYLENE
12	1,1-DICHLOROETHANE
13	TRANS-1,2-DICHLOROETHYLENE
14	CHLOROFORM
15	1,2-DICHLOROETHANE
16	1,1,1-TRICHLOROETHANE
17	CARBON TETRACHLORIDE
18	BROMODICHLOROMETHANE
19	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
20	1,2-DICHLOROPROPANE
21	TRANS-1,3-DICHLOROPROPENE
22	TRICHLOROETHYLENE
23	BENZENE
24	CIS-1,3-DICHLOROPROPENE
25	1,1,2-TRICHLOROETHANE
26	DIBROMOCHLOROMETHANE
27	BROMOFORM
28	1,1,2,2-TETRACHLOROETHYLENE
29	1,1,2,2-TETRACHLOROETHANE
30	TOLUENE
31	CHLOROBENZENE
32	ETHYLBENZENE
33	2-CHLOROETHYL VINYL ETHER
34	2-BROMO-1-CHLOROPROPANE(INTERNAL STANDARD)
35	D6 BENZENE (SURROGATE STD)
36	D8 TOLUENE (SURROGATE STD)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	198	10:04	1	1.000	A BB	341452.	0.500 UG	15.92
2	50	51	2:36	1	0.258	A BV	794.	0.003 UG	0.08
3	NOT FOUND								
4	64	108	5:29	1	0.545	A VB	1157.	0.006 UG	0.18
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	130	198	10:04	8	1.000	A BB	341452.	0.500 UG	15.92

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
9	84	143	7:16	8	0.722	A BB	61979.	0.078 UG	2.48
10	NOT	FOUND							
11	NOT	FOUND							
12	NOT	FOUND							
13	NOT	FOUND							
14	NOT	FOUND							
15	62	250	12:42	8	1.263	A BB	316.	0.000 UG	0.01
16	97	276	14:02	8	1.394	A BB	2933.	0.004 UG	0.11
17	NOT	FOUND							
18	NOT	FOUND							
19	55	454	23:05	19	1.000	A BB	1181580.	0.500 UG	15.92
20	NOT	FOUND							
21	NOT	FOUND							
22	NOT	FOUND							
23	78	341	17:20	19	0.751	A BB	16969.	0.006 UG	0.21
24	NOT	FOUND							
25	97	350	17:47	19	0.771	A BB	11307.	0.013 UG	0.41
26	NOT	FOUND							
27	NOT	FOUND							
28	164	447	22:43	19	0.985	A BB	163.	0.000 UG	0.01
29	83	448	22:46	19	0.987	A BB	22021.	0.012 UG	0.39
30	92	473	24:03	19	1.042	A BB	2662.	0.002 UG	0.05
31	112	499	25:22	19	1.099	A BB	1572.	0.001 UG	0.03
32	106	554	28:10	19	1.220	A BB	2165.	0.002 UG	0.08
33	63	374	19:01	19	0.824	A BB	9970.	0.014 UG	0.45
34	77	374	19:01	34	1.000	A BB	862813.	0.500 UG	15.92
35	84	341	17:20	34	0.912	A BB	1709900.	0.499 UG	15.90
36	100	469	23:50	34	1.254	A BB	881284.	0.500 UG	15.92

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11432 SPIKE

QC Report No. 46-58

	PESTICIDES	ug/g
309-00-2	aldrin	0.37
60-57-1	dieldrin	0.40
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
72-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.37
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gamma	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

DIOXINS

1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

Sample No: 11432/11415 E1202 / 11415-11417

Lab Standard IDs: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPU/CHEM
Report No: 46 - 58
Page 1 of 2

QUALITY CONTROL REPORT

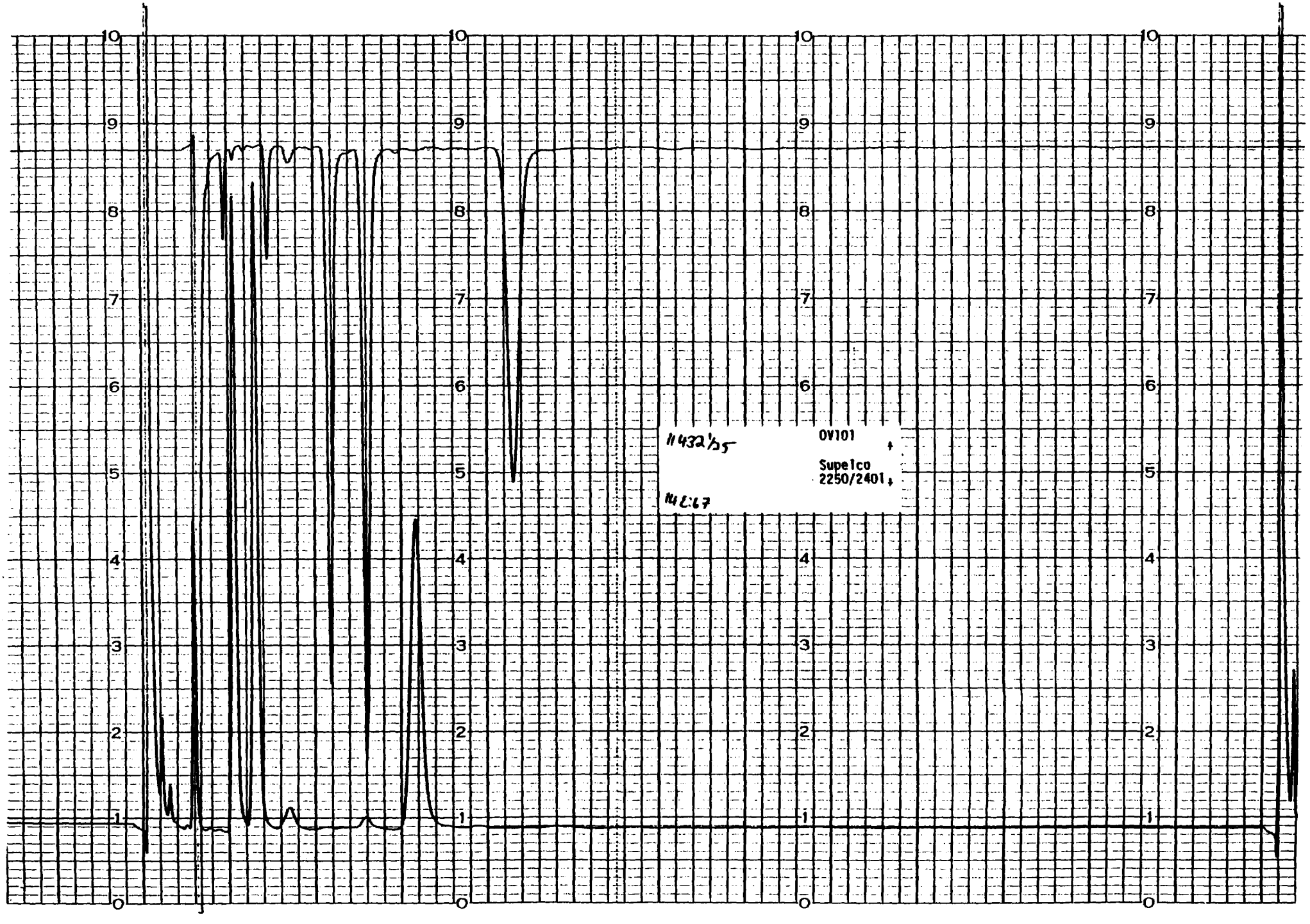
A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*
1	0	0	P	HEPTACHLOR	ND	0.37	0.43	86
0	8	9	P	ALDRIN	ND	0.37	0.41	90
0	9	0	P	DIELDRIN	ND	0.40	0.40	100

This QC Report also covers the following sample numbers:

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80



OmniScribe®

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11433 DUPLICATE

QC Report No. 46-58

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
72-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gamma	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

DIOXINS

1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

Sample No: 11433/11415 E1202 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: Mead Compulchem
Report No: 46-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)				CONCENTRATION (µg/g)		Relative Percent Difference (RPD)*
P.	P.	#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
			PESTICIDES / PCB's	NA	NA	0

This QC Report also covers the following sample numbers:

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

OmniScribe® CHART TYPE FCP-100

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. BLANK 11434

QC Report No. 46-58

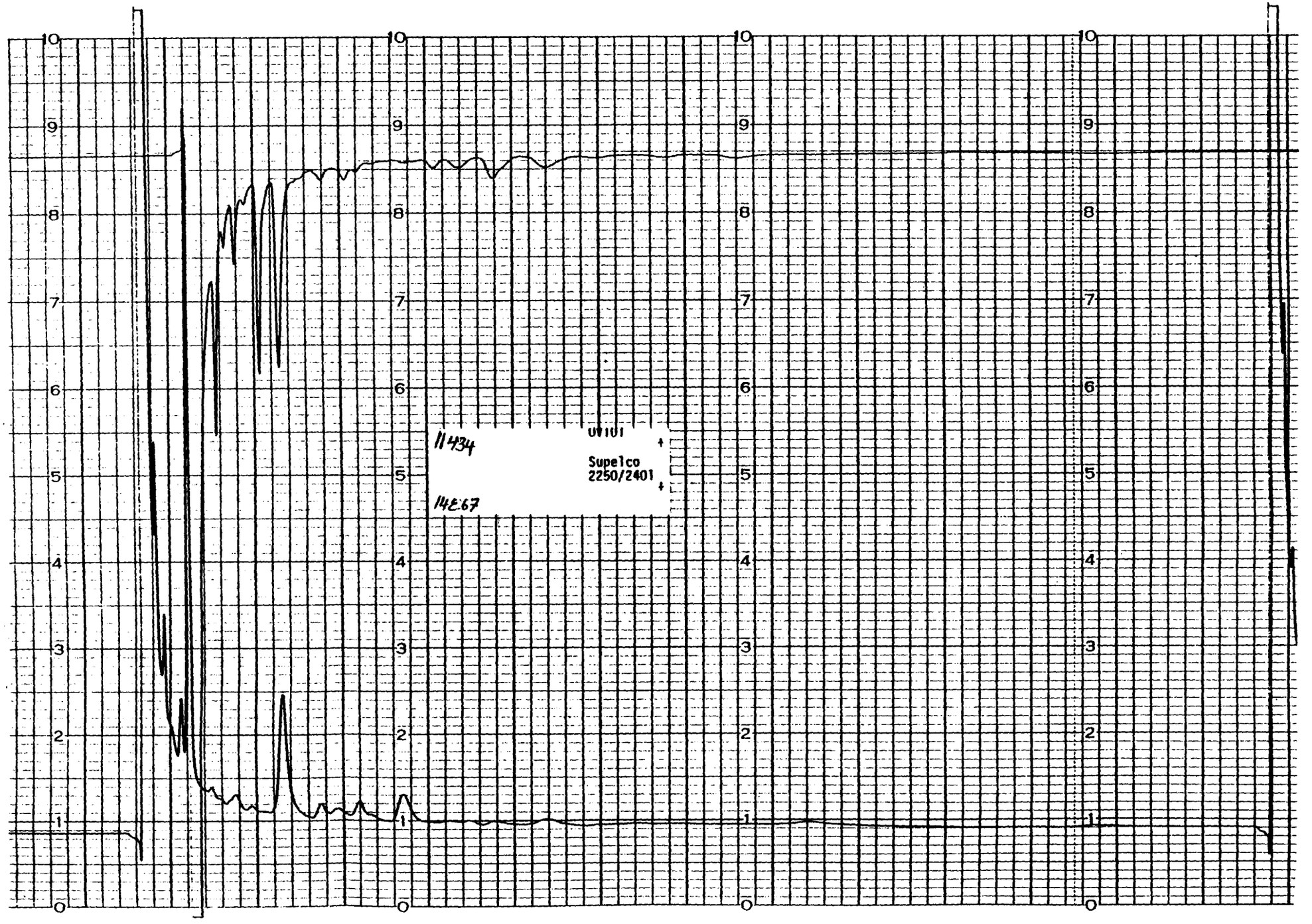
	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
72-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gamma	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

DIOXINS

	2,3,7,8-tetrachlorodibenzo-	
1746-01-6	p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)


11434
UV101
Supelco
2250/2401
14E67

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11428 Spike

QC Report No. 42-58

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.34
59-50-7	p-chloro-m-cresol	0.92
95-57-8	2-chlorophenol	1.6
122-83-2	2,4-dichlorophenol	0.98
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	3.4
51-88-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.80
108-95-2	phenol	1.9

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.70
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.62
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.66
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.62
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	3.0
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.64
117-84-0	di-n-octyl phthalate	0.84
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.88
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
218-01-9	chrysene	0.88
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
181-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
193-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.74

II

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11428 Spike

QC Report No: 42-58

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
2-Fluorophenol	Acid	2.18	2.5 ug/g	87
d_6-Phenol	Acid	2.22	2.5 ug/g	89
Pentafluorophenol	Acid	0.29	2.5 ug/g	12
d_5-Nitrobenzene	B/N	2.05	2.5 ug/g	82
2-Fluorobiphenyl	B/N	1.48	2.5 ug/g	59

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11428 SPIKE

QC Report No: 42-58

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1	95-51-2	Benzenamine, 2-chloro-	BN	90	2.5 ug/g
2	"	"	BN	84	0.34
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11	95-51-2	Benzenamine, 2-chloro	ACID	89	1.0
12	57-10-3	Hexadecanoic Acid	ACID	74	1.5
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21			VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

Sample No: 11428 / 11416 E1203 / 11415 → 11417

Lab Standard IDs: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPULCHEM
Report No: 42-58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
0	2	7	B	1,4-DICHLOROBENZENE	ND	0.66	1.0	66
0	8	4	B	PYRENE	ND	0.74	1.0	74
0	7	6	B	CHRYSENE	ND	0.88	1.0	88
0	0	1	B	ACENAPHTHENE	ND	0.70	1.0	70
0	0	8	B	1,2,4-TRICHLOROBENZENE	ND	0.62	1.0	62
0	6	8	B	DI-n-BUTYL PHTHALATE	ND	0.64	1.0	64
0	3	5	B	2,4-DINITROTOLUENE	ND	0.62	1.0	62
0	6	9	B	DI-n-OCTYL PHTHALATE	ND	0.84	1.0	84
0	6	3	B	N-NITROSODI-n-PROPYLAMINE	ND	3.0	4.0	75
0	2	4	A	2-CHLOROPHENOL	0.20	1.6	1.0	140
0	6	5	A	PHENOL	0.50	1.9	1.0	140
0	2	2	A	3-METHYL-4-CHLOROPHENOL	ND	0.92	1.0	92
0	6	4	A	PENTACHLOROPHENOL	ND	0.80	1.0	80
0	5	8	A	4-NITROPHENOL	ND	3.4	6.0	57

This QC Report also covers the following sample numbers:

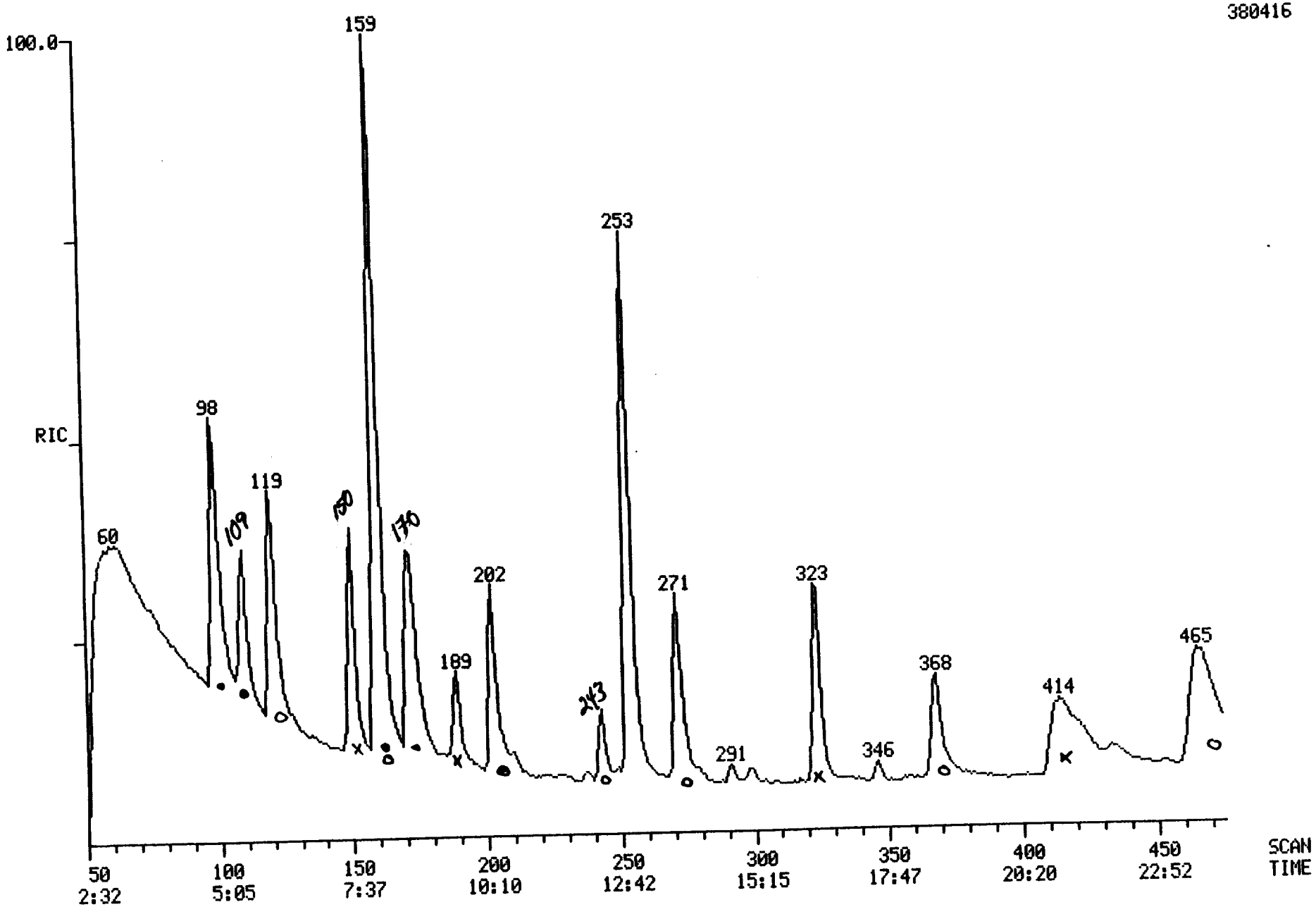
*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

RIC
01/13/82 11:11:00
SAMPLE: 2 UL 11428 ON OWA#5

DATA: AH011428C05 SCANS 50 TO 475

380416



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: AH011428C05

DATA: AH011428C05.TI
01/13/82 11:11:00
SAMPLE: 2 UL 11428 ON OWA#5
SUBMITTED BY: 5 ANALYST: LRF

AMOUNT=AREA(HGHT) * REF.AMNT/(REF.AREA(HGHT)* RESP.FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

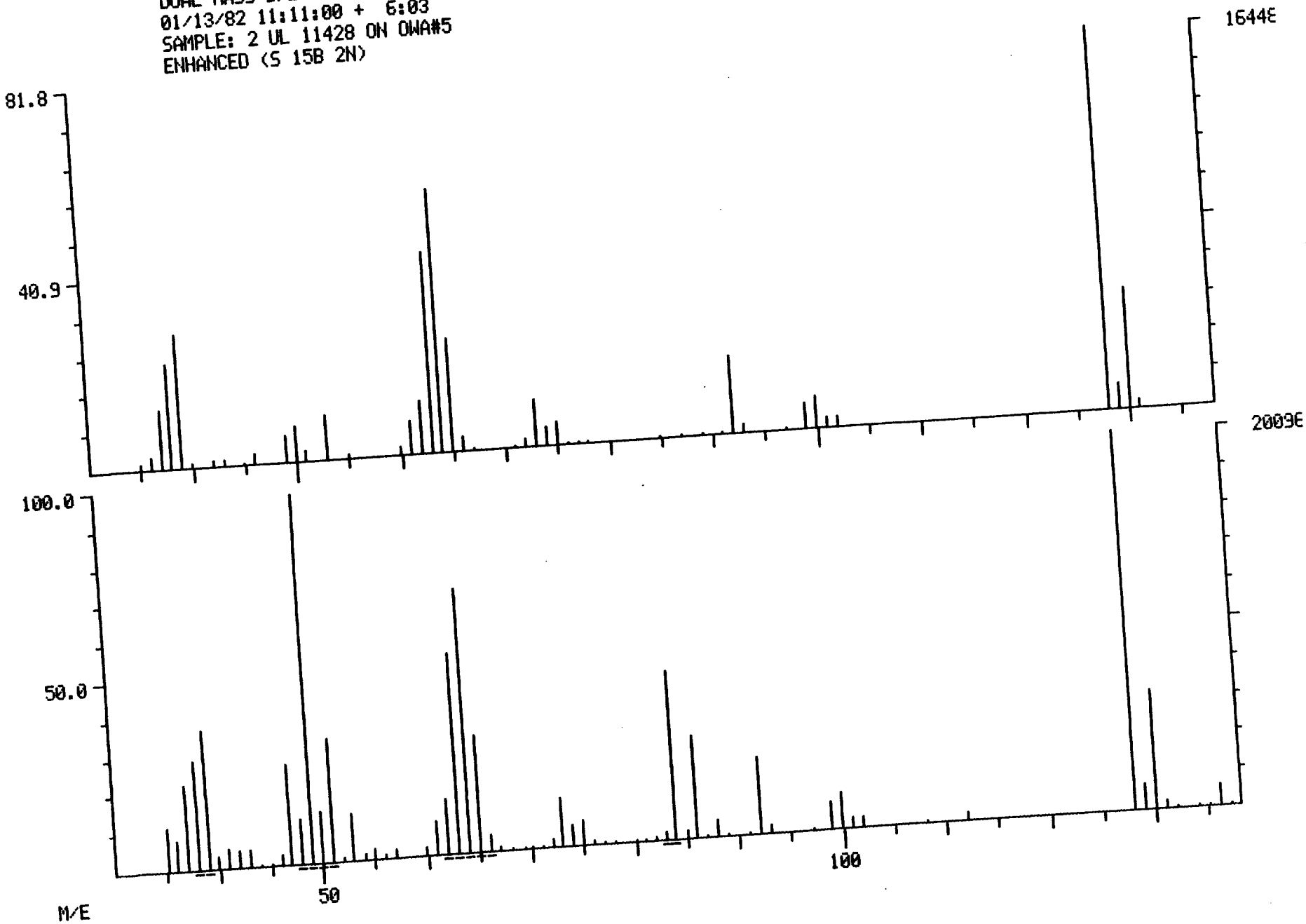
NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	FLUOROPHENOL (SURROGATE STANDARD)
3	D-6 PHENOL (SURROGATE STANDARD)
4	PENTAFLUOROPHENOL (SURROGATE)
5	2-FLUOROBIPHENYL (SURROGATE)
6	D-5 NITROBENZENE (SURROGATE)
7	D-8 NAPHTHALENE (INTERNAL STANDARD)
8	2-CHLOROPHENOL
9	2-NITROPHENOL
10	PHENOL
11	2,4-DIMETHYLPHENOL
12	2,4-DICHLOROPHENOL
13	D10-ANTHRACENE (INTERNAL STANDARD)
14	2,4,6-TRICHLOROPHENOL
15	P-CHLORO-M-CRESOL
16	2,4-DINITROPHENOL
17	4,6-DINITRO-O-PHENOL
18	PENTACHLOROPHENOL
19	4-NITROPHENOL

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	109	5:32	1	1.000	A BB	92423.	40.000	NG/UL	4.70
2	112	98	4:59	1	0.899	A BB	102442.	108.885	NG/UL	12.78
3	99	159	8:05	1	1.459	A BB	125778.	110.889	NG/UL	13.02
4	184	170	8:38	1	1.560	A BB	8920.	14.448	NG/UL	1.70
5	NOT FOUND									
6	82	109	5:32	1	1.000	A VB	6722.	5.223	NG/UL	0.61
7	136	109	5:32	7	1.000	A BB	96865.	40.000	NG/UL	4.70
8	128	119	6:03	7	1.092	A BB	81057.	78.323	NG/UL	9.19 -VSS
9	NOT FOUND									
10	94	159	8:05	7	1.459	A BB	113194.	94.601	NG/UL	11.11 -VSS
11	NOT FOUND									
12	162	202	10:16	7	1.853	A VB	41752.	49.063	NG/UL	5.76 -VSS
13	188	323	16:25	13	1.000	A BB	119974.	40.000	NG/UL	4.70
14	196	243	12:21	13	0.752	A BB	11278.	16.947	NG/UL	1.99 -VSS
15	142	271	13:47	13	0.839	A BV	33126.	46.262	NG/UL	5.43 -VSS
16	NOT FOUND									
17	NOT FOUND									
18	266	367	18:39	13	1.136	A BB	19459.	40.244	NG/UL	4.72 -VSS
19	65	465	23:38	13	1.440	A BB	55498.	166.968	NG/UL	19.60 -VSS

601

DATA: AH011428C05 #119 BASE M/E: 128/ 128
RIC: 85887./ 165887.

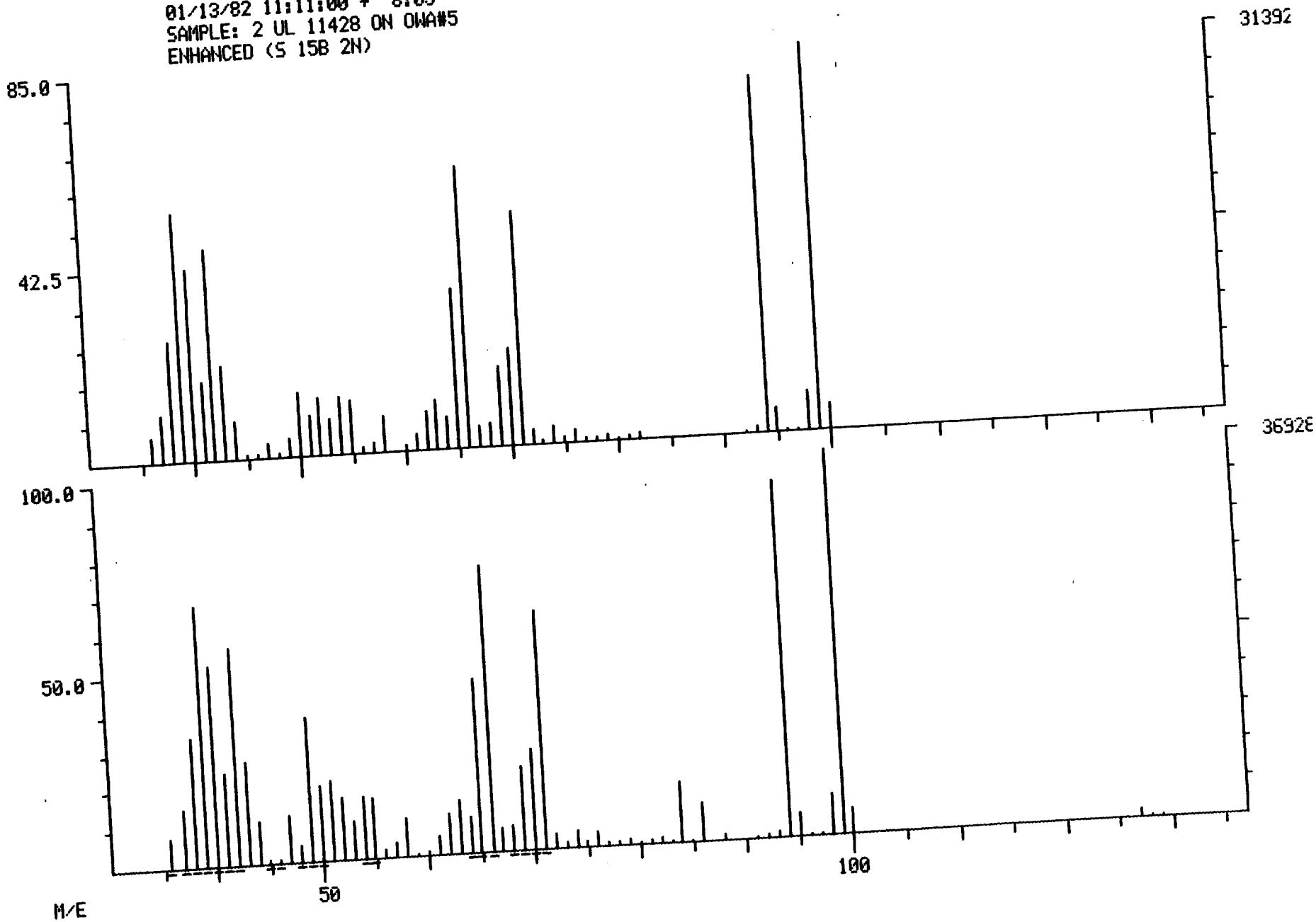
DUAL MASS SPECTRUM
01/13/82 11:11:00 + 6:03
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (S 15B 2N)



610

DATA: AH011428C05 #159 BASE M/E: 99/ 99
RIC: 281087./ 380415.

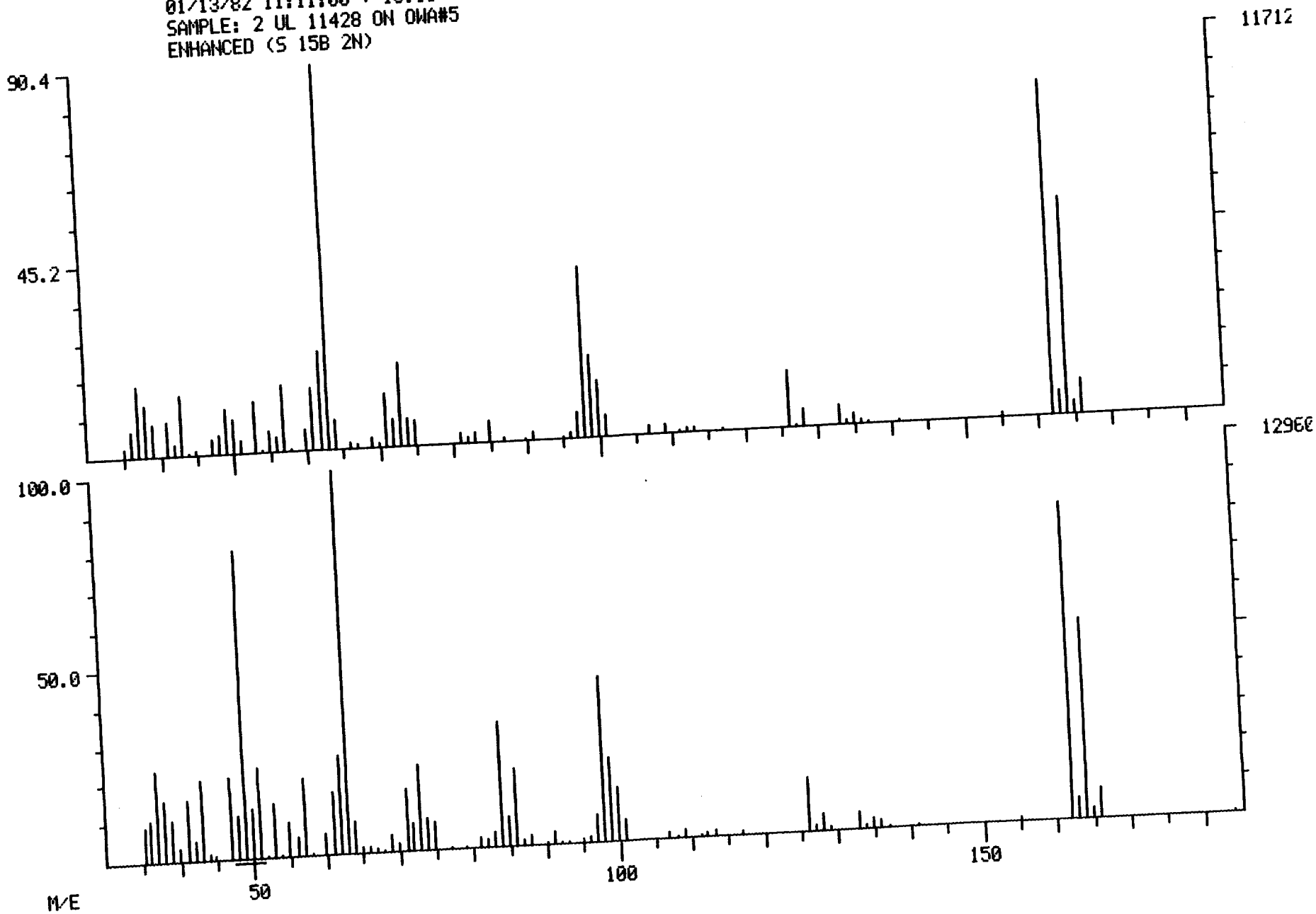
DUAL MASS SPECTRUM
01/13/82 11:11:00 + 8:05
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (S 15B 2N)



602

DATA: AH011428C05 #202 BASE M/E: 63/ 63
RIC: 80511./ 119039.

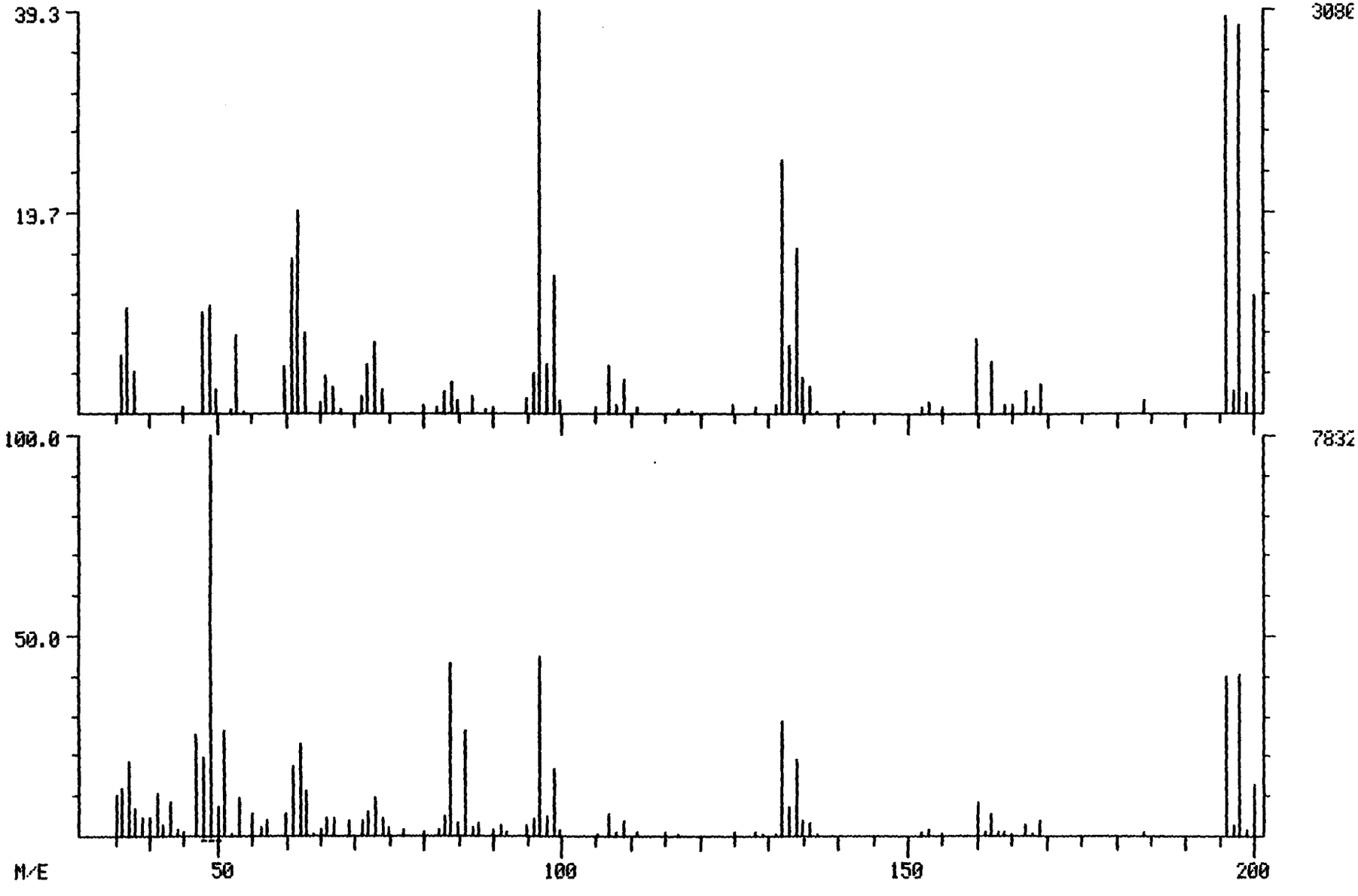
DUAL MASS SPECTRUM
01/13/82 11:11:00 + 10:16
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (S 15B 2N)



611

DUAL MASS SPECTRUM
01/13/82 11:11:00 + 12:21
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (S 15B 2N)

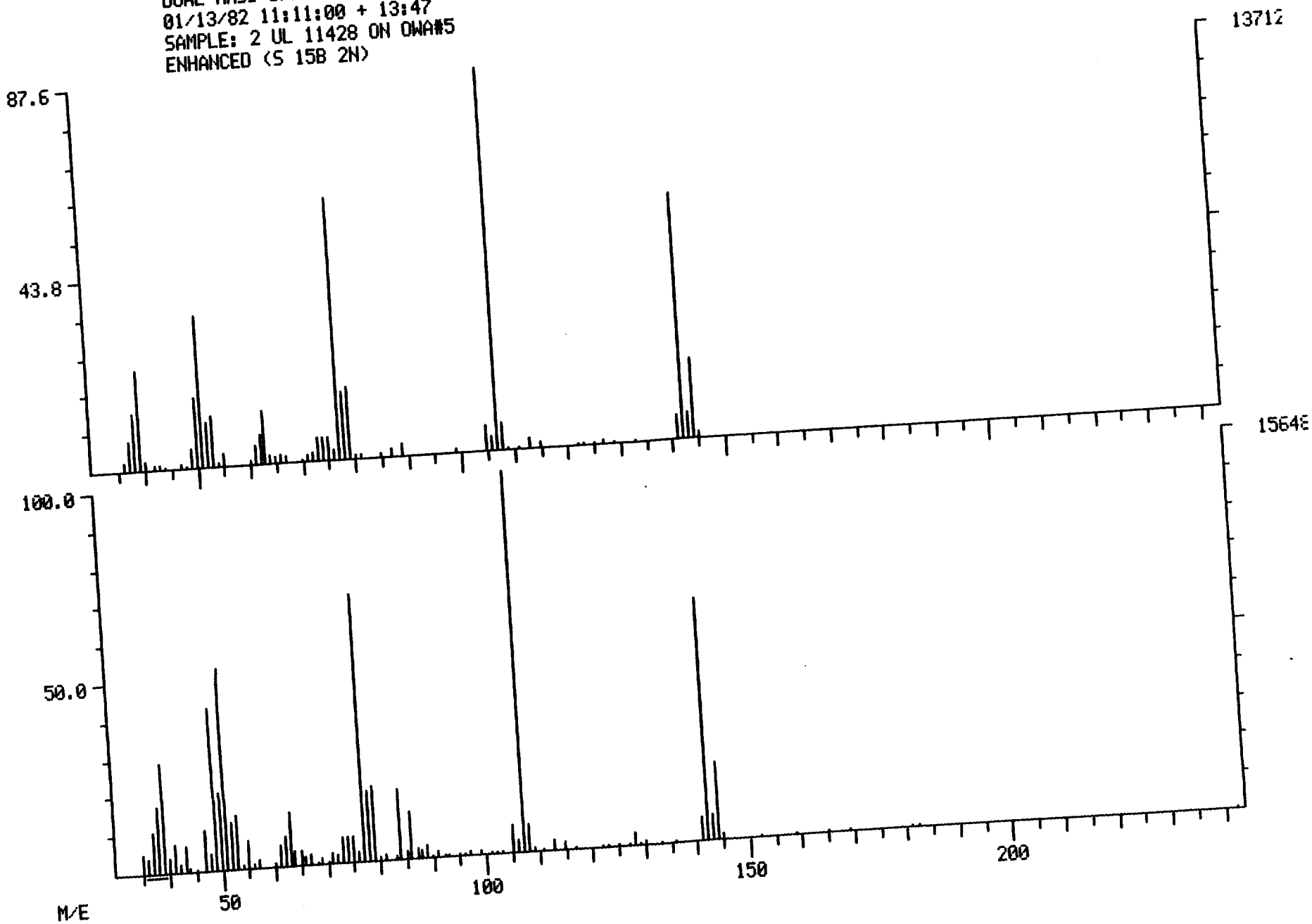
DATA: AH011428C05 #243 BASE M/E: 97/ 49
RIC: 30111./ 59391.



608

DATA: AH011428C05 #271 BASE M/E: 107/ 107
RIC: 7E031./ 113535.

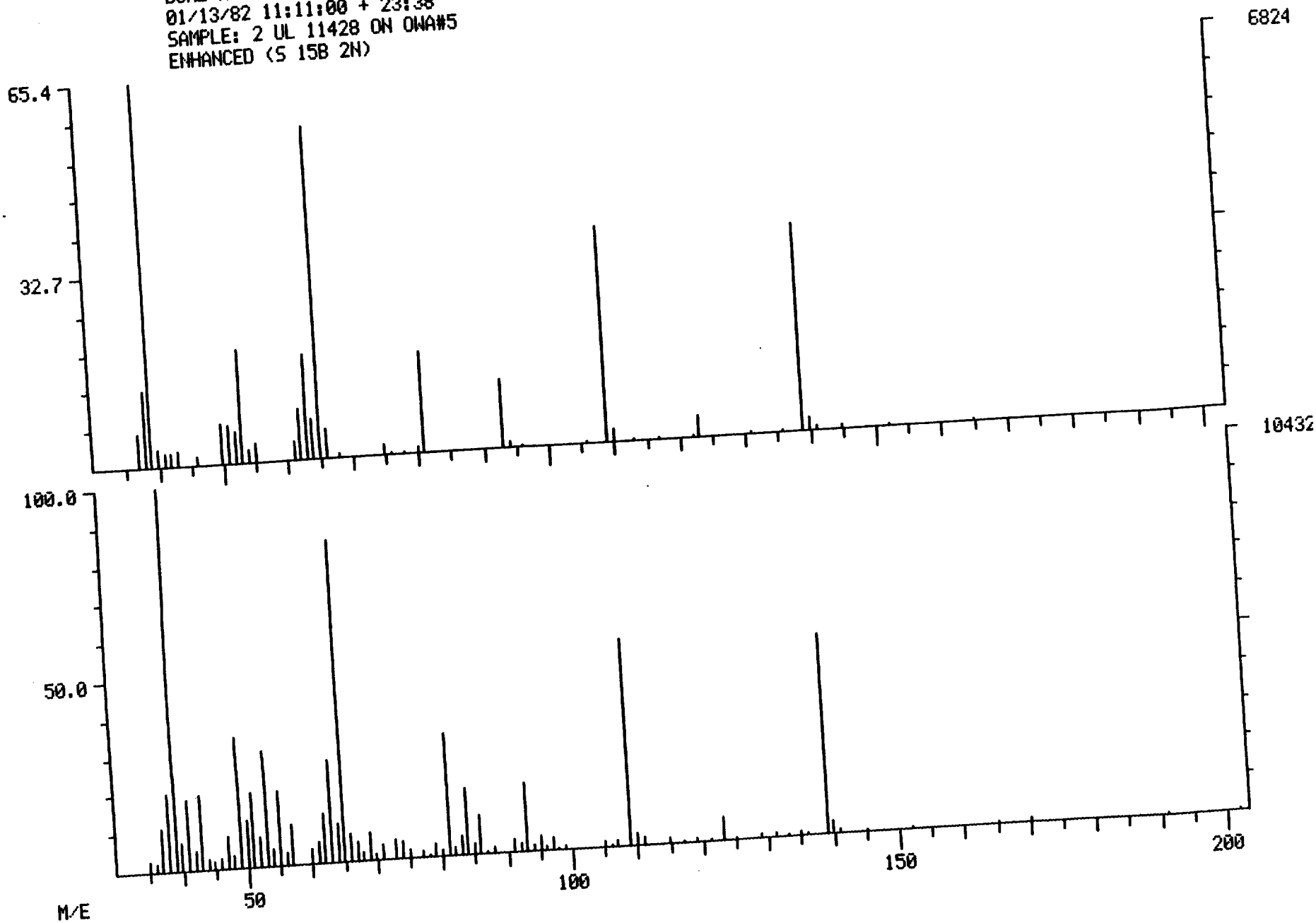
DUAL MASS SPECTRUM
01/13/82 11:11:00 + 13:47
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (S 15B 2N)



8·07

DATA: AH011428C05 #465 BASE M/E: 39/ 39
RIC: 37247./ 81919.

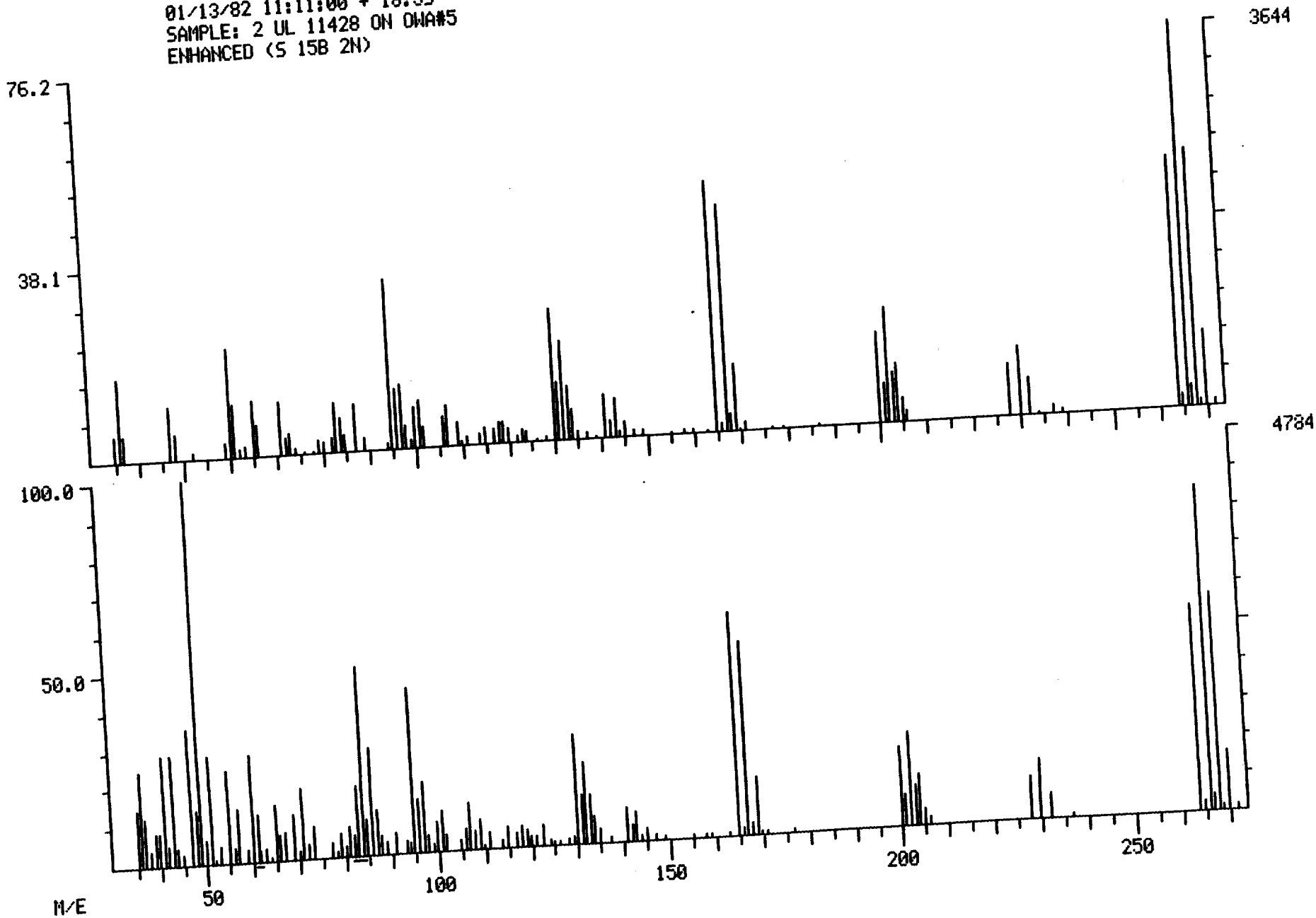
DUAL MASS SPECTRUM
01/13/82 11:11:00 + 23:38
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (5 15B 2N)



609

DATA: AH011428C05 #367 BASE M/E: 266/ 49
RIC: 39935./ 69247.

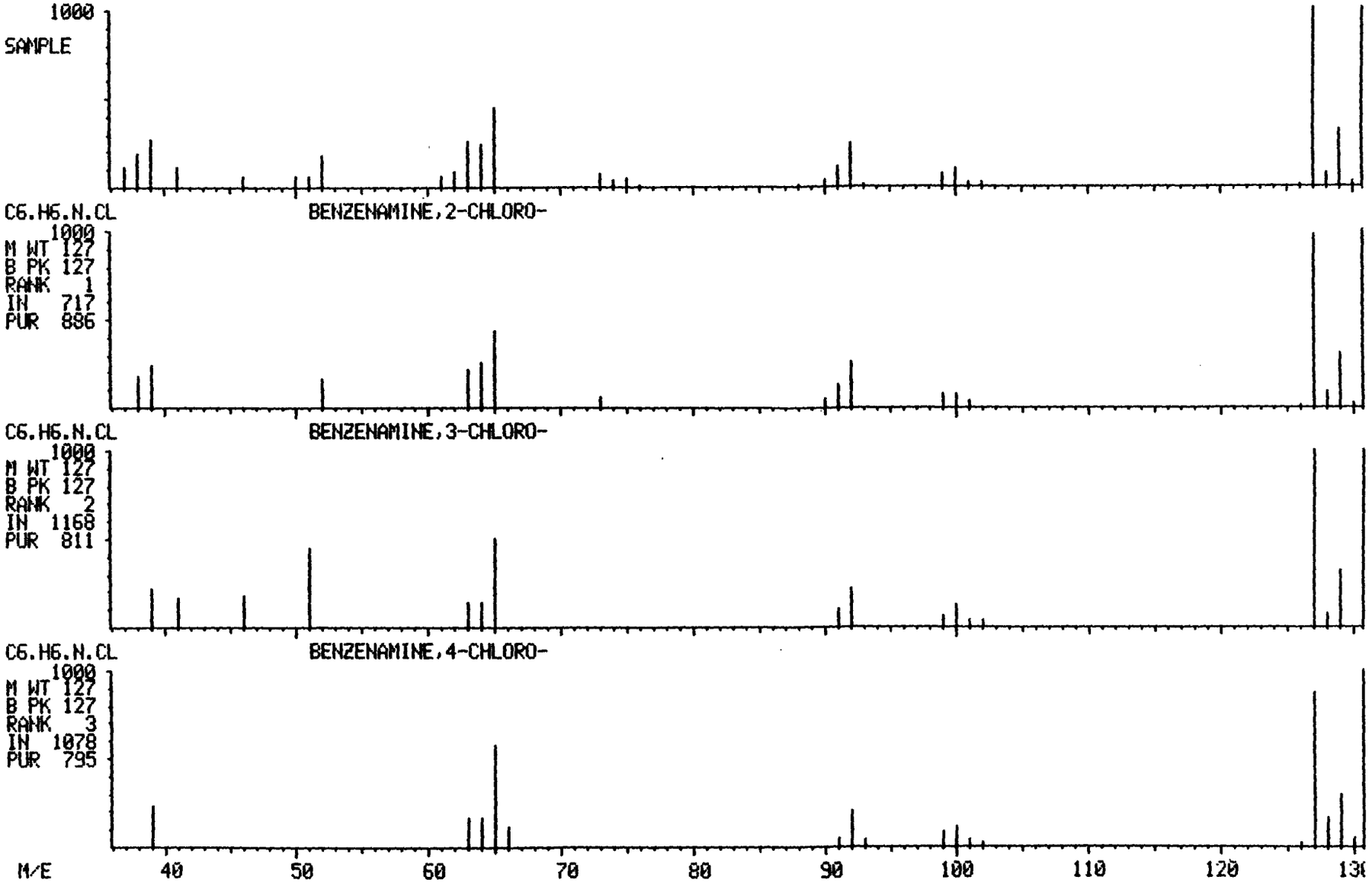
DUAL MASS SPECTRUM
01/13/82 11:11:00 + 18:39
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (5 15B 2N)



LIBRARY SEARCH
01/13/82 11:11:00 + 7:37
SAMPLE: 2 UL 11428 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011428C05 # 150

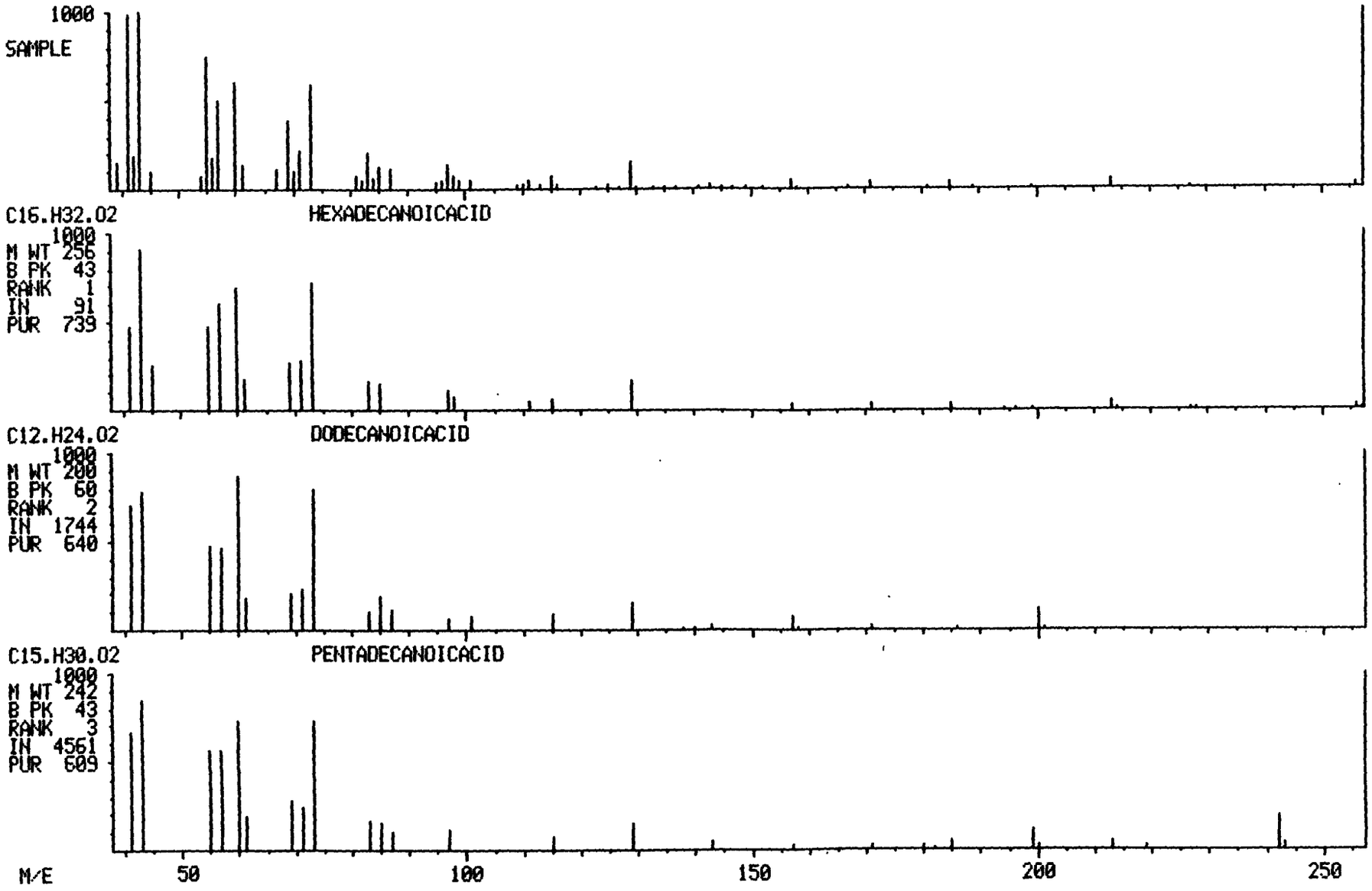
BASE M/E: 127
RIC: 86655.

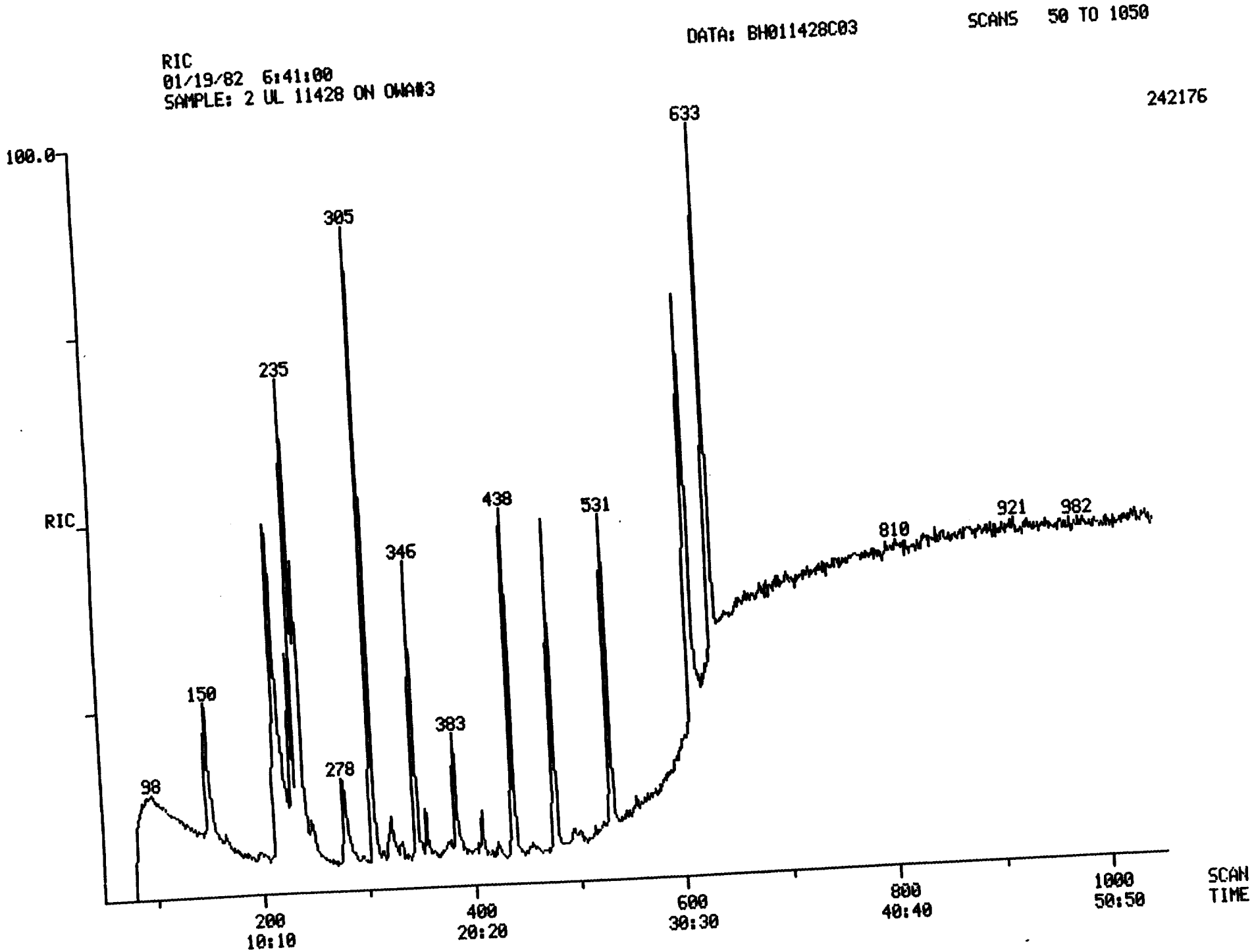


LIBRARY SEARCH
01/13/82 11:11:00 + 21:03
SAMPLE: 2 UL 11428 ON OWA#5
413 TO # 415 SUMMED - # 390 TO # 400 X1.00

DATA: AH011428C05 # 414

BASE M/E: 43
RIC: 102527.




DATA: BH011428C03
SCANS 50 TO 1050
RIC
01/19/82 6:41:00
SAMPLE: 2 UL 11428 ON OWA#3
242176
100.0
RIC
633
305
235
438
531
921
982
810
346
150
383
278
98
200
10:10
400
20:20
600
30:30
800
40:40
1000
50:50
SCAN
TIME

FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: BH011428C03

DATA: BH011428C03.TI
01/19/82 6:41:00
SAMPLE: 2 UL 11428 ON OWA#3
SUBMITTED BY: 3 ANALYST: LRF

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	D-5 NITROBENZENE (SURROGATE STANDARD)
3	2-FLUOROBIPHENYL (SURROGATE STANDARD)
4	D-8 NAPHTHALENE (INTERNAL STANDARD)
5	1,3-DICHLOROBENZENE
6	1,4-DICHLOROBENZENE
7	HEXACHLOROETHANE
8	BIS (2-CHLOROETHYL) ETHER
9	1,2-DICHLOROBENZENE
10	BIS (2-CHLOROISOPROPYL) ETHER
11	N-NITROSO-DI-N-PROPYLAMINE
12	NITROBENZENE
13	HEXACHLOROBUTADIENE
14	1,2,4-TRICHLOROBENZENE
15	NAPHTHALENE
16	BIS (2-CHLOROETHOXY) METHANE
17	ISOPHORONE
18	2-CHLORONAPHTHALENE
19	ACENAPHTHYLENE
20	D-10 ANTHRACENE (INTERNAL STANDARD)
21	ACENAPHTHENE
22	DIMETHYL PHTHALATE
23	2,6-DINITROTOLUENE
24	4-CHLOROPHENYL PHENYL ETHER
25	FLUORENE
26	2,4-DINITROTOLUENE
27	DIETHYL PHTHALATE
28	1,2-DIPHENYLHYDRAZINE
29	N-NITROSODIPHENYL AMINE
30	HEXACHLOROBENZENE
31	4-BROMOPHENYL PHENYL ETHER
32	ANTHRACENE AND/OR PHENANTHRENE
33	DI-N-BUTYL PHTHALATE
34	FLUORANTHENE
35	PYRENE
36	2,4-DINITROTOLUENE (SECONDARY ION)
37	D-12 CHRYSENE (INTERNAL STANDARD)
38	BENZIDINE
39	BUTYL BENZYL PHTHALATE
40	BIS (2-ETHYLHEXYL) PHTHALATE
41	BIS (2-HEXYLETHYL)PHTHALATE (SECONDARY ION)
42	BENZO (A) ANTHRACENE AND/OR CHRYSENE
43	3,3' DICHLOROBENZIDINE
44	DI-OCTYL PHTHALATE
45	BENZO (B AND K) FLUORANTHENES
46	BENZO (A) PYRENE

NO	NAME
47	INDENO (1, 2, 3-CD)PYRENE
48	DI BENZO(A, H) ANTHRACENE
49	BENZO(G, H, I) PERYLENE

Σ_8 + 35%

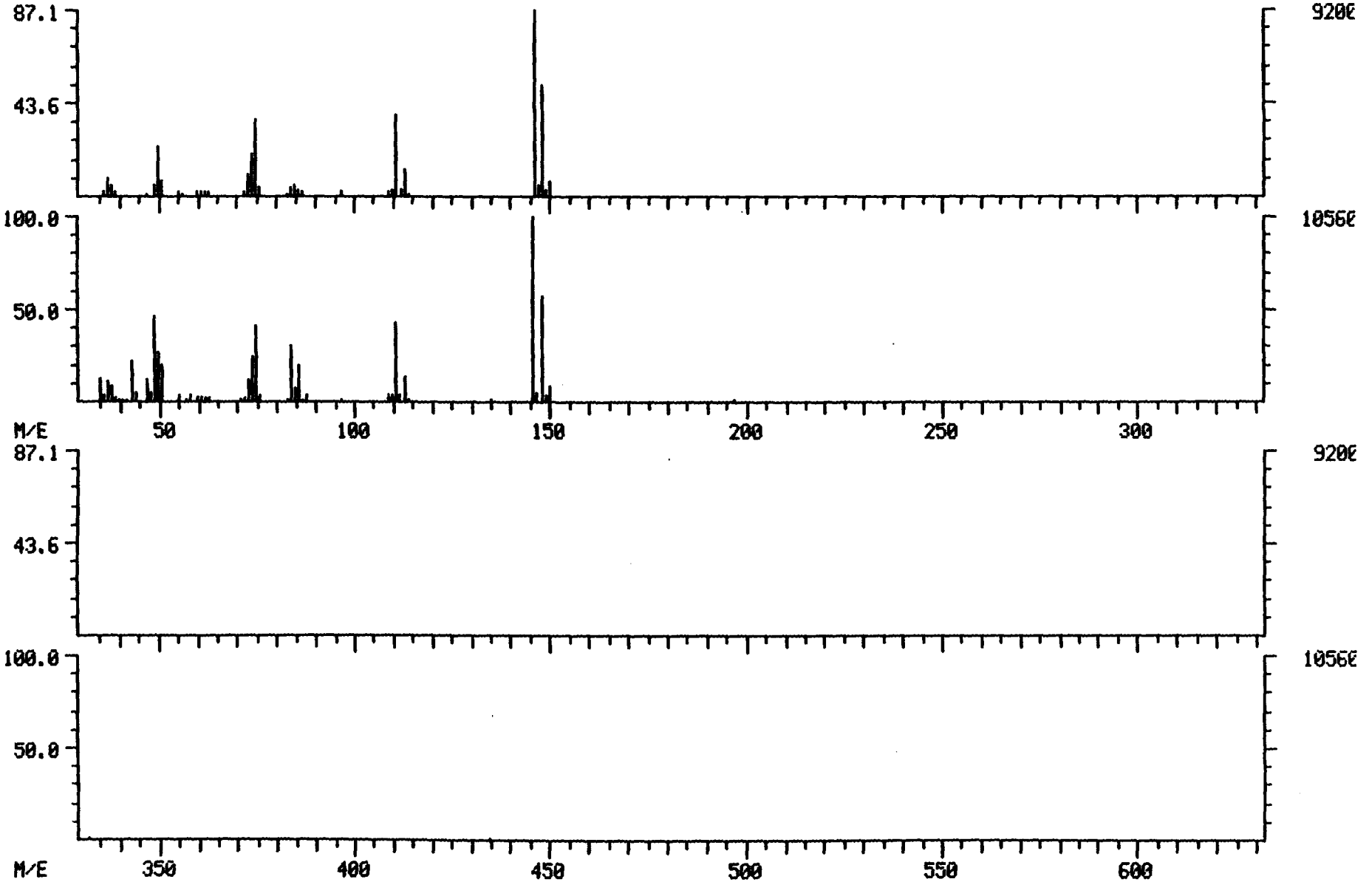
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	240	12:12	1	1.000	A BB	100179.	40.000	NG/UL	6.04
2	82	215	10:56	1	0.896	A BB	116278.	102.539	NG/UL	15.47
3	172	305	15:30	1	1.271	A BB	170808.	73.802	NG/UL	11.14
4	136	240	12:12	4	1.000	A BB	102273.	40.000	NG/UL	6.04
5	NOT FOUND									
6	146	150	7:37	4	0.625	A BB	43746.	33.041	NG/UL	4.99
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	~~NOT FOUND~~ 214						20687	150		
12	77	215	10:56	4	0.896	A BB	573.	0.708	NG/UL	0.11
13	NOT FOUND									
14	180	230	11:41	4	0.958	A BB	31395.	31.033	NG/UL	4.68
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	152	337	17:08	4	1.404	A BV	1695.	0.519	NG/UL	0.08
20	188	438	22:16	20	1.000	A BB	130939.	40.000	NG/UL	6.04
21	154	346	17:35	20	0.790	A BB	66707.	34.683	NG/UL	5.23
22	163	355	18:03	20	0.811	A BV	6057.	2.219	NG/UL	0.33
23	NOT FOUND									
24	204	375	19:04	20	0.856	A BB	390.	0.318	NG/UL	0.05
25	166	376	19:07	20	0.858	A BV	1740.	0.706	NG/UL	0.11
26	165	383	19:28	20	0.874	A VB	17247.	30.923	NG/UL	4.67
27	NOT FOUND									
28	NOT FOUND									

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
29	169	398	20:14	20	0.909	A BB	1035.	0.747	NG/UL	0.11
30	NOT	FOUND								
31	NOT	FOUND								
32	178	439	22:19	20	1.002	A BB	5012.	1.525	NG/UL	0.23
33	149	477	24:15	20	1.089	A BB	165334.	31.540	NG/UL	4.76
34	202	516	26:14	20	1.178	A BB	1903.	0.556	NG/UL	0.08
35	202	531	27:00	20	1.212	A BB	132526.	36.683	NG/UL	5.54
36	89	383	19:28	20	0.874	A BB	14068.	32.619	NG/UL	4.92
37	240	611	31:04	37	1.000	A BB	91159.	40.000	NG/UL	6.04
38	NOT	FOUND								
39	149	580	29:29	37	0.949	A BV	1343.	0.651	NG/UL	0.10
40	149	594	30:12	37	0.972	A BB	1721.	0.575	NG/UL	0.09
41	167	594	30:12	37	0.972	A BB	499.	0.492	NG/UL	0.07
42	228	612	31:07	37	1.002	A BB	96268.	44.407	NG/UL	6.70
43	NOT	FOUND								
44	149	633	32:11	37	1.036	A BB	221870.	42.397	NG/UL	6.40
45	NOT	FOUND								
46	NOT	FOUND								
47	NOT	FOUND								
48	NOT	FOUND								
49	NOT	FOUND								

4/22

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 7:37
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (5 15B 2N)

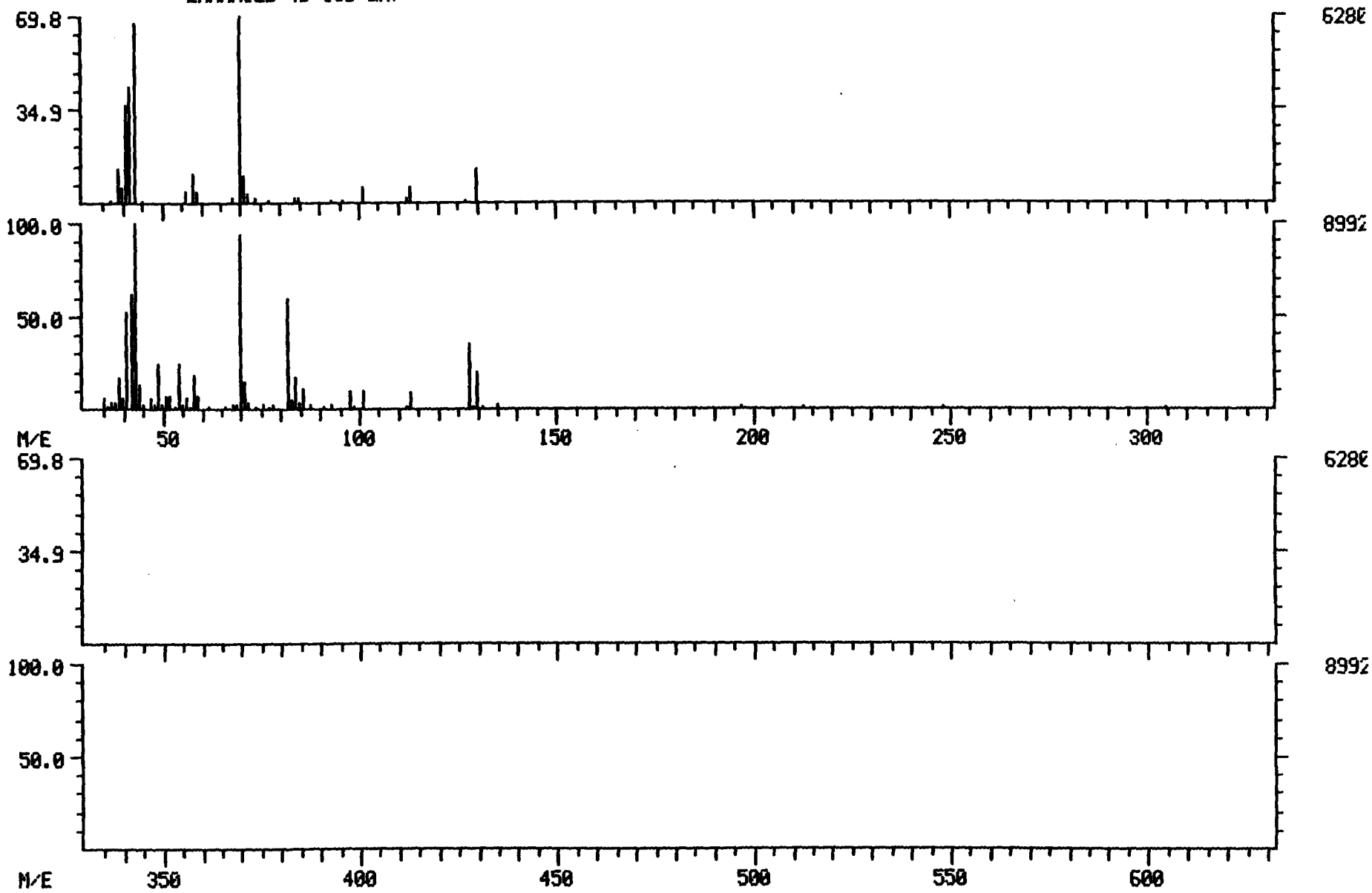
DATA: BH011428C03 #150 BASE M/E: 146/ 146
RIC: 39999./ 62527.



442

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 10:53
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (5 15B 2N)

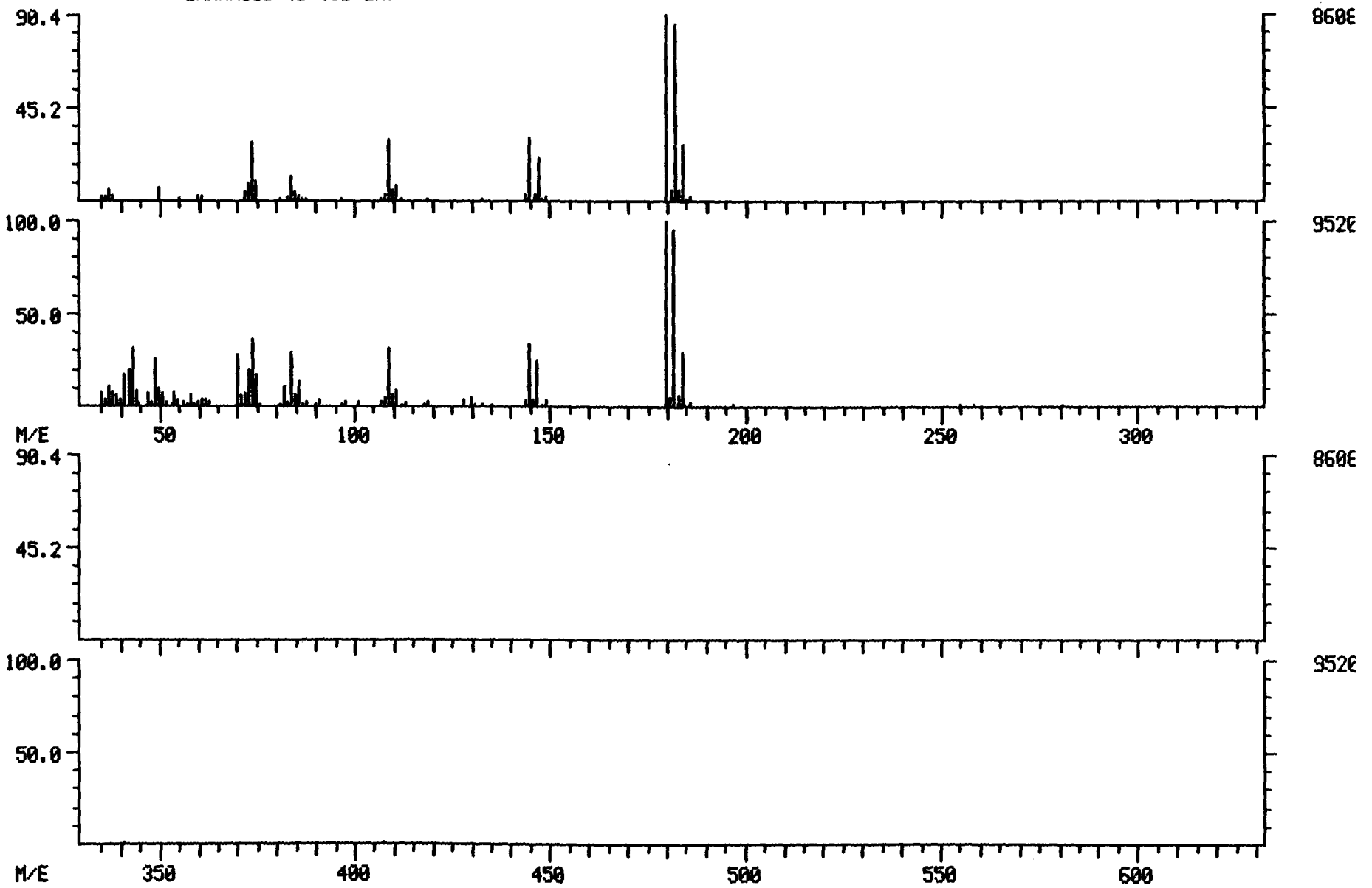
DATA: BH011428C03 #214 BASE M/E: 70/ 43
RIC: 28127./ 63039.



4/4/6

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 11:41
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)

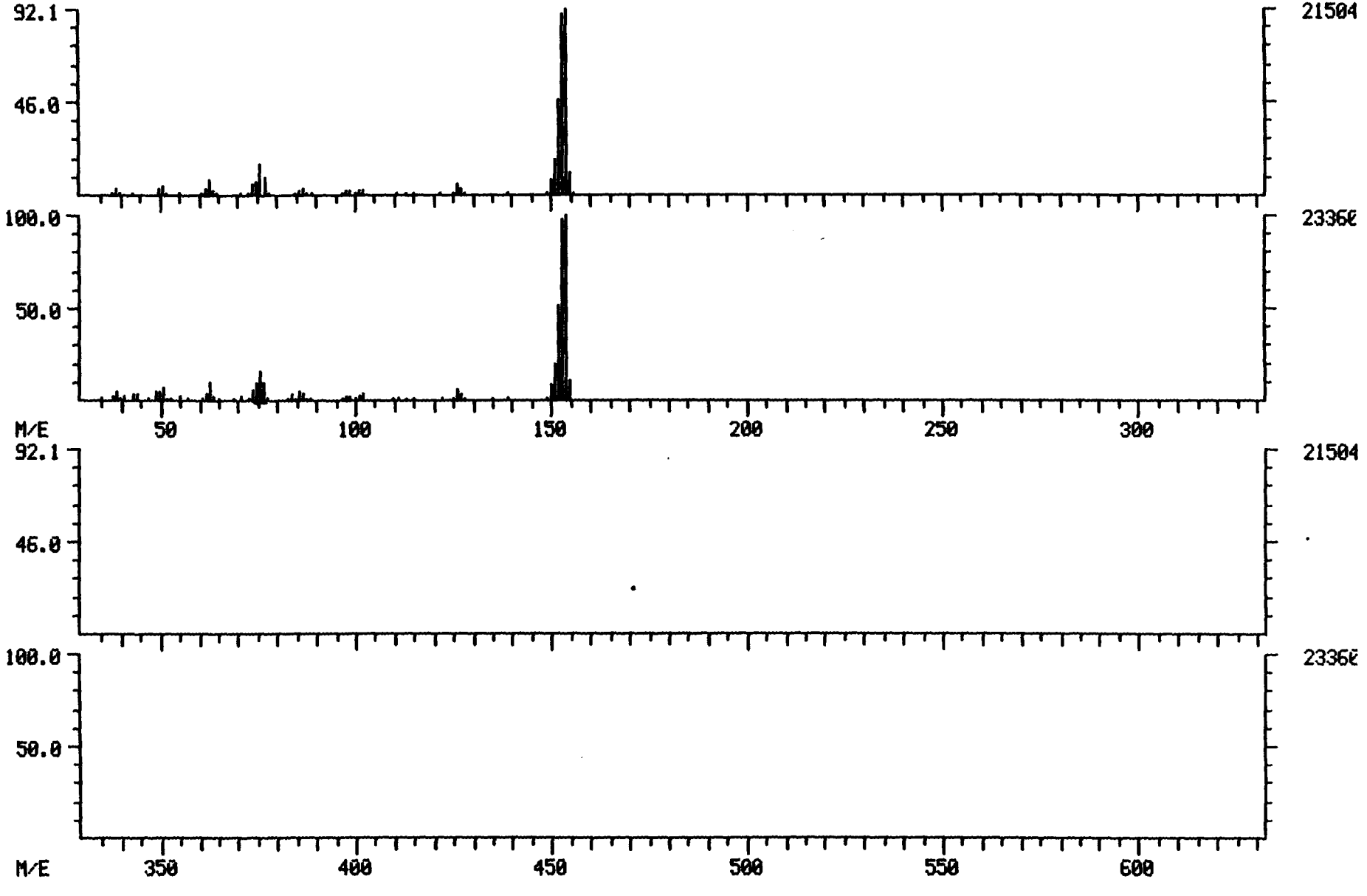
DATA: BH011428C03 #230 BASE M/E: 180/ 180
RIC: 41663./ 75263.



401

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 17:35
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)

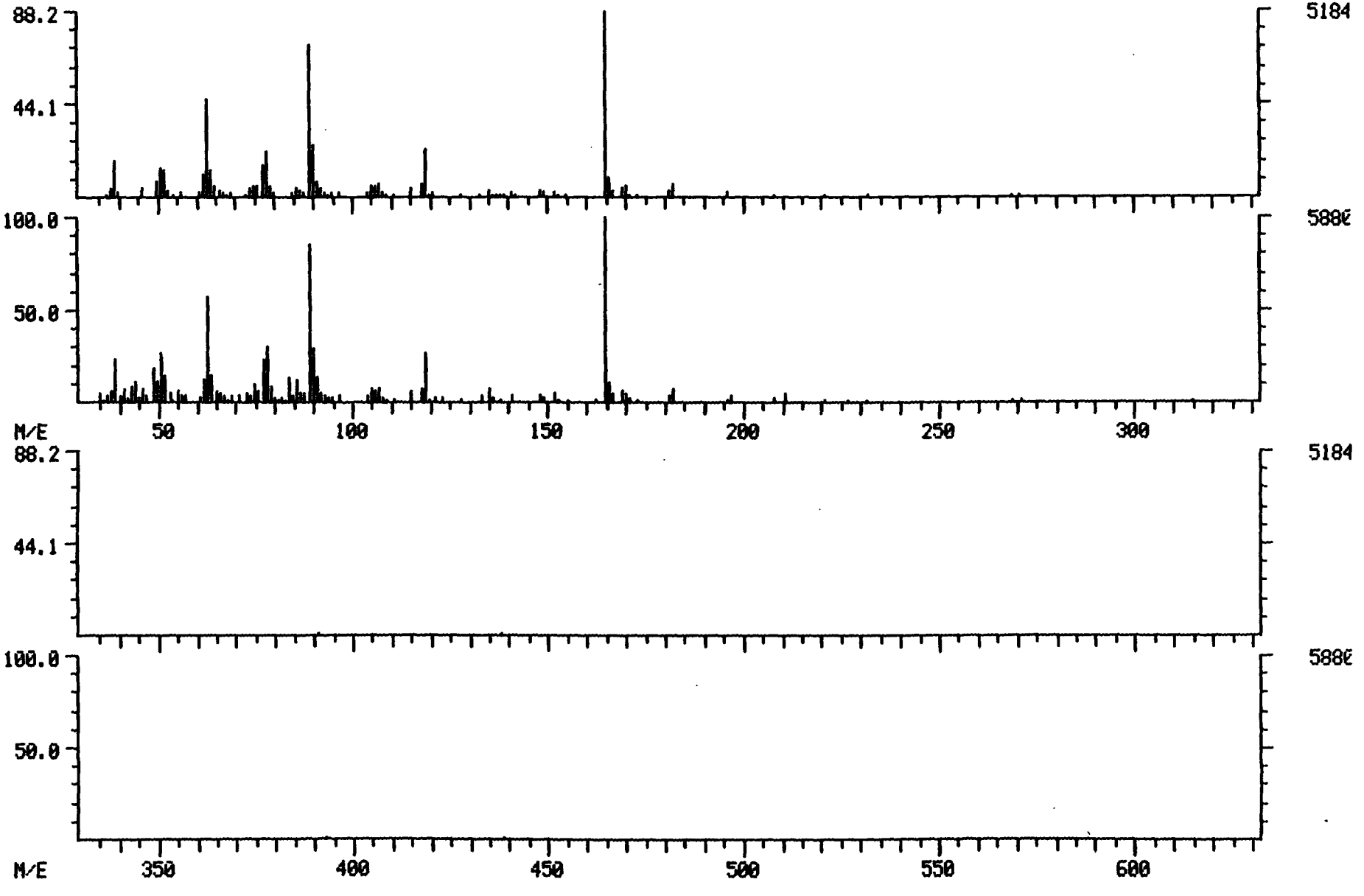
DATA: BH011428C03 #346 BASE M/E: 154/ 154
RIC: 88575./ 105855.



4/27

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 19:28
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)

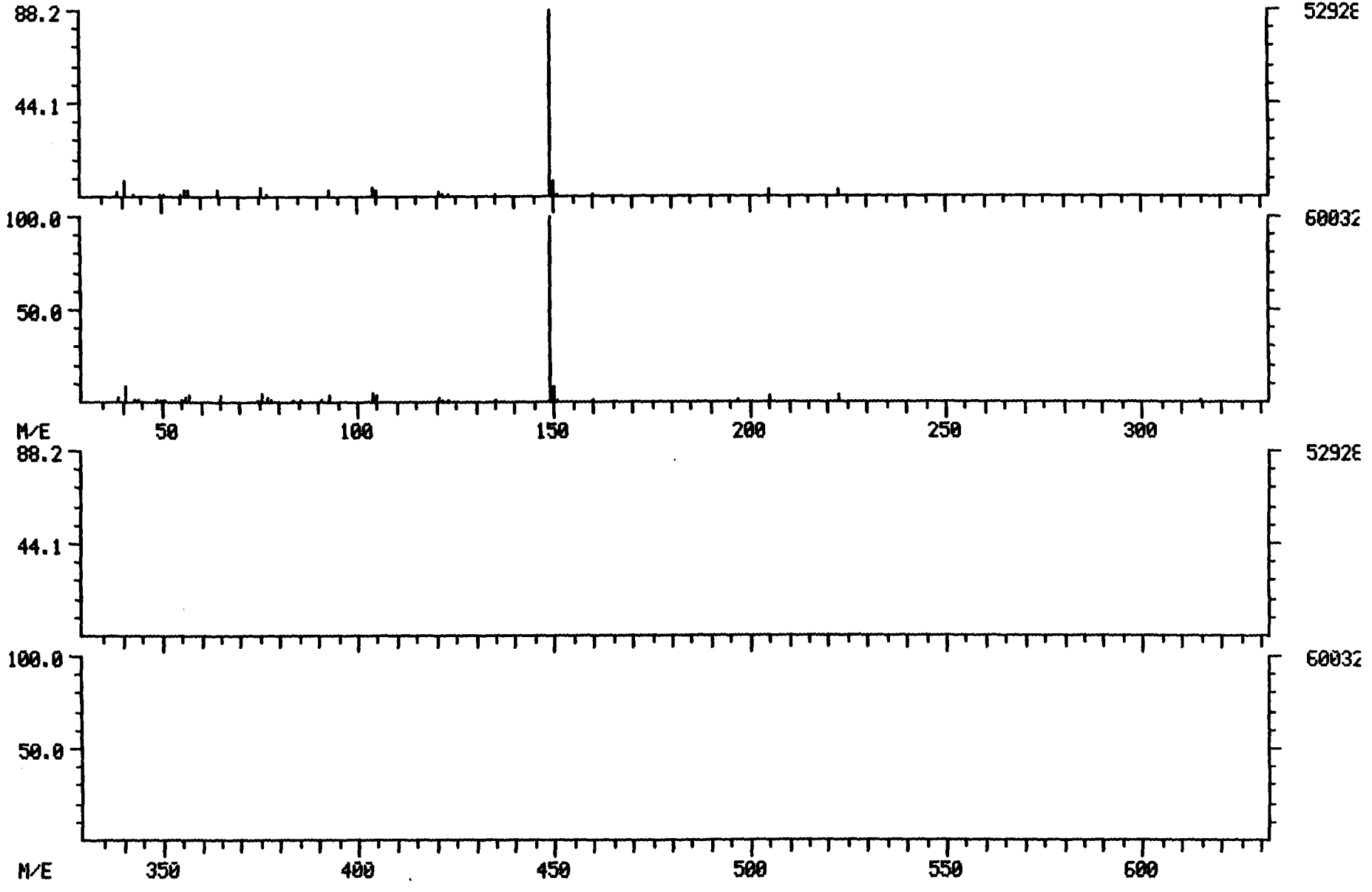
DATA: BH011428C03 #383 BASE M/E: 165/ 165
RIC: 33087./ 49087.



426

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 24:15
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)

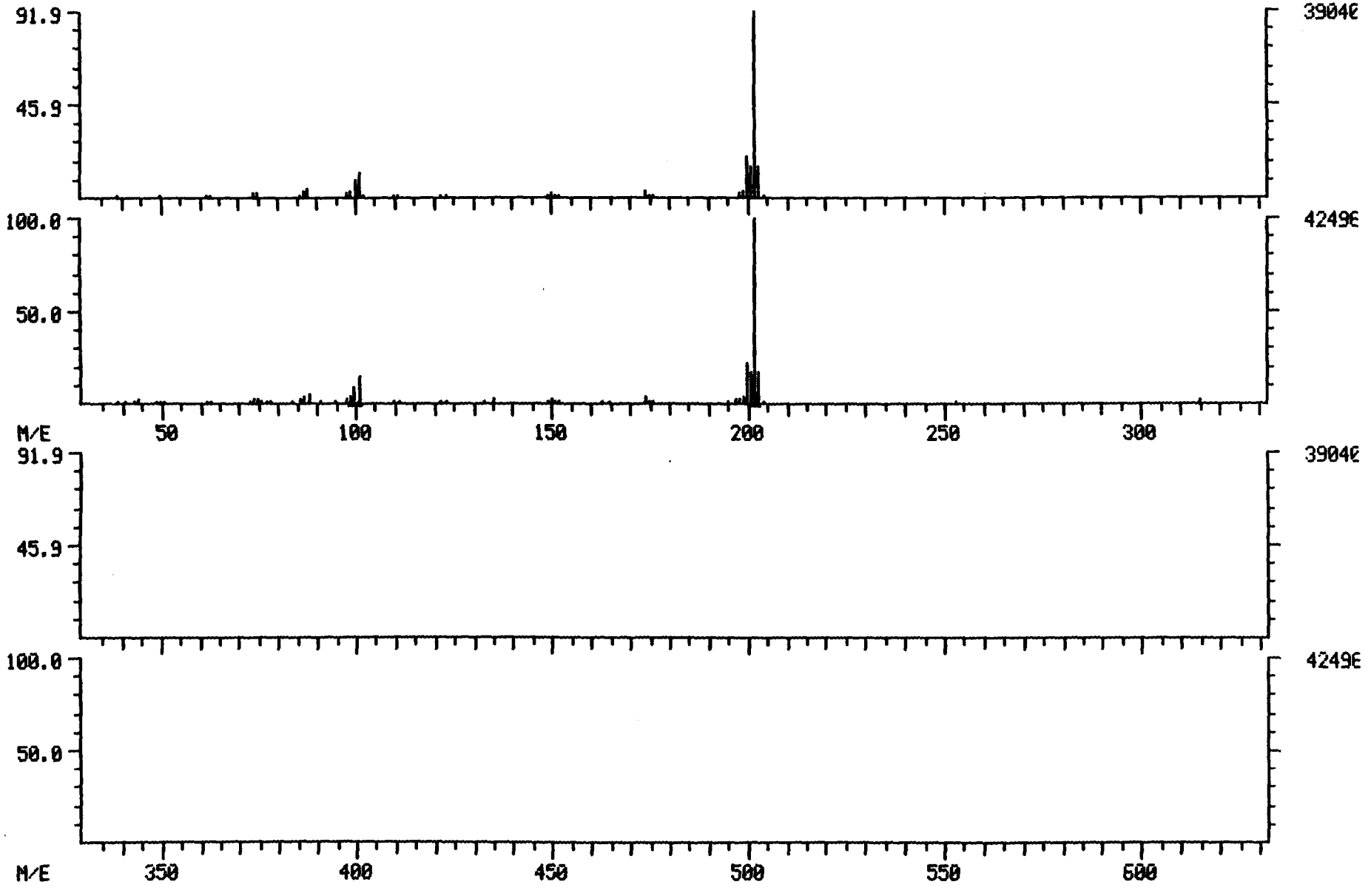
DATA: BH011428C03 #477 BASE M/E: 149/ 149
RIC: 94207./ 116607.



4/4/5

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 27:00
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)

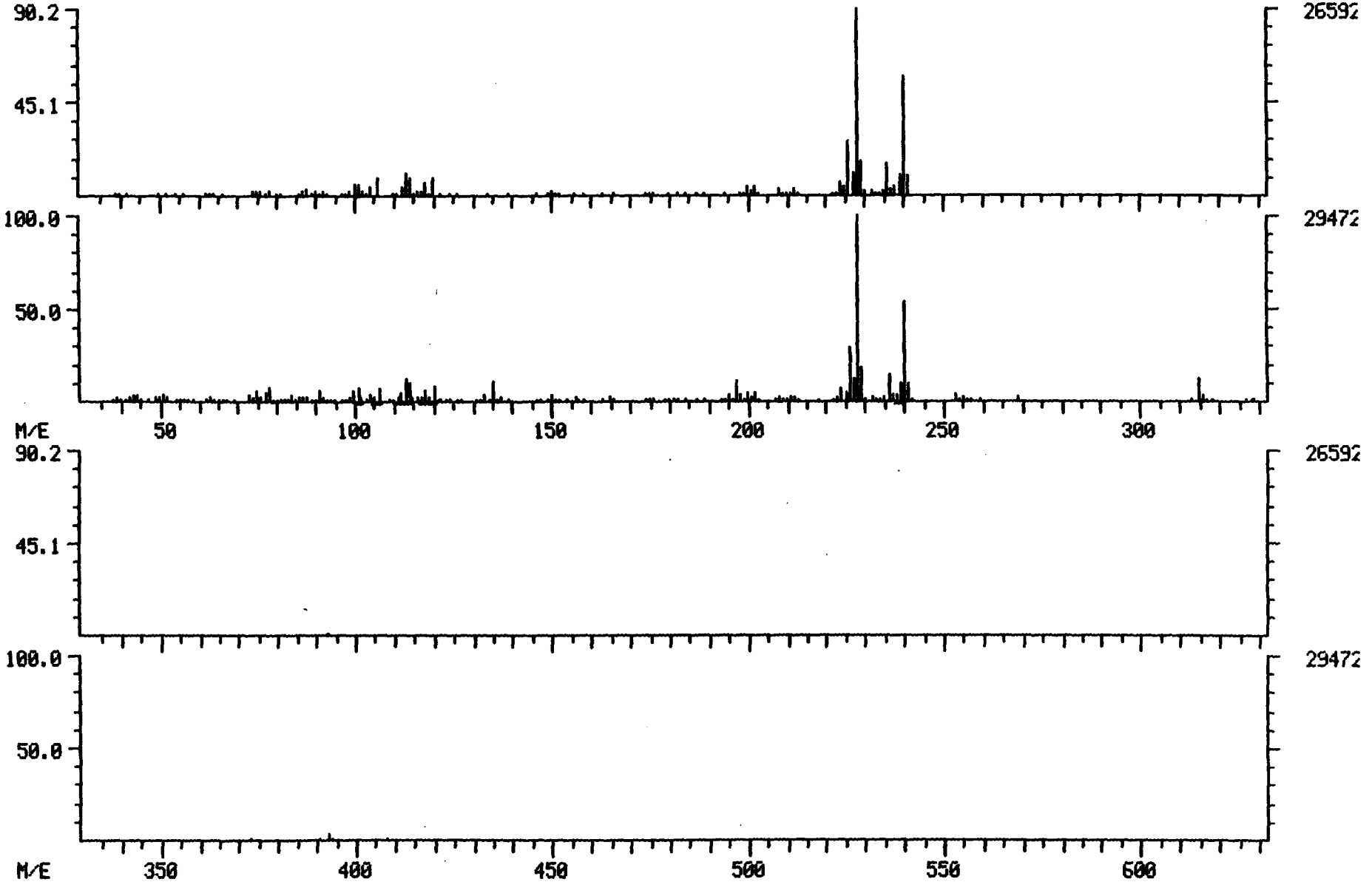
DATA: BH011428C03 #531 BASE M/E: 202/ 202
RIC: 92415./ 118271.



405/418

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 31:07
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)

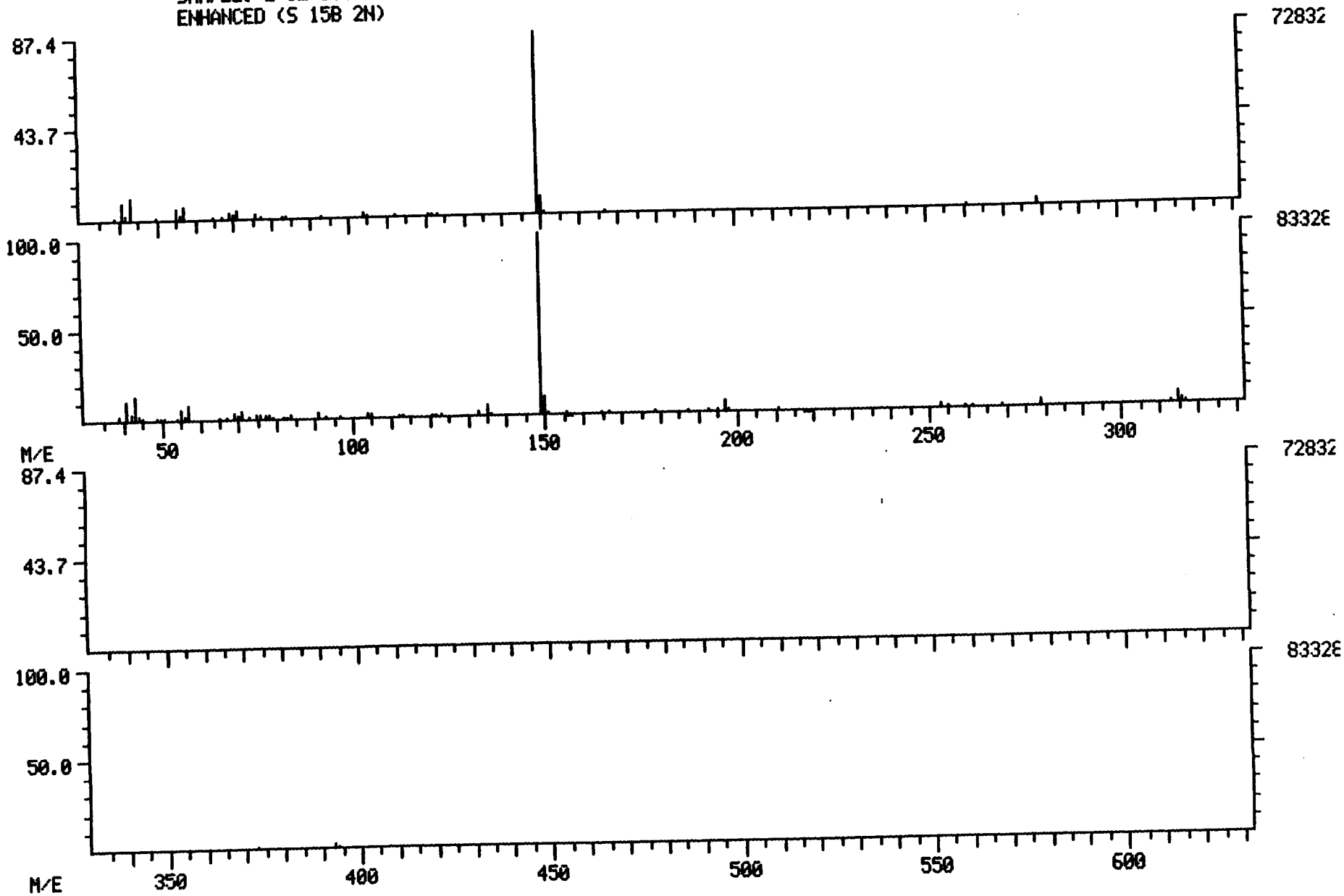
DATA: BH011428C03 #612 BASE M/E: 228/ 228
RIC: 129919./ 187391.



429

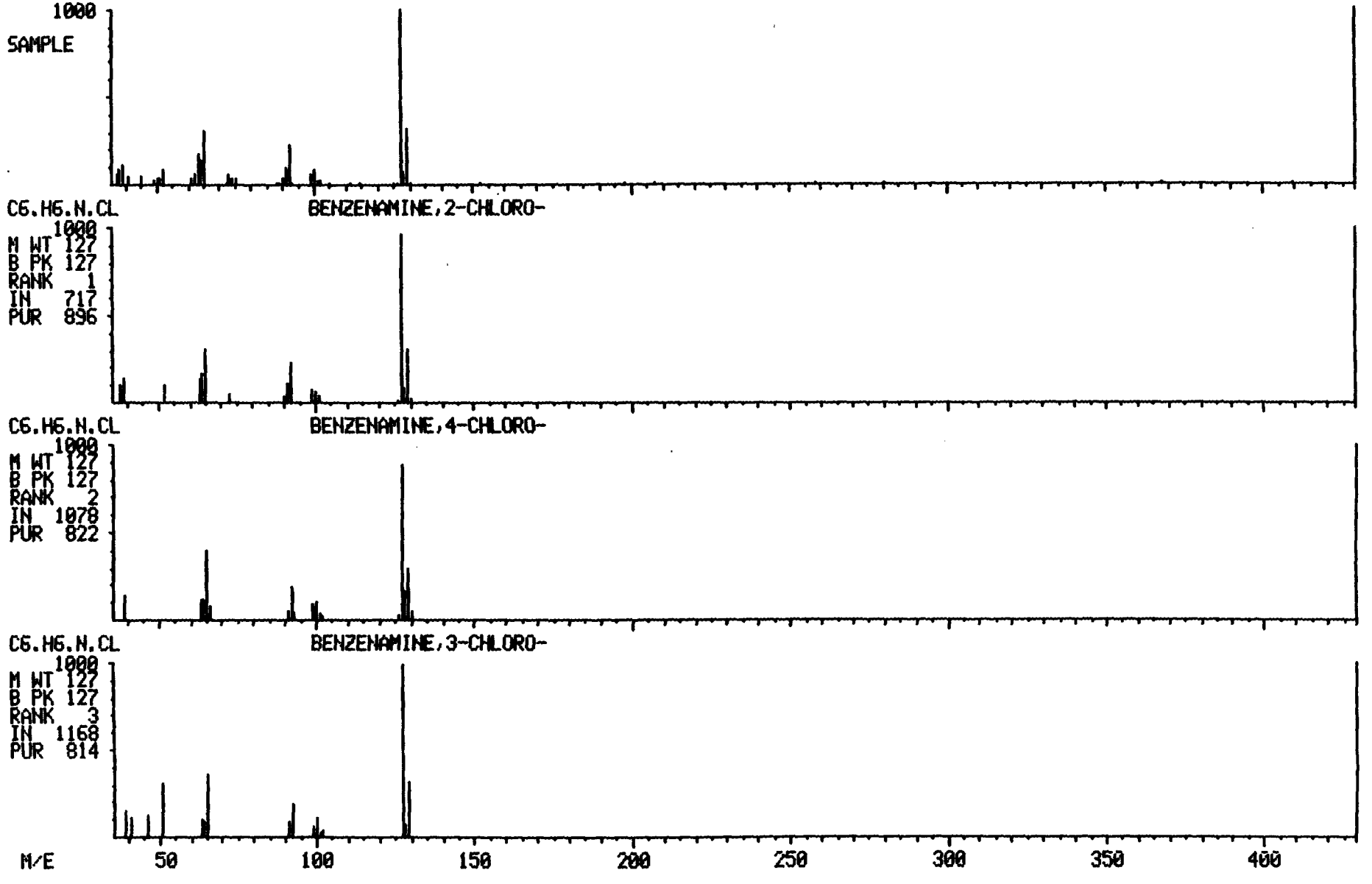
DATA: BH011428C03 #633 BASE M/E: 149/ 149
RIC: 147199./ 239871.

DUAL MASS SPECTRUM
01/19/82 6:41:00 + 32:11
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N)



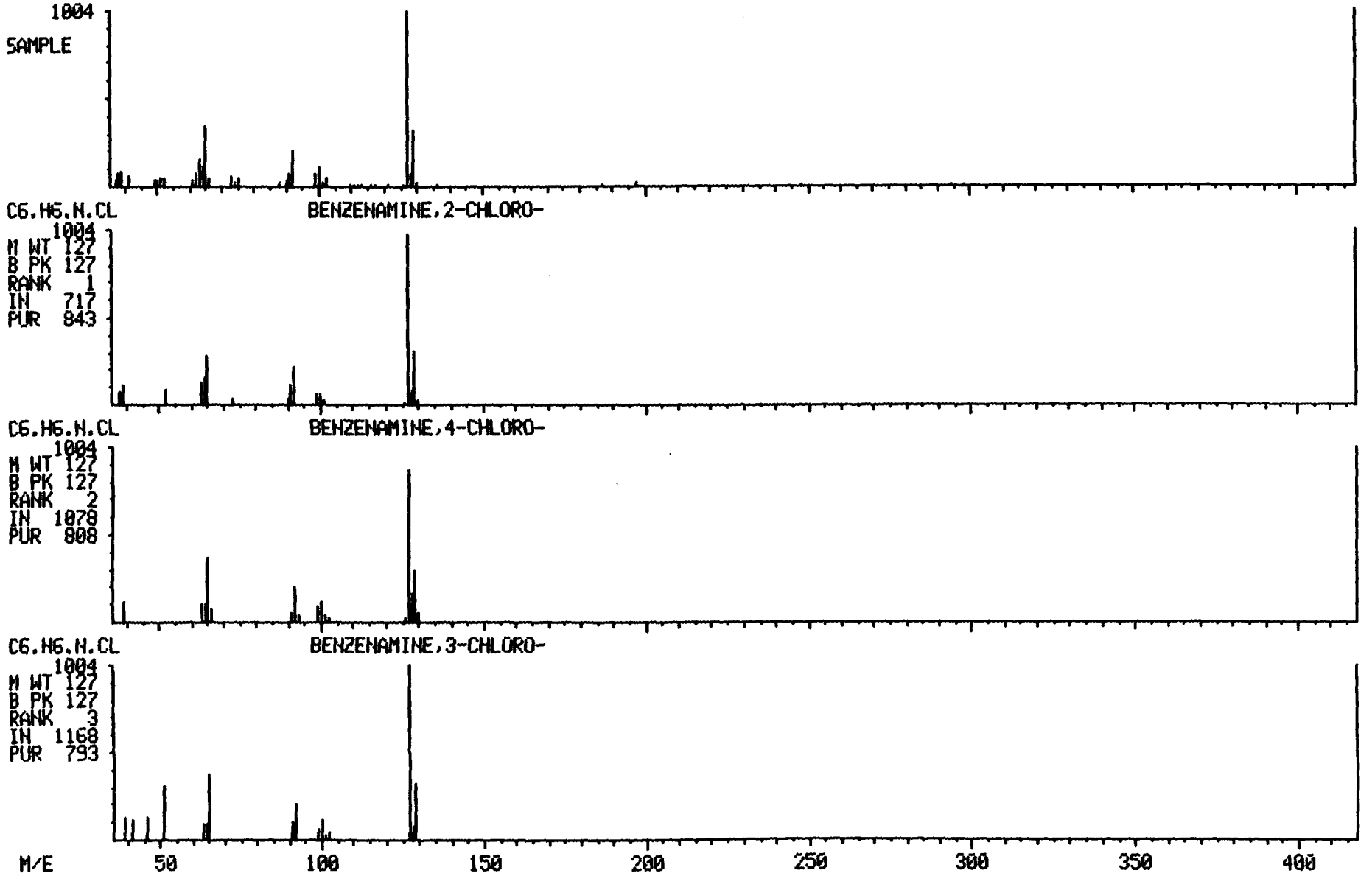
LIBRARY SEARCH
01/19/82 6:41:00 + 11:57
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N 0T)

DATA: BH011428C03 # 235
BASE M/E: 127
RIC: 120191.



LIBRARY SEARCH
01/19/82 6:41:00 + 14:08
SAMPLE: 2 UL 11428 ON OWA#3
ENHANCED (S 15B 2N 0T)

DATA: BH011428C03 # 278
BASE M/E: 127
RIC: 20607.



U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11429 Duplicate

QC Report No. 42-58

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.2 K
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.30
122-83-2	2,4-dichlorophenol	0.52
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.8U
51-88-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	0.62

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
318-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
181-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
183-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11429 Duplicate

QC Report No: 42- 58

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
2-Fluorophenol	Acid	1.84	2.5 ug/g	74
d_6-Phenol	Acid	1.87	2.5 ug/g	75
Pentafluorophenol	Acid	1.48	2.5 ug/g	59
d_5-Nitrobenzene	B/N	1.20	2.5 ug/g	48
2-Fluorobiphenyl	B/N	1.10	2.5 ug/g	44

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11429 Duplicate

QC Report No: 42 - 58

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1		NONE	BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11	95-51-2	Benzenamine, 2-chloro	ACID	88	0.52
12	576-24-9	Phenol, 2,3-Dichloro-	ACID	81	0.15
13	108-43-0	Phenol, 3-chloro	ACID	86	0.90
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21			VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

Sample No: 11429/11417 E1204 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: MEAD COMPU/Chem
Report No: 42-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)		Relative Percent Difference (RPD)*
P.	P.		#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
			A	2-FLUOROPHENOL	1.76	1.84	4
			A	d_6-PHENOL	1.77	1.87	5
			A	PENTAFLUOROPHENOL	1.57	1.48	6
			B	d_5-NITROBENZENE	2.59	1.20	73
			B	2-FLUOROBIPHENYL	1.03	1.10	7
0	2	4	A	2-chlorophenol	0.40	0.30	29
0	3	1	A	2,4-dichlorophenol	0.56	0.52	7
0	6	5	A	Phenol	0.42	0.62	38
0	2	1	A	2,4,6-trichlorophenol	0.32	0.15	72

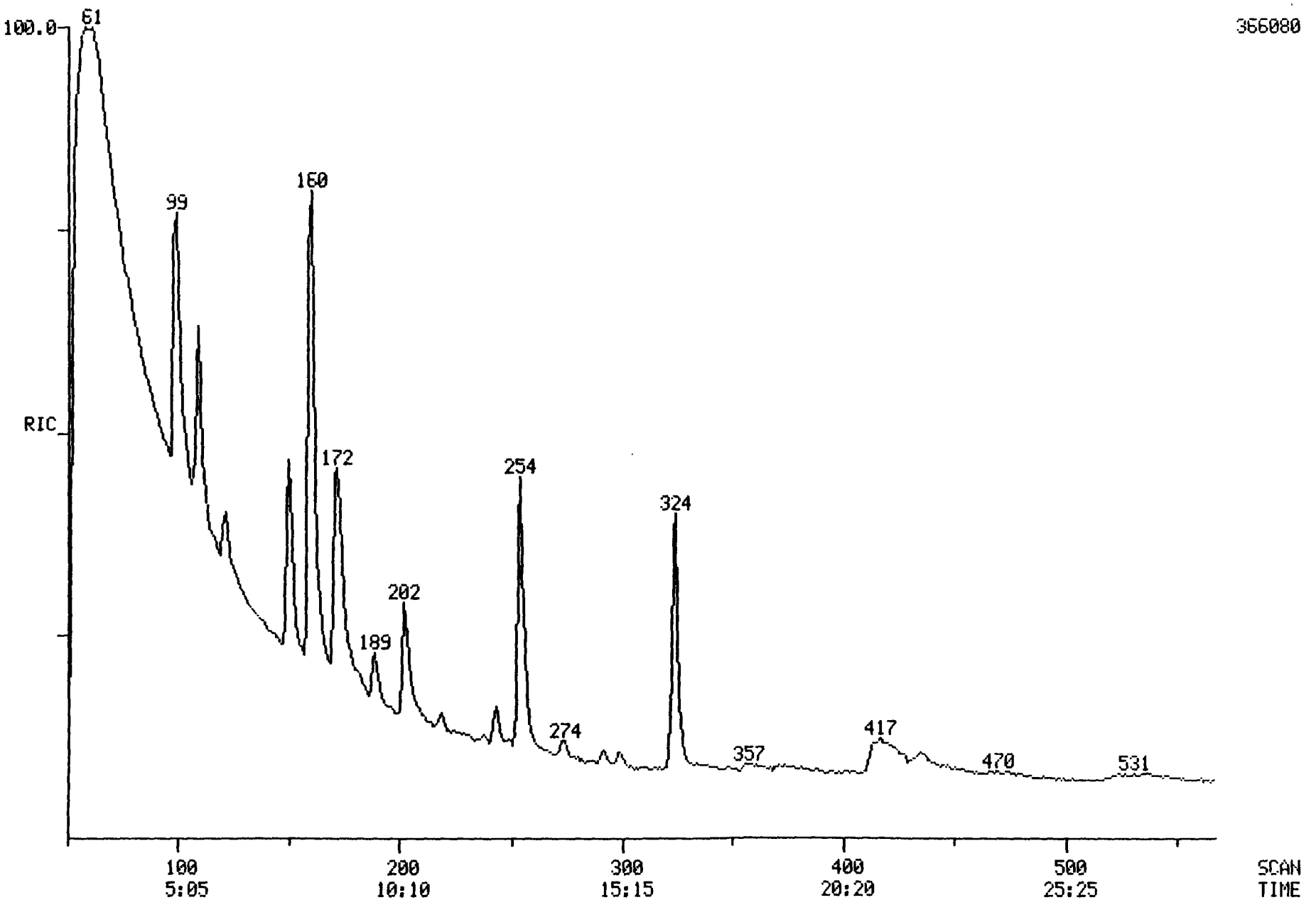
This QC Report also covers the following sample numbers:

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

RIC
01/13/82 15:34:00
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5

DATA: AH011429B05 SCANS 50 TO 567



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: AH011429B05

DATA: AH011429B05.TI
01/13/82 15:34:00
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
SUBMITTED BY: #5 ANALYST: KWILKIE

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE . RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	FLUOROPHENOL (SURROGATE STANDARD)
3	D-6 PHENOL (SURROGATE STANDARD)
4	PENTAFLUOROPHENOL (SURROGATE)
5	2-FLUOROBIPHENYL (SURROGATE)
6	D-5 NITROBENZENE (SURROGATE)
7	D-8 NAPHTHALENE (INTERNAL STANDARD)
8	2-CHLOROPHENOL
9	2-NITROPHENOL
10	PHENOL
11	2,4-DIMETHYLPHENOL
12	2,4-DICHLOROPHENOL
13	D10-ANTHRACENE (INTERNAL STANDARD)
14	2,4,6-TRICHLOROPHENOL
15	P-CHLORO-M-CRESOL
16	2,4-DINITROPHENOL
17	4,6-DINITRO-O-PHENOL
18	PENTACHLOROPHENOL
19	4-NITROPHENOL

$C_8 + 12C_2$

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	109	5:32	1	1.000	A BB	109268.	40.000	NG/UL	9.82
2	112	99	5:02	1	0.908	A BB	102644.	91.757	NG/UL	22.53
3	99	160	8:08	1	1.468	A BB	126151.	93.395	NG/UL	22.94
4	184	171	8:42	1	1.569	A BB	~~12016.~~ 73932	~~15.728~~ 7.34	NG/UL	3.86
5	172	172	8:45	1	1.578	A BB	2340.	1.135	NG/UL	0.28
6	82	109	5:32	1	1.000	A BB	7107.	4.499	NG/UL	1.10
7	136	109	5:32	7	1.000	A BB	113659.	40.000	NG/UL	9.82
8	128	121	6:09	7	1.110	A BV	18158.	15.178	NG/UL	3.73 -455
9	NOT FOUND									
10	94	159	8:05	7	1.459	A BB	42357.	30.661	NG/UL	7.53 -455
11	NOT FOUND									
12	162	202	10:16	7	1.853	A BB	26191.	26.254	NG/UL	6.45 -455
13	188	324	16:28	13	1.000	A BB	153500.	40.000	NG/UL	9.82
14	196	243	12:21	13	0.750	A BB	6338.	7.495	NG/UL	1.84 -455
15	142	272	13:50	13	0.840	A BB	663.	0.732	NG/UL	0.18
16	NOT FOUND									
17	NOT FOUND									
18	266	369	18:45	13	1.139	A BB	212.	0.362	NG/UL	0.09
19	NOT FOUND									

MISCELLANEOUS CALCULATIONS
area - manually calculated.

Sample 11429 (A) QC

Calculated by KCH

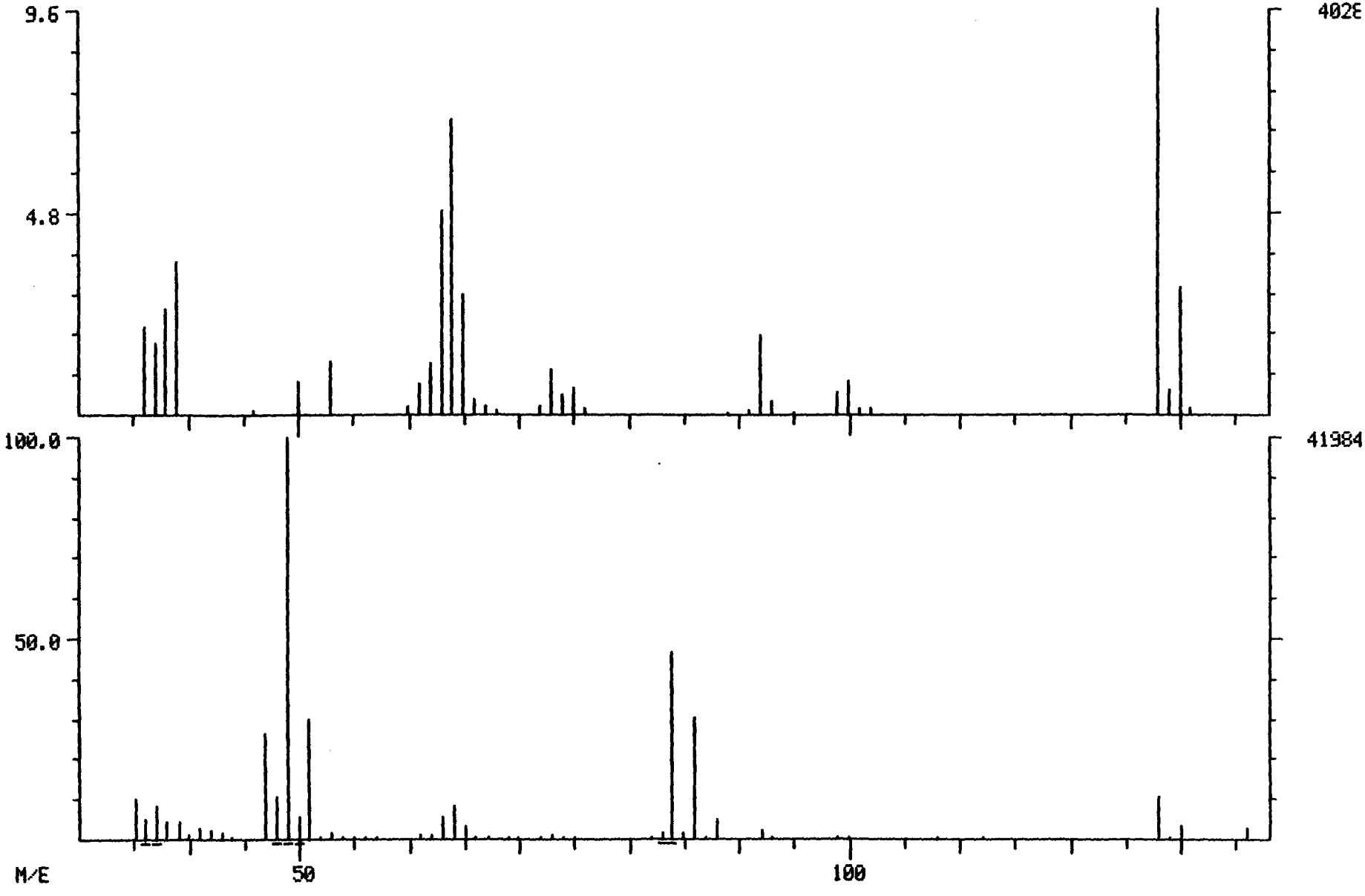
Calculation Employed:

COMPOUND	CALCULATION
#4	$Amt = \frac{(73932)(40)}{(109268)(0.366)} = 73.9$

601

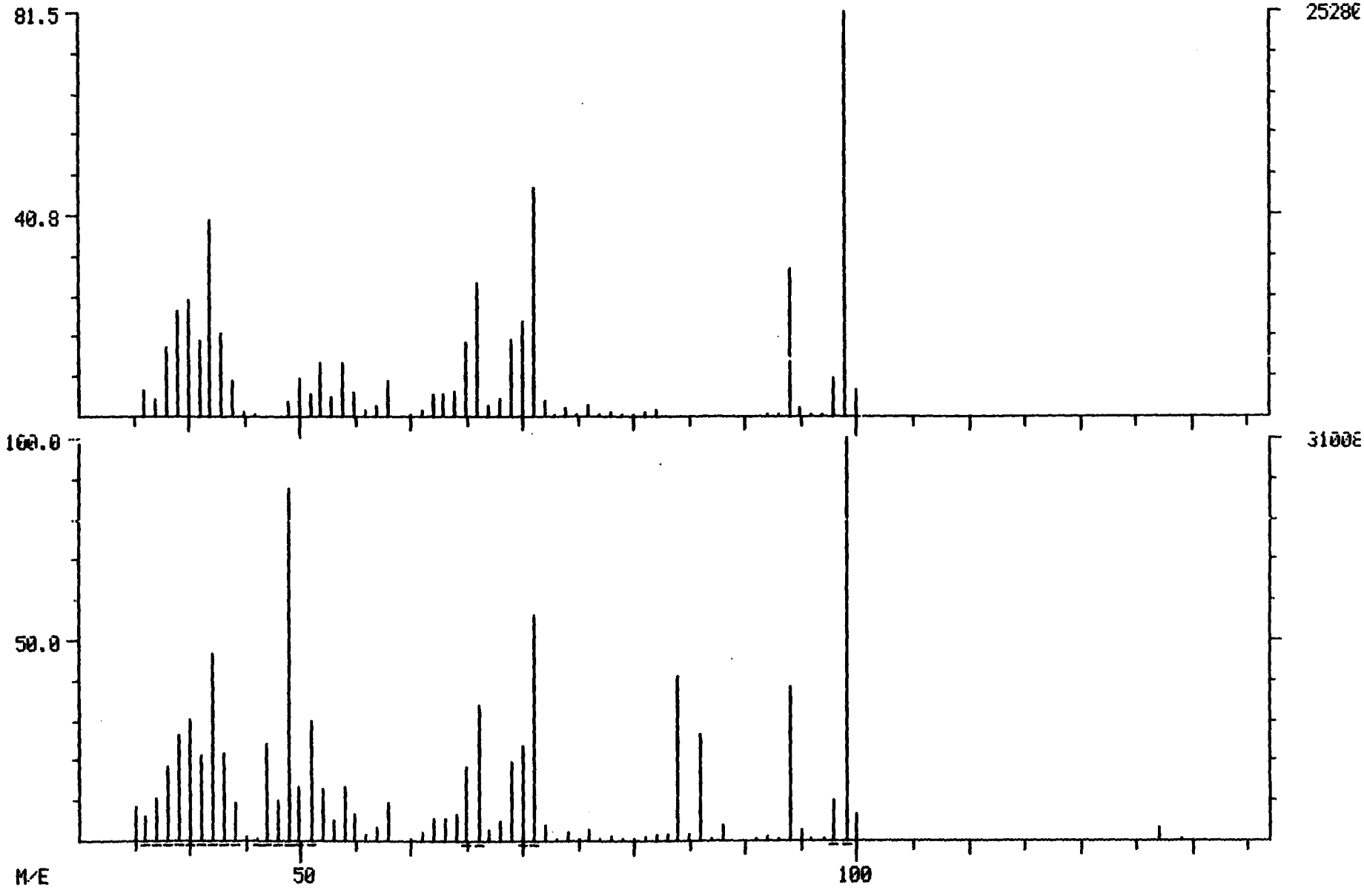
DUAL MASS SPECTRUM
01/13/82 15:34:00 + 6:09
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (S 15B 2N)

DATA: AH011429B05 #121 BASE M/E: 128/ 49
RIC: 20959./ 147967.



DUAL MASS SPECTRUM
01/13/82 15:34:00 + 8:05
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (S 15B 2N)

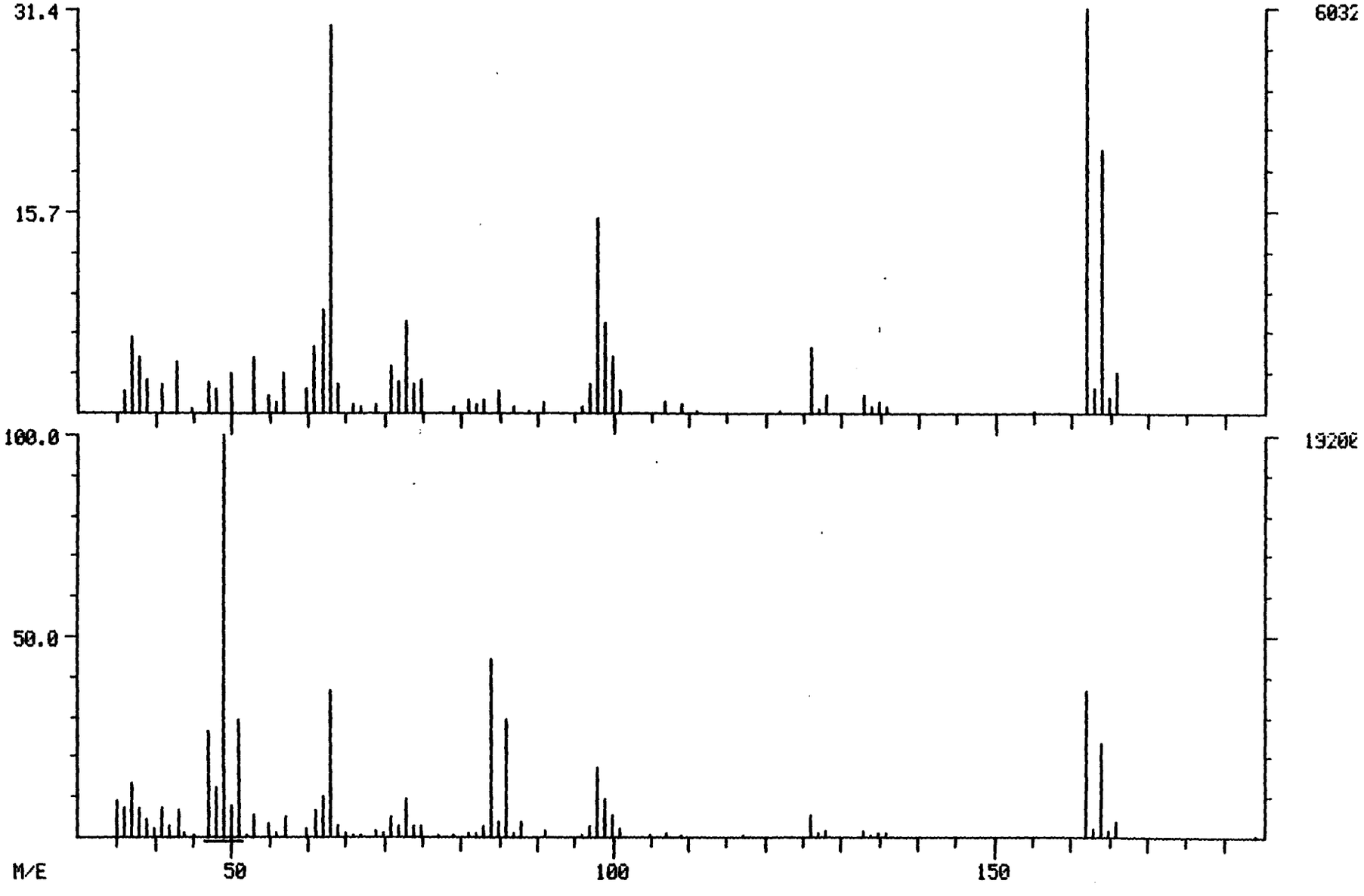
DATA: AH011429B05 #159 BASE M/E: 99/ 99
RIC: 152831./ 265727.



602

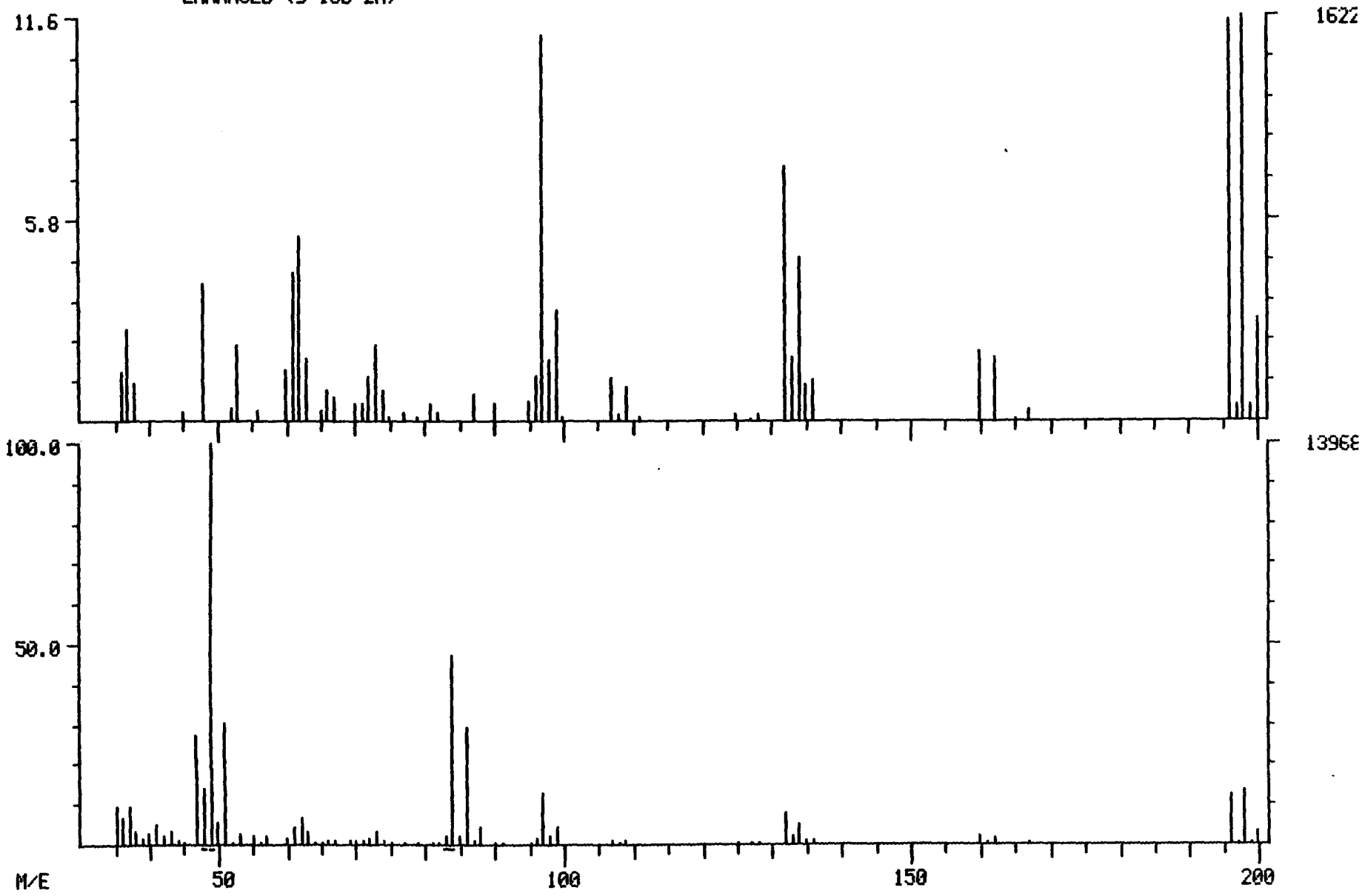
DUAL MASS SPECTRUM
01/13/82 15:34:00 + 10:16
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (S 15B 2N)

DATA: AH011429B05 #202 BASE M/E: 162/ 49
RIC: 41343./ 106495.



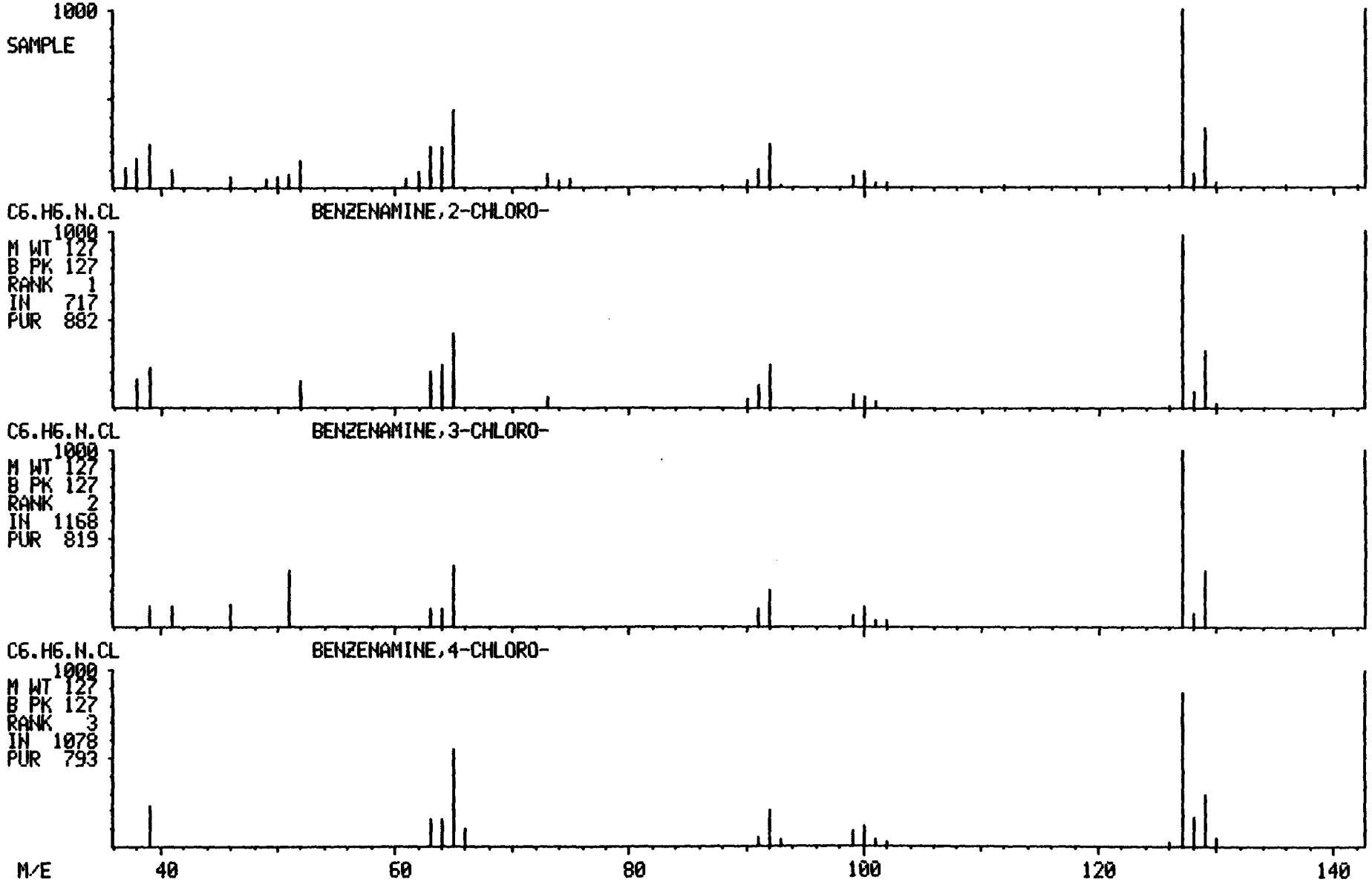
DUAL MASS SPECTRUM
01/13/82 15:34:00 + 12:21
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (5 15B 2N)

DATA: AH011429B05 #243 BASE M/E: 198/ 49
RIC: 14495./ 59903.



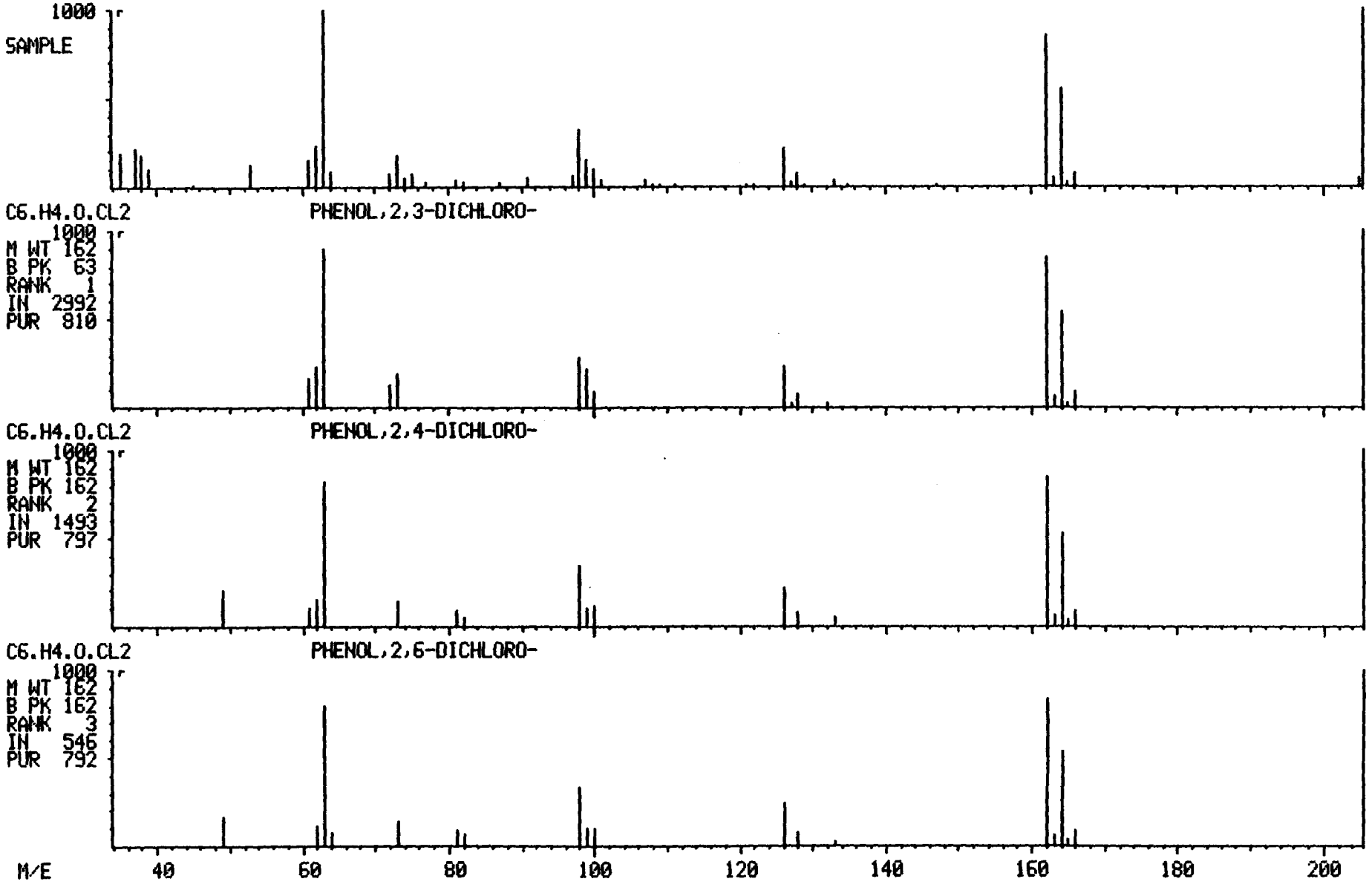
LIBRARY SEARCH
01/13/82 15:34:00 + 7:37
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (S 15B 2N 0T)

DATA: AH011429B05 # 150
BASE M/E: 127
RIC: 69759.



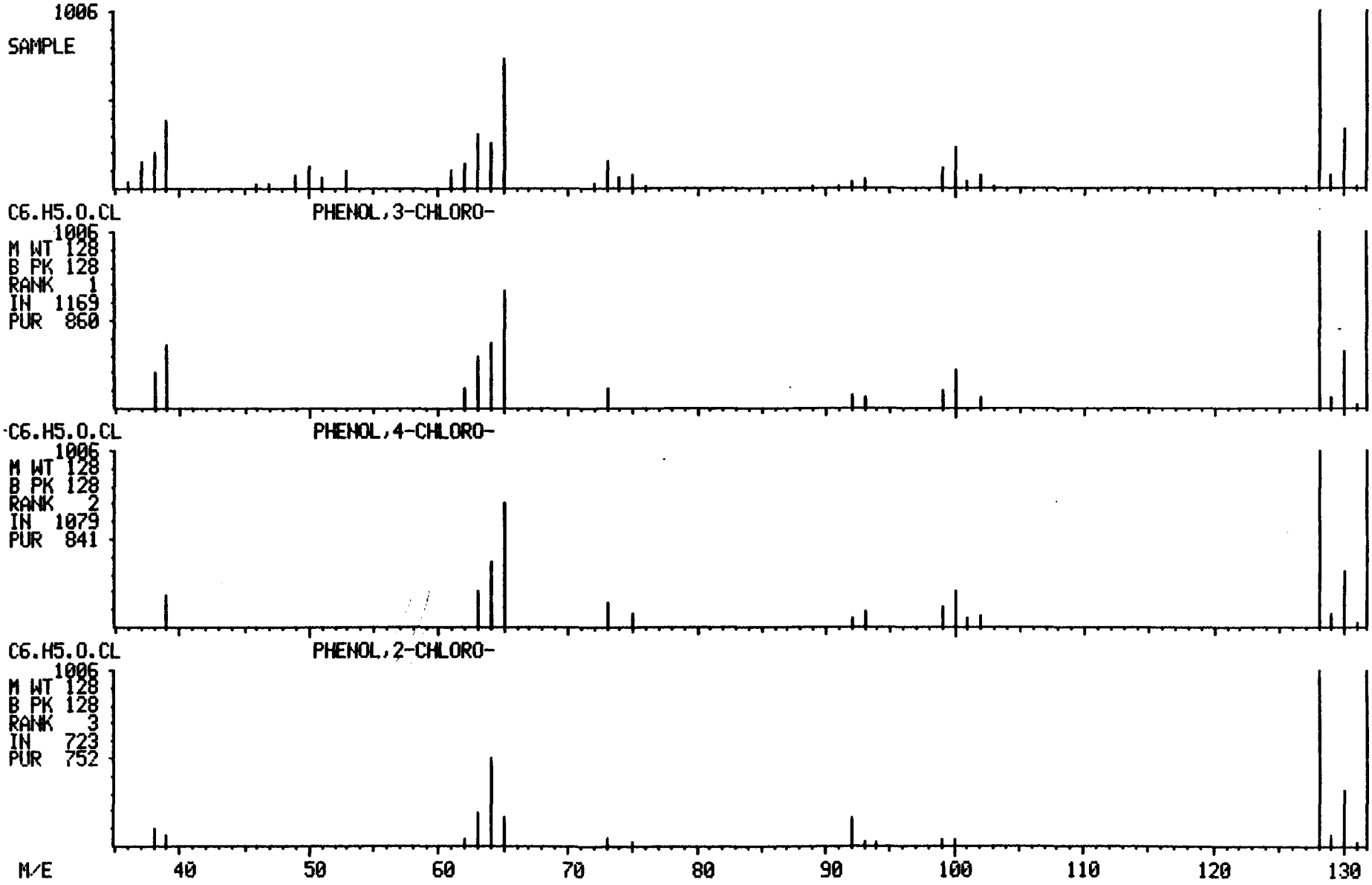
LIBRARY SEARCH
01/13/82 15:34:00 + 9:36
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (S 15B 2N 0T)

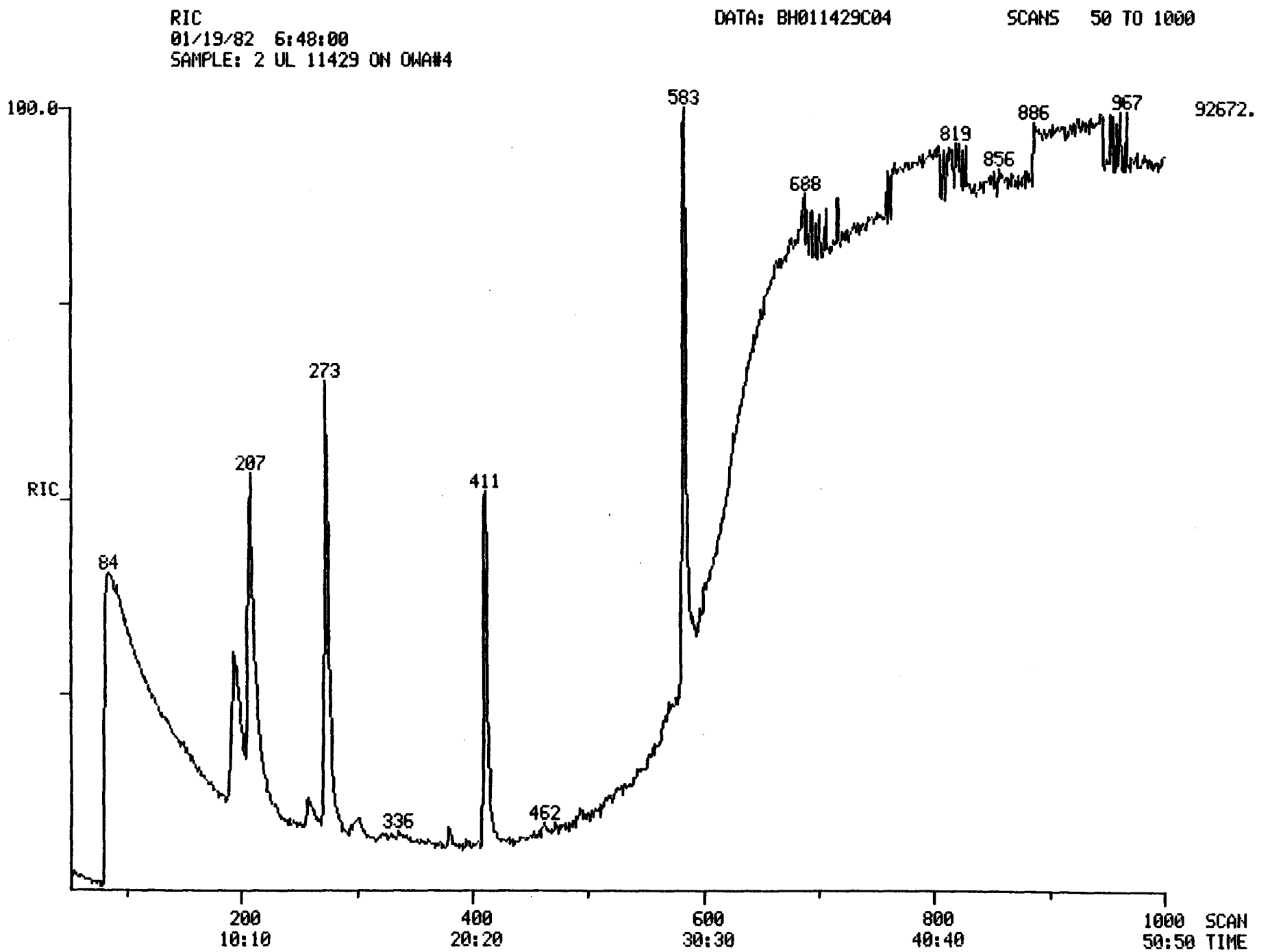
DATA: AH011429B05 # 189
BASE M/E: 63
RIC: 18847.



LIBRARY SEARCH
01/13/82 15:34:00 + 12:55
SAMPLE: 2 ULS SAMPLE #11429-103 FOR HW ON #5
ENHANCED (S 15B 2N 0T)

DATA: AH011429B05 # 254
BASE M/E: 128
RIC: 108031.




RIC
01/19/82 6:48:00
SAMPLE: 2 UL 11429 ON OWA#4
DATA: BH011429C04
SCANS 50 TO 1000
100.0
RIC
92672.
583
886
967
819
856
688
273
207
411
84
336
462
200
10:10
400
20:20
600
30:30
800
40:40
1000 SCAN
50:50 TIME

FINNIGAN ORGANICS IN WATER ANALYZER
QUANTITATION REPORT FILE: BH011429C04

DATA: BH011429C04.TI
01/19/82 6:48:00
SAMPLE: 2 UL 11429 ON OWA#4
SUBMITTED BY: 4 ANALYST: LRF

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE . RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	D-5 NITROBENZENE (SURROGATE STANDARD)
3	2-FLUOROBIPHENYL (SURROGATE STANDARD)
4	D-8 NAPHTHALENE (INTERNAL STANDARD)
5	1,3-DICHLOROBENZENE
6	1,4-DICHLOROBENZENE
7	HEXACHLOROETHANE
8	BIS (2-CHLOROETHYL) ETHER
9	1,2-DICHLOROBENZENE
10	BIS (2-CHLOROISOPROPYL) ETHER
11	N-NITROSO-DI-N-PROPYLAMINE
12	NITROBENZENE
13	HEXACHLOROBUTADIENE
14	1,2,4-TRICHLOROBENZENE
15	NAPHTHALENE
16	BIS (2-CHLOROETHOXY) METHANE
17	ISOPHORONE
18	2-CHLORONAPHTHALENE
19	ACENAPHTHYLENE
20	D-10 ANTHRACENE (INTERNAL STANDARD)
21	ACENAPHTHENE
22	DIMETHYL PHTHALATE
23	2,6-DINITROTOLUENE
24	4-CHLOROPHENYL PHENYL ETHER
25	FLUORENE
26	2,4-DINITROTOLUENE
27	DIETHYL PHTHALATE
28	1,2-DIPHENYLHYDRAZINE
29	N-NITROSODIPHENYL AMINE
30	HEXACHLOROBENZENE
31	4-BROMOPHENYL PHENYL ETHER
32	ANTHRACENE AND/OR PHENANTHRENE
33	DI-N-BUTYL PHTHALATE
34	FLUORANTHENE
35	PYRENE
36	2,4-DINITROTOLUENE (SECONDARY ION)
37	D-12 CHRYSENE (INTERNAL STANDARD)
38	BENZIDINE
39	BUTYL BENZYL PHTHALATE
40	BIS (2-ETHYLHEXYL) PHTHALATE
41	BIS (2-HEXYLETHYL)PHTHALATE (SECONDARY ION)
42	BENZO (A) ANTHRACENE AND/OR CHRYSENE
43	3,3' DICHLOROBENZIDINE
44	DI-OCTYL PHTHALATE
45	BENZO (B AND/OR K) FLUORANTHENE(S)
46	BENZO (A) PYRENE

NO	NAME
47	INDENO (1, 2, 3-CD)PYRENE
48	DI BENZO(A, H) ANTHRACENE
49	BENZO(G, H, I) PERYLENE

I_8 - 4%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	207	10:31	1	1.000	A BB	43864.	40.000	NG/UL	18.40
2	NOT FOUND						35386	~~36~~60		
3	172	273	13:53	1	1.319	A BB	60729.	55.430	NG/UL	25.50
4	136	207	10:31	4	1.000	A BB	43864.	40.000	NG/UL	18.40
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									

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
14	NOT	FOUND								
15	NOT	FOUND								
16	NOT	FOUND								
17	82	245	12:27	4	1.184	A BB	350.	0.577	NG/UL	0.27
18	NOT	FOUND								
19	NOT	FOUND								
20	188	410	20:50	20	1.000	A BB	59524.	40.000	NG/UL	18.40
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	NOT	FOUND								
30	NOT	FOUND								
31	NOT	FOUND								
32	NOT	FOUND								
33	149	453	23:02	20	1.105	A BB	163.	0.065	NG/UL	0.03
34	NOT	FOUND								
35	NOT	FOUND								
36	NOT	FOUND								
37	240	582	29:35	37	1.000	A BB	93949.	40.000	NG/UL	18.40
38	NOT	FOUND								
39	149	553	28:07	37	0.950	A BB	345.	0.225	NG/UL	0.10
40	149	566	28:46	37	0.973	A BB	1487.	0.596	NG/UL	0.27
41	167	566	28:46	37	0.973	A BB	306.	0.367	NG/UL	0.17
42	NOT	FOUND								
43	NOT	FOUND								
44	149	605	30:45	37	1.040	A BV	296.	0.074	NG/UL	0.03
45	NOT	FOUND								
46	NOT	FOUND								
47	NOT	FOUND								
48	NOT	FOUND								
49	NOT	FOUND								

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. BLANK 11430

QC Report No. 42-58

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.2U
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.2U
122-83-2	2,4-dichlorophenol	0.2U
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.0U
51-28-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
218-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
191-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
193-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42- 58

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
2-Fluorophenol	Acid	2.22	2.5 ug/g	89
d_6-Phenol	Acid	2.28	2.5 ug/g	91
Pentafluorophenol	Acid	1.99	2.5 ug/g	80
d_5-Nitrobenzene	B/N	2.01	2.5 ug/g	80
2-Fluorobiphenyl	B/N	2.05	2.5 ug/g	82

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42-58

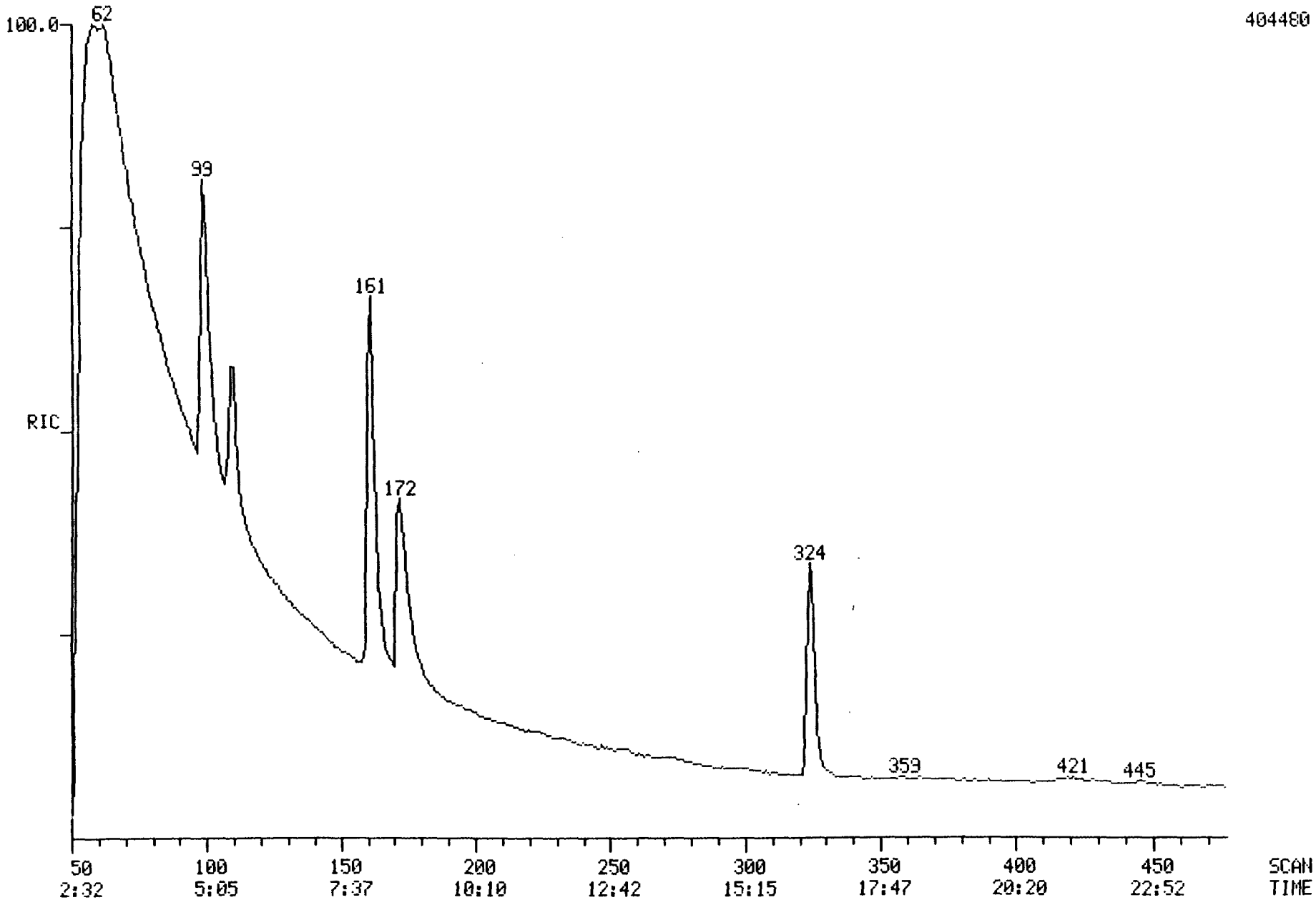
Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1		NONE	BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11		NONE	ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21			VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

RIC
01/13/82 16:28:00
SAMPLE: 2 ULS SAMPLE #11430-103 FOR HW ON #5

DATA: AC011430B05 SCANS 50 TO 477



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: AC011430B05

DATA: AC011430B05.TI
01/13/82 16:28:00
SAMPLE: 2 ULS SAMPLE #11430-103 FOR HW ON #5
SUBMITTED BY: #5 ANALYST: KWILKIE

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	FLUOROPHENOL (SURROGATE STANDARD)
3	D-6 PHENOL (SURROGATE STANDARD)
4	PENTAFLUOROPHENOL (SURROGATE)
5	2-FLUOROBIPHENYL (SURROGATE)
6	D-5 NITROBENZENE (SURROGATE)
7	D-8 NAPHTHALENE (INTERNAL STANDARD)
8	2-CHLOROPHENOL
9	2-NITROPHENOL
10	PHENOL
11	2,4-DIMETHYLPHENOL
12	2,4-DICHLOROPHENOL
13	D10-ANTHRACENE (INTERNAL STANDARD)
14	2,4,6-TRICHLOROPHENOL
15	P-CHLORO-M-CRESOL
16	2,4-DINITROPHENOL
17	4,6-DINITRO-O-PHENOL
18	PENTACHLOROPHENOL
19	4-NITROPHENOL

2,+8?

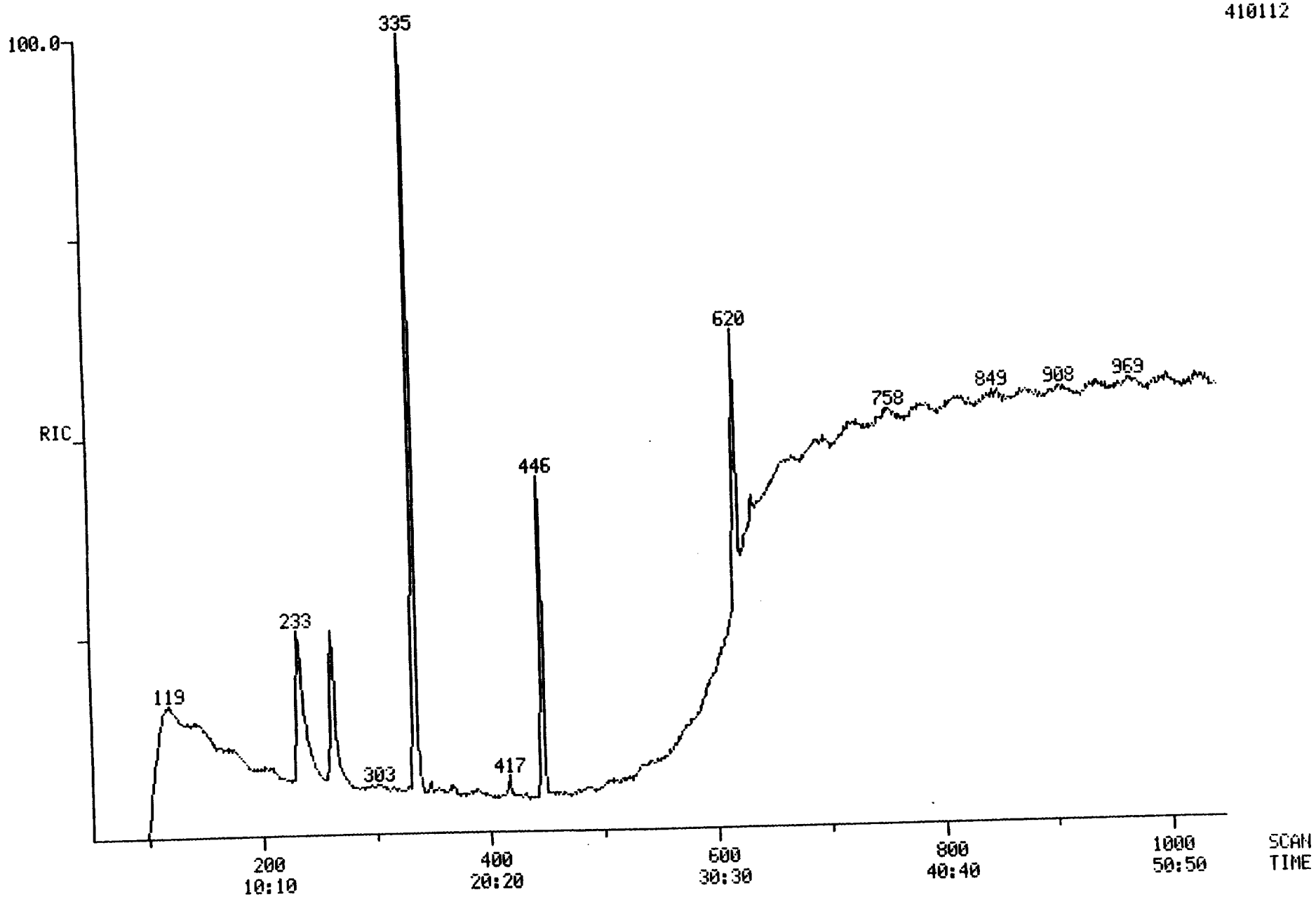
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	109	5:32	1	1.000	A BB	105135.	40.000	NG/UL	8.97
2	112	99	5:02	1	0.908	A BB	120399.	111.083	NG/UL	24.92
3	99	161	8:11	1	1.477	A BB	150154.	113.834	NG/UL	25.53
4	184	172	8:45	1	1.578	A BB	79616.	99.396	NG/UL	22.29
5	NOT FOUND									
6	NOT FOUND									
7	136	109	5:32	7	1.000	A BB	105135.	40.000	NG/UL	8.97
8	NOT FOUND									
9	NOT FOUND									
10	94	160	8:08	7	1.468	A BB	888.	0.702	NG/UL	0.16
11	NOT FOUND									
12	162	204	10:22	7	1.872	A BB	146.	0.160	NG/UL	0.04
13	188	324	16:28	13	1.000	A BB	140411.	40.000	NG/UL	8.97
14	NOT FOUND									
15	142	273	13:53	13	0.843	A BB	146.	0.176	NG/UL	0.04
16	NOT FOUND									

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
17	NOT FOUND								
18	NOT FOUND								
19	65	464	23:35	13	1.432	A BB	164.	0.497 NG/UL	0.11

DATA: BH011430C08 SCANS 50 TO 1045

RIC
01/19/82 7:50:00
SAMPLE: 2UL OF SPL. LOT#11430 ON #8

410112



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: BH011430C08

DATA: BH011430C08.TI
01/19/82 7:50:00
SAMPLE: 2UL OF SPL. LOT#11430 ON #8
SUBMITTED BY: 08 ANALYST: DGC

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE . RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	D-5 NITROBENZENE (SURROGATE STANDARD)
3	2-FLUOROBIPHENYL (SURROGATE STANDARD)
4	D-8 NAPHTHALENE (INTERNAL STANDARD)
5	1,3-DICHLOROBENZENE
6	1,4-DICHLOROBENZENE
7	HEXACHLOROETHANE
8	BIS (2-CHLOROETHYL) ETHER
9	1,2-DICHLOROBENZENE
10	BIS (2-CHLOROISOPROPYL) ETHER
11	N-NITROSO-DI-N-PROPYLAMINE
12	NITROBENZENE
13	HEXACHLOROBUTADIENE
14	1,2,4-TRICHLOROBENZENE
15	NAPHTHALENE
16	BIS (2-CHLOROETHOXY) METHANE
17	ISOPHORONE
18	2-CHLORONAPHTHALENE
19	ACENAPHTHYLENE
20	D-10 ANTHRACENE (INTERNAL STANDARD)
21	ACENAPHTHENE
22	DIMETHYL PHTHALATE
23	2,6-DINITROTOLUENE
24	4-CHLOROPHENYL PHENYL ETHER
25	FLUORENE
26	2,4-DINITROTOLUENE
27	DIETHYL PHTHALATE
28	1,2-DIPHENYLHYDRAZINE
29	N-NITROSODIPHENYL AMINE
30	HEXACHLOROBENZENE
31	4-BROMOPHENYL PHENYL ETHER
32	ANTHRACENE AND/OR PHENANTHRENE
33	DI-N-BUTYL PHTHALATE
34	FLUORANTHENE
35	PYRENE
36	2,4-DINITROTOLUENE (SECONDARY ION)
37	D-12 CHRYSENE (INTERNAL STANDARD)
38	BENZIDINE
39	BUTYL BENZYL PHTHALATE
40	BIS (2-ETHYLHEXYL) PHTHALATE
41	BIS (2-HEXYLETHYL)PHTHALATE (SECONDARY ION)
42	BENZO (A) ANTHRACENE AND/OR CHRYSENE
43	3,3' DICHLOROBENZIDINE
44	DI-OCTYL PHTHALATE
45	BENZO (B AND/OR K) FLUORANTHENE(S)
46	BENZO (A) PYRENE

NO	NAME
47	INDENO (1,2,3-CD)PYRENE
48	DI BENZO(A,H) ANTHRACENE
49	BENZO(G,H,I) PERYLENE

8.45%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	262	13:19	1	1.000	A BB	175867.	40.000	NG/UL	10.97
2	82	233	11:51	1	0.889	A BB	195860.	100.274	NG/UL	27.51
3	172	335	17:02	1	1.279	A BV	351611.	102.506	NG/UL	28.12
4	136	262	13:19	4	1.000	A BB	175867.	40.000	NG/UL	10.97
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									

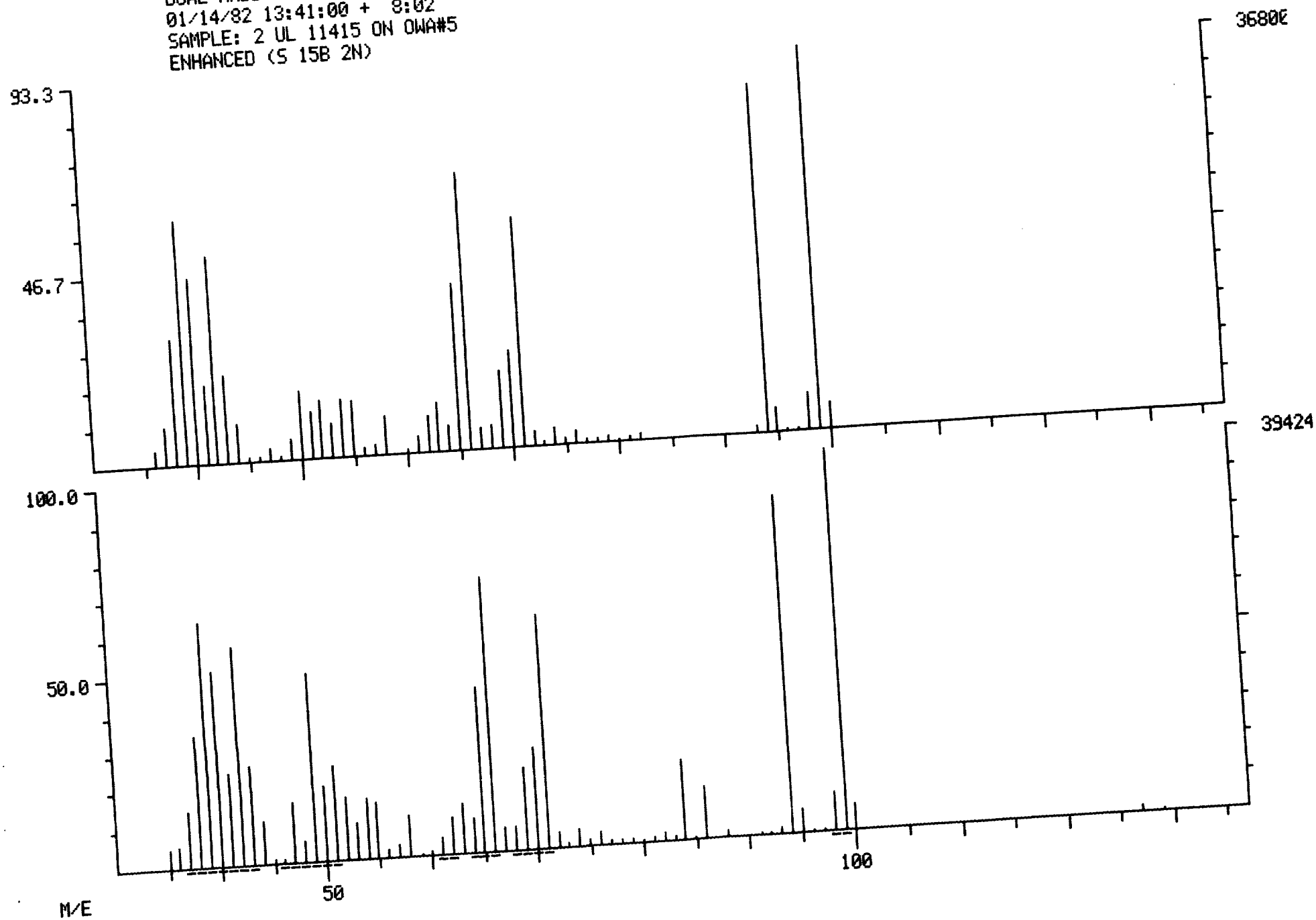
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	188	446	22:40	20	1.000	A BB	174971.	40.000 NG/UL	10.97
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	149	402	20:26	20	0.901	A BB	469.	0.128 NG/UL	0.04
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	149	486	24:42	20	1.090	A BB	1299.	0.205 NG/UL	0.06
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	240	619	31:28	37	1.000	A BB	135973.	40.000 NG/UL	10.97
38	NOT FOUND								
39	149	589	29:56	37	0.952	A BB	270.	0.106 NG/UL	0.03
40	149	604	30:42	37	0.976	A BV	2218.	0.507 NG/UL	0.14
41	167	603	30:39	37	0.974	A BV	974.	0.768 NG/UL	0.21
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								

610

10895-2

DATA: AH011415A05 #158 BASE M/E: 99/ 99
RIC: 327167./ 408575.

DUAL MASS SPECTRUM
01/14/82 13:41:00 + 8:02
SAMPLE: 2 UL 11415 ON OWA#5
ENHANCED (S 15B 2N)

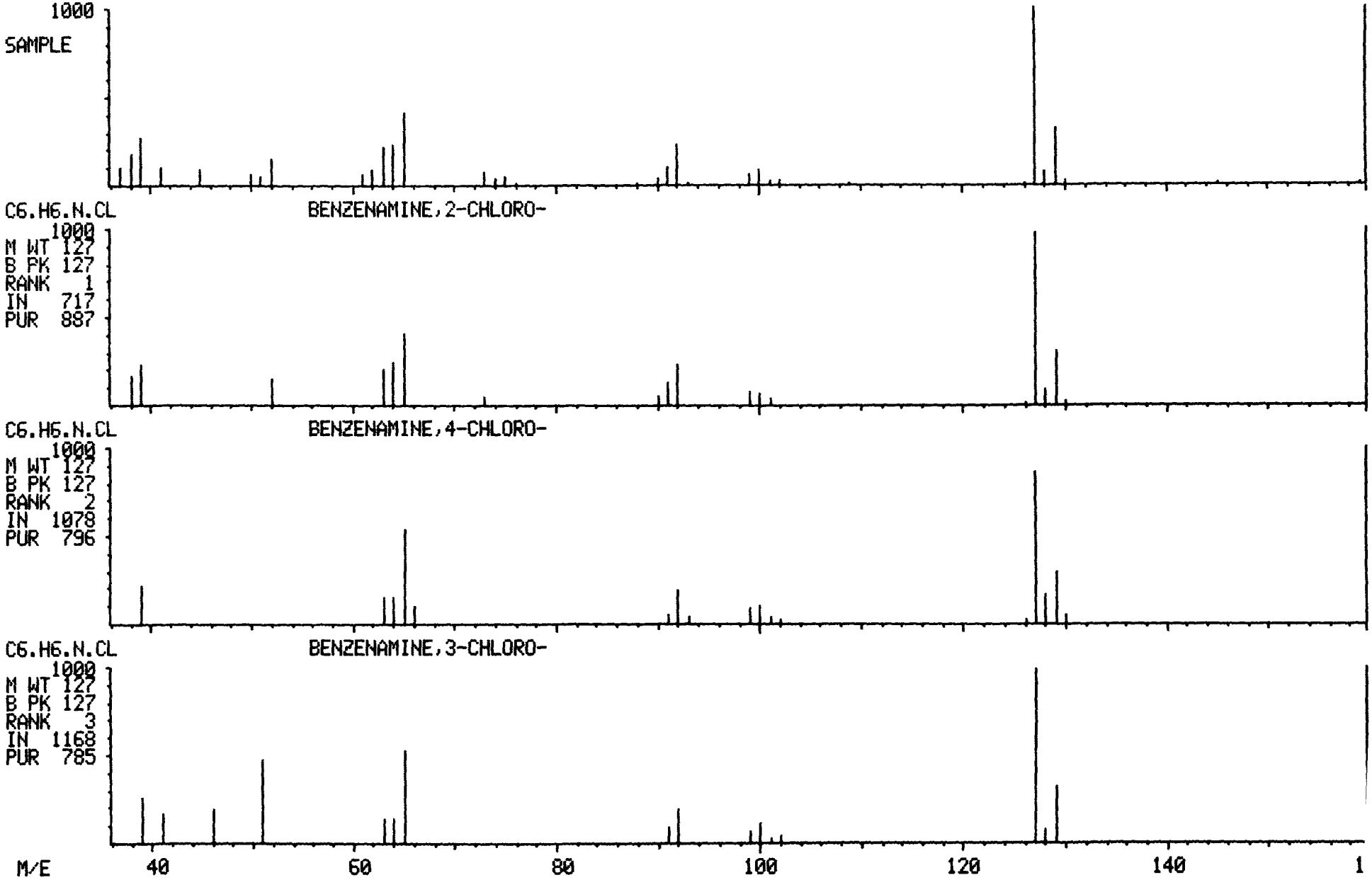


(11)

LIBRARY SEARCH
01/14/82 13:41:00 + 7:31
SAMPLE: 2 UL 11415 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011415A05 # 148

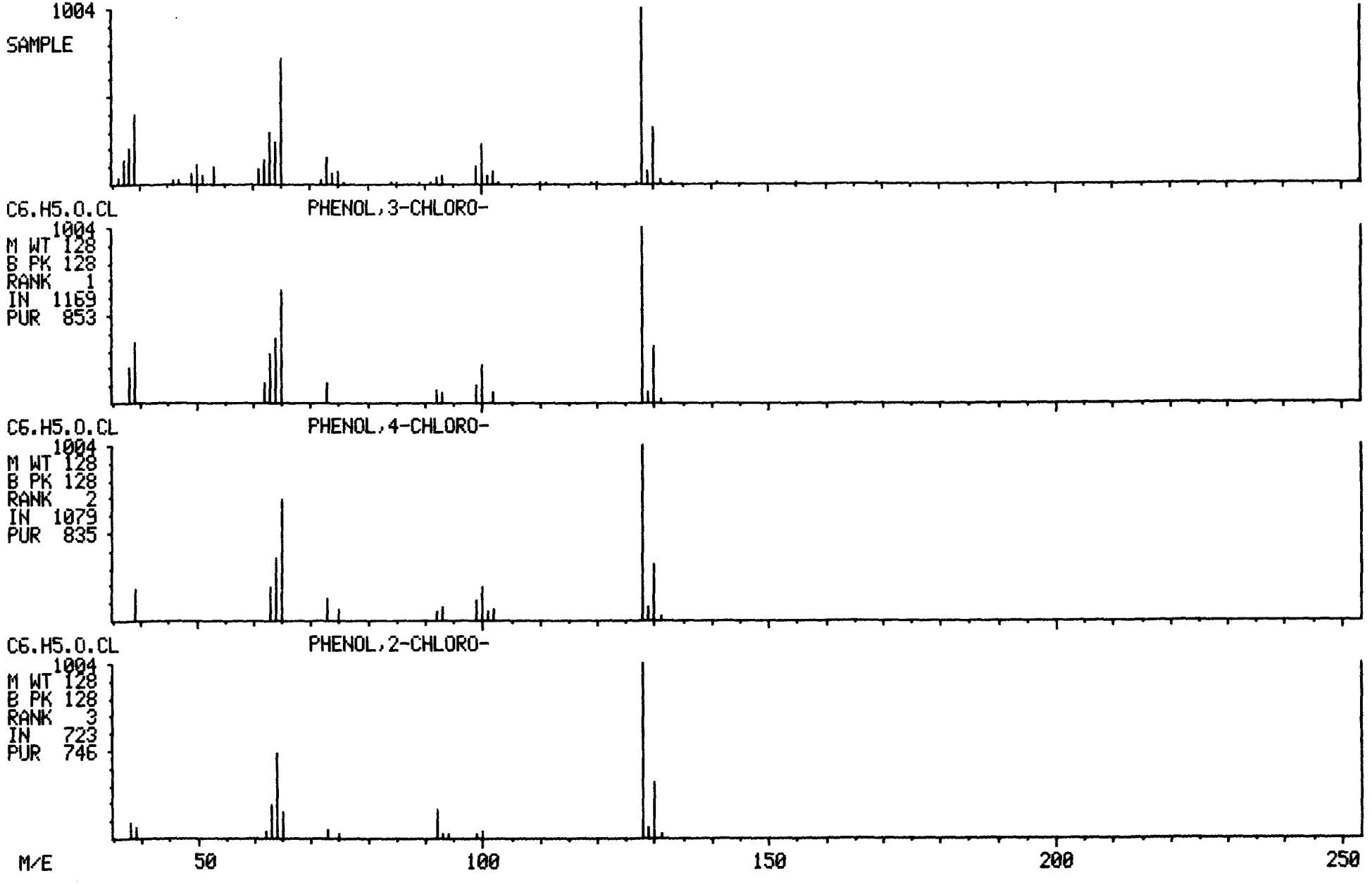
BASE M/E: 127
RIC: 91135.



(12)

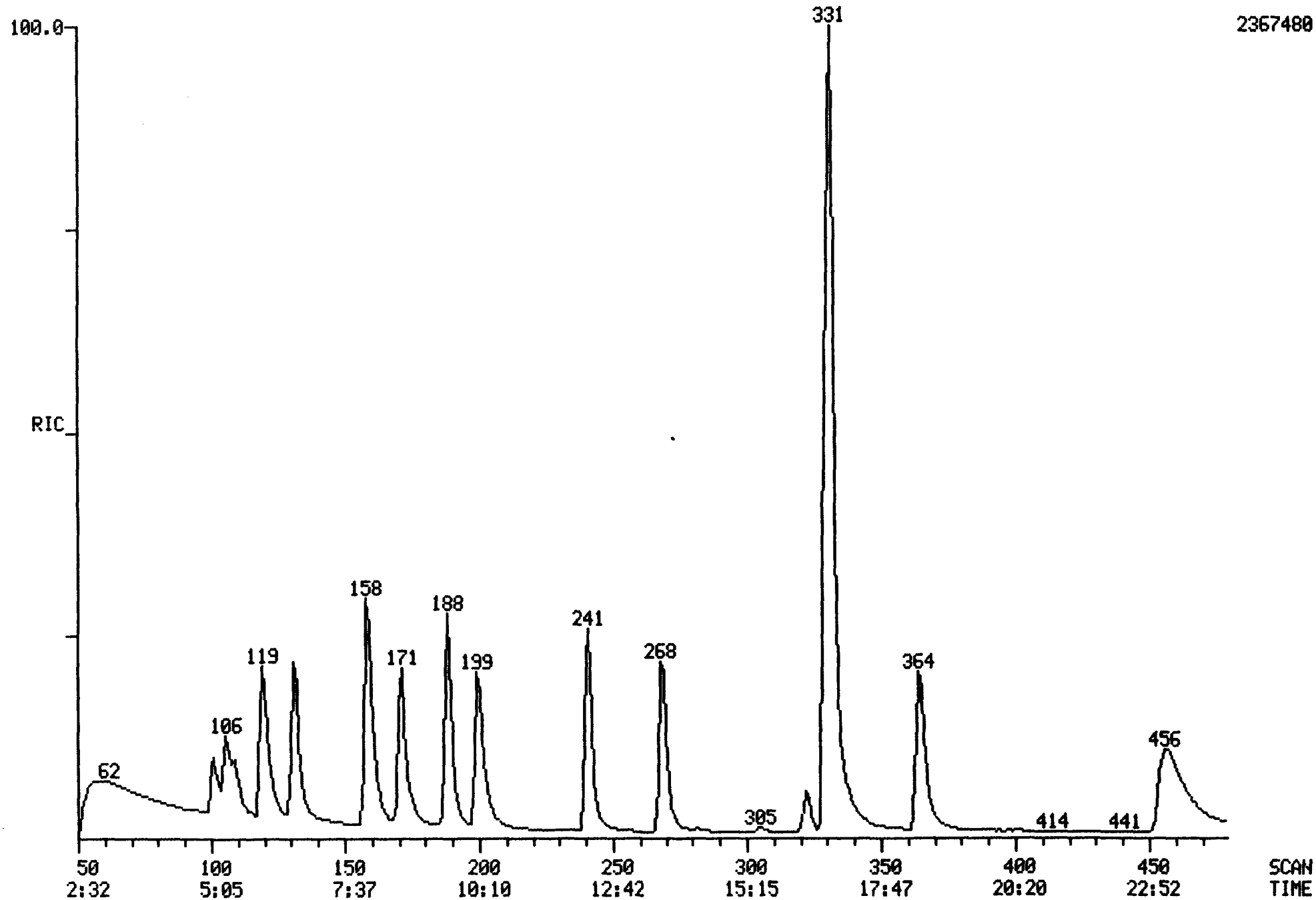
LIBRARY SEARCH
01/14/82 13:41:00 + 12:46
SAMPLE: 2 UL 11415 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011415A05 # 251
BASE M/E: 128
RIC: 233471.



RIC
01/14/82 10:25:00
SAMPLE: 2 UL ACID STANDARD ON DWA#5

DATA: HA820114A05 SCANS 50 TO 479



GC/MS PERFORMANCE STANDARD - Decafluorotriphenylphosphine

Date ___/___/___ Run no. _____ Analyst _____

#9:

m/e	Ion Abundance Criteria	SPEC #	SPEC #	SPEC #
51	30-60% of mass 198	57		
68	less than 2% of mass 69	<2		
70	less than 2% of mass 69	<2		
127	40-60% of mass 198	48		
197	less than 1% of mass 198	4		
198	base peak, 100% relative abundance	100		
199	5-9% of mass 198	6		
275	10-30% of mass 198	21		
365	1% of mass 198	1		
441	less than mass 443	<443		
442	greater than 40% of mass 198	740		
443	17-23% of mass 442	17		

TAILING FACTORS

Compound	Tailing Factor
PCP	2.8

MASS LIST

DATA: DH820114A05 # 91

BASE M/E: 198
RIC: 113408.

01/14/82 9:56:00 + 4:38
SAMPLE: 2 UL DFTPP ON OWA#5
#91 TO #92 SUMMED - #85 X1.00

Acid

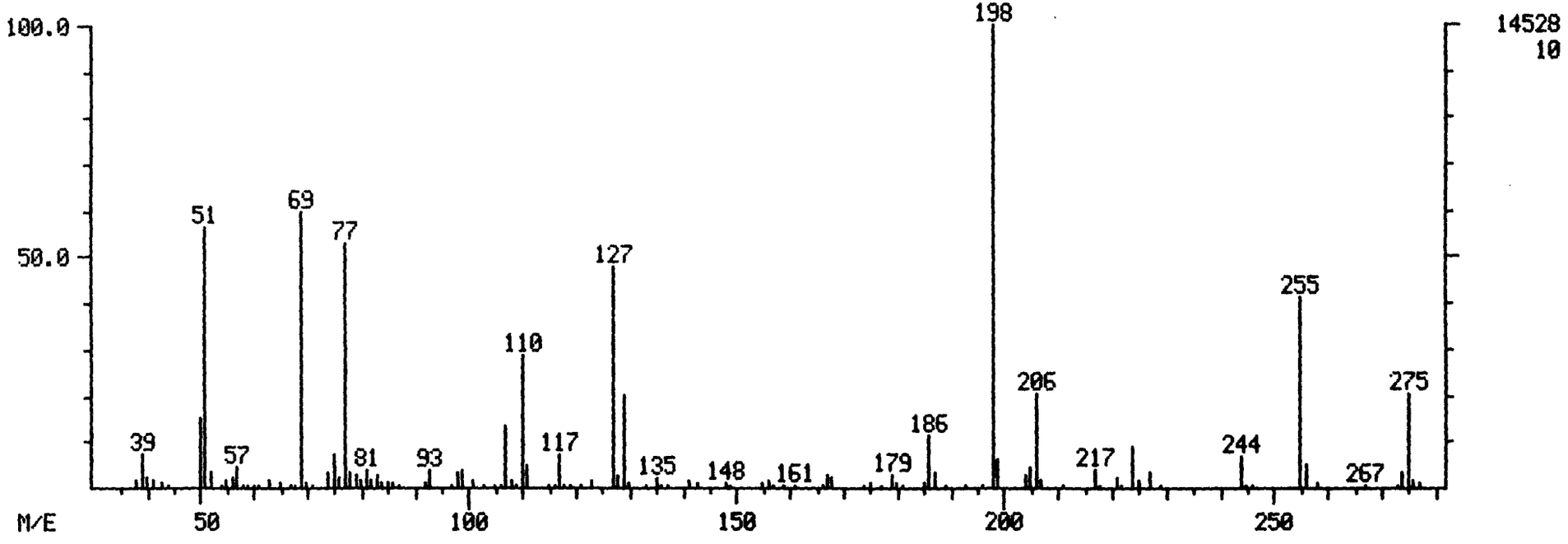
38 0.00 MINIMA MIN INTEN: 0.
444 # 0 MAXIMA

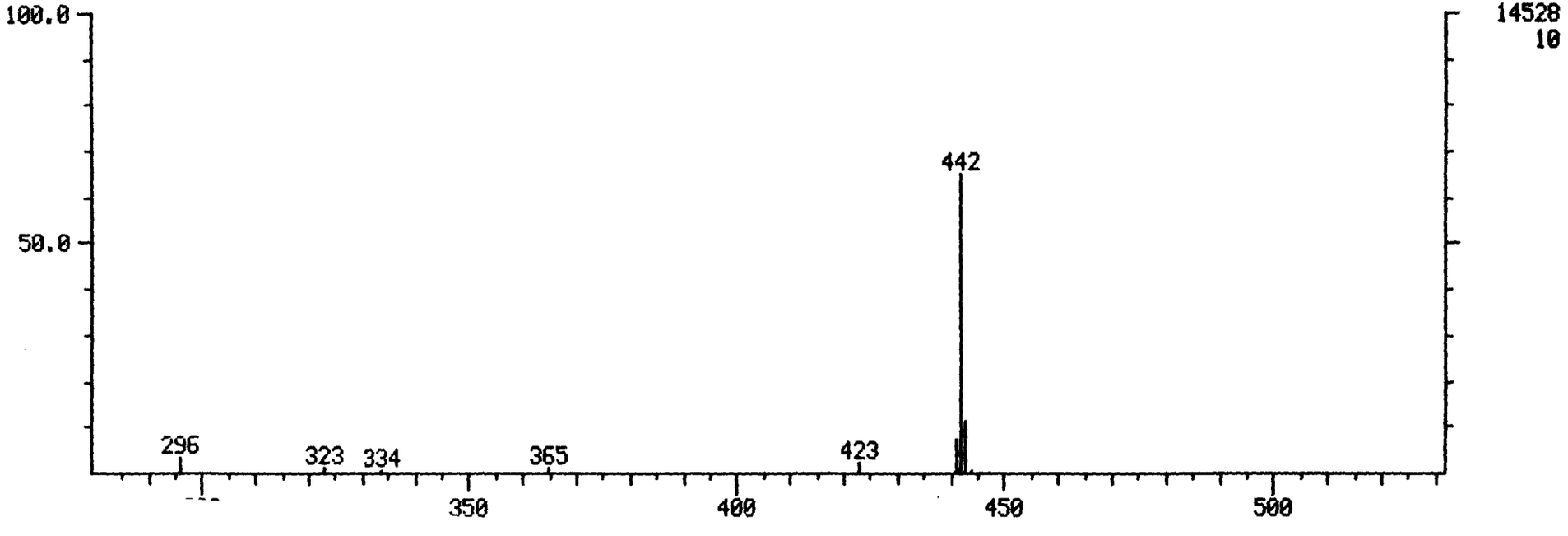
MASS	% RA	MASS	% RA	MASS	% RA
38	1.45	107	13.52	211	0.46
39	7.60	108	1.93	217	4.02
40	2.06	109	0.38	218	0.33
41	1.65	110	28.69	221	2.13
42	0.11	111	5.05	222	0.32
43	0.96	115	0.83	224	9.25
44	0.54	116	0.74	225	1.78
45	0.28	117	7.48	227	3.39
49	0.25	118	0.39	229	0.34
50	15.14	119	0.49	244	6.84
51	56.50	121	0.68	245	0.34
52	3.61	123	1.62	246	0.59
54	0.34	127	47.91	255	41.30
55	1.63	128	3.07	256	5.27
56	2.04	129	20.59	258	1.24
57	4.41	130	0.95	267	0.43
58	0.32	133	0.41	273	0.34
59	0.77	135	2.38	274	3.31
60	0.47	136	0.37	275	20.57
61	0.83	137	0.33	276	1.71
63	1.93	141	1.75	277	1.16
65	1.03	143	0.95	296	3.25
67	0.81	148	1.10	323	1.21
68	0.67	149	0.78	334	0.41
69	60.13	155	1.31	365	0.98
70	1.17	156	1.85	423	2.46
71	0.77	157	0.41	441	7.53
74	3.55	159	0.34	442	65.20
75	7.52	161	0.75	443	11.04
76	2.04	166	0.50	444	0.45
77	53.08	167	3.07		
78	3.59	168	2.33		
79	2.81	174	0.59		
80	1.72	175	1.40		
81	4.05	177	0.47		
82	1.49	179	2.95		
83	2.74	180	1.09		
84	0.98	181	0.59		
85	1.12	185	1.28		
86	1.18	186	11.21		
87	0.77	187	3.14		
92	1.03	189	0.33		
93	4.07	193	0.52		
97	0.61	196	0.82		
98	3.56	198	100.00		
99	3.83	199	6.08		
101	1.76	204	2.56		
103	0.56	205	4.32		
105	0.83	206	20.18		
106	0.45	207	1.57		

MASS SPECTRUM
01/14/82 9:56:00 + 4:38
SAMPLE: 2 UL DFTPP ON OWA#5
#91 TO #92 SUMMED - #85 X1.00

DATA: DH820114A05 #91

BASE M/E: 198
RIC: 113408.





Mead CompuChem

27-JAN-82 INITIAL CALIBRATION DATA REPORT Time: 9: 4

Research Triangle Park
Instrument: 5
Library: 5
Version: 5
Fraction: Acid

Compounds		Lab ID: HA000040C05 Std ID: 3305 (LOW) Conc	Area	Lab ID: HA000100805 Std ID: 3306 (MED) Conc	Area	Lab ID: HA000200805 Std ID: 3307 (HIGH) Conc	Area
D-8-NAPHTHALENE	(IS)	40.00	203983	40.00	133442	40.00	143229
D-8-NAPHTHALENE	(IS)	40.00	210148	40.00	133442	40.00	143229
D-10-ANTHRACENE	(IS)	40.00	252739	40.00	163425	40.00	157367

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
2-FLUOROPHENOL	20.00	.377	.924	50.00	.397	.933	100.00	.403	.929	.903
D-6-PHENOL	20.00	.437	1.533	50.00	.432	1.524	100.00	.497	1.509	.902
PENTAFLUOROPHENOL	20.00	.310	1.590	50.00	.317	1.590	100.00	.321	1.575	.960
4-FLUOROBIPHENYL	20.00	.836	1.600	50.00	.839	1.600	100.00	.812	1.585	-.889
D-5-NITROBENZENE	20.00	.560	1.000	50.00	.542	1.010	100.00	.530	1.000	-.963
2-CHLOROPHENOL	40.00	.413	1.114	100.00	.431	1.105	200.00	.447	1.104	.983
2-NITROPHENOL	40.00	.226	1.248	100.00	.234	1.248	200.00	.231	1.238	.997
PHENOL	40.00	.479	1.524	100.00	.497	1.524	200.00	.499	1.509	.854
2,4-DIMETHYLPHENOL	40.00	.314	1.810	100.00	.314	1.800	200.00	.236	1.792	-.927
2,4-DICHLOROPHENOL	40.00	.369	1.878	100.00	.372	1.867	200.00	.378	1.858	.994
2,4,6-TRICHLOROPHENOL	40.00	.235	.752	100.00	.228	.752	200.00	.242	.752	.613
P-CHLORO-M-CRESOL	40.00	.222	.849	100.00	.216	.849	200.00	.236	.846	.785
2,4-DINITROPHENOL	200.00	.020	1.075	500.00	.024	1.057	1000.00	.036	1.044	.980
4,6-DINITRO-O-CRESOL	200.00	.069	1.057	500.00	.081	1.050	1000.00	.125	1.044	.983
PENTACHLOROPHENOL	40.00	.141	1.135	100.00	.140	1.135	200.00	.155	1.129	.907
4-NITROPHENOL	100.00	.034	1.519	250.00	.050	1.509	500.00	.047	1.498	.882

Mead CompuChem

27-JAN-82 STANDARD RESPONSE FACTOR CHECK REPORT Time: 9: 5

Research Triangle Park
Instrument: 5
Library: 5
Version: 5
Fraction: Acid

Compounds		STD ID 3307 (HIGH) Area(C)	ID: HA820119C05 Analyst: 616 Area(CK)	RXD **	ID: HA820114A05 Analyst: 616 Area(CK)	RXD **	ID: HA820112B05 Analyst: 615 Area(CK)	RXD **
D-8-NAPHTHALENE	(IS)	143229	107378	28.6	138841	4.6	79097	37.7
D-8-NAPHTHALENE	(IS)	143229	114760	22.1	137571	4.0	79097	37.7
D-10-ANTHRACENE	(IS)	157387	141527	10.6	157909	-.3	112558	33.2
		RF (C)	RF (CK)	RXD **	RF (CK)	RXD **	RF (CK)	RXD **
2-FLUOROPHENOL		.403	.418	3.7	.409	1.4	.412	2.2
D-6-PHENOL		.497	.480	-3.5	.492	-1.0	.525	5.3
PENTAFLUOROPHENOL		.321	.042	-153.7	.290	-10.4	.341	6.0
4-FLUOROBIPHENYL		.812	.131	-144.4	.828	2.0	.898	10.2
D-5-NITROBENZENE		.530	.627	16.8	.639	18.8	.633	17.8
2-CHLOROPHENOL		.447	.443	-.9	.453	1.3	.457	2.2
2-NITROPHENOL		.251	.247	-1.7	.257	2.2	.256	2.1
PHENOL		.499	.470	-6.0	.507	1.6	.542	8.3
2,4-DIMETHYLPHENOL		.236	.345	37.5	.345	37.4	.380	46.8
2,4-DICHLOROPHENOL		.378	.380	.4	.377	-.4	.424	11.4
2,4,6-TRICHLOROPHENOL		.242	.227	-6.4	.239	-1.4	.228	-6.3
P-CHLORO-M-CRESOL		.236	.244	3.3	.262	10.5	.250	5.9
2,4-DINITROPHENOL		.050	.093	49.5	.070	21.8	.079	53.8
4,6-DINITRO-O-CRESOL		.125	.147	15.7	.135	7.2	.137	9.0
PENTACHLOROPHENOL		.155	.211	30.2	.206	28.1	.219	33.8
4-NITROPHENOL		.047	.198	122.4	.193	121.4	.203	124.4

$$** \ RXD = \frac{(CK-C)}{(CK+C) / 2} \times 100$$

27-JAN-82

Mead CompuChem
STANDARDS RELATIVE RETENTION REPORT

Time: 9: 9

Research Triangle Park
Instrument: 5
Library: 3
Version: 5
Fraction: Acid

Compounds		Initial Run ID: HA000200805 STD Conc	RRT	Check Standards ID: HA820119C05 RRT	Diff	ID: HA820114A05 RRT	Diff	ID: HA820112B05 RRT	Diff
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2-FLUOROPHENOL		100.00	.925	.920	.005	.927	-.002	.927	-.003
D-6-PHENOL		100.00	1.509	1.438	.072	1.450	.060	1.455	.055
PENTAFLUOROPHENOL		100.00	1.575	1.545	.031	1.569	.007	1.564	.012
4-FLUOROBIPHENYL		100.00	1.585	1.554	.031	1.569	.016	1.564	.021
D-5-NITROBENZENE		100.00	1.000	.973	.027	.972	.028	.973	.027
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2-CHLOROPHENOL		200.00	1.104	1.089	.014	1.092	.012	1.091	.013
2-NITROPHENOL		200.00	1.236	1.198	.039	1.202	.036	1.200	.036
PHENOL		200.00	1.509	1.438	.072	1.450	.060	1.455	.055
2,4-DIMETHYLPHENOL		200.00	1.792	1.714	.078	1.725	.068	1.727	.065
2,4-DICHLOROPHENOL		200.00	1.858	1.804	.053	1.826	.033	1.827	.031
D-10-ANTHRACENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2,4,6-TRICHLOROPHENOL		200.00	.752	.746	.006	.745	.007	.750	.002
P-CHLORO-M-CRESOL		200.00	.848	.832	.015	.832	.016	.838	.010
2,4-DINITROPHENOL		1000.00	1.044	1.018	.026	1.022	.022	1.022	.022
4,6-DINITRO-O-CRESOL		1000.00	1.044	1.024	.019	1.028	.016	1.028	.016
PENTACHLOROPHENOL		200.00	1.129	1.128	.000	1.130	-.002	1.130	-.001
4-NITROPHENOL		500.00	1.498	1.419	.079	1.416	.082	1.425	.073

MEAD COMPUCHEM
Internal Standard Response Verification Report

Research Triangle Park
Fraction: Acid

12-JAN-82 09:19 - 20-JAN-82 19:27

Instrument# 3
Library# 3
Version# 5

			Int. Std. A			Int. Std. B				Int. Std. C			
			D-8-NAPHTHALENE Conc: 40.0000			D-10-ANTHRACENE Conc: 40.0000				D-12-CHRYSENE Conc: .0000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
AH011459A05	14-JAN-82	616	108	113788.	.3354	322	208551.	1.0000	.5456				
AH011452A05	14-JAN-82	616	108	128043.	.3364	321	125560.	1.0000	1.0038				
AH011415A05	14-JAN-82	616	108	114809.5	.3364	321	152451.	1.0000	.7531				
AH011416A05	14-JAN-82	616	107	122772.	.3323	322	155308.	1.0000	.7905				
AH011417A05	14-JAN-82	616	108	131247.	.3354	322	152116.	1.0000	.8628				
HA820115A05	15-JAN-82	531	109	111856.	.3354	325	142040.	1.0000	.7873				
AH011141A05	15-JAN-82	673	109	109858.	.3364	324	133342.	1.0000	.7184				
AH011142A05	15-JAN-82	615	110	108293.18	.3385	325	144131.	1.0000	.7514				
AH011143A05	15-JAN-82	615	110	101920.	.3385	325	130747.	1.0000	.7795				
AH011144A05	15-JAN-82	615	110	90998.	.3385	325	128923.	1.0000	.7058				
AH011145A05	15-JAN-82	615	110	93568.	.3385	325	131813.	1.0000	.7099				
AH011146A05	15-JAN-82	615	110	103205.	.3385	325	139346.	1.0000	.7406				
AH011147A05	15-JAN-82	615	110	82885.	.3385	325	114002.	1.0000	.7270				
AH011578A05	16-JAN-82	593	110	73677.**16	.3374	326	94312.**16	1.0000	.7812				
HA820116A05	16-JAN-82	593	109	118557.	.3364	324	150423.	1.0000	.7882				
AH011224A05	16-JAN-82	593	109	105917.	.3354	325	126783.	1.0000	.8356				
AH011225A05	16-JAN-82	593	109	89825.	.3364	324	113366.	1.0000	.7923				
AH011226A05	16-JAN-82	593	110	81834.20	.3385	325	107341.20	1.0000	.7624				
AH011227A05	16-JAN-82	593	109	79591.**	.3354	325	105652.21	1.0000	.7533				
AH011228A05	16-JAN-82	593	109	86213.	.3354	325	114133.	1.0000	.7554				
AH011229A05	16-JAN-82	593	108	84753.	.3344	323	105329.	1.0000	.8047				
AH011567A05	16-JAN-82	593	110	94462.	.3385	325	121706.	1.0000	.7761				
AH011568A05	16-JAN-82	593	109	119328.125	.3354	325	139864.25	1.0000	.8532				
AH011570A05	16-JAN-82	593	110	90501.	.3385	325	114884.21	1.0000	.7878				
HA820119C05	20-JAN-82	616	112	107378.	.3425	327	141527.	1.0000	.7587				
AH011060C05	20-JAN-82	616	111	99408.	.3405	326	170744.	1.0000	.5822				
AH011061C05	20-JAN-82	616	110	79612.**	.3374	326	115848.	1.0000	.6872				
AH011062C05	20-JAN-82	616	110	100259.	.3374	326	132916.	1.0000	.7543				
AH011068C05	20-JAN-82	616	110	96939.	.3374	326	133546.	1.0000	.7259				
AH011073A05	20-JAN-82	593	110	67749.**	.3374	326	101718.	1.0000	.6660				
AH011072A05	20-JAN-82	593	110	75347.**	.3374	326	222576.	1.0000	.3385*				
AH011843A05	20-JAN-82	593	111	81168.	.3405	326	107329.	1.0000	.7563				

2-1

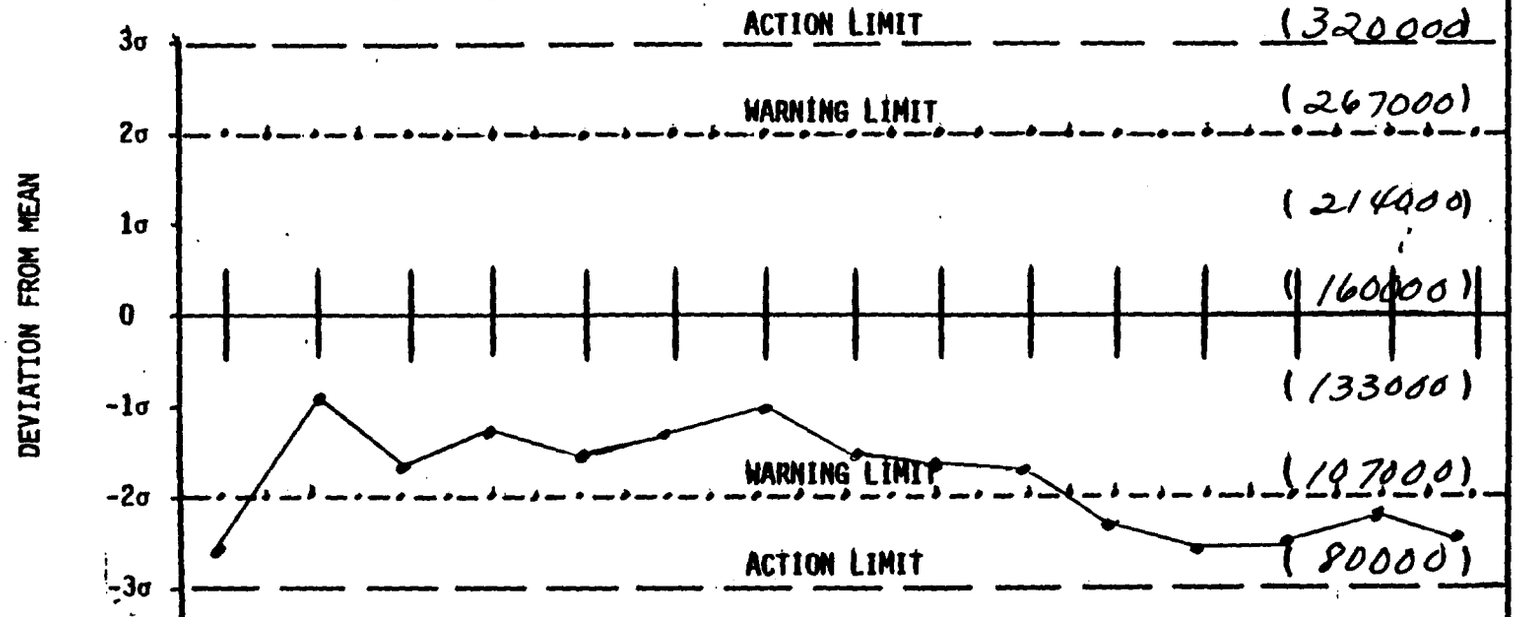
2-2

3-1

PAGE # 2-1

METHOD ACID #5-V

I. STD D8-NAPHTHALENE

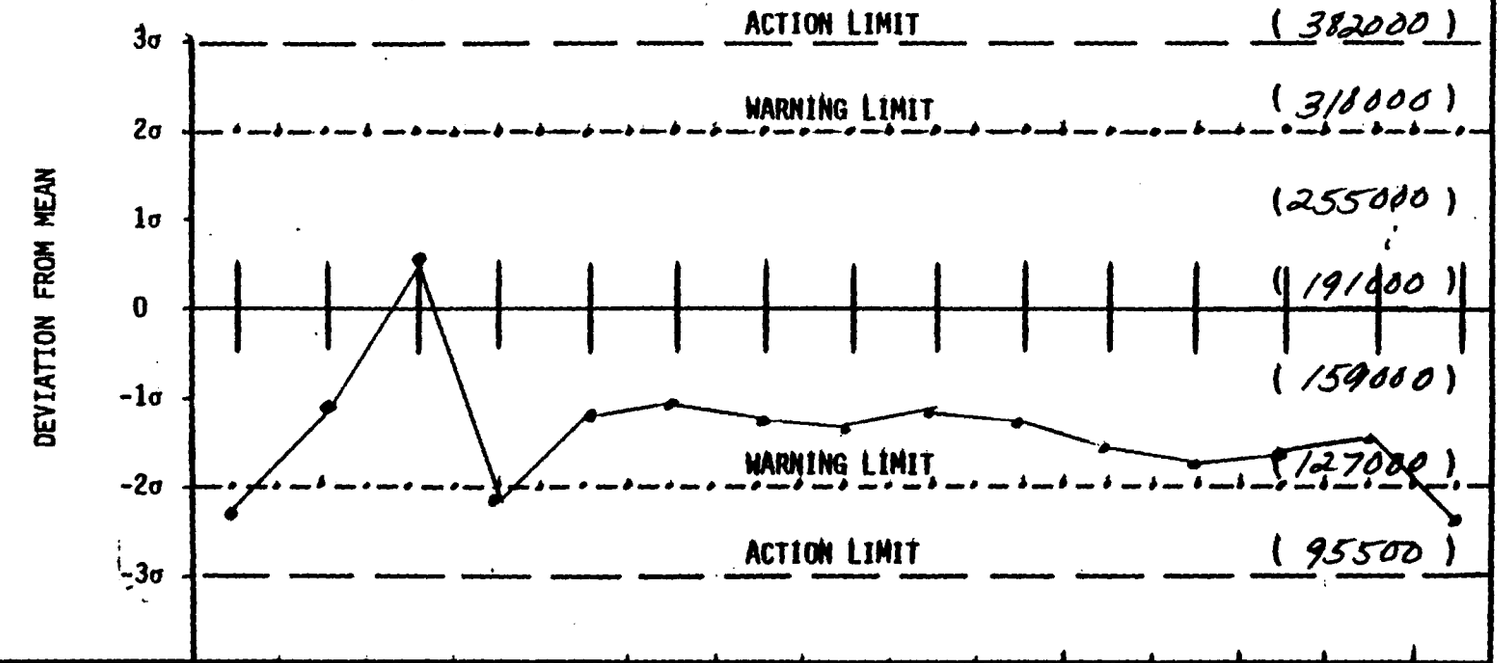


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/13/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82
OPERATOR	616	616	616	616	616	616	616	531	673	615	615	615	615	615	615
PROBLEM AND CORRECTIVE ACTION															

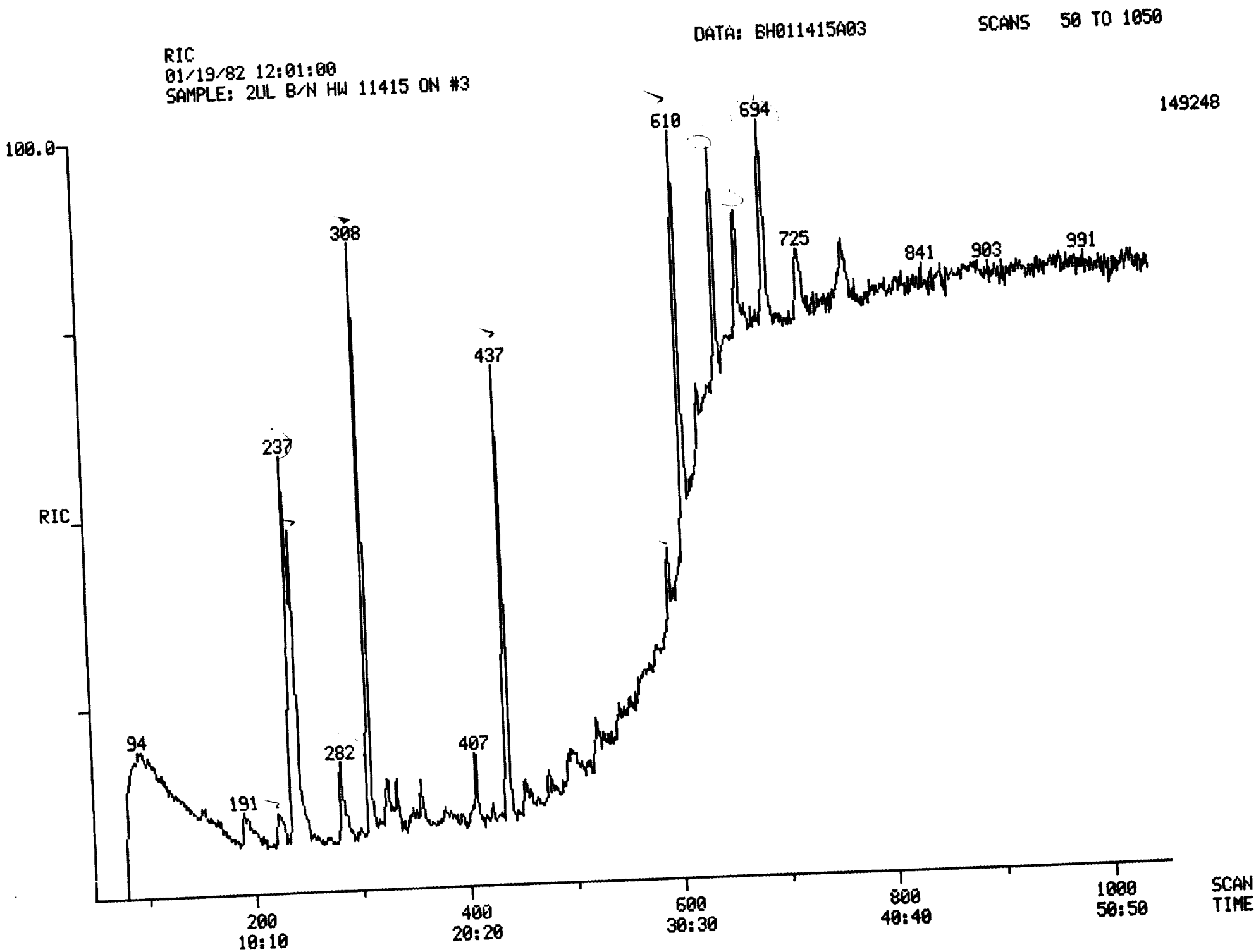
PAGE #2-1

METHOD ACID #5-II

I. STD D10 ANTHRACENE



RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/13/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82
OPERATOR	616	616	616	616	616	616	616	531	673	615	615	615	615	615	615
PROBLEM AND CORRECTIVE ACTION															


DATA: BH011415A03
SCANS 50 TO 1050
RIC
01/19/82 12:01:00
SAMPLE: 2UL B/N HW 11415 ON #3
149248
100.0
RIC
94
191
237
282
308
407
437
610
694
725
841
903
991
200
10:10
400
20:20
600
30:30
800
40:40
1000
50:50
SCAN
TIME

FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: BH011415A03

DATA: BH011415A03.TI
01/19/82 12:01:00
SAMPLE: 2UL B/N HW 11415 ON #3
SUBMITTED BY: #3 ANALYST: SS

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	D-5 NITROBENZENE (SURROGATE STANDARD)
3	2-FLUOROBIPHENYL (SURROGATE STANDARD)
4	D-8 NAPHTHALENE (INTERNAL STANDARD)
5	1,3-DICHLOROBENZENE
6	1,4-DICHLOROBENZENE
7	HEXACHLOROETHANE
8	BIS (2-CHLOROETHYL) ETHER
9	1,2-DICHLOROBENZENE
10	BIS (2-CHLOROISOPROPYL) ETHER
11	N-NITROSO-DI-N-PROPYLAMINE
12	NITROBENZENE
13	HEXACHLOROBUTADIENE
14	1,2,4-TRICHLOROBENZENE
15	NAPHTHALENE
16	BIS (2-CHLOROETHOXY) METHANE
17	ISOPHORONE
18	2-CHLORONAPHTHALENE
19	ACENAPHTHYLENE
20	D-10 ANTHRACENE (INTERNAL STANDARD)
21	ACENAPHTHENE
22	DIMETHYL PHTHALATE
23	2,6-DINITROTOLUENE
24	4-CHLOROPHENYL PHENYL ETHER
25	FLUORENE
26	2,4-DINITROTOLUENE
27	DIETHYL PHTHALATE
28	1,2-DIPHENYLHYDRAZINE
29	N-NITROSODIPHENYL AMINE
30	HEXACHLOROBENZENE
31	4-BROMOPHENYL PHENYL ETHER
32	ANTHRACENE AND/OR PHENANTHRENE
33	DI-N-BUTYL PHTHALATE
34	FLUORANTHENE
35	PYRENE
36	2,4-DINITROTOLUENE (SECONDARY ION)
37	D-12 CHRYSENE (INTERNAL STANDARD)
38	BENZIDINE
39	BUTYL BENZYL PHTHALATE
40	BIS (2-ETHYLHEXYL) PHTHALATE
41	BIS (2-HEXYLETHYL)PHTHALATE (SECONDARY ION)
42	BENZO (A) ANTHRACENE AND/OR CHRYSENE
43	3,3' DICHLOROBENZIDINE
44	DI-OCTYL PHTHALATE
45	BENZO (B AND K) FLUORANTHENES
46	BENZO (A) PYRENE

NO	NAME
47	INDENO (1, 2, 3-CD)PYRENE
48	DI BENZO(A, H) ANTHRACENE
49	BENZO(G, H, I) PERYLENE

D8 23%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	241	12:15	1	1.000	A BB	66471.	40.000	NG/UL	14.70
2	82	223	11:20	1	0.925	A BB	14529.	22.059	NG/UL	8.11
3	172	308	15:39	1	1.278	A BB	96727.	61.346	NG/UL	22.55
4	136	241	12:15	4	1.000	A BB	70155.	40.000	NG/UL	14.70
5	NOT FOUND									
6	146	152	7:44	4	0.631	A BB	3261.	3.582	NG/UL	1.32
7	NOT FOUND									
8	NOT FOUND									
9	146	167	8:29	4	0.693	A BB	2652.	3.569	NG/UL	1.31
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	93	249	12:39	4	1.033	A BB	158.	0.210	NG/UL	0.08
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	188	437	22:13	20	1.000	A BB	101528.	40.000	NG/UL	14.70
21	NOT FOUND									
22	163	356	18:06	20	0.815	A BB	3682.	1.760	NG/UL	0.65
23	165	356	18:06	20	0.815	A BB	602.	1.782	NG/UL	0.66
24	NOT FOUND									
25	166	380	19:19	20	0.870	A BB	380.	0.211	NG/UL	0.08
26	165	379	19:16	20	0.867	A VB	1575.	3.925	NG/UL	1.44

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
27	149	387	19:40	20	0.886	A BB	227.	0.093 NG/UL	0.03
28	77	386	19:37	20	0.883	A BB	418.	0.185 NG/UL	0.07
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	178	438	22:16	20	1.002	A BB	1528.	0.606 NG/UL	0.22
33	149	477	24:15	20	1.092	A BB	1445.	0.353 NG/UL	0.13
34	202	515	26:11	20	1.178	A BB	1029.	0.379 NG/UL	0.14
35	202	531	27:00	20	1.215	A BB	1200.	0.417 NG/UL	0.15
36	NOT FOUND								
37	240	610	31:00	37	1.000	A BB	77397.	40.000 NG/UL	14.70
38	NOT FOUND								
39	149	579	29:26	37	0.949	A VB	2106.	1.204 NG/UL	0.44
40	149	594	30:12	37	0.974	A BB	11770.	4.608 NG/UL	1.69
41	167	594	30:12	37	0.974	A BV	4247.	4.999 NG/UL	1.84
42	NOT FOUND								
43	NOT FOUND								
44	149	633	32:11	37	1.038	A BB	2618.	0.649 NG/UL	0.24
45	NOT FOUND								
46	NOT FOUND								
47	276	889	45:11	37	1.457	A BB	175.	0.107 NG/UL	0.04
48	NOT FOUND								
49	NOT FOUND								

yes

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 23 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUA

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUA

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	241	241	998	296	1	1	1	0
2	218	224	993	216	2	1	1	0
3	308	308	998	413	3	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 26 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUC

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUC

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
4	241	241	998	296	1	1	1	0
6	146	152	903	66	3	1	1	0
9	162	166	969	46	6	1	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
10	177	176	826	8	7	2	0	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
11	227	232	782	15	8	2	0	0
16	245	249	870	9	13	1	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
17	271	277	669	10	14	4	0	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 14 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
20	436	437	995	413	1	1	1	0
22	355	356	850	45	3	1	1	0
23	362	356	885	28	4	1	1	0
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
24	375	376	795	12	5	1	0	0
						**		
25	376	382	929	21	6	2	1	0
						**		
26	382	380	912	20	7	2	1	0
						**		
27	387	393	889	12	8	2	1	0
						**		
28	387	386	930	40	9	4	1	0
						**		
32	438	438	879	6	13	2	1	0
						**		
33	476	471	852	6	14	2	1	0
34	514	515	868	12	15	1	1	0

35	529	531	923	17	16	2	1	0
						**		

COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA

36	382	380	924	21	17	2	0	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 0 PERCENT OF THE LAST STANDARD

INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUV

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUV

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
37	609	610	995	211	1	1	1	0
39	579	580	882	54	3	1	1	0
						**		
40	593	594	996	91	4	2	1	0
						**		
41	593	594	996	91	5	2	1	0
						**		

COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT

42	607	608	995	8	6	3	0	0
						**		

COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT

43	627	624	794	7	7	2	0	0
44	631	633	996	14	8	1	1	0
47	886	889	750	1	11	1	1	0

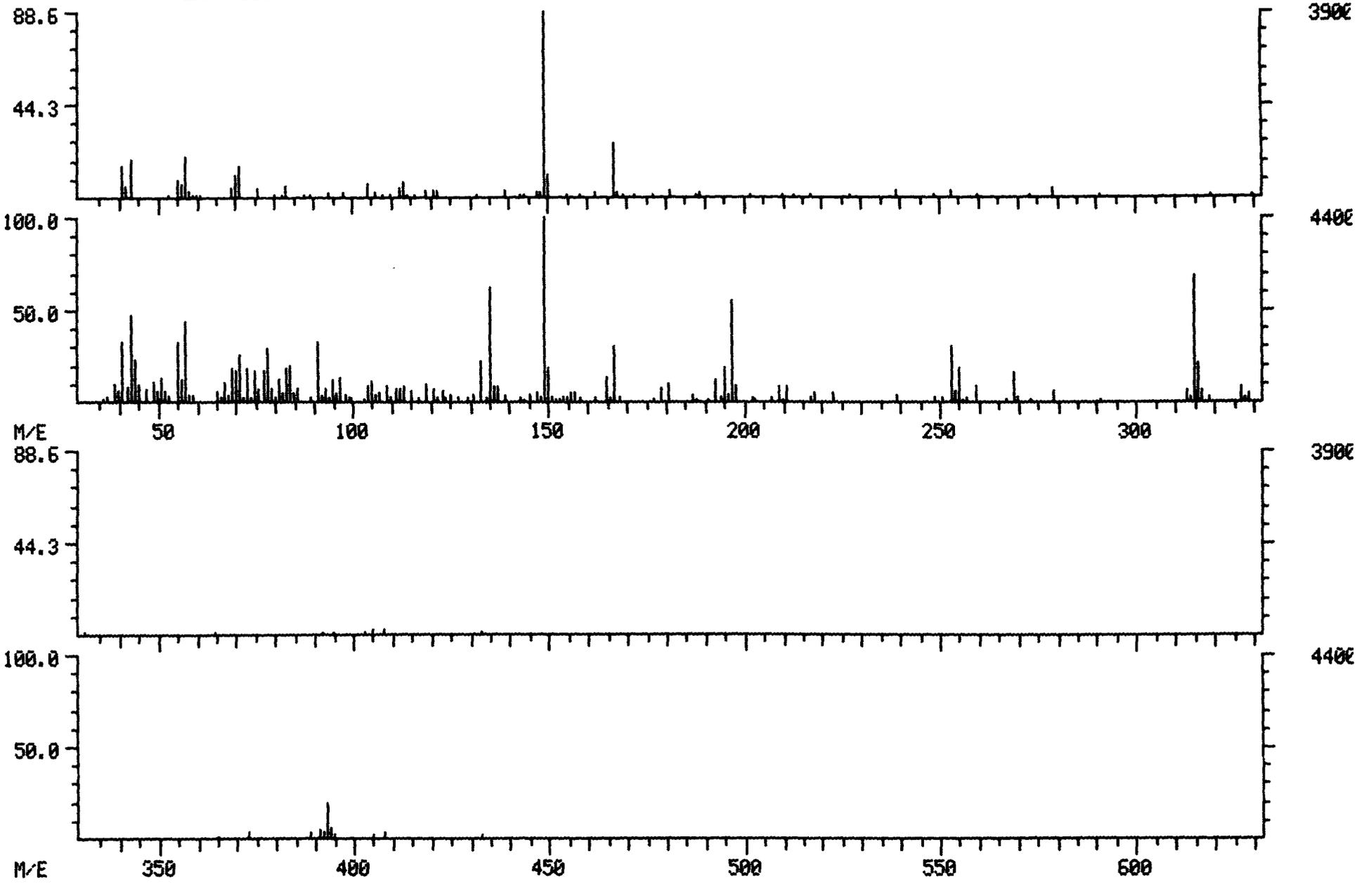
NUMBER OF COMPOUNDS IDENTIFIED 31

DATA PROCESSING OF BH011415A03 COMPLETED ON 1/19/82 12:58:01

117-81-6413

DUAL MASS SPECTRUM
01/19/82 12:01:00 + 30:12
SAMPLE: 2UL B/N HW 11415 ON #3
ENHANCED (5 15B 2N)

DATA: BH011415A03 #594 BASE M/E: 149/ 149
RIC: 15647./ 65471.

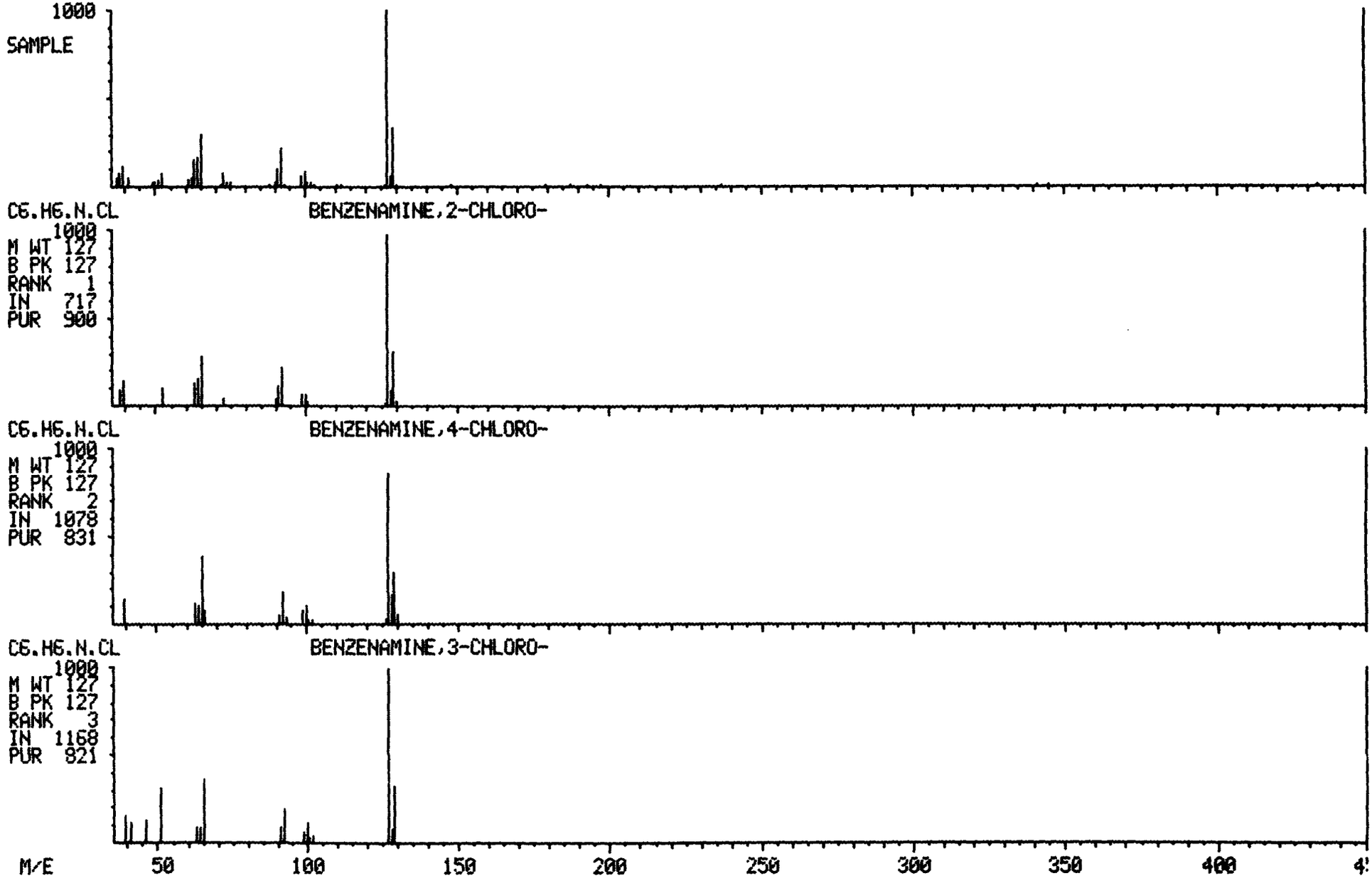


1

LIBRARY SEARCH
01/19/82 12:01:00 + 12:03
SAMPLE: 2UL B/N HW 11415 ON #3
ENHANCED (S 15B 2N 0T)

DATA: BH011415A03 # 237

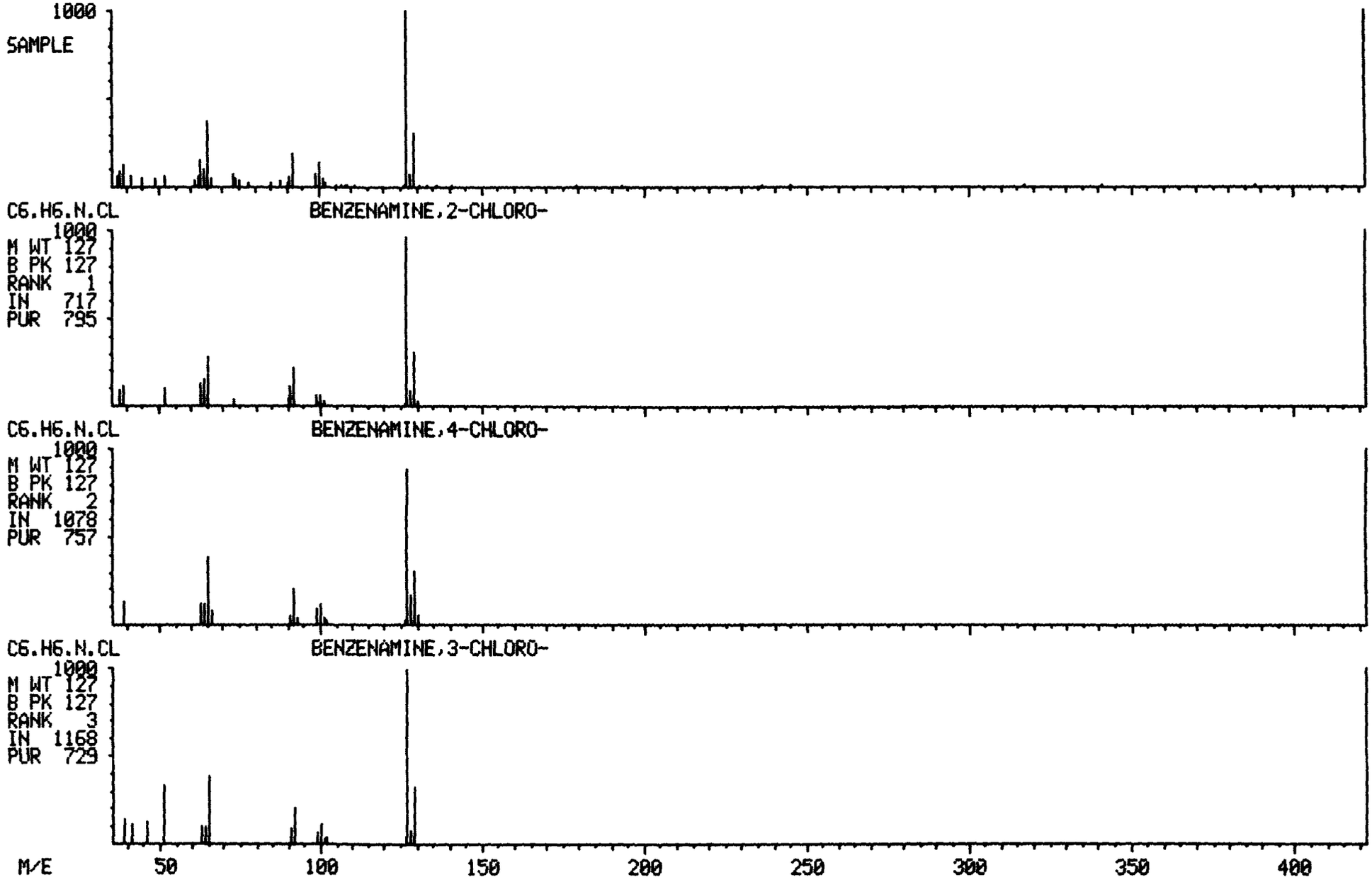
BASE M/E: 127
RIC: 61439.



(2)

LIBRARY SEARCH
01/19/82 12:01:00 + 14:20
SAMPLE: 2UL B/N HW 11415 ON #3
ENHANCED (S 15B 2N 0T)

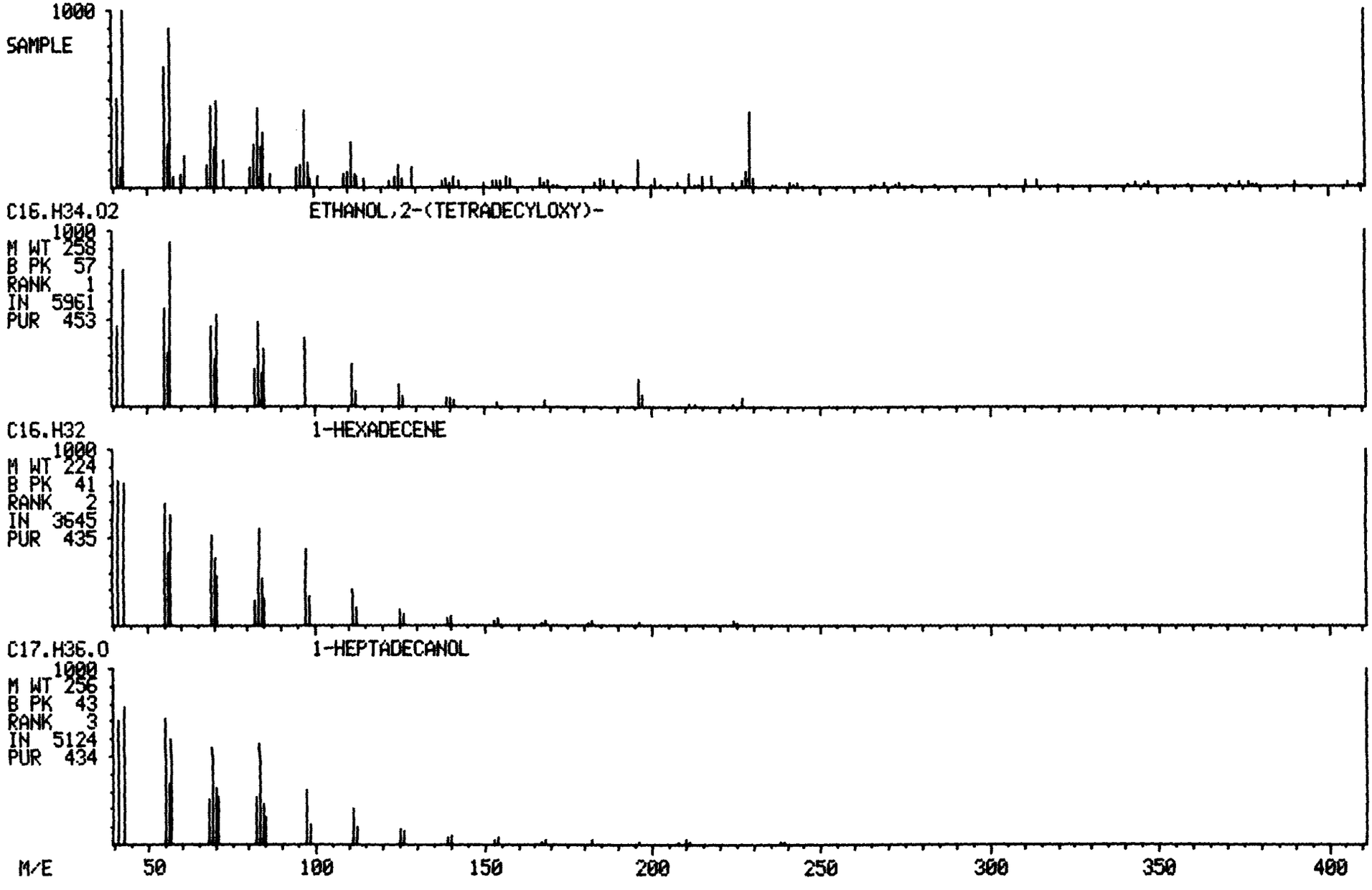
DATA: BH011415A03 # 282
BASE M/E: 127
RIC: 13423.



(3)

LIBRARY SEARCH
01/19/82 12:01:00 + 32:50
SAMPLE: 2UL B/N HW 11415 ON #3
ENHANCED (S 15B 2N 0T)

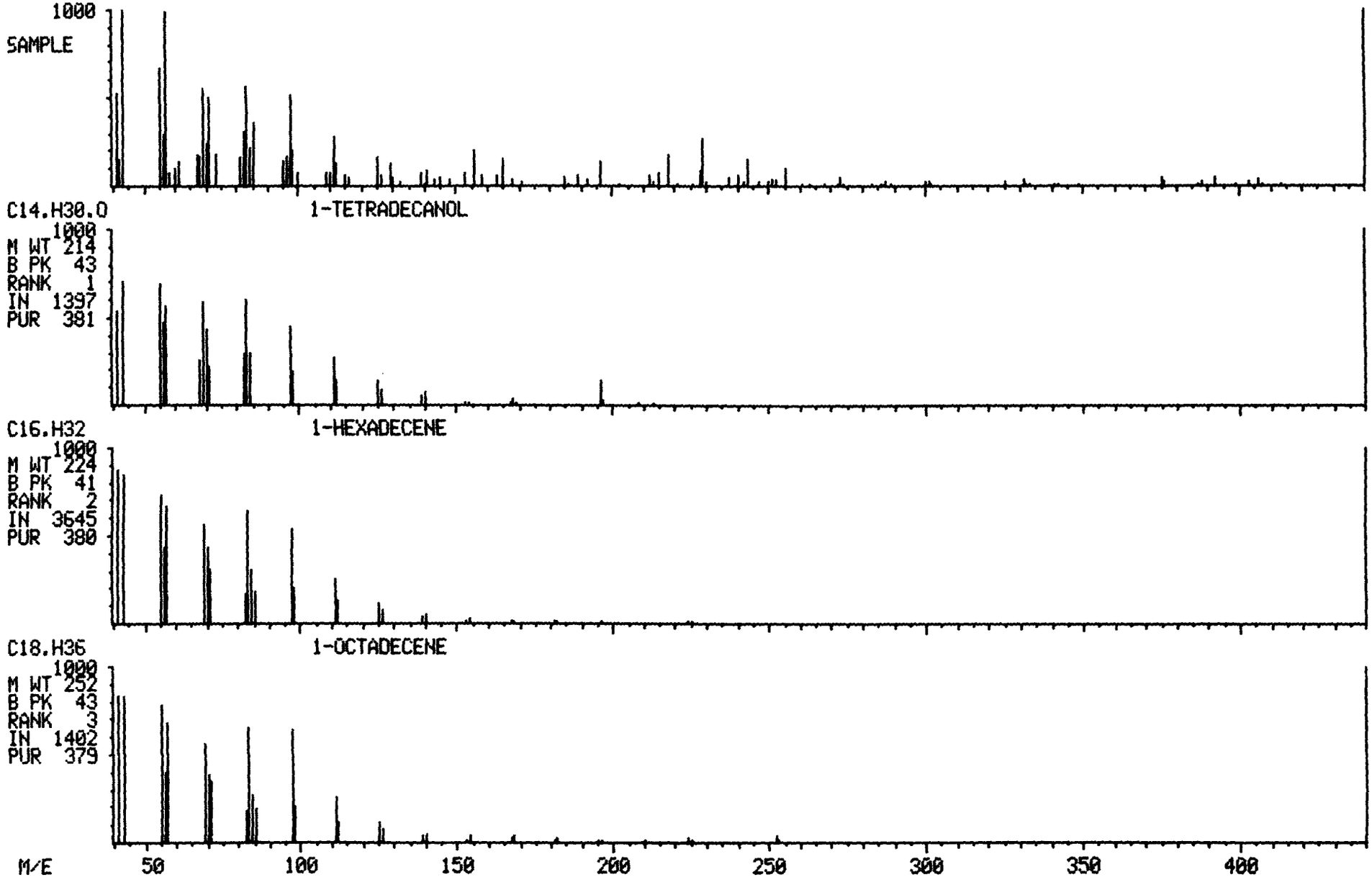
DATA: BH011415A03 # 646
BASE M/E: 43
RIC: 39295.



(4)

LIBRARY SEARCH
01/19/82 12:01:00 + 33:57
SAMPLE: 2UL B/N HW 11415 ON #3
ENHANCED (S 15B 2N 0T)

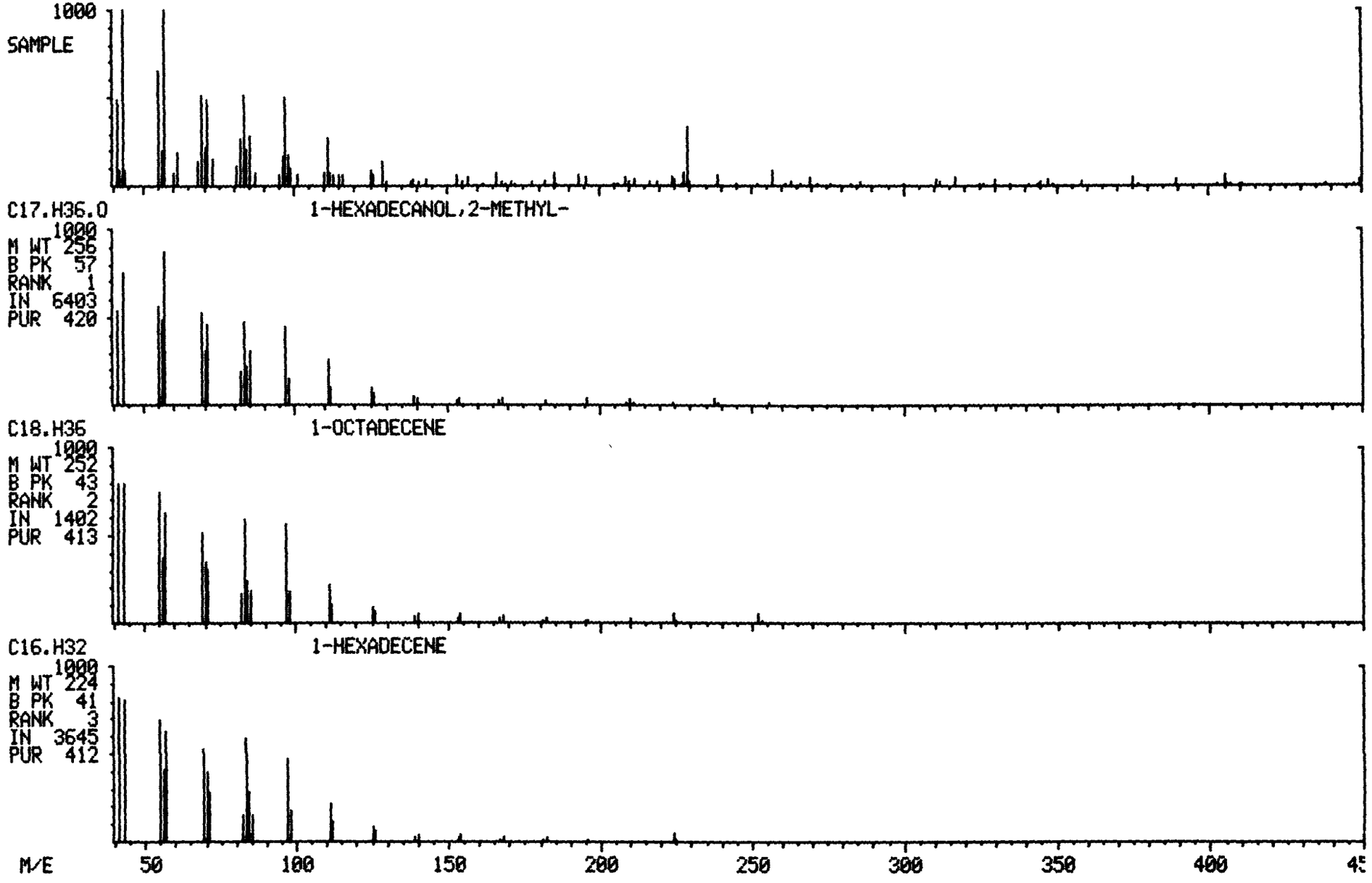
DATA: BH011415A03 # 668
BASE M/E: 43
RIC: 23455.



5

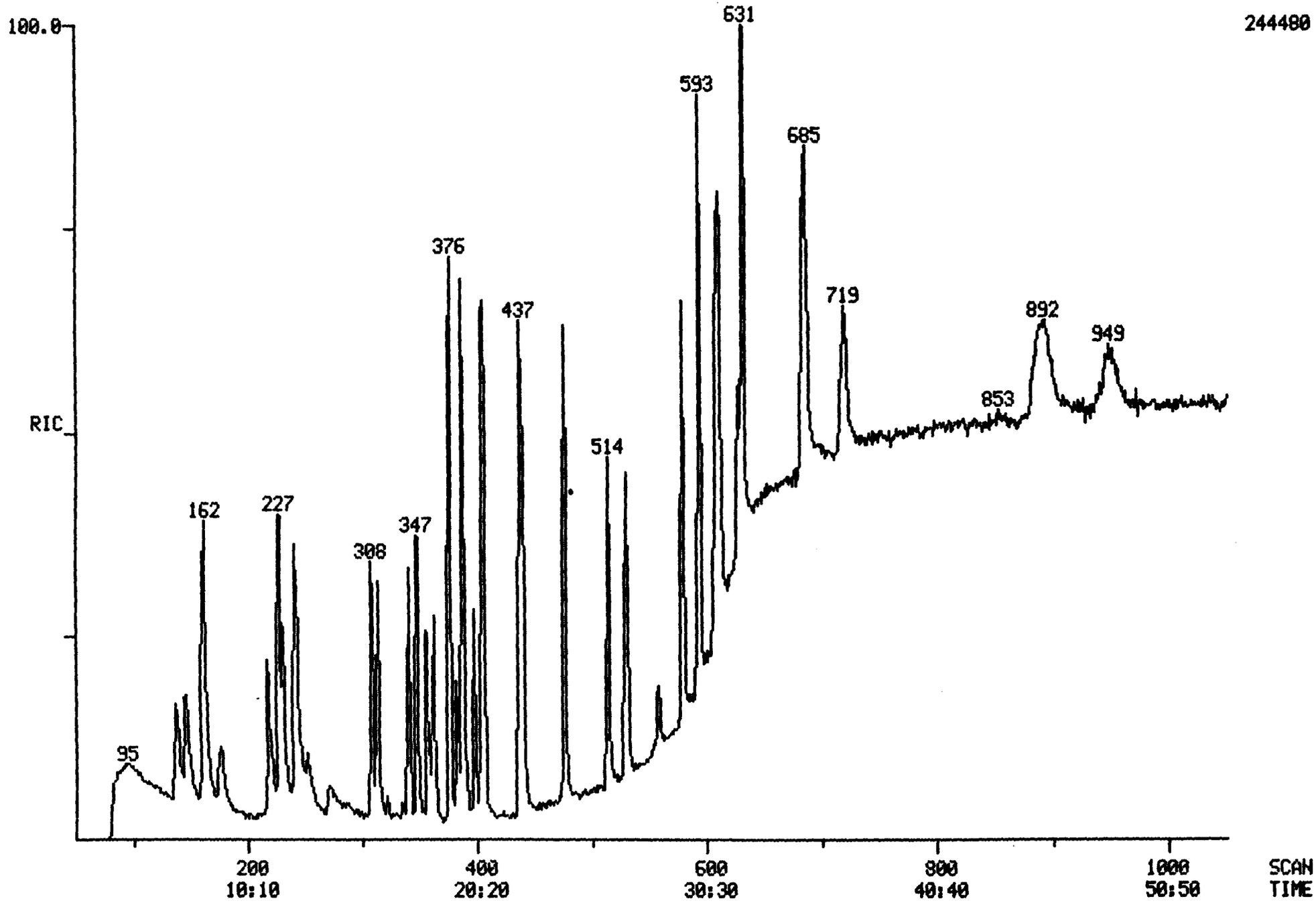
LIBRARY SEARCH
01/19/82 12:01:00 + 35:17
SAMPLE: 2UL B/N HW 11415 ON #3
ENHANCED (S 15B 2N 0T)

DATA: BH011415A03 # 694
BASE M/E: 43
RIC: 37951.



RIC
01/19/82 10:21:00
SAMPLE: 2UL B/N HW STANDARD #3531 50NG/UL EXP.1/24/82 ON #3

DATA: HB820119A03 SCANS 50 TO 1050



GC/MS PERFORMANCE STANDARD - Decafluorotriphenylphosphine

Date 01/19/82 Run no. DH82019A03 Analyst SRS

m/e	Ion Abundance Criteria	SPEC #	SPEC #	SPEC #
51	30-60% of mass 198	31		
68	Less than 2% of mass 69	<2% 69		
70	Less than 2% of mass 69	<2% 69		
127	40-60% of mass 198	44		
197	Less than 1% of mass 198	<1% 198		
198	base peak, 100% relative abundance	100		
199	5-9% of mass 198	6		
275	10-30% of mass 198	17		
365	1% of mass 198	2		
441	Less than mass 443	<443		
442	greater than 40% of mass 198	45		
443	17-23% of mass 442	22% 442		

TAILING FACTORS

Compound	Tailing Factor
benzidene	1.5

MASS LIST DATA: DH820119A03 # 69 BASE M/E: 198
RIC: 40960.

01/19/82 10:03:00 + 3:30
SAMPLE: 2UL DFTPP/BENZIDENE #3540 EXP. 1/25/82 ON #3
#69 TO #70 SUMMED - #82 X1.00

BN

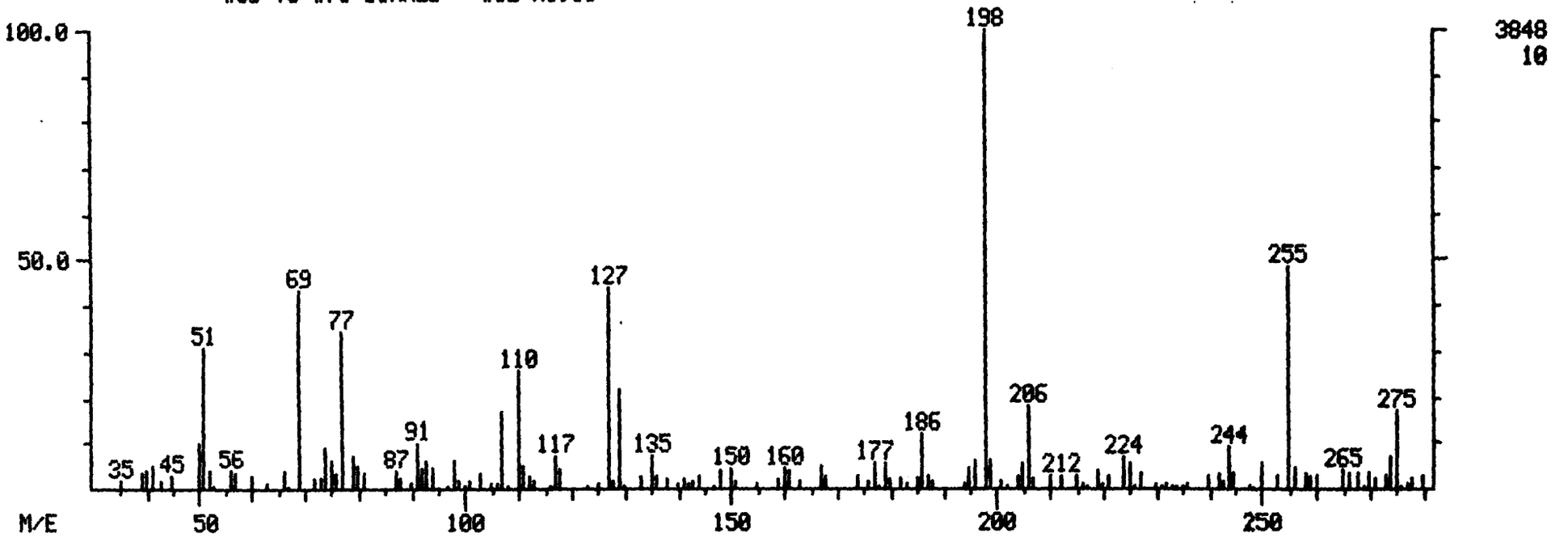
35 0.00 MINIMA MIN INTEN: 30.
449 # 0 MAXIMA

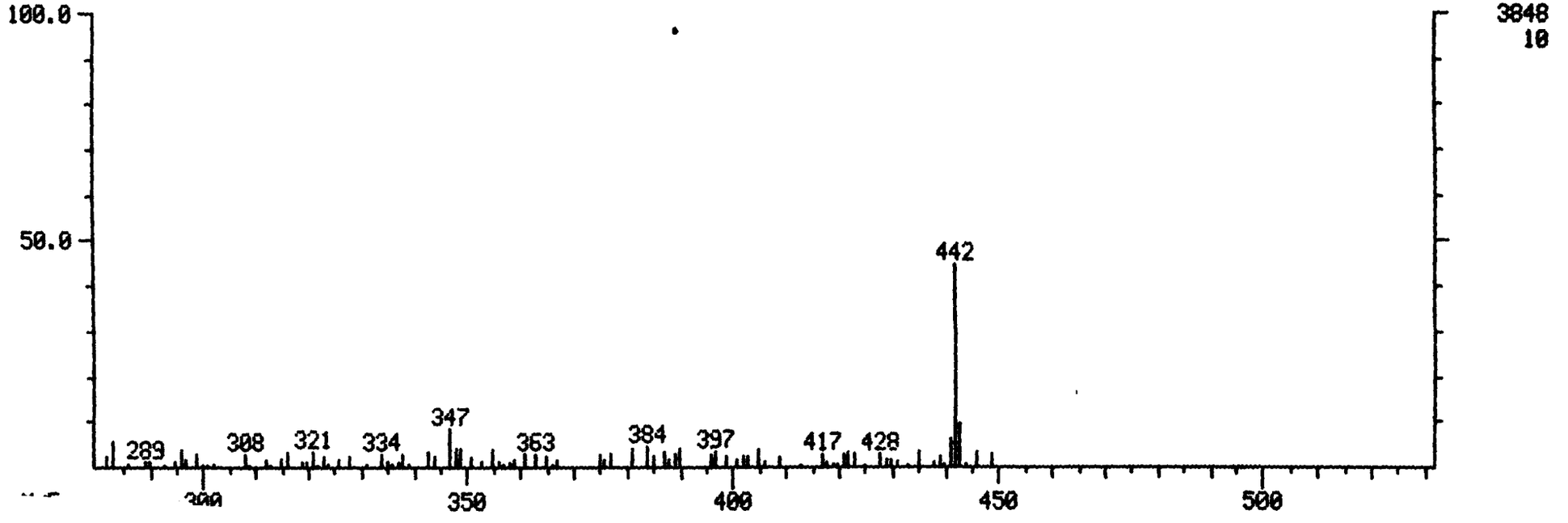
MASS	% RA	MASS	% RA	MASS	% RA	MASS	% RA
35	1.87	135	7.54	232	1.25	347	8.68
39	3.53	136	2.55	236	0.96	348	4.21
40	3.82	138	2.39	240	2.88	349	4.21
41	5.15	140	1.22	242	3.25	351	2.36
43	1.92	141	2.10	243	1.64	353	1.30
45	3.04	142	1.20	244	8.86	355	4.21
50	10.24	143	1.69	245	3.59	356	0.94
51	30.82	144	2.78	248	0.78	358	1.40
52	3.85	148	3.98	250	5.48	359	1.82
56	4.05	150	4.55	253	2.75	361	2.62
57	3.61	151	1.77	255	48.70	363	3.09
60	2.65	155	1.09	256	4.52	365	2.29
63	1.01	159	2.13	258	3.25	367	1.77
66	3.69	160	4.29	259	2.68	375	2.65
67	0.78	161	3.74	260	2.83	376	1.72
69	43.24	163	1.82	265	3.85	377	2.99
72	2.29	167	5.33	266	3.48	381	4.11
73	2.42	168	2.70	268	3.59	384	4.63
74	9.07	174	2.78	270	3.22	385	2.10
75	6.31	176	1.90	271	2.08	387	3.33
76	3.56	177	5.51	273	2.60	388	1.43
77	34.72	179	5.51	274	6.76	389	2.99
79	7.33	180	2.05	275	16.81	390	4.24
80	4.99	182	2.29	277	1.35	396	2.75
81	3.17	183	1.33	278	2.18	397	3.20
87	3.82	185	2.49	280	2.75	399	2.03
88	2.42	186	11.59	282	2.39	401	1.69
90	1.04	187	2.96	283	5.38	402	2.26
91	10.03	188	1.95	289	1.14	403	2.21
92	4.55	194	0.88	290	0.88	405	4.08
93	6.42	195	4.55	295	1.09	406	0.94
94	4.37	196	6.37	296	4.08	409	2.49
98	6.21	198	100.00	297	1.95	413	0.78
99	1.98	199	6.13	299	2.60	417	2.96
101	1.90	201	1.87	308	2.57	418	0.86
103	3.53	204	2.62	312	1.64	421	2.81
105	1.38	205	5.64	315	1.77	422	3.56
106	1.40	206	17.98	316	3.43	423	2.68
107	16.92	207	2.10	319	1.04	428	2.75
110	25.88	210	2.60	320	1.35	429	1.53
111	5.35	212	2.60	321	3.43	430	1.56
112	2.99	215	2.57	323	2.00	431	1.33
113	1.98	216	0.86	326	1.90	435	3.64
117	7.61	219	4.08	328	2.18	438	1.04
118	4.52	220	1.04	334	2.96	439	2.13
125	1.09	221	2.88	335	0.86	441	6.50
127	44.02	224	6.91	337	0.99	442	44.85
128	1.98	225	5.61	338	2.96	443	9.75
129	22.06	227	3.17	343	3.53	446	3.27
133	2.78	230	1.17	344	2.42	449	3.04

MASS SPECTRUM
01/19/82 10:03:00 + 3:30
SAMPLE: 2UL DFTPP/BENZIDENE #3540 EXP.1/25/82 ON #3
#69 TO #70 SUMMED - #82 X1.00

DATA: DH820119A03 #69

BASE M/E: 198
RIC: 40960.





1145

27-JAN-82

Mead CompuChem
INITIAL CALIBRATION DATA REPORT

Time: 21: 0

Research Triangle Park
Instrument: 3
Library: 4
Version: 12
Fraction: Base/Neutral

Compounds		Lab ID: HB000020803 Std ID: 2311 (LOW) Conc	Area	Lab ID: HB820118803 Std ID: 2312 (MED) Conc	Area	Lab ID: HB000100803 Std ID: 2313 (HIGH) Conc	Area
D-8-NAPHTHALENE	(IS)	40.00	75324	40.00	89117	40.00	89122
D-8-NAPHTHALENE	(IS)	40.00	75324	40.00	89117	40.00	89122
D-10-ANTHRACENE	(IS)	40.00	101579	40.00	117086	40.00	113630
D-12-CHRYSENE	(IS)	40.00	80508	40.00	101568	40.00	93964

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
D-5-NITROBENZENE	20.00	.370	.925	50.00	.387	.905	100.00	.437	.896	.990
2-FLUOROPHENOL	20.00	.918	1.275	50.00	.925	1.274	100.00	.905	1.275	.775
1,3-DICHLOROBENZENE	20.00	.375	.600	50.00	.399	.589	100.00	.442	.581	1.000
1,4-DICHLOROBENZENE	20.00	.508	.629	50.00	.526	.618	100.00	.581	.625	.989
HEXACHLOROETHANE	20.00	.226	.683	50.00	.281	.680	100.00	.315	.683	.960
BIS (2-CHLOROETHYL) ETHER	20.00	.255	.738	50.00	.282	.697	100.00	.380	.675	.985
1,2-DICHLOROBENZENE	20.00	.402	.688	50.00	.406	.680	100.00	.434	.679	.952
BIS (2-CHLOROISOPROPYL) ETHER	20.00	.582	.746	50.00	.513	.739	100.00	.583	.738	.152
N-NITROSODI-N-PROPYLAMINE	20.00	.047	1.004	50.00	.046	.959	100.00	.018	.929	-.939
NITROBENZENE	20.00	.321	.929	50.00	.397	.909	100.00	.444	.904	.961
HEXACHLOROBUTADIENE	20.00	.383	.946	50.00	.407	.942	100.00	.402	.946	.655
1,2,4-TRICHLOROBENZENE	20.00	.391	.963	50.00	.399	.959	100.00	.410	.963	1.000
NAPHTHALENE	20.00	1.147	1.008	50.00	1.150	1.004	100.00	1.148	1.008	.135
BIS (2-CHLOROETHOXY) METHANE	20.00	.425	1.025	50.00	.426	1.012	100.00	.480	1.004	.933
ISOPHORONE	20.00	.600	1.175	50.00	.512	1.124	100.00	.434	1.096	-.984
2-CHLORONAPHTHALENE	20.00	.786	1.296	50.00	.803	1.295	100.00	.785	1.296	-.226
ACENAPHTHYLENE	20.00	1.287	1.408	50.00	1.158	1.407	100.00	1.153	1.408	-.802
ACENAPHTHENE	20.00	.600	.792	50.00	.581	.792	100.00	.579	.790	-.821
DIMETHYL PHTHALATE	20.00	.833	.819	50.00	.828	.812	100.00	.824	.808	-.962
2,6-DINITROTOLUENE	20.00	.133	.828	50.00	.156	.826	100.00	.172	.826	.968
4-CHLOROPHENYL PHENYL ETHER	20.00	.373	.858	50.00	.369	.858	100.00	.361	.858	.994
FLUORENE	20.00	.750	.860	50.00	.688	.860	100.00	.669	.858	-.902
2,4-DINITROTOLUENE	20.00	.159	.876	50.00	.183	.876	100.00	.231	.874	.999
DIETHYL PHTHALATE	20.00	.973	.892	50.00	.959	.888	100.00	.968	.886	-.226
1,2-DIPHENYLHYDRAZINE	20.00	.932	.886	50.00	.917	.886	100.00	.965	.886	.772
N-NITROSODIMETHYLAMINE	20.00	.425	.913	50.00	.409	.911	100.00	.412	.911	-.651
HEXACHLOROBENZENE	20.00	.422	.927	50.00	.405	.927	100.00	.399	.925	.921
4-BROMOPHENYL PHENYL ETHER	20.00	.239	.931	50.00	.240	.929	100.00	.241	.929	.947
ANTHRACENE	40.00	.991	1.009	100.00	.981	1.005	200.00	.952	1.007	-.991
PHENANTHRENE	40.00	.991	1.009	100.00	.981	1.005	200.00	.952	1.007	-.991
DI-N-BUTYL PHTHALATE	20.00	1.544	1.094	50.00	1.701	1.092	100.00	1.692	1.089	.754
FLUORANTHENE	20.00	1.034	1.178	50.00	1.084	1.178	100.00	1.069	1.176	.576
PYRENE	20.00	1.095	1.215	50.00	1.130	1.215	100.00	1.110	1.212	.280
BENZIDINE	20.00	.324	.915	50.00	.174	.915	100.00	.171	.915	-.794
BUTYL BENZYL PHTHALATE	20.00	.919	.949	50.00	.859	.949	100.00	.866	.949	-.708
BIS (2-ETHYLHEXYL) PHTHALATE	20.00	1.351	.972	50.00	1.263	.972	100.00	1.295	.974	-.510
BIS (2-ETHYLHEXYL) PHTHALATE	20.00	.451	.972	50.00	.424	.972	100.00	.428	.974	-.703
BENZO (A) ANTHRACENE/CHRYSENE	40.00	1.206	1.002	100.00	1.108	1.002	200.00	1.090	.997	-.864
CHRYSENE/BENZO (A) ANTHRACENE	40.00	1.206	1.002	100.00	1.108	1.002	200.00	1.090	.997	-.864
3,3'-DICHLOROBENZIDINE	20.00	.355	1.029	50.00	.350	1.029	100.00	.337	1.029	-.996
DI-N-OCTYL PHTHALATE	20.00	2.287	1.036	50.00	2.248	1.036	100.00	2.194	1.036	-.999
3,4-BENZOFLUORANTHENE	20.00	1.087	1.121	50.00	1.111	1.121	100.00	1.075	1.121	-.474
BENZO (K) FLUORANTHENE	20.00	1.087	1.121	50.00	1.111	1.121	100.00	1.075	1.121	-.474
BENZO (A) PYRENE	20.00	.980	1.180	50.00	.979	1.180	100.00	1.005	1.180	.925
INDENO (1,2,3-CD) PYRENE	20.00	.973	1.458	50.00	.972	1.458	100.00	.995	1.460	.920

DIBENZO (A,H) ANTHRACENE	20.0U	.777	1.470	50.00	.815	1.470	100.00	.793	1.470	.274
BENZO (GHI) PERYLENE	20.0U	.848	1.560	50.00	.862	1.558	100.00	.826	1.560	-.714

27-JAN-82

Mead CompuChem
STANDARD RESPONSE FACTOR CHECK REPORT

Time: 19:24

Research Triangle Park
Instrument: 3
Library: 4
Version: 12
Fraction: Base/Neutral

STD ID: 2512 (MEO)
ID: M8820119A03
Analyst: 593

Compounds		Area(C)	Area(CK)	RXD **
D-8-NAPHTHALENE	(IS)	89117	53914	49.2
D-8-NAPHTHALENE	(IS)	89117	55309	46.8
D-10-ANTHRACENE	(IS)	117086	88317	28.0
D-12-CHRYSENE	(IS)	101568	76931	27.6

	RF (C)	RF (CK)	RXD **
D-5-NITROBENZENE	.387	.457	16.5
2-FLUOROPHENOL	.923	1.027	10.6
1,3-DICHLOROBENZENE	.399	.465	15.3
1,4-DICHLOROBENZENE	.526	.573	8.5
HEXACHLOROETHANE	.281	.298	5.9
BIS (2-CHLOROETHYL) ETHER	.282	.338	18.0
1,2-DICHLOROBENZENE	.406	.490	18.7
BIS (2-CHLOROISOPROPYL) ETHER	.513	.533	3.9
N-NITROSODI-N-PROPYLAMINE	.048	.029	-44.3
NITROBENZENE	.397	.461	15.0
HEXACHLOROBUTADIENE	.407	.446	9.2
1,2,4-TRICHLOROBENZENE	.399	.430	7.8
NAPHTHALENE	1.150	1.258	8.9
BIS (2-CHLOROETHOXY) METHANE	.428	.486	13.3
ISOPHORONE	.512	.494	-3.5
2-CHLORONAPHTHALENE	.803	.742	-7.8
ACENAPHTHYLENE	1.158	1.281	10.1
ACENAPHTHENE	.581	.533	-8.5
DIMETHYL PHTHALATE	.828	.810	-2.2
2,6-DINITROTOLUENE	.156	.149	-4.8
4-CHLOROPHENYL PHENYL ETHER	.369	.309	-17.8
FLUORENE	.688	.634	-8.1
2,4-DINITROTOLUENE	.183	.192	4.6
DIETHYL PHTHALATE	.959	.951	-.9
1,2-DIPHENYLHYDRAZINE	.917	.873	-5.0
N-NITROSODIMETHYLAMINE	.409	.379	-7.6
HEXACHLOROBENZENE	.405	.377	-7.1
4-BROMOPHENYL PHENYL ETHER	.240	.242	.6
ANTHRACENE	.981	.960	-2.1
PHENANTHRENE	.981	.960	-2.1
DI-N-BUTYL PHTHALATE	1.701	1.720	1.1
FLUORANTHENE	1.084	1.103	1.8
PYRENE	1.130	1.161	2.7
BENZIDINE	.174	.295	51.9
BUTYL BENZYL PHTHALATE	.859	.898	4.5
BIS (2-ETHYLHEXYL) PHTHALATE	1.263	1.347	6.4
BIS (2-ETHYLHEXYL) PHTHALATE	.424	.430	1.5
BENZO (A) ANTHRACENE/CHRYSENE	1.108	.549	-67.4
CHRYSENE/BENZO (A) ANTHRACENE	1.108	.549	-67.4
3,3'-DICHLOROBENZIDINE	.350	.293	-17.5
DI-N-OCTYL PHTHALATE	2.248	1.915	-16.0
3,4-BENZOFLUORANTHENE	1.111	2.120	62.5
BENZO (K) FLUORANTHENE	1.111	2.120	62.5
BENZO (A) PYRENE	.979	.936	-4.5
INDENO (1,2,3-CD) PYRENE	.972	.903	-7.3

DIBENZO (A,H) ANTHRACENE	.815	.782	-4.2
BENZO (GHI) PERYLENE	.862	.827	-4.1

$$** \quad RXD = \frac{(CK-C)}{(CK+C)\ /\ 2} \times 100$$

Time: 19:41

Mead CompuChem

STANDARDS RELATIVE RETENTION REPORT

27-JAN-82

Research Triangle Park
Instrument: 3
Library: 4
Version: 12
Fraction: Base/Neutral

Compounds		Initial Run ID: HB820118B03 STD Conc	Initial Run RRT	Check Standards ID: HB820119A03 RRT	Diff
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000
D-5-NITROBENZENE		50.00	.905	.905	.000
2-FLUOROPHENOL		50.00	1.274	1.278	-.004
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000
1,3-DICHLOROBENZENE		50.00	.589	.573	.017
1,4-DICHLOROBENZENE		50.00	.618	.606	.012
HEXACHLOROETHANE		50.00	.680	.668	.012
BIS (2-CHLOROETHYL) ETHER		50.00	.697	.672	.025
1,2-DICHLOROBENZENE		50.00	.680	.672	.008
BIS (2-CHLOROISOPROPYL) ETHER		50.00	.739	.734	.004
N-NITROSODI-N-PROPYLAMINE		50.00	.959	.942	.017
NITROBENZENE		50.00	.909	.909	.000
HEXACHLOROBUTADIENE		50.00	.942	.942	.000
1,2,4-TRICHLOROBENZENE		50.00	.959	.959	.000
NAPHTHALENE		50.00	1.004	1.004	.000
BIS (2-CHLOROETHOXY) METHANE		50.00	1.012	1.017	-.004
ISOPHORONE		50.00	1.124	1.124	.000
2-CHLORONAPHTHALENE		50.00	1.295	1.299	-.004
ACENAPHTHYLENE		50.00	1.407	1.411	-.004
D-10-ANTHRACENE	(IS)	40.00	1.000	1.000	.000
ACENAPHTHENE		50.00	.792	.796	-.004
DIMETHYL PHTHALATE		50.00	.812	.814	-.002
2,6-DINITROTOLUENE		50.00	.826	.830	-.004
4-CHLOROPHENYL PHENYL ETHER		50.00	.858	.860	-.002
FLUORENE		50.00	.860	.862	-.002
2,4-DINITROTOLUENE		50.00	.876	.876	.000
DIETHYL PHTHALATE		50.00	.888	.888	.000
1,2-DIPHENYLHYDRAZINE		50.00	.886	.888	-.002
N-NITROSODIMETHYLAMINE		50.00	.911	.911	.000
HEXACHLOROBENZENE		50.00	.927	.927	.000
4-BROMOPHENYL PHENYL ETHER		50.00	.929	.929	.000
ANTHRACENE		100.00	1.005	1.005	-.000
PHENANTHRENE		100.00	1.005	1.005	-.000
DI-N-BUTYL PHTHALATE		50.00	1.092	1.092	-.000
FLUORANTHENE		50.00	1.178	1.179	-.000
PYRENE		50.00	1.215	1.213	.002
D-12-CHRYSENE	(IS)	40.00	1.000	1.000	.000
BENZIDINE		50.00	.915	.916	-.001
BUTYL BENZYL PHTHALATE		50.00	.949	.951	-.001
BIS (2-ETHYLHEXYL) PHTHALATE		50.00	.972	.974	-.002
BIS (2-ETHYLHEXYL) PHTHALATE		50.00	.972	.974	-.002
BENZO (A) ANTHRACENE/CHRYSENE		100.00	1.002	.997	.005
CHRYSENE/BENZO (A) ANTHRACENE		100.00	1.002	.997	.005
3,3'-DICHLOROBENZIDINE		50.00	1.029	1.030	-.000
DI-N-OCTYL PHTHALATE		50.00	1.036	1.036	-.000
3,4-BENZOFLUORANTHENE		50.00	1.121	1.123	-.002
BENZO (K) FLUORANTHENE		50.00	1.121	1.123	-.002
BENZO (A) PYRENE		50.00	1.180	1.181	-.001
INDENO (1,2,3-CD) PYRENE		50.00	1.458	1.455	.003
DIBENZO (A,H) ANTHRACENE		50.00	1.470	1.466	.003
BENZO (GHI) PERYLENE		50.00	1.558	1.557	.001

27-JAN-82 21:03

Research Triangle Park

Fraction: Base/Neutral

Instrument# 3

Library# 4

Version# 12

HEAD COMPUCHEM

Internal Standard Response Verification Report

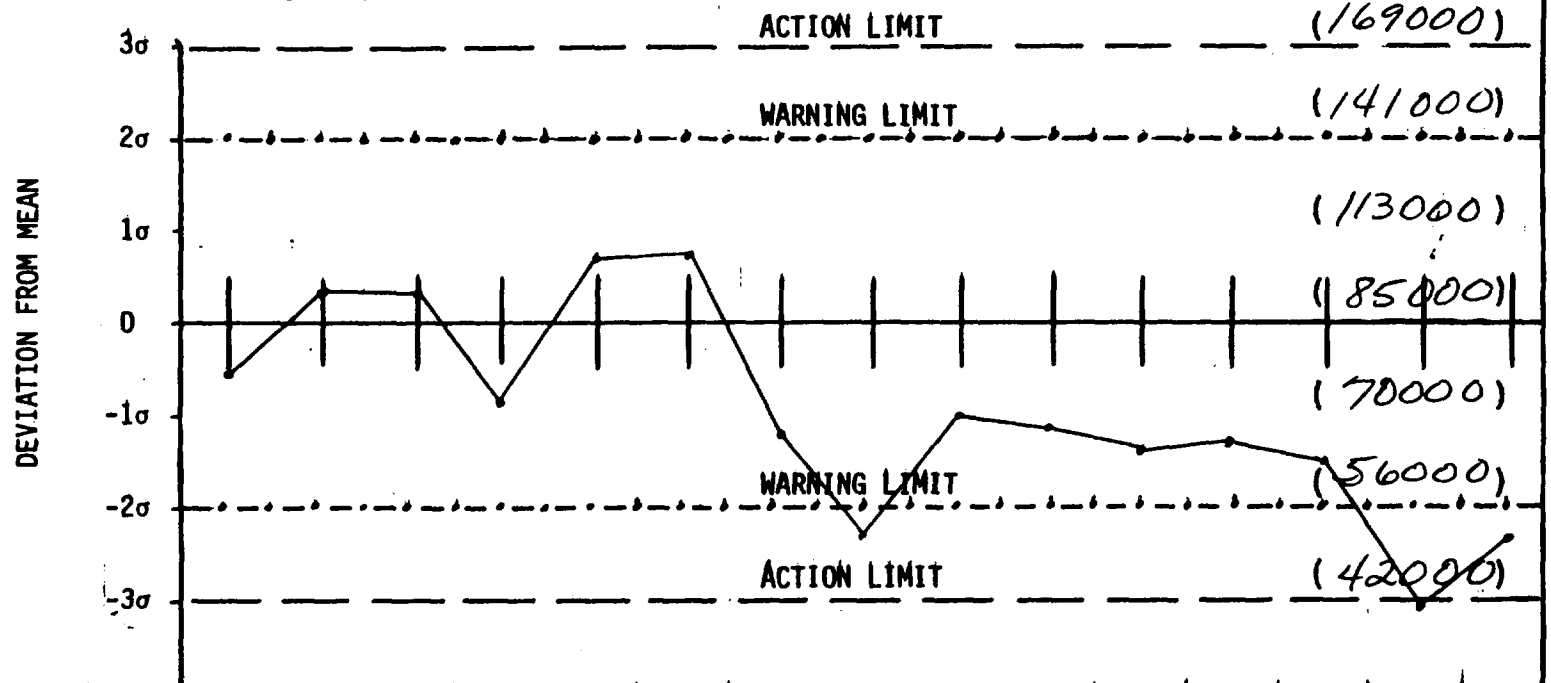
19-JAN-82 00:00 - 20-JAN-82 23:59

			Int. Std. A D-8-NAPHTHALENE Conc: 40.0000			Int. Std. B D-10-ANTHRACENE Conc: 40.0000				Int. Std. C D-12-CHRYSENE Conc: 40.0000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
HB000020B03	18-JAN-82	615	240	75324.	.3928	437	101579.	.7152	.7415	611	80506.	1.0000	1.2617
HB820118B03	18-JAN-82	615	241	89117.	.3944	437	117086.	.7152	.7611	611	101568.	1.0000	1.1528
HB000100B03	18-JAN-82	615	240	89128.	.3928	438	115630.	.7169	.7708	611	93944.	1.0000	1.2308
HB820118C03	19-JAN-82	616	240	72852.	.3934	437	102857.	.7164	.7083	610	73470.	1.0000	1.4000
BH011330C03	19-JAN-82	616	239	100502.	.3918	437	144506.	.7164	.6955	610	111437.	1.0000	1.2968
BH011428C03	19-JAN-82	616	240	102273.	.3928	438	130939.	.7169	.7811	611	91159.	1.0000	1.4364
BH011457A03	19-JAN-82	593	238	88936.	.3914	435	150220.	.7155	.4589	608	79531.	1.0000	1.8888
HB820119A03	19-JAN-82	593	241	83914.	.3957	436	88317.	.7159	.8105	609	74931.	1.0000	1.1480
BH011415A03	19-JAN-82	593	241	70155.	.3951	437	101528.	.7164	.6910	610	77397.	1.0000	1.3118
BH011416A03	19-JAN-82	593	242	69525.	.3967	437	94784.	.7164	.7335	610	75324.	1.0000	1.2584
BH011452A03	19-JAN-82	593	242	65739.	.3967	437	92680.	.7164	.7093	610	77086.	1.0000	1.2023
BH011146B03	19-JAN-82	615	242	65828.	.3967	437	83914.	.7164	.7845	610	74179.	1.0000	1.1312
BH011145B03	19-JAN-82	615	242	64890.	.3967	437	98094.	.7164	.6599	610	82408.	1.0000	1.1904
HB820119C03	20-JAN-82	616	240	41931.**	.3947	435	67297.	.7155	.6231	608	51516.	1.0000	1.3063
BH011229C03	20-JAN-82	616	239	54037.	.3931	435	75958.	.7155	.7114	608	56544.	1.0000	1.3433
BH011568C03	20-JAN-82	616	242	129428.	.3941	438	121760.	.7169	1.0630*	611	74750.	1.0000	1.6287
BH011579C03	20-JAN-82	616	241	48931.	.3951	437	69075.	.7164	.7087	610	54081.	1.0000	1.2773

PAGE # 1-1

METHOD BASE NEUTRAL #3-XII

I. STD D8-NAPHTHALENE

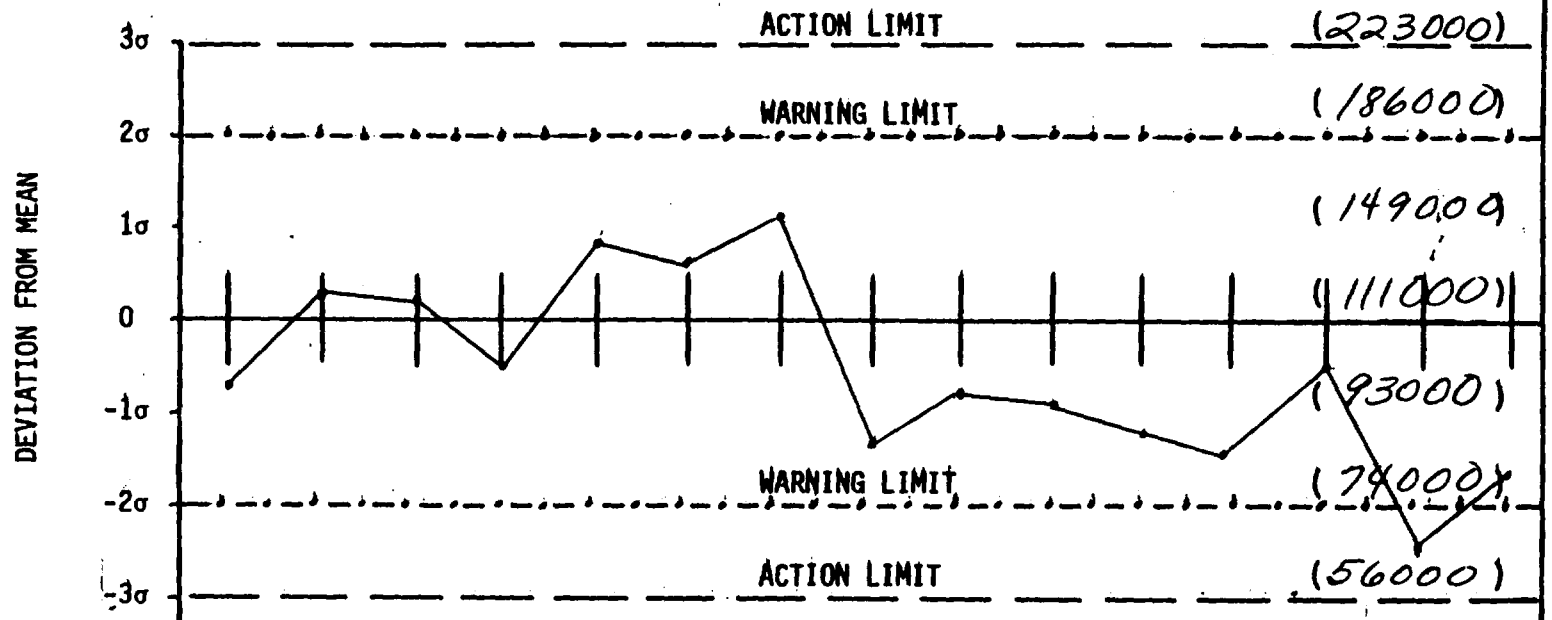


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/18/82	1/18/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/20/82	1/20/82
OPERATOR	615	615	615	616	616	616	593	593	593	593	593	615	615	616	616
PROBLEM AND CORRECTIVE ACTION															

PAGE # 1-1

METHOD BASE NEUTRAL # 3-XII

I. STD D10 ANTHRACENE

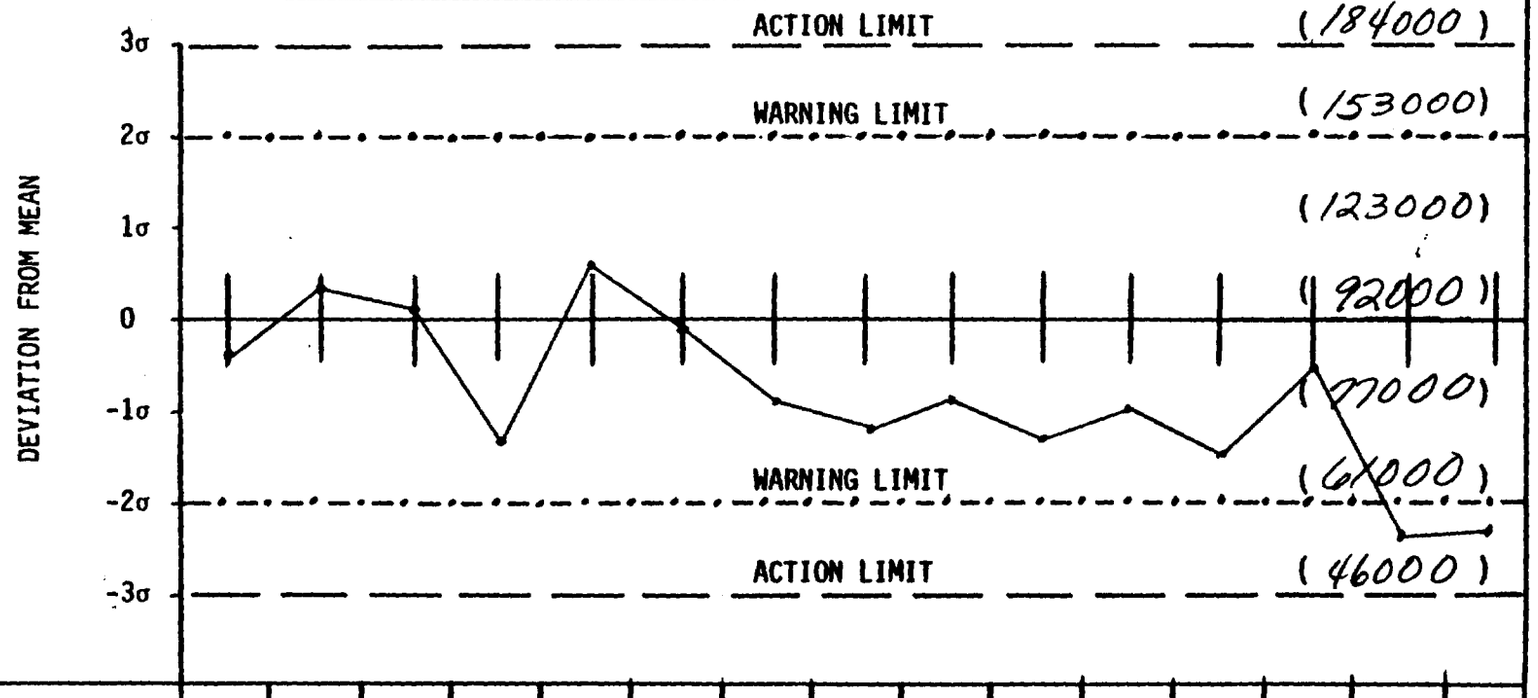


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/18/82	1/18/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/20/82	1/20/82
OPERATOR	615	615	615	616	616	616	593	593	593	593	593	615	615	616	616
PROBLEM AND CORRECTIVE ACTION															

PAGE # 1-1

METHOD BASE NEUTRAL #3-XII

I. STD D12 CHRYSENE



RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/18/82	1/18/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/20/82	1/20/82
OPERATOR	615	615	615	616	616	616	593	593	593	593	593	615	615	616	616
PROBLEM AND CORRECTIVE ACTION															

1145
OV101
Supelco
2250/2401
14E'69

11415
E12023

Column A

1.5% 2250/1.95% 2401 Supelco
Cond.: 190, isothermal
Ar/CH_4, 25 cc/min.

Peaks, 0250 Standard

1A Alpha-BHC
2A Beta-BHC
3A Gamma-BHC
4A Heptachlor Epoxide
5A Alpha-Chlordane
6A p,p'-DDE
7A p,p'-DDD
8A p,p'DDT
9A Endosulfan Sulfate

Peaks, 0266 Standard

10A Delta-BHC
11A Heptachlor
12A Aldrin
13A Delta-Chlordane
14A Endosulfan I
15A Dieldrin
16A Endrin
17A Endosulfan II
18A Endrin Aldehyde

Column B

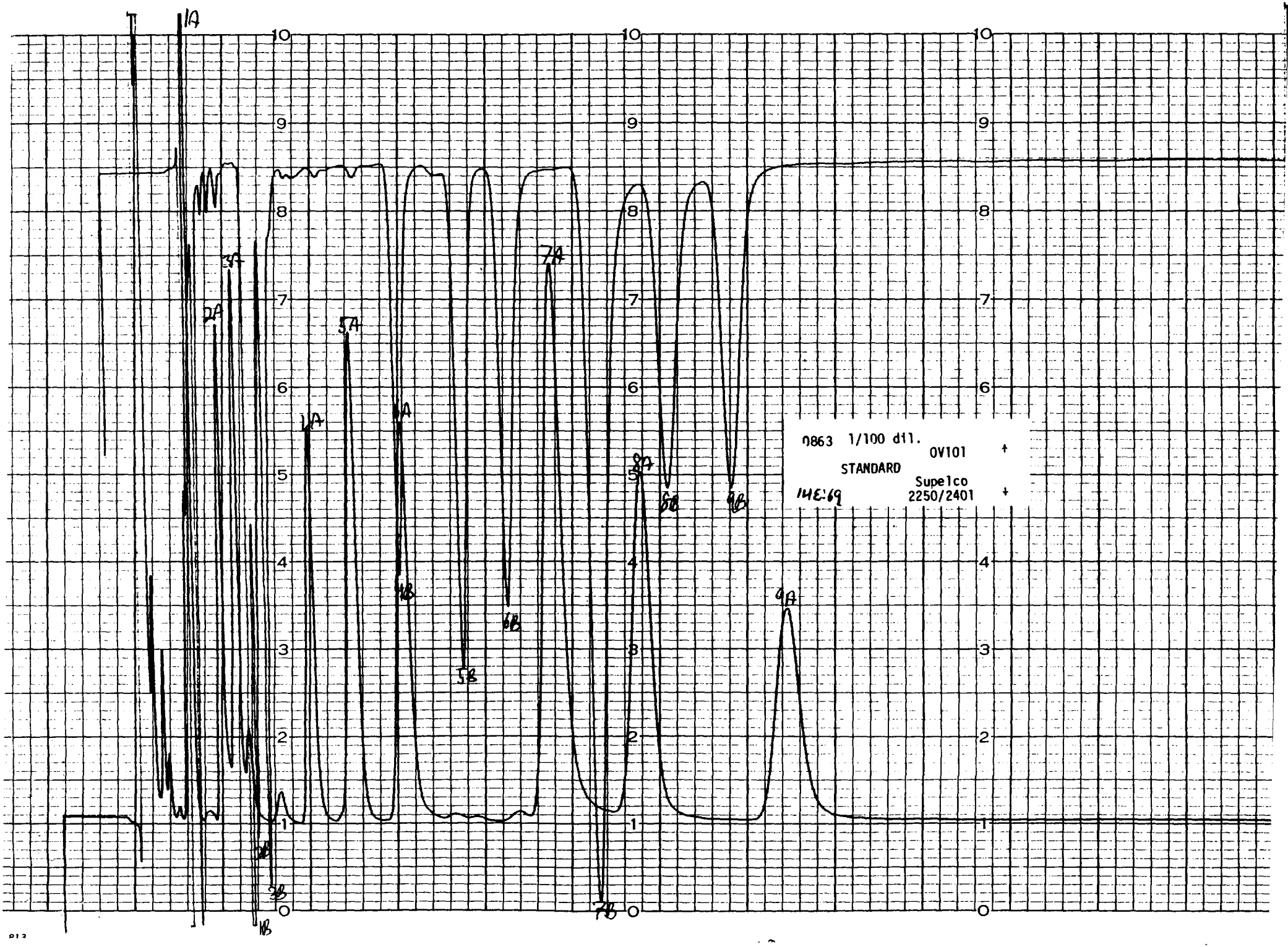
3% OV-101
Cond.: 190, isothermal
Ar/Ch_4, 25 cc/min.

Peaks, 0250 Standard

1B Alpha-BHC
2B Beta-BHC
3B Gamma-BHC
4B Heptachlor Epoxide
5B Alpha-Chlordane
6B p,p'-DDE
7B p,p-DDD
8B Endosulfan Sulfate
9B p,p'-DDT

Peaks, 0266 Standard

10B Delta-BHC
11B Heptachlor
12B Aldrin
13B Delta-Chlordane
14B Endosulfan I
15B Dieldrin
16B Endrin and Endosulfan II
17B Endrin Aldehyde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OV101
STANDARD
Supelco
2250/2401
14E:69
1A
2A
3A
4A
5A
6A
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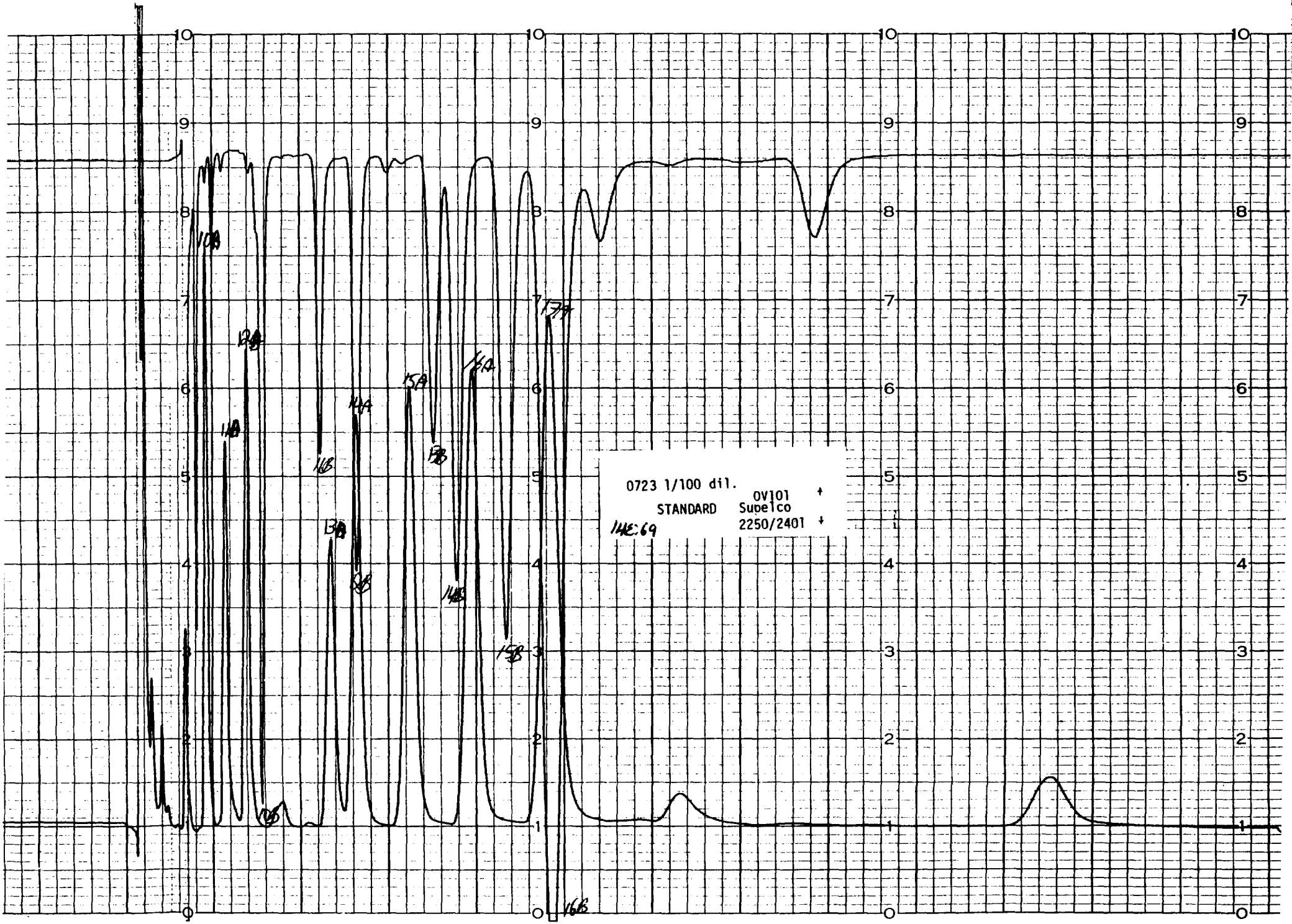
5B
6B
7B
8B
9B


0723 1/100 dil.
STANDARD
OV101
Supelco
2250/2401
14E:69
10A
11A
12A
11B
13A
14A
15A
13B
14B
16A
15B
17A
16B

DETECTION LIMIT STUDY

BASE-NEUTRAL COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,4-DICHLOROBENZENE	84.5	82.7	78.3	81.8	3.2	9.6
HEXACHLOROETHANE	86.2	85.6	83.0	84.9	1.7	5.1
BIS(2-CHLOROETHYL)ETHER	97.7	94.8	98.5	97.0	2.0	6.0
1,2-DICHLOROBENZENE	81.3	79.4	77.5	79.4	1.9	5.7
BIS(2-CHLOROISOPROPYL)ETHER	69.1	80.3	72.8	74.1	5.7	17.1
n-NITROSO-di-n-PROPYLAMINE	50.8	80.5	77.0	69.4	16.2	48.6
NITROBENZENE	81.1	78.8	77.3	79.1	1.9	5.7
HEXACHLOROBUTADIENE	67.5	68.3	65.8	67.2	1.3	3.9
1,2,4-TRICHLOROBENZENE	91.4	90.2	89.6	90.4	0.9	2.7
NAPHTHALENE	80.6	79.1	81.6	80.4	1.3	3.9
BIS(2-CHLOROETHOXY)METHANE	85.8	85.7	85.4	85.6	.2	0.6
ISOPHORONE	82.4	84.2	79.5	82.0	2.4	7.2
2-CHLORONAPHTHALENE	63.3	58.2	61.5	61.0	2.6	7.8
ACENAPHTHYLENE	68.5	66.1	68.8	67.8	1.5	4.5
1,3-DICHLOROBENZENE	111.0	70.6	68.7	83.4	23.9	71.7
ACENAPHTHENE	80.7	80.7	77.8	79.7	1.7	5.1
DIMETHYL PHTHALATE	88.5	87.3	80.3	85.4	4.4	13.2
2,6-DINITROTOLUENE	88.5	89.6	84.4	87.5	2.7	8.1
4-CHLOROPHENYL PHENYL ETHER						
FLUORENE	85.1	84.8	81.5	83.8	2.0	6.0
2,4-DINITROTOLUENE	78.4	79.1	75.7	77.7	1.8	5.4
DIETHYL PHTHALATE	82.5	83.1	79.2	81.6	2.1	6.3
1,2-DIPHENYLHYDRAZINE						
n-NITROSODIPHENYL AMINE	79.7	79.1	77.7	78.8	1.0	3.0
HEXACHLOROBENZENE	78.5	81.9	77.3	79.2	2.4	7.2
4-BROMOPHENYL PHENYL ETHER	79.1	80.5	77.1	78.9	1.7	5.1
ANTHRACENE/PHENANTHRENE	159.5	159.1	159.0	159.2	0.3	0.9
di-n-BUTYL PHTHALATE	82.1	82.3	82.5	82.6	0.4	1.2
FLUORANTHENE	81.3	82.6	81.8	81.9	0.7	2.1
PYRENE	80.9	82.5	81.3	81.6	0.8	2.4

DETECTION LIMIT STUDY

BASE-NEUTRAL COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
BENZIDINE	121.8	125.9	123.8	123.8	2.1	6.3
BUTYL BENZYL PHTHALATE	87.2	87.4	87.3	87.3	.1	.3
BIS(2-ETHYLHEXYL) PHTHALATE	81.3	81.3	80.1	80.9	.7	2.1
BENZO (a) / ANTHRACENE / CHRYSENE	152	156	152	153	2.3	6.9
3,3'-DICHLOROBENZIDINE	150.9	153.1	152.1	152	1.2	3.6
di-OCTYL PHTHALATE	82.0	82.2	80.8	81.7	.8	2.4
BENZO (a) PYRENE	74.5	75.8	73.9	74.7	1.0	3.0
INDENO(1,2,3-cd) PYRENE						
di-BENZO(a,h) ANTHRACENE	77.5	74.3	78.4	76.7	2.2	6.6
BENZO(g,h,i) PERYLENE	76.9	78.4	83.4	79.6	3.4	10.2

DETECTION LIMIT STUDY

VOLATILE COMPOUNDS

LOW LEVEL

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,1-DICHLOROETHANE	0.317	0.265	0.255	0.279	0.033	0.099
TRANS-1,2-DICHLOROETHYLENE	0.333	0.278	0.267	0.293	0.035	0.105
CHLOROFORM	0.300	0.252	0.245	0.266	0.030	0.090
1,2-DICHLOROETHANE	0.292	0.246	0.241	0.260	0.028	0.084
1,1,1-TRICHLOROETHANE	0.334	0.279	0.263	0.292	0.037	0.111
BENZENE	0.284	0.250	0.239	0.258	0.023	0.069
1,1,2-TRICHLOROETHANE	0.282	0.247	0.235	0.255	0.024	0.072
DIBROMOCHLOROMETHANE	0.259	0.221	0.205	0.228	0.028	0.084
BROMOFORM	0.304	0.262	0.243	0.270	0.031	0.093
1,1,2,2-TETRACHLOROETHYLENE	0.323	0.277	0.262	0.287	0.032	0.096
1,1,2,2-TETRACHLOROETHANE	0.301	0.267	0.258	0.275	0.023	0.069
TOLUENE	0.295	0.260	0.249	0.268	0.024	0.072
CHLOROBENZENE	0.305	0.268	0.256	0.276	0.026	0.078
ETHYLBENZENE	0.307	0.271	0.260	0.279	0.025	0.075

DETECTION LIMIT STUDY

VOLATILE COMPOUNDS

MEDIUM LEVEL

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,1-DICHLOROETHANE	6.727	5.298	5.583	5.869	0.756	2.268
TRANS-1,2-DICHLOROETHYLENE	6.309	6.046	6.400	6.252	0.184	0.552
CHLOROFORM	5.655	5.152	5.520	5.442	0.260	0.780
1,2-DICHLOROETHANE	5.791	5.088	5.465	5.448	0.352	1.056
1,1,1-TRICHLOROETHANE	6.567	5.594	6.066	6.076	0.487	1.461
BENZENE	6.027	5.636	5.763	5.809	0.199	0.597
1,1,2-TRICHLOROETHANE	5.658	5.453	5.777	5.629	0.164	0.492
DIBROMOCHLOROMETHANE	4.860	4.763	4.968	4.864	0.103	0.309
BROMOFORM	5.142	5.008	5.448	5.199	0.226	0.678
1,1,2,2 TETRACHLOROETHYLENE	6.802	6.810	6.990	6.867	0.106	0.318
1,1,2,2 TETRACHLOROETHANE	5.833	5.635	6.203	5.890	0.288	0.864
TOLUENE	6.162	5.996	6.213	6.124	0.113	0.339
CHLOROBENZENE	5.563	6.314	6.523	6.133	0.505	1.515
ETHYLBENZENE	6.399	6.246	6.507	6.384	0.131	0.393

DETECTION LIMIT STUDY

ACID COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
PENTAFLUOROPHENOL	43.7	41.7	43.4	42.9	1.1	3.3
2-FLUOROBIPHENYL	41.0	40.3	41.6	41.0	.6	1.8
D-5 NITROBENZENE	37.9	37.3	37.8	37.7	.3	.9
2-CHLOROPHENOL	86.8	82.9	85.3	85.0	2.0	6.0
2-NITROPHENOL	87.1	87.3	87.6	87.3	.3	.9
PHENOL	80.1	76.3	79.3	78.6	2.0	6.0
2,4-DIMETHYLPHENOL	76.2	75.7	77.7	76.5	1.0	3.0
2,4-DICHLOROPHENOL	89.9	88.5	89.4	89.3	.7	2.1
2,4,6-TRICHLOROPHENOL	81.9	85.4	83.8	83.7	1.8	5.4
P-CHLORO-M-CRESOL	78.0	81.3	81.4	80.2	1.9	5.7
PENTACHLOROPHENOL	80.3	82.4	81.0	81.2	1.1	3.3
4-NITROPHENOL	69.4	73.1	72.0	71.2	1.9	5.7

DETECTION LIMIT STUDY

PESTICIDE COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
TOXAPHENE	0.039	0.042	0.043	0.041	0.002	0.006
BHC- BETA	0.048	0.048	0.049	0.048	0.001	0.003
BHC- DELTA	0.047	0.047	0.048	0.047	0.001	0.003
4,4'- DDD	0.048	0.051	0.051	0.500	0.001	0.003
4,4'- DDT	0.034	0.033	0.034	0.034	0.001	0.003
BHC - GAMMA	0.042	0.043	0.043	0.043	0.001	0.003
HEPTACHLOR	0.046	0.047	0.048	0.047	0.001	0.003
ALDRIN	0.046	0.046	0.049	0.047	0.001	0.003
ENDOSULFAN I	0.045	0.046	0.046	0.046	0.001	0.003
DIELDRIN	0.043	0.044	0.044	0.044	0.001	0.003
ENDRIN	0.048	0.048	0.049	0.048	0.001	0.003
ENDOSULFAN II	0.041	0.042	0.042	0.042	0.001	0.003

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

S.F. 1401
SAUGET

Sample Number
E1203

82WT06S04

ORGANICS ANALYSIS DATA SHEET - Page 1

TRANSMITTED
2/12/82

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11416

QC Report No. 41-59, 42-58, 46-58

Signature of Person Authorized to Release Data: R. J. Mulhol

	ACID COMPOUNDS		ug/g
88-06-2	2,4,6-trichlorophenol	CT	
59-50-7	p-chloro-m-cresol		0.4U
95-57-8	2-chlorophenol	0.2	
122-83-2	2,4-dichlorophenol	0.42	
105-67-9	2,4-dimethylphenol		0.2U
88-75-5	2-nitrophenol		0.2U
100-02-7	4-nitrophenol		1.8U
51-88-5	2,4-dinitrophenol		0.8U
534-52-1	4,6 dinitro-o-cresol		0.4U
87-86-5	pentachlorophenol		0.5U
108-95-2	phenol	0.5	

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
318-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
181-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
183-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number
E1203

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11416

QC Report No. 41-59, 42-58, 46-58

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform CT	
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropiene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride CT	
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
78-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gama	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

	DIOXINS	
1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

LIST OF COMMONLY USED FOOTNOTES FOR COMMERCIAL AND EPA

II Indistingushable isomers.

I Presence indicated by extracted ion current profile; definitive spectra not obtainable due to interference.

Q Quantiatated from secondary ion.

CI Concentration estimated; interferences present with primary quantitation ions.

D Sample analysis using a _____ dilution.

SE Sample extract could not be concentrated to 1.0 ml, thus the detection limits are higher than normal.

DL Detection limits are adjusted to show change in sample quantity processed. The surrogate recoveries are not available.

SR Surrogate recoveries are not available because it was necessary to dilute the extract, based on GC screening results.

SC Suspected laboratory contaminant.

LT Less than the specified detection limit but greater than one half of the detection limit (present but BDL).

EV Estimated value (previously j) in house note: This footnote may not be used for PP compounds.

H Volatile vial received with headspace.

SV Amount corrected for sample volume.

TN Acid & BN recoveries adjusted 10/9 for volume change. (medium level 026 only)

DC Compound calculated from a _____ dilution.

CR Compound calculated using total RIC area. All secondary ions saturated.

PC Pesticide or PCB confirmed by GC/MS.

PN Pesticide or PCB cannot be confirmed by GC/MS.

1-04-82

11416 Acid - C#801-E1203

FORM 4. ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS

Sample Identification 11416 Calculations by _____

SCAN NUMBER	COMPOUND IDENTIFICATION	CASS NO.	% PURITY	RIC PEAK AREA OF TENT. COMP.	RIC PEAK AREA OF INT. STD.	EST. AMT. OF TENT COMPOUND $Amt.tent = \frac{PKA_{tent.} \text{ Concentration of}}{PKA_{is} \cdot 1}$
						.8
248 (11)	Benzenamine, 2-chloro	95-51-2	89	221776	406623	.43 EV ug/g
252 (12)	Phenol, 3-chloro	108-43-0	84	324545		.62

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11427 COMPOSITE BLANK

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

Lab Name: Mead CompuChem

Lab Sample I.D. No. 11416

SAMPLE NUMBER
C#801-E1203

A. SURROGATE SPIKE RESULTS

COMPOUND	FRACTION	CONC (ug/g)	(Surrogates only) Spike Added (ug/g)	% Recovery
d-$_6$-Benzene	VOA	0.062	0.05	124
d-$_8$-Toluene	VOA	0.066	0.05	132
Fluorophenol	A	2.23	2.5	89
d-$_6$-Phenol	A	2.38	2.5	95
Pentafluorophenol	A	2.04	2.5	82
d-$_5$-Nitrobenzene	B/N	2.21	2.5	89
Fluorobiphenyl	B/N	1.49	2.5	60

Sample No: 11425 / 11416 E1203 / 11415 → 11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEM Comm/Chem
Report No: 41-59
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
0	0	4	V	BENZENE	ND	0.021	0.013 ug/g	162
0	0	7	V	CHLOROBENZENE	ND	0.020	0.013 ug/g	154
0	8	6	V	TOLUENE	ND	0.019	0.013 ug/g	146

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

Sample No: 11426 / 11417 E1204

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAS compu/chem
Report No: 41-59
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)						CONCENTRATION (µg/l)		Relative Percent Difference (RPD)*
P.	P.			#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
				V	d_6-BENZENE	0.036	0.054	40
				V	d_8-TOLUENE	0.049	0.055	12
0	4	4		V	methylene chloride	0.013	0.006	74

This QC Report also covers the following sample numbers: C#801- E1202, E1203, E1204

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

Sample No: 11428 / 11416 E1203
11415 → 11417

Lab Standard IDs: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPU/CHEM
Report No: 42-58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
0	2	7	B	1,4-DICHLOROBENZENE	ND	0.66	1.0	66
0	8	4	B	PYRENE	ND	0.74	1.0	74
0	7	6	B	CHRYSENE	ND	0.88	1.0	88
0	0	1	B	ACENAPHTHENE	ND	0.70	1.0	70
0	0	8	B	1,2,4-TRICHLOROBENZENE	ND	0.62	1.0	62
0	6	8	B	DI-n-BUTYL PHTHALATE	ND	0.64	1.0	64
0	3	5	B	2,4-DINITROTOLUENE	ND	0.62	1.0	62
0	6	9	B	DI-n-OCTYL PHTHALATE	ND	0.84	1.0	84
0	6	3	B	N-NITROSODI-n-PROPYLAMINE	ND	3.0	4.0	75
0	2	4	A	2-CHLOROPHENOL	0.20	1.6	1.0	140
0	6	5	A	PHENOL	0.50	1.9	1.0	140
0	2	2	A	3-METHYL-4-CHLOROPHENOL	ND	0.92	1.0	92
0	6	4	A	PENTACHLOROPHENOL	ND	0.80	1.0	80
0	5	8	A	4-NITROPHENOL	ND	3.4	6.0	57

This QC Report also covers the following sample numbers: CH801 - E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

Sample No: 11429/11417 E1204 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: MEAD COMPU/Chem
Report No: 42-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/ℓ)		Relative Percent Difference (RPD)*
P.	P.	P.	#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
			A	2-Fluorophenol	1.76	1.84	4
			A	d_6-Phenol	1.77	1.87	5
			A	Pentafluorophenol	1.57	1.48	6
			B	d_5-Nitrobenzene	2.59	1.20	73
			B	2-Fluorobiphenyl	1.03	1.10	7
0	2	4	A	2-chlorophenol	0.40	0.30	29
0	3	1	A	2,4-dichlorophenol	0.56	0.52	7
0	6	5	A	Phenol	0.42	0.62	38
0	2	1	A	2,4,6-trichlorophenol	0.32	0.15	72

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

Sample No: 11432/11415 E1202 / 11415→11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPUKEM
Report No: 46 - 58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
1	0	0	P	HEPTACHLOR	ND	0.37	0.43	86
0	8	9	P	ALDRIN	ND	0.37	0.41	90
0	9	0	P	DIELDRIN	ND	0.40	0.40	100

This QC Report also covers the following sample numbers: CA801-E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

Sample No: 11433/11415 E1202 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: MEAD COMPU/CHEM
Report No: 46-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)		Relative Percent Difference (RPD)*
P.	P.	#		COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
				PESTICIDES / PCB's	NA	NA	0

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204-

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. EB811221C01 INSTRUMENT BLANK for 11415, 11416.

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

Lab Name: Mead ComouChem Case No: 801

Lab Sample I.D. No. EB81122ICO1 INSTRUMENT BLANK

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6-Benzene	VOA	0.052	0.05 ug/ml	104
d_8-Toluene	VOA	0.059	0.05 ug/ml	118

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. EB811221C01 INSTRUMENT BLANK

QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11427 Blank

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6-Benzene	VOA	0.054	0.05 ug/ml	108
d_8-Toluene	VOA	0.055	0.05 ug/ml	110

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates an estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/685-0885

Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead ConeuChem

Case Number 801

Lab Sample ID NO. BLANK 11430

QC Report No. 42-58

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.2U
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.2U
120-83-2	2,4-dichlorophenol	0.2U
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.0U
51-28-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-32-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
218-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
191-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
193-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42- 58

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
2-Fluorophenol	Acid	2.22	2.5 ug/g	89
d_6-Phenol	Acid	2.28	2.5 ug/g	91
Pentafluorophenol	Acid	1.99	2.5 ug/g	80
d_5-Nitrobenzene	B/N	2.01	2.5 ug/g	80
2-Fluorobiphenyl	B/N	2.05	2.5 ug/g	82

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42-58

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1		NONE	BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11		NONE	ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21			VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

ORGANICS ANALYSIS DATA SHEET—Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. BLANK 11434

QC Report No. 46-58

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
72-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gamma	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

DIOXINS

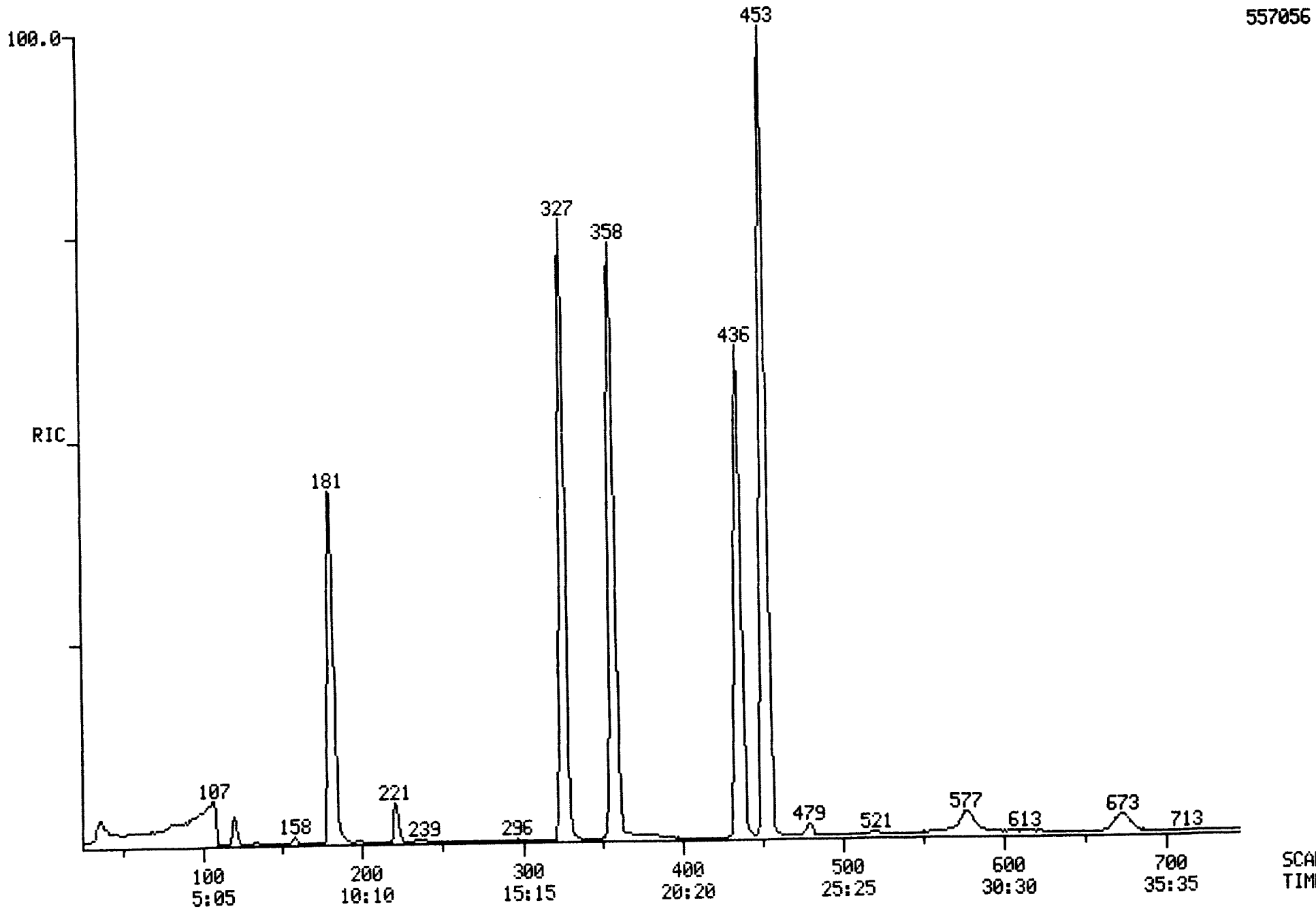
	2,3,7,8-tetrachlorodibenzo-	
1746-01-6	p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

RIC
12/22/81 9:18:00
SAMPLE: 10G/10ML SAMPLE #11416 + 5UL 3370(I/S) &3374(SURR)-EPA H P

DATA: EH011416A01 SCANS 25 TO 745



COMPOUND ANALYSIS
PORT FILE: EH011416A01

A01. TI
:00
ML SAMPLE #11416 + SUL 3370(I/S) &3374(SURR)-EPA H P
01 ANALYST: NC

HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
ROM LIBRARY ENTRY

HLOROMETHANE (INTERNAL STANDARD)
METHANE
CHLORIDE
DETHANE
METHANE
EIN
ONITRILE
OCHLOROMETHANE (INTERNAL STANDARD)
YLENE CHLORIDE
HLOROFLUOROMETHANE
-DICHLOROETHYLENE
-DICHLOROETHANE
NS-1, 2-DICHLOROETHYLENE
OROFORM
2-DICHLOROETHANE
1, 1-TRICHLOROETHANE
RBON TETRACHLORIDE
ROMODICHLOROMETHANE
1, 4-DICHLOROBUTANE (INTERNAL STANDARD)
, 2-DICHLOROPROPANE
TRANS-1, 3-DICHLOROPROPENE
TRICHLOROETHYLENE
BENZENE
CIS-1, 3-DICHLOROPROPENE
1, 1, 2-TRICHLOROETHANE
DIBROMOCHLOROMETHANE
BROMOFORM
1, 1, 2, 2-TETRACHLOROETHYLENE
1, 1, 2, 2-TETRACHLOROETHANE
TOLUENE
CHLOROBENZENE
ETHYLBENZENE
2-CHLOROETHYL VINYL ETHER
2-BROMO-1-CHLOROPROPANE
D6 BENZENE
D8 TOLUENE

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	181	9:12	1	1.000	A BB	213660.	0.500 UG	14.45
2	NOT FOUND								
3	NOT FOUND								
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	130	181	9:12	8	1.000	A BB	213660.	0.500 UG	14.45

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -15 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUS

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUS

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	181	182	997	471	1	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -15 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUO

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUO

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
8	181	182	997	471	1	1	1	0
9	120	120	989	629	2	1	1	0
10	158	158	1000	650	3	1	1	0
14	221	221	1000	622	7	1	1	0
16	259	259	903	277	9	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -27 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUI

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUI

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
19	436	436	961	462	1	1	1	0
23	329	327	1000	3	5	1	1	0
24	334	328	837	1	6	1	1	0
29	430	430	950	161	11	1	1	0
30	456	456	998	6	12	1	1	0
31	479	479	996	353	13	1	1	0
32	520	520	965	181	14	1	1	0
33	355	358	794	3	15	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -30 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
34	357	358	996	296	1	1	1	0
35	326	327	999	441	2	1	1	0
36	452	453	997	558	3	1	1	0

NUMBER OF COMPOUNDS IDENTIFIED 17

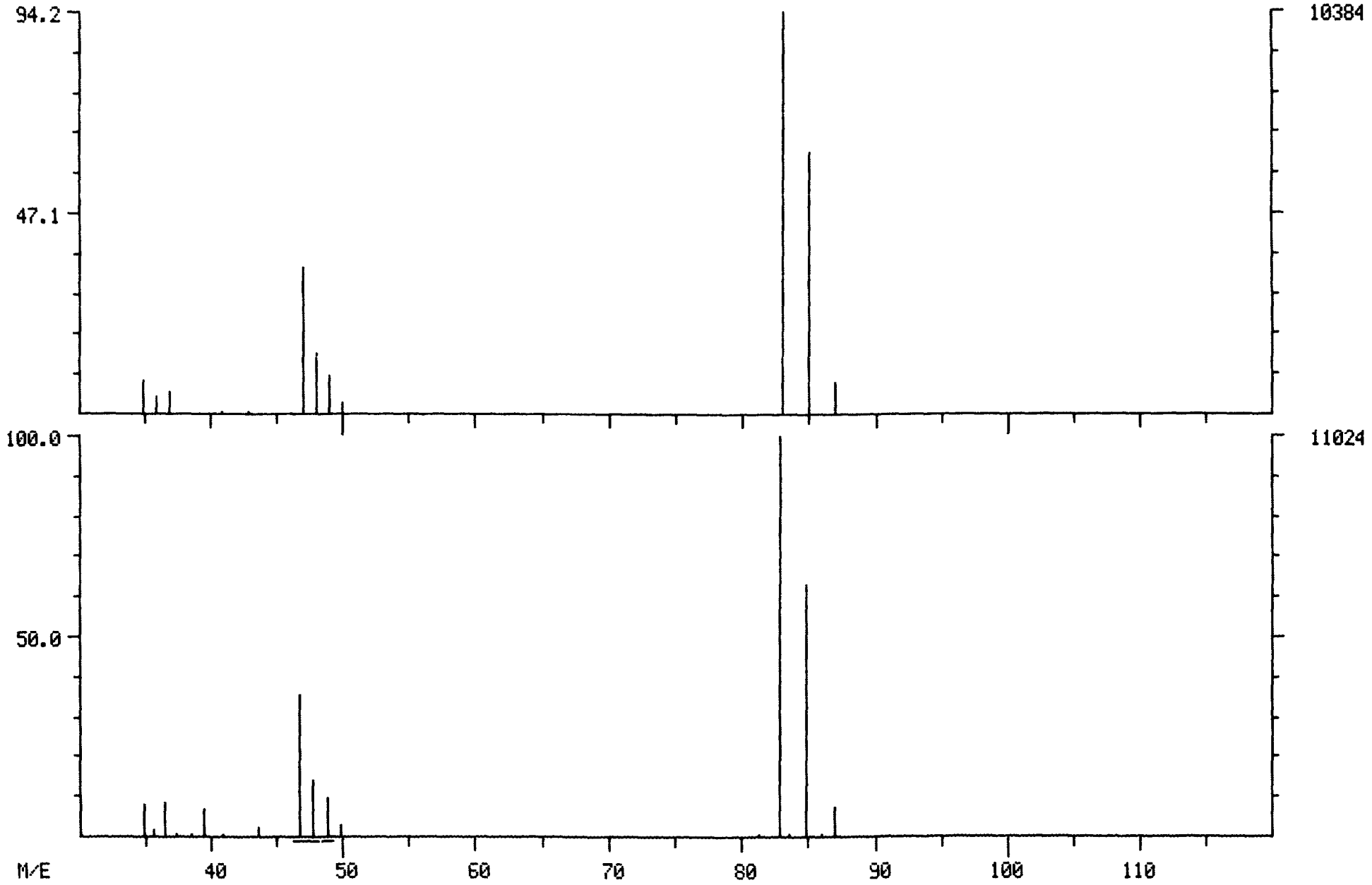
DATA PROCESSING OF EH011416A01 COMPLETED ON 12/22/81 10:00:58

Φ211

67-66-3

DUAL MASS SPECTRUM
12/22/81 9:18:00 + 11:14
SAMPLE: 10G/10ML SAMPLE #11416 + 5UL 3370(I/S) &3374(SURR)-EPA H P
ENHANCED (S 15B 2N)

DATA: EH011416A01 #221 BASE M/E: 83/ 83
RIC: 26719./ 28991.

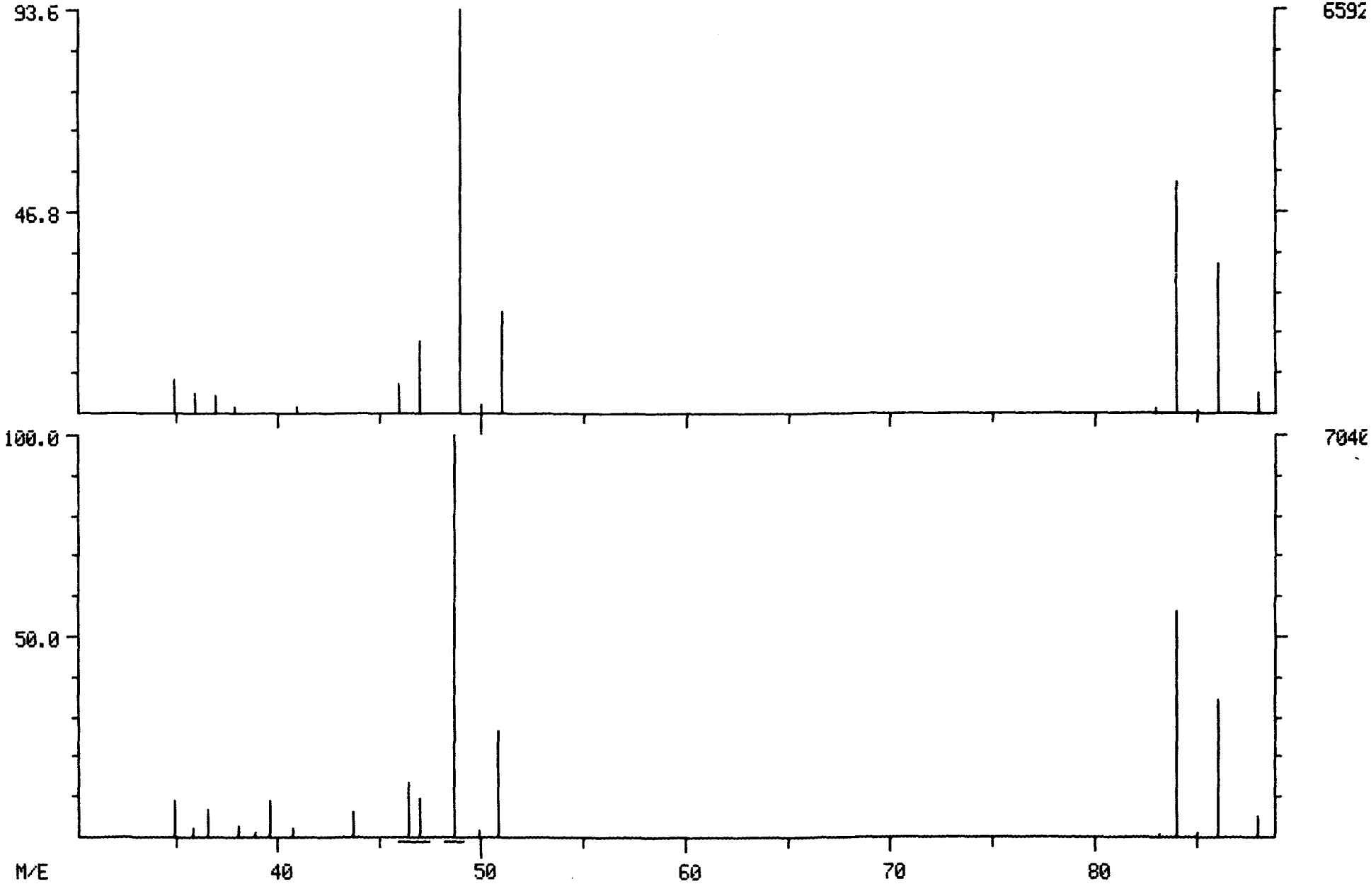


ϕ222

75-09-2

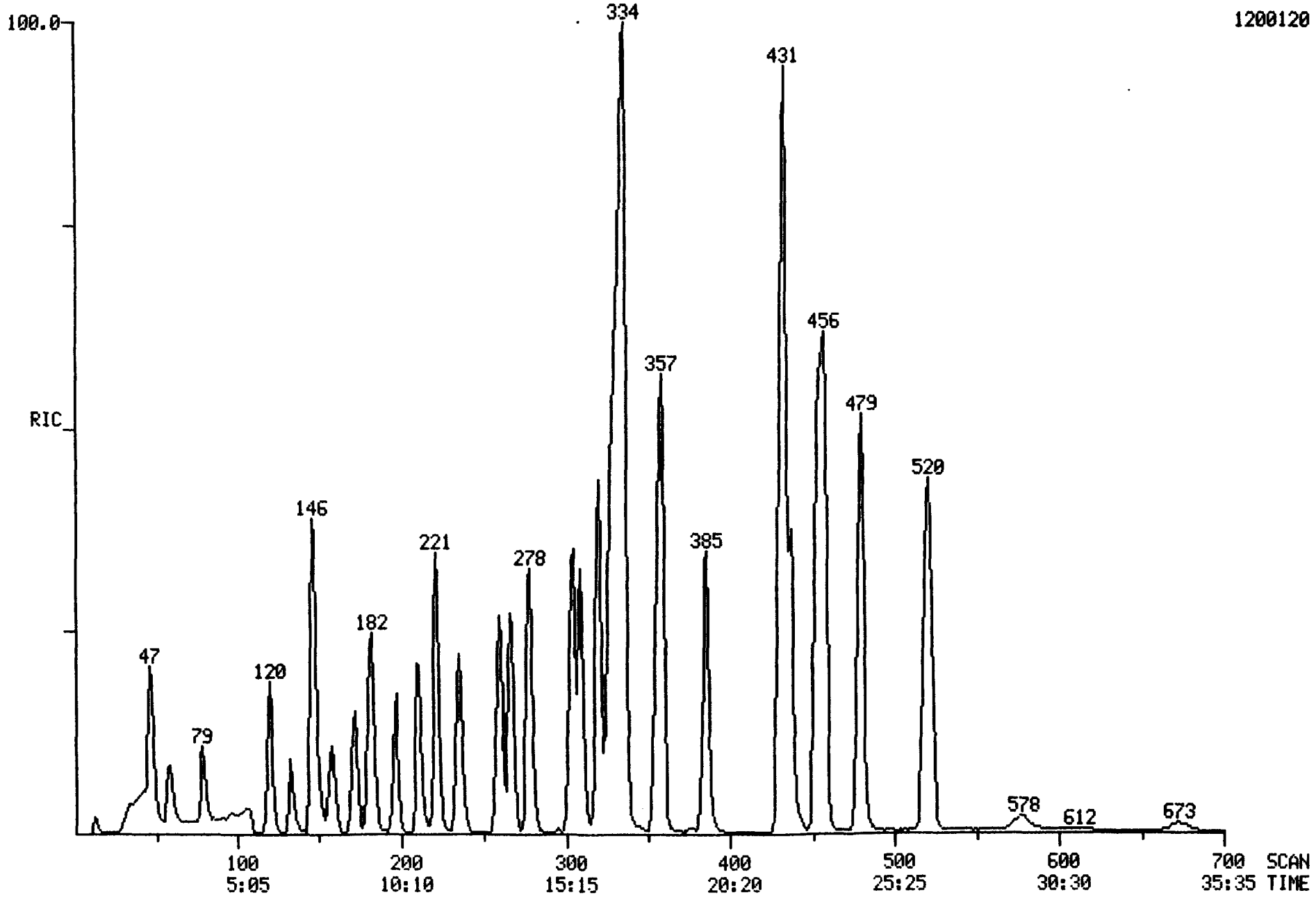
DUAL MASS SPECTRUM
12/22/81 9:18:00 + 6:06
SAMPLE: 10G/10ML SAMPLE #11416 + 5UL 3370(I/S) &3374(SURR)-EPA H P
ENHANCED (S 15B 2N)

DATA: EH011416A01 #120 BASE M/E: 49/ 49
RIC: 18047./ 20191.



RIC
12/22/81 4:03:00
SAMPLE: 10 ML DIH2O + 5UL@(3370+3374) + 6UL@(3343+3349) + 3UL@(3342+3339

DATA: ES811221C01 SCANS 1 TO 700



FORM 2

GC/MS PERFORMANCE STANDARD - BROMOFLUOROBENZENE

DATE 12/21/81 RUN NO. BF811221C01 ANALYST MBE

m/e	Ion Abundance Criteria	% Relative Abundance
50	15-40% of the base peak	24.60
75	30-60% of the base peak	50.60
95	Base Peak, 100% relative abundance	100.00
96	5-9% of the base peak	6.03
173	Less than 1% of the base peak	0.00
174	Greater than 50% of the base peak	85.56
175	5-9% of mass 174	5.78 (6.76)
176	Greater than 50% of the base peak	85.17
177	5-9% of mass 176	4.45 (5.22)

MASS LIST DATA: BF811221C01 # 182 BASE M/E: 95
12/22/81 2:34:00 + 9:15 RIC: 27040.
SAMPLE: 2 UL BFB # 3355
#182 - #188 X1.00

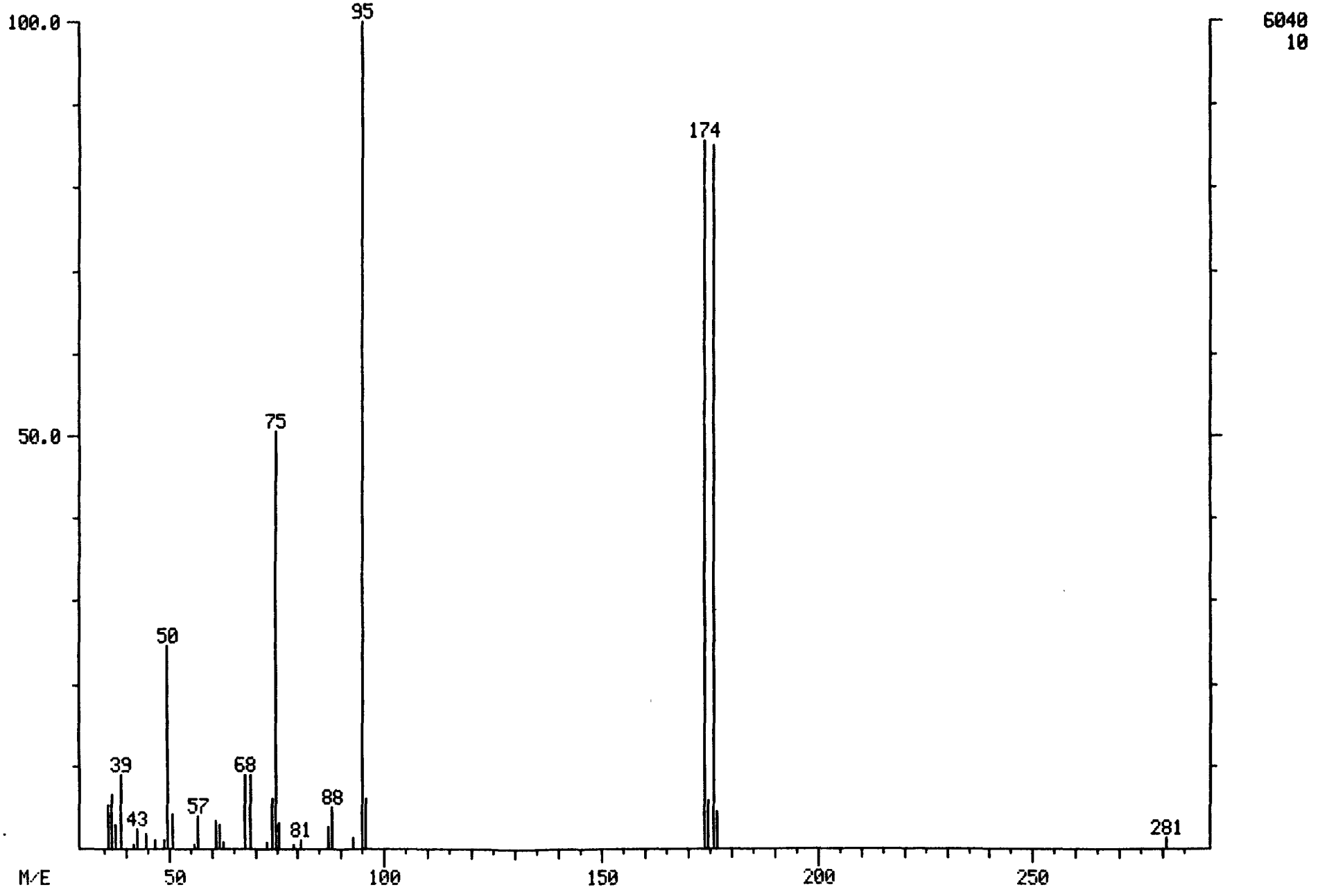
36 0.00 MINIMA MIN INTEN: 0.
281 # 0 MAXIMA

MASS	% RA
36	5.22
37	6.51
38	2.91
39	8.86
42	0.55
43	2.38
45	1.77
47	1.18
49	0.93
50	24.60
51	4.17
56	0.50
57	3.86
61	3.31
62	2.95
63	0.75
68	8.94
69	8.87
73	0.91
74	5.93
75	50.60
76	3.25
79	0.53
81	1.09
87	2.53
88	4.88
93	1.29
95	100.00
96	6.03
174	85.56
175	5.78
176	85.17
177	4.45
281	1.24

MASS SPECTRUM
12/22/81 2:34:00 + 9:15
SAMPLE: 2 UL BFB # 3355
#182 - #188 X1.00

DATA: BF811221C01 #182

BASE M/E: 95
RIC: 27040.



11416

Mead CompuChem

30-JAN-82 INITIAL CALIBRATION DATA REPORT Time: 21: 3

Research Triangle Park
Instrument: 1
Library: 5
Version: 5
Fraction: Volatile

Compounds		Lab ID: ET811221A01 Std ID: 1801 (LOW) Conc	Area	Lab ID: ES811221A01 Std ID: 1802 (MED) Conc	Area	Lab ID: EU811221A01 Std ID: 1803 (HIGH) Conc	Area
BROMOCHLOROMETHANE	(IS)	.50	260521	.50	250780	.50	276342
BROMOCHLOROMETHANE	(IS)	.50	260521	.50	250780	.50	276342
1,4-DICHLOROBUTANE	(IS)	.50	713060	.50	785782	.50	792163
2-BROMO-1-CHLOROPROPANE	(IS)	.50	488024	.50	494351	.50	541374

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
METHYL CHLORIDE	.20	.450	.182	.40	.440	.181	.60	.414	.181	-.964
VINYL CHLORIDE	.20	.674	.315	.40	.664	.324	.60	.652	.324	-.998
CHLOROETHANE	.20	.590	.431	.40	.555	.434	.60	.550	.434	-.990
METHYL BROMIDE	.20	.815	.260	.40	.751	.264	.60	.747	.264	-.890
ACROLEIN	2.00	.095	.729	4.00	.098	.731	6.00	.092	.729	-.795
ACRYLONITRILE	2.00	.259	.807	4.00	.250	.802	6.00	.253	.802	-.645
METHYLENE CHLORIDE	.20	.831	.657	.40	.761	.659	.60	1.155	.659	.771
TRICHLOROFLUOROMETHANE	.20	.952	.873	.40	.946	.868	.60	1.004	.868	.813
1,1-DICHLOROETHYLENE	.20	.523	.945	.40	.543	.945	.60	.619	.945	.995
1,1-DICHLOROETHANE	.20	.408	1.088	.40	.468	1.082	.60	.512	1.082	.995
1,2-TRANS-DICHLOROETHYLENE	.20	.719	1.160	.40	.761	1.159	.60	.788	1.159	.992
CHLOROFORM	.20	1.850	1.221	.40	2.014	1.220	.60	2.029	1.220	.901
1,2-DICHLOROETHANE	.20	1.650	1.298	.40	1.830	1.291	.60	1.775	1.297	.676
1,1,1-TRICHLOROETHANE	.20	1.287	1.431	.40	1.346	1.429	.60	1.421	1.429	.997
CARBON TETRACHLORIDE	.20	1.194	1.470	.40	1.279	1.467	.60	1.398	1.467	.995
DICHLOROBROMOMETHANE	.20	1.625	1.536	.40	1.792	1.527	.60	1.907	1.527	.995
1,2-DICHLOROPROPANE	.20	.088	.697	.40	.085	.696	.60	.101	.697	.753
TRANS-1,3-DICHLOROPROPYLENE	.20	.423	.709	.40	.420	.709	.60	.502	.711	.849
TRICHLOROETHYLENE	.20	.430	.734	.40	.401	.735	.60	.453	.734	.448
BENZENE	.20	1.057	.757	.40	.967	.755	.60	1.095	.757	.290
CIS-1,3-DICHLOROPROPYLENE	.20	.466	.766	.40	.476	.767	.60	.582	.768	.912
1,1,2-TRICHLOROETHANE	.20	.379	.766	.40	.364	.767	.60	.402	.768	.590
CHLORODIBROMOMETHANE	.20	.458	.761	.40	.464	.762	.60	.534	.764	.894
BROMOFORM	.20	.558	.883	.40	.561	.883	.60	.665	.883	.879
TETRACHLOROETHYLENE	.20	.451	.989	.40	.411	.989	.60	.475	.989	.379
1,1,2,2-TETRACHLOROETHANE	.20	.736	.986	.40	.673	.986	.60	.766	.989	.319
TOLUENE	.20	.716	1.046	.40	.657	1.046	.60	.749	1.048	.351
CHLOROBENZENE	.20	.990	1.099	.40	.888	1.096	.60	1.001	1.099	.092
ETHYLBENZENE	.20	.454	1.193	.40	.417	1.190	.60	.476	1.193	.375
2-CHLOROETHYLVINYL ETHER	.20	.250	.814	.40	.263	.815	.60	.268	.817	.969
D-6 BENZENE	.50	2.235	.913	.50	2.090	.913	.50	2.025	.913	-.000
D-8 TOLUENE	.50	1.240	1.265	.50	1.142	1.265	.50	1.115	1.265	-.000

Mead CompuChem

30-JAN-82 STANDARD RESPONSE FACTOR CHECK REPORT Time: 15:50

Research Triangle Park
Instrument: 1
Library: 5
Version: 5
Fraction: Volatile

STD ID 1803 (HIGH) ID: ES811221C01 Analyst: 584

Compounds		Area(C)	Area(CK)	R%D **
BROMOCHLOROMETHANE	(IS)	276342	249877	10.1
BROMOCHLOROMETHANE	(IS)	276342	249877	10.1
1,4-DICHLOROBUTANE	(IS)	792163	774741	2.2
2-BROMO-1-CHLOROPROPANE	(IS)	541374	511807	5.6

	RF (C)	RF (CK)	R%D **
METHYL CHLORIDE	.414	.396	-4.3
VINYL CHLORIDE	.652	.692	6.0
CHLOROETHANE	.550	.613	10.8
METHYL BROMIDE	.747	.973	28.8
ACROLEIN	.092	.054	-52.4
ACRYLONITRILE	.253	.212	-17.8
METHYLENE CHLORIDE	1.155	.639	-57.6
TRICHLOROFLUOROMETHANE	1.004	.726	-32.2
1,1-DICHLOROETHYLENE	.619	.463	-28.9
1,1-DICHLOROETHANE	.512	.430	-17.3
1,2-TRANS-DICHLOROETHYLENE	.788	.686	-13.8
CHLOROFORM	2.029	1.889	-7.1
1,2-DICHLOROETHANE	1.775	1.622	-9.0
1,1,1-TRICHLOROETHANE	1.421	1.276	-10.8
CARBON TETRACHLORIDE	1.398	1.213	-14.2
DICHLOROBROMOMETHANE	1.907	1.749	-8.7
1,2-DICHLOROPROPANE	.101	.087	-15.1
TRANS-1,3-DICHLOROPROPYLENE	.502	.428	-15.9
TRICHLOROETHYLENE	.453	.395	-13.7
BENZENE	1.095	.915	-17.9
CIS-1,3-DICHLOROPROPYLENE	.562	.497	-12.3
1,1,2-TRICHLOROETHANE	.402	.363	-10.0
CHLORODIBROMOMETHANE	.534	.466	-13.7
BROMOFORM	.665	.587	-12.5
TETRACHLOROETHYLENE	.475	.418	-12.7
1,1,2,2-TETRACHLOROETHANE	.766	.682	-11.5
TOLUENE	.749	.660	-12.7
CHLOROBENZENE	1.001	.904	-10.2
ETHYLBENZENE	.476	.423	-11.7
2-CHLOROETHYLVINYL ETHER	.268	.231	-14.8
D-6 BENZENE	2.025	1.692	-17.9
D-8 TOLUENE	1.115	1.072	-3.9

$$** \quad R\%D = \frac{(CK-C)}{(CK+C)/2} \times 100$$

30-JAN-82

Mead CompuChem

STANDARDS RELATIVE RETENTION REPORT

Time: 16: 3

Research Triangle Park
Instrument: 1
Library: 5
Version: 5
Fraction: Volatile

Compounds		Initial Run ID: EU811221A01 STD Conc	Initial Run RRT	Check Standards ID: ES811221C01 RRT	Check Standards Diff
BROMOCHLOROMETHANE	(IS)	.50	1.000	1.000	.000
METHYL CHLORIDE		.60	.181	.182	-.001
VINYL CHLORIDE		.60	.324	.326	-.002
CHLOROETHANE		.60	.434	.436	-.002
METHYL BROMIDE		.60	.264	.260	.004
ACROLEIN		6.00	.725	.735	-.010
ACRYLONITRILE		6.00	.802	.807	-.004
BROMOCHLOROMETHANE	(IS)	.50	1.000	1.000	.000
METHYLENE CHLORIDE		.60	.659	.663	-.004
TRICHLOROFLUOROMETHANE		.60	.868	.873	-.005
1,1-DICHLOROETHYLENE		.60	.945	.950	-.005
1,1-DICHLOROETHANE		.60	1.082	1.088	-.006
1,2-TRANS-DICHLOROETHYLENE		.60	1.159	1.160	-.001
CHLOROFORM		.60	1.220	1.221	-.001
1,2-DICHLOROETHANE		.60	1.297	1.298	-.002
1,1,1-TRICHLOROETHANE		.60	1.429	1.431	-.002
CARBON TETRACHLORIDE		.60	1.467	1.470	-.003
DICHLOROBROMOMETHANE		.60	1.527	1.536	-.008
1,4-DICHLOROBUTANE	(IS)	.50	1.000	1.000	.000
1,2-DICHLOROPROPANE		.60	.697	.695	.002
TRANS-1,3-DICHLOROPROPYLENE		.60	.711	.709	.002
TRICHLOROETHYLENE		.60	.734	.734	.000
BENZENE		.60	.757	.755	.002
CIS-1,3-DICHLOROPROPYLENE		.60	.768	.766	.002
1,1,2-TRICHLOROETHANE		.60	.768	.766	.002
CHLORODIBROMOMETHANE		.60	.764	.761	.002
BROMOFORM		.60	.883	.883	.000
TETRACHLOROETHYLENE		.60	.989	.989	.000
1,1,2,2-TETRACHLOROETHANE		.60	.989	.986	.002
TOLUENE		.60	1.048	1.046	.002
CHLOROBENZENE		.60	1.099	1.099	.000
ETHYLBENZENE		.60	1.193	1.193	.000
2-CHLOROETHYLVINYL ETHER		.60	.817	.814	.002
2-BROMO-1-CHLOROPROPANE	(IS)	.50	1.000	1.000	.000
D-6 BENZENE		.50	.913	.913	.000
D-8 TOLUENE		.50	1.265	1.266	-.001

HEAD COMPUCHEM

30-JAN-82 21:03 Internal Standard Response Verification Report Page 1

Research Triangle Park

Fraction: Volatile 21-DEC-81 17:09 - 22-DEC-81 18:17

Instrument# 1

Library# 5

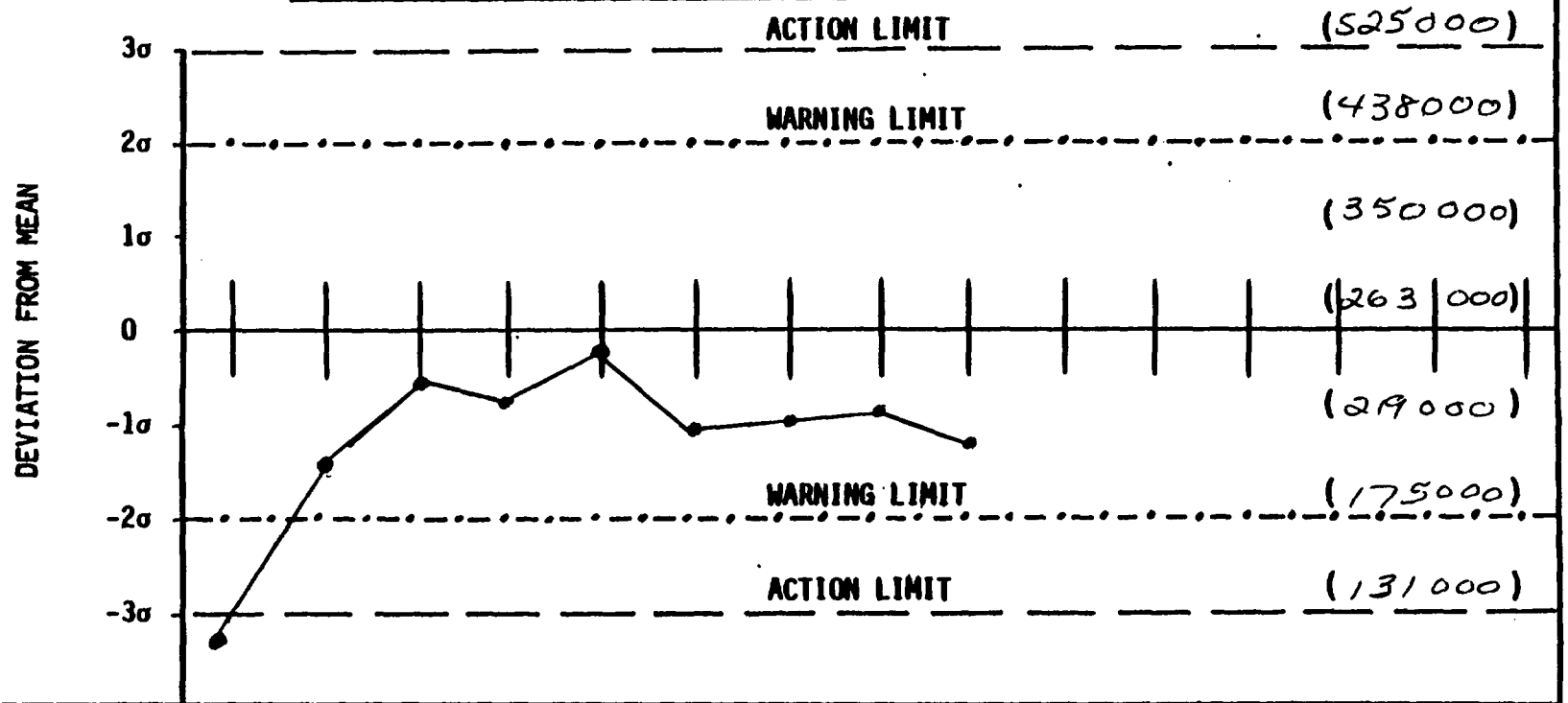
Version# 5

			Int. Std. A			Int. Std. B				Int. Std. C			
			BROMOCHLOROMETHANE			1,4-DICHLOROBUTANE				2-BROMO-1-CHLOROPROP			
			Conc: .5000			Conc: .5000				Conc: .5000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
ET811221A01	21-DEC-81	586	181	260521.	.4151	436	713060.	1.0000	.3654	358	468024.	.8211	1.5236
ES811221A01	21-DEC-81	586	182	250780.	.4165	437	785782.	1.0000	.3191	358	494351.	.8192	1.5895
EU811221A01	21-DEC-81	586	182	274342.	.4174	436	792169.	1.0000	.3488	358	541374.	.8211	1.4632
E8811221B01	21-DEC-81	670	182	272422.	.4165	437	677088.	1.0000	.4023	358	440882.	.8192	1.5358
ES811221B01	21-DEC-81	670	182	253776.	.4174	436	705268.	1.0000	.3598	358	485609.	.8211	1.4523
EH011309B01	21-DEC-81	670	181	245331.	.4161	435	573462.	1.0000	.4278	356	407383.	.8184	1.4077
EH011310B01	21-DEC-81	670	182	207530.	.4174	436	488824.	1.0000	.4246	358	333362.	.8211	1.4663
EH011311B01	21-DEC-81	670	182	213738.	.4165	437	530845.	1.0000	.4027	358	353687.	.8192	1.5003
EH011332B01	21-DEC-81	670	182	226055.	.4165	437	587845.	1.0000	.3845	358	393596.	.8192	1.4935
EH011340C01	21-DEC-81	584	182	222685.	.4174	438	639084.	1.0000	.3484	358	367094.	.8211	1.7409
EH011331C01	22-DEC-81	584	182	205545.	.4155	438	461746.	1.0000	.4451	358	326226.	.8174	1.4154
E8811221C01	22-DEC-81	584	182	246036.	.4165	437	648322.	1.0000	.3795	358	414363.	.8192	1.5646
ES811221C01	22-DEC-81	584	181	249827.	.4151	436	774741.	1.0000	.3225	357	511807.	.8188	1.5137
EH011335C01	22-DEC-81	584	182	186713.	.4174	436	438987.	1.0000	.4253	358	297693.	.8211	1.4746
EH011336C01	22-DEC-81	584	182	156945.	.4165	437	335538.**	1.0000	.4677	358	229637.**	.8192	1.4612
EH011415C01	22-DEC-81	584	182	108845.**	.4165	437	250467.**	1.0000	.4346	358	171853.**	.8192	1.4574
EH011416A01	22-DEC-81	586	181	213660.	.4151	436	573177.	1.0000	.3728	358	362221.	.8211	1.5824
EH011170A01	22-DEC-81	586	182	230067.	.4165	437	660209.	1.0000	.3485	358	407414.	.8192	1.6205
E8811222A01	22-DEC-81	586	184	221172.	.4211	437	542374.	1.0000	.4078	358	368964.	.8192	1.4700
ES811222A01	22-DEC-81	586	182	243832.	.4174	436	730969.	1.0000	.3336	358	458391.	.8211	1.5946
EH011325A01	22-DEC-81	586	181	196965.	.4151	436	513013.	1.0000	.3839	357	319957.	.8188	1.6034
EH011327B01	22-DEC-81	670	182	216261.	.4174	436	631282.	1.0000	.3426	358	357534.	.8211	1.7657
EH011329B01	22-DEC-81	670	181	220946.	.4151	436	592268.	1.0000	.3731	357	378424.	.8188	1.5651
EI011312B01	22-DEC-81	670	182	207465.	.4165	437	402590.	1.0000	.5153*	358	312252.	.8192	1.2893

PAGE # 1-2

METHOD VOLATILE #1-V

I. STD BROMOCHLOROMETHANE

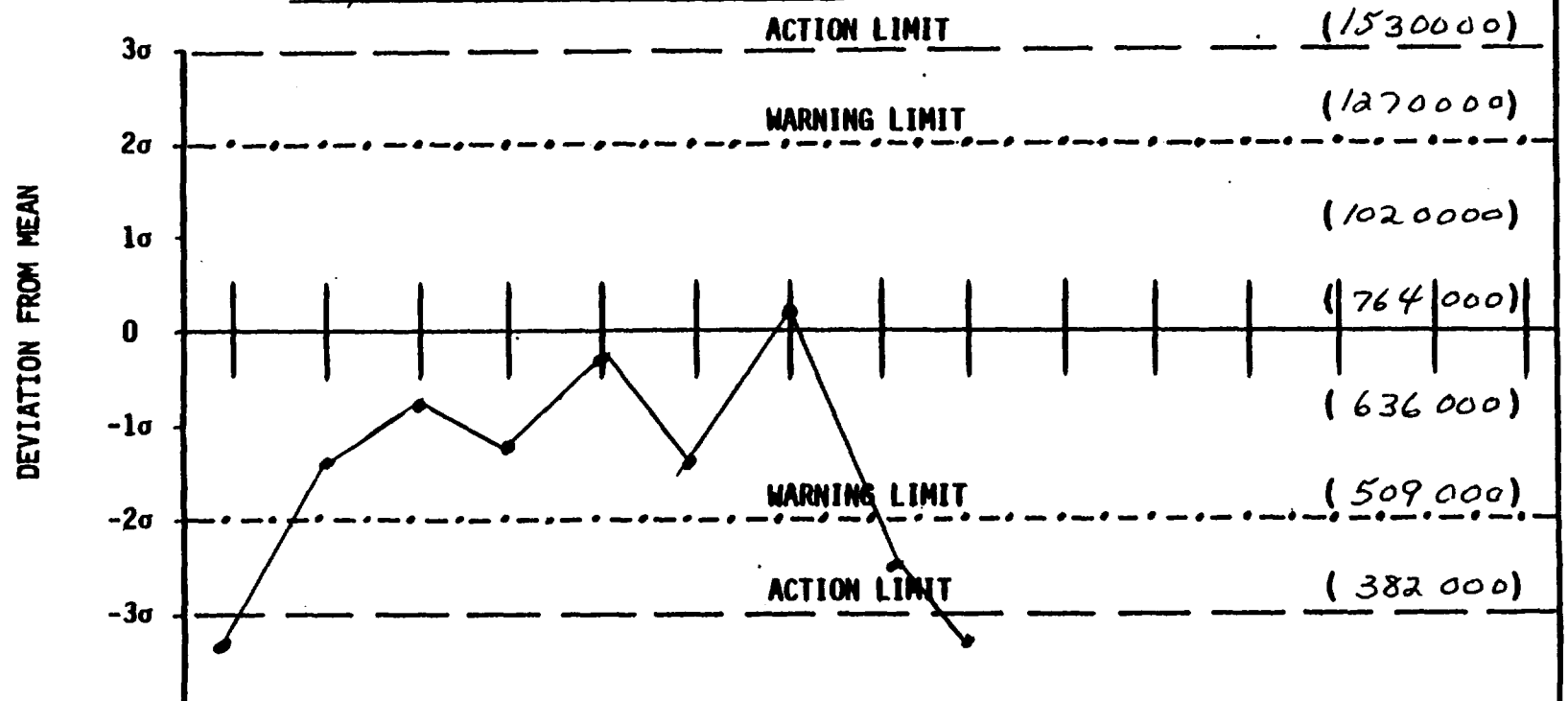


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81						
OPERATOR	584	586	586	586	586	586	670	670	670						
PROBLEM AND CORRECTIVE ACTION															

PAGE # 12

METHOD VOLATILE #1-V

I. STD 1,4-DICHLOROBUTANE

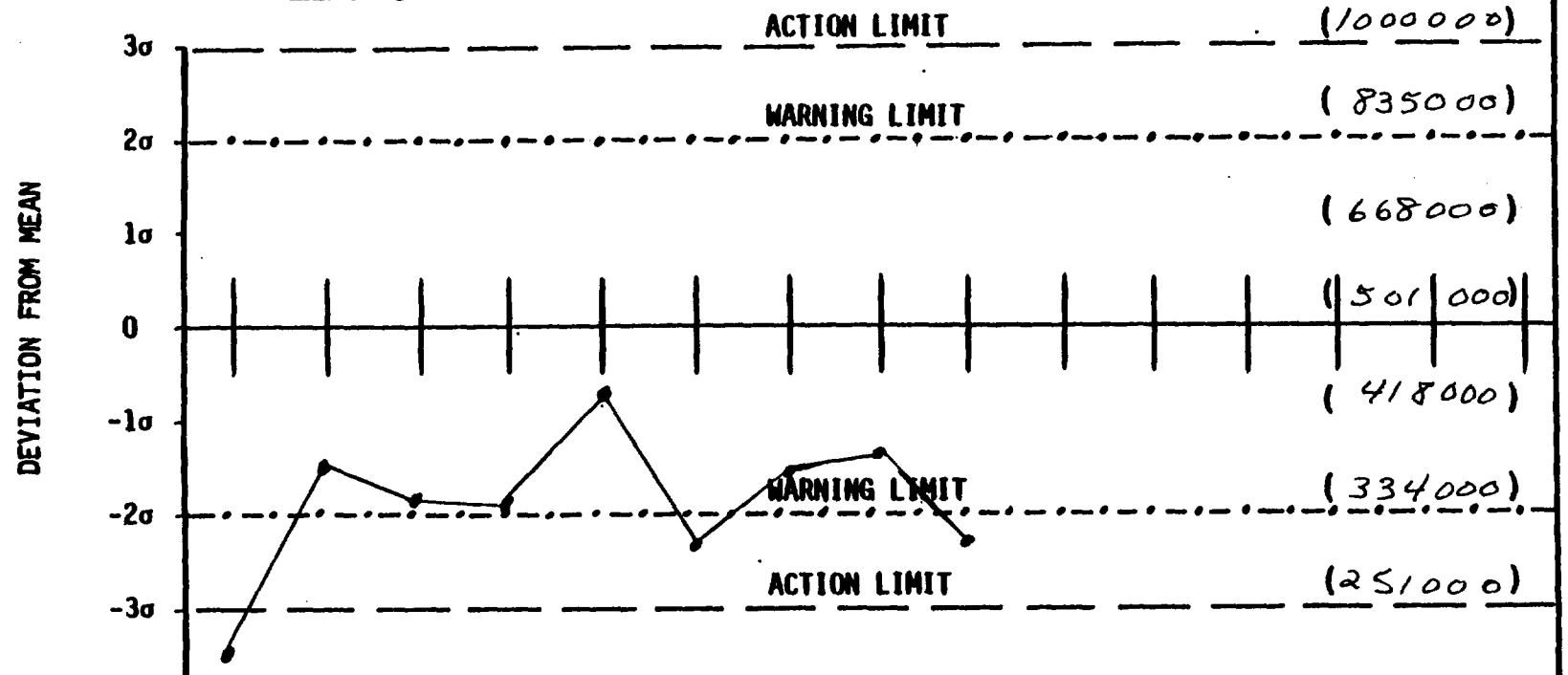


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81						
OPERATOR	584	586	586	586	586	586	670	670	670						
PROBLEM AND CORRECTIVE ACTION															

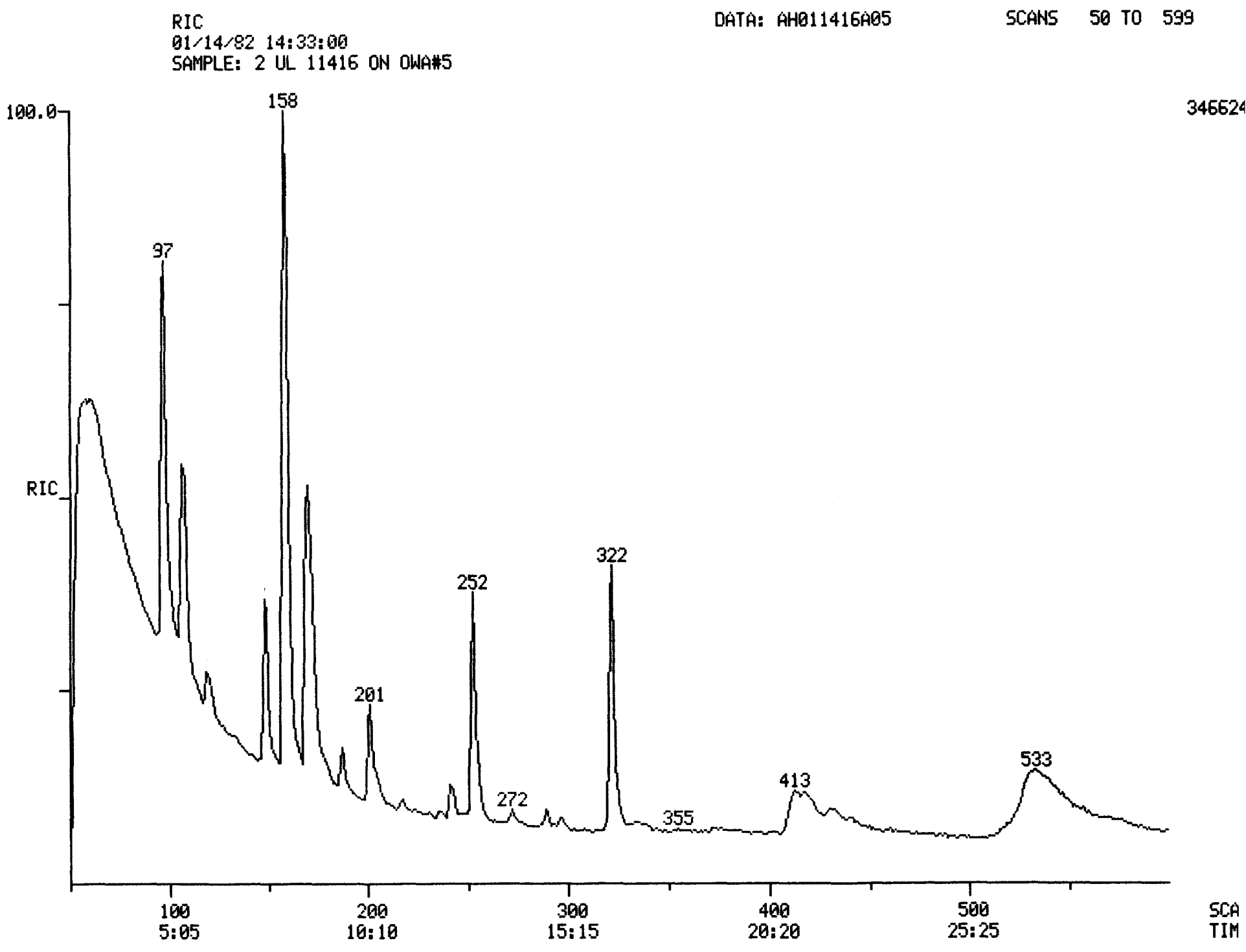
PAGE # 1-2

METHOD VOLATILE # 1-V

I. STD 2-BROMO-1-CHLOROPROPANE



RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/22/81	12/21/81	12/22/81	12/22/81	12/22/81						
OPERATOR	584	586	586	586	586	586	670	670	670						
PROBLEM AND CORRECTIVE ACTION															


RIC
01/14/82 14:33:00
SAMPLE: 2 UL 11416 ON OWA#5
DATA: AH011416A05
SCANS 50 TO 599
100.0
346624
RIC
158
97
322
252
201
533
413
272
355
100
5:05
200
10:10
300
15:15
400
20:20
500
25:25
SCA
TIM

FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: AH011416A05

DATA: AH011416A05.TI
01/14/82 14:33:00
SAMPLE: 2 UL 11416 ON OWA#5
SUBMITTED BY: 5 ANALYST: LRF

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	FLUOROPHENOL (SURROGATE STANDARD)
3	D-6 PHENOL (SURROGATE STANDARD)
4	PENTAFLUOROPHENOL (SURROGATE)
5	2-FLUOROBIPHENYL (SURROGATE)
6	D-5 NITROBENZENE (SURROGATE)
7	D-8 NAPHTHALENE (INTERNAL STANDARD)
8	2-CHLOROPHENOL
9	2-NITROPHENOL
10	PHENOL
11	2,4-DIMETHYLPHENOL
12	2,4-DICHLOROPHENOL
13	D10-ANTHRACENE (INTERNAL STANDARD)
14	2,4,6-TRICHLOROPHENOL
15	P-CHLORO-M-CRESOL
16	2,4-DINITROPHENOL
17	4,6-DINITRO-O-PHENOL
18	PENTACHLOROPHENOL
19	4-NITROPHENOL

d_8-119

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	107	5:26	1	1.000	A BB	122772.	40.000	NG/UL	7.52
2	112	97	4:56	1	0.907	A BB	142154.	111.498	NG/UL	20.97
3	99	158	8:02	1	1.477	A BB	186718.	118.838	NG/UL	22.35
4	184	169	8:35	1	1.579	A BB	96847.	101.887	NG/UL	19.16
5	172	171	8:42	1	1.598	A BB	36417.	15.539	NG/UL	2.92
6	NOT FOUND									
7	136	107	5:26	7	1.000	A BB	122772.	40.000	NG/UL	7.52
8	128	119	6:03	7	1.112	A BB	13310.	10.313	NG/UL	1.94%
9	NOT FOUND									
10	94	158	8:02	7	1.477	A BV	37672.	25.263	NG/UL	4.75%
11	NOT FOUND									
12	162	201	10:13	7	1.879	A BB	22353.	20.767	NG/UL	3.91%
13	188	322	16:22	13	1.000	A BB	155308.	40.000	NG/UL	7.52
14	196	241	12:15	13	0.748	A BB	5569.	6.517	NG/UL	1.23%
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
19	65	451	22:56	13	1.401	A BB	392.	1.075 NG/UL	0.20

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -11 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUJ

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUJ

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	109	107	995	221	1	1	1	0
2	101	97	998	259	2	1	1	0
3	158	158	999	260	3	1	1	0
4	171	169	1000	337	4	1	1	0
5	171	171	992	88	5	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA								
6	106	105	995	4	6	1	0	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -11 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUK

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUK

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
7	109	107	995	221	1	1	1	0
8	119	119	998	74	2	1	1	0
10	158	158	996	85	4	1	1	0
12	199	201	1000	154	6	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -2 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
13	322	322	995	377	1	1	1	0
14	240	241	998	87	2	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA								
15	268	269	890	3	3	1	0	0
						**		
19	456	452	967	9	7	3	1	0

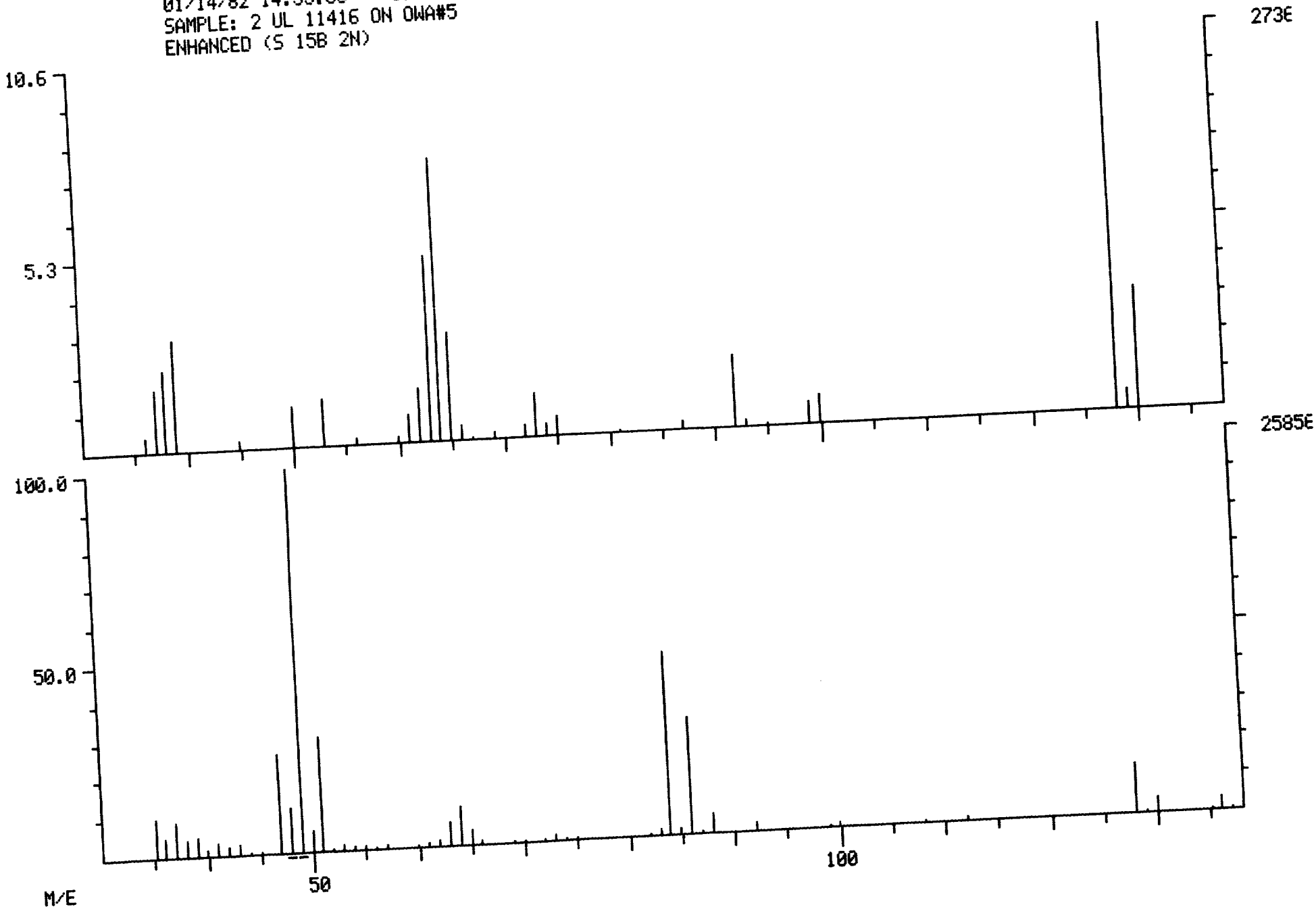
NUMBER OF COMPOUNDS IDENTIFIED 14

DATA PROCESSING OF AH011416A05 COMPLETED ON 1/14/82 14:59:58

601 95-57-8

DATA: AH011416A05 #119 BASE M/E: 128/ 49
RIC: 13007./ 95103.

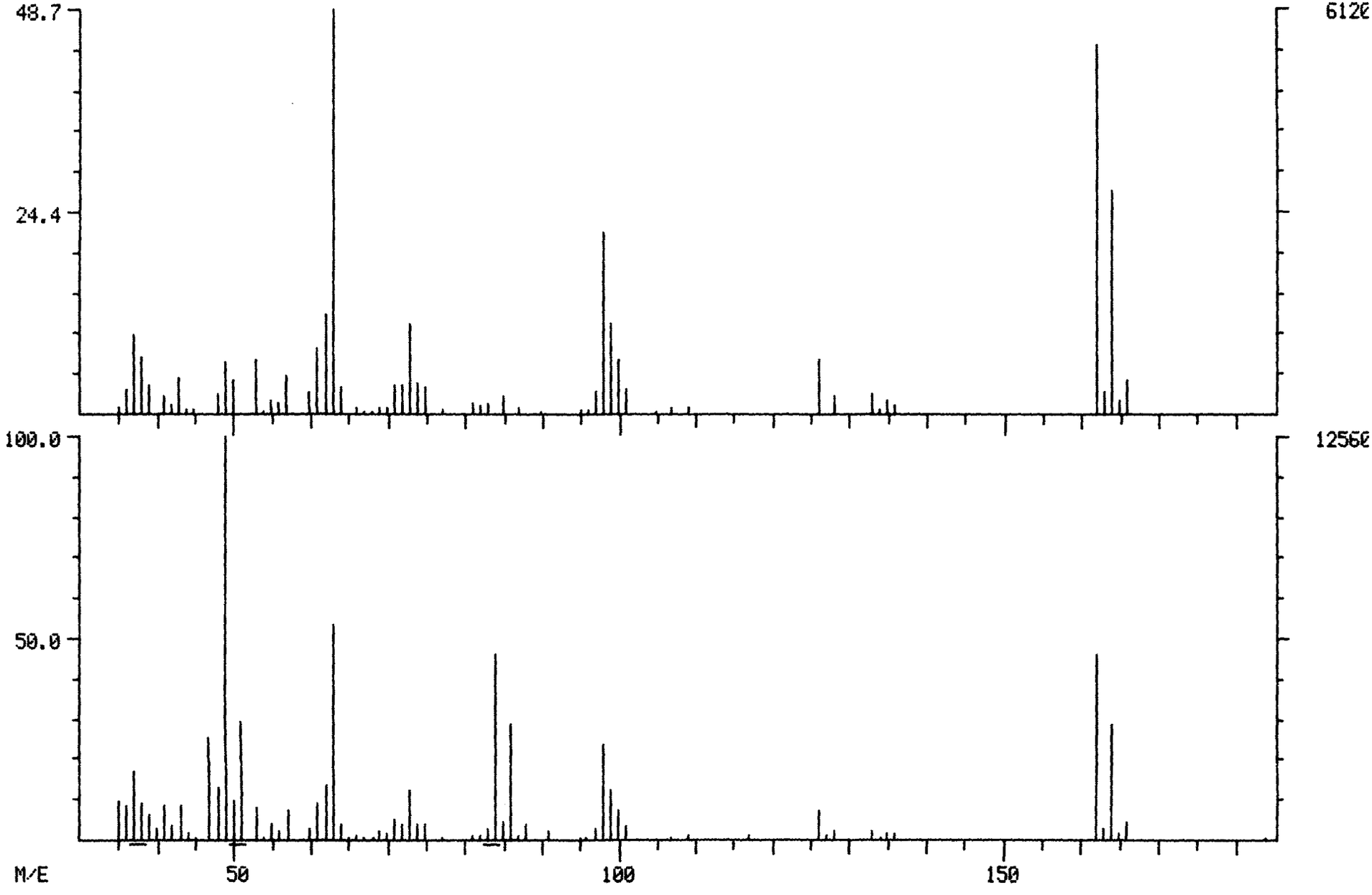
DUAL MASS SPECTRUM
01/14/82 14:33:00 + 6:03
SAMPLE: 2 UL 11416 ON OWA#5
ENHANCED (S 15B 2N)



602

DUAL MASS SPECTRUM
01/14/82 14:33:00 + 10:13
SAMPLE: 2 UL 11416 ON OWA#5
ENHANCED (S 15B 2N)

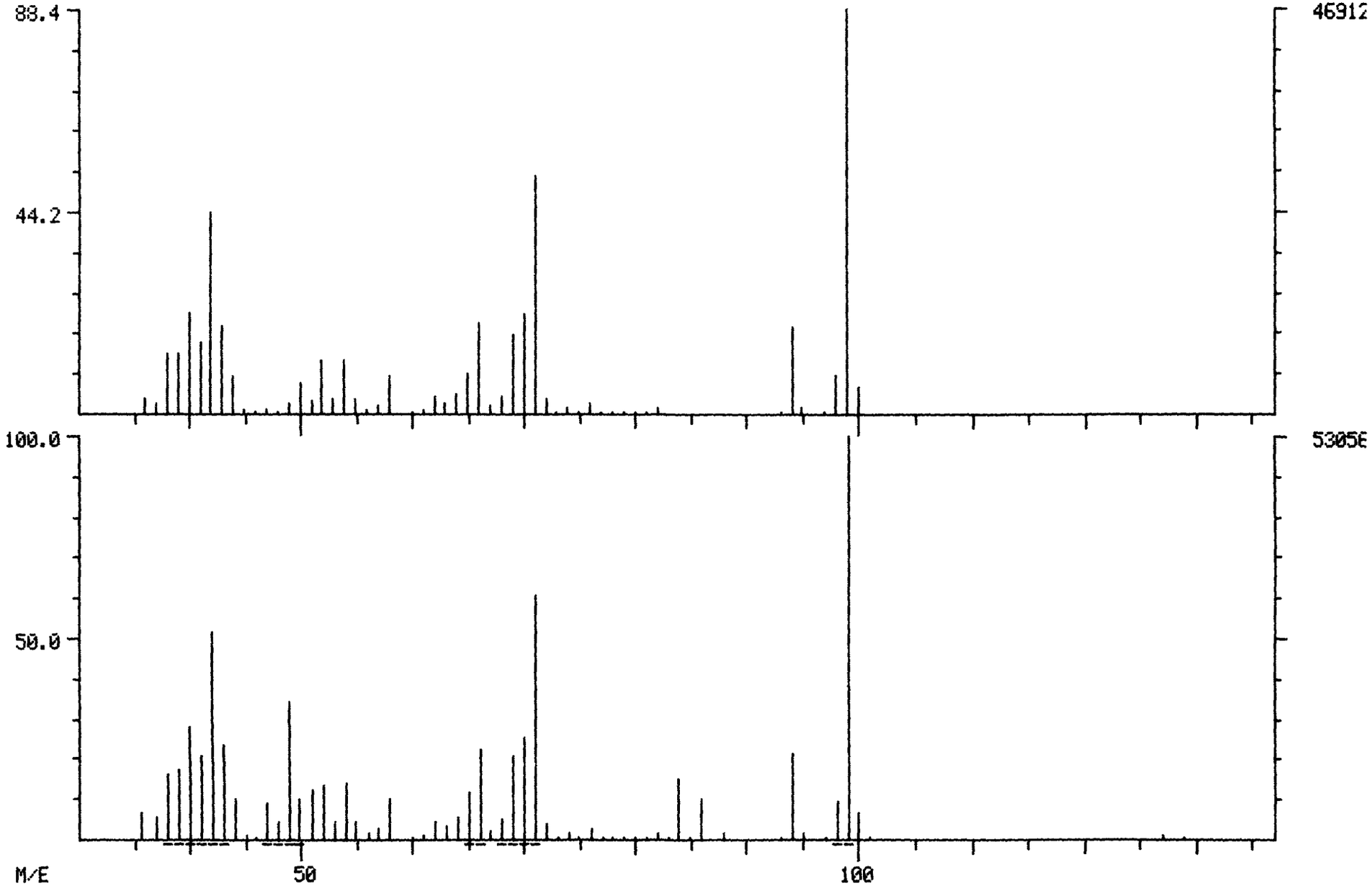
DATA: AH011416A05 #201 BASE M/E: 63/ 49
RIC: 39359./ 80383.



6/0 108-95-2

DUAL MASS SPECTRUM
01/14/82 14:33:00 + 8:02
SAMPLE: 2 UL 11416 ON OWA#5
ENHANCED (S 15B 2N)

DATA: AH011416A05 #158 BASE M/E: 99/ 99
RIC: 253695./ 346623.

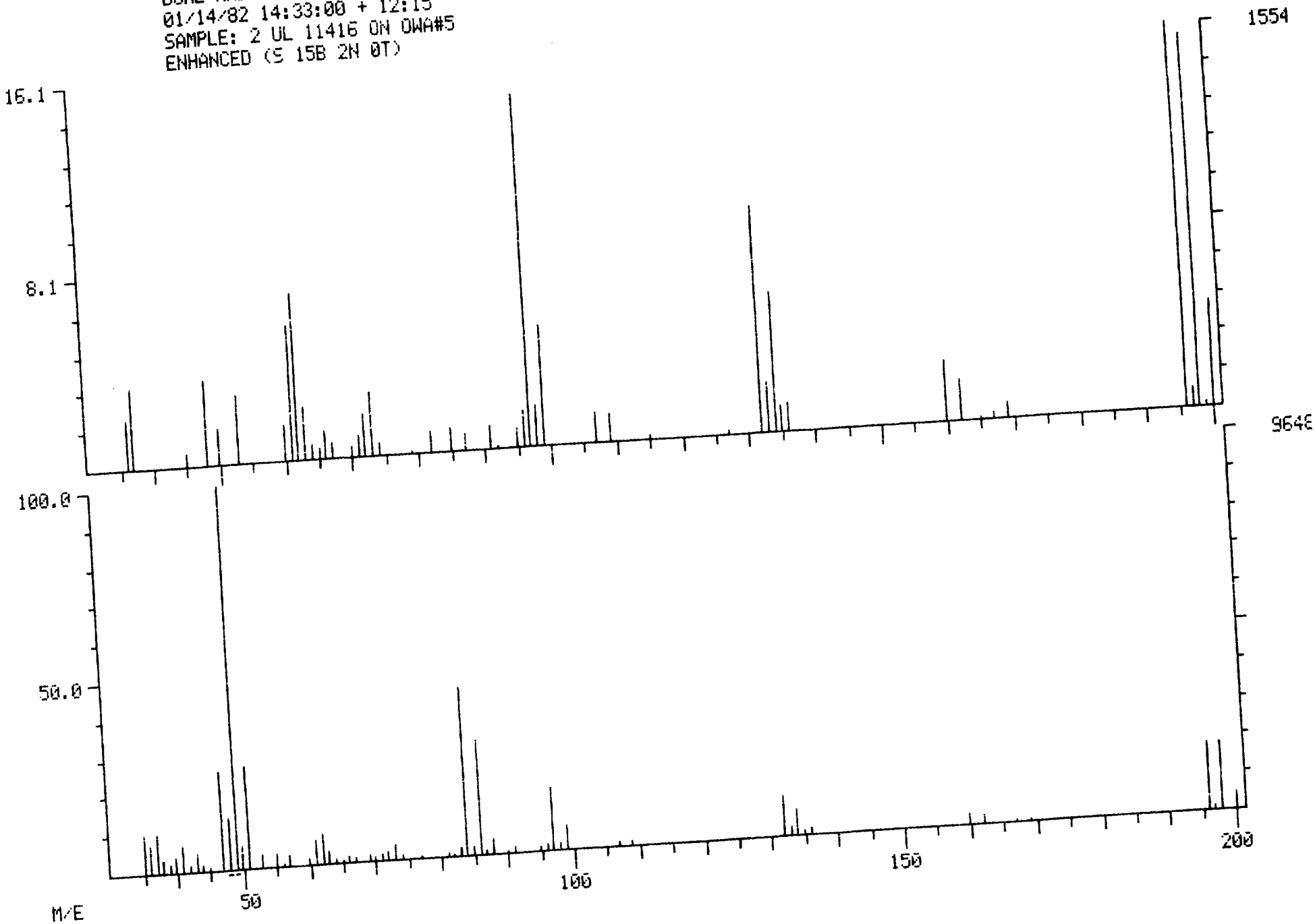


88-06-2

6 11

DATA: AH011416A05 #241 BASE M/E: 196/ 49
CALI: AH011416A05 #1 RIC: 12799./ 44415.

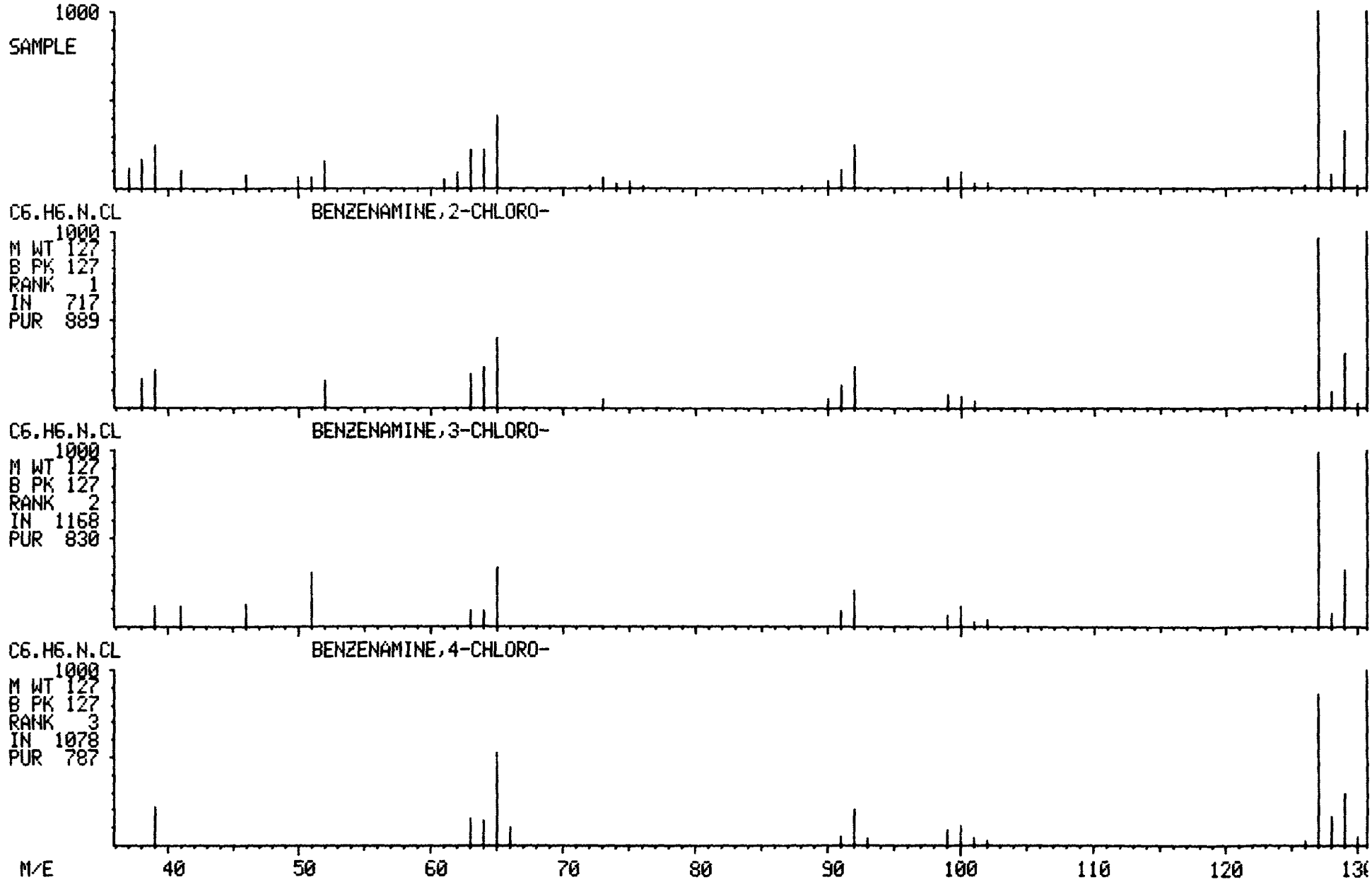
DUAL MASS SPECTRUM
01/14/82 14:33:00 + 12:15
SAMPLE: 2 UL 11416 ON OWA#5
ENHANCED (S 15B 2N 0T)



(11)

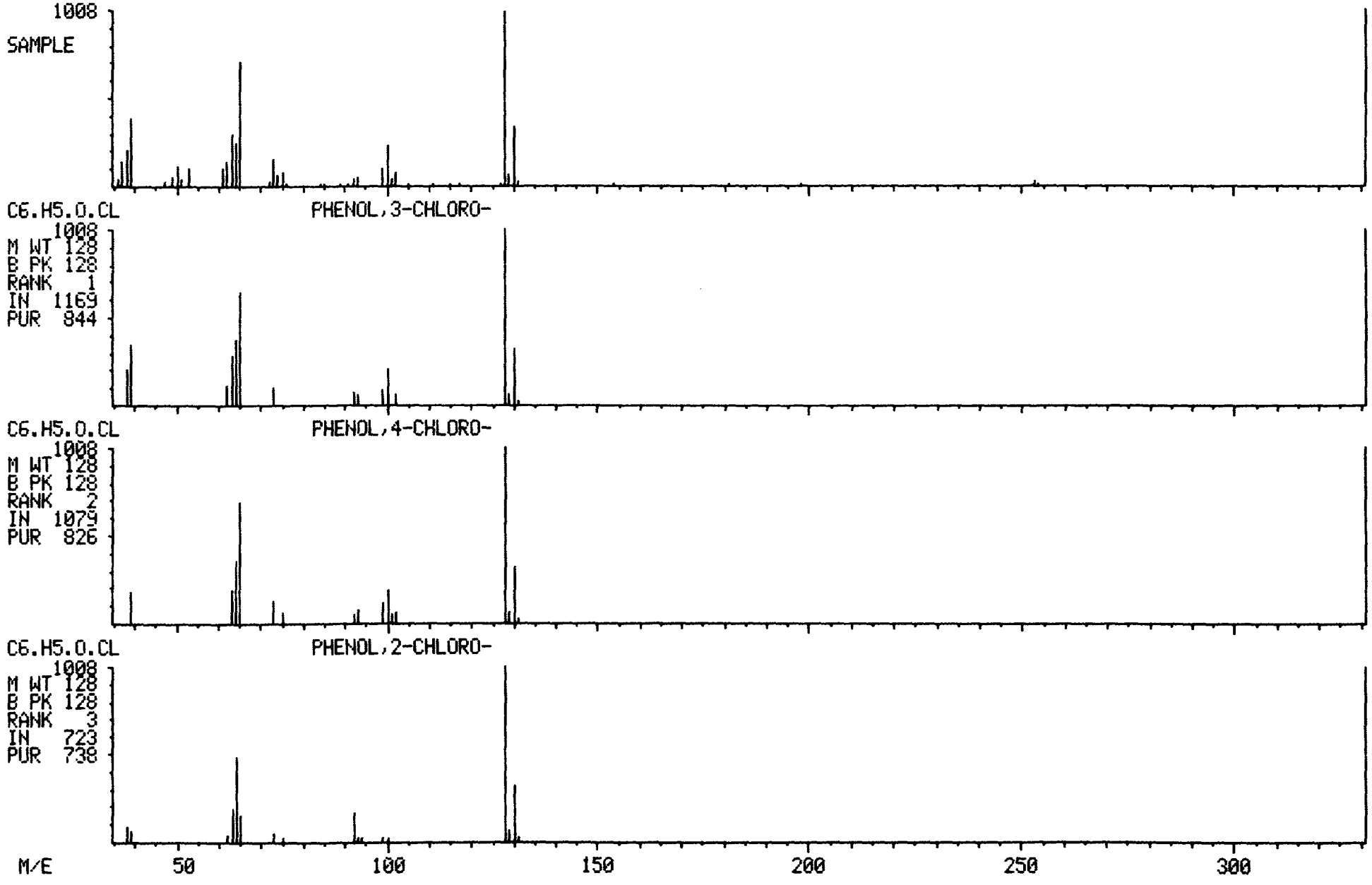
LIBRARY SEARCH
01/14/82 14:33:00 + 7:31
SAMPLE: 2 UL 11416 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011416A05 # 148
BASE M/E: 127
RIC: 58303.



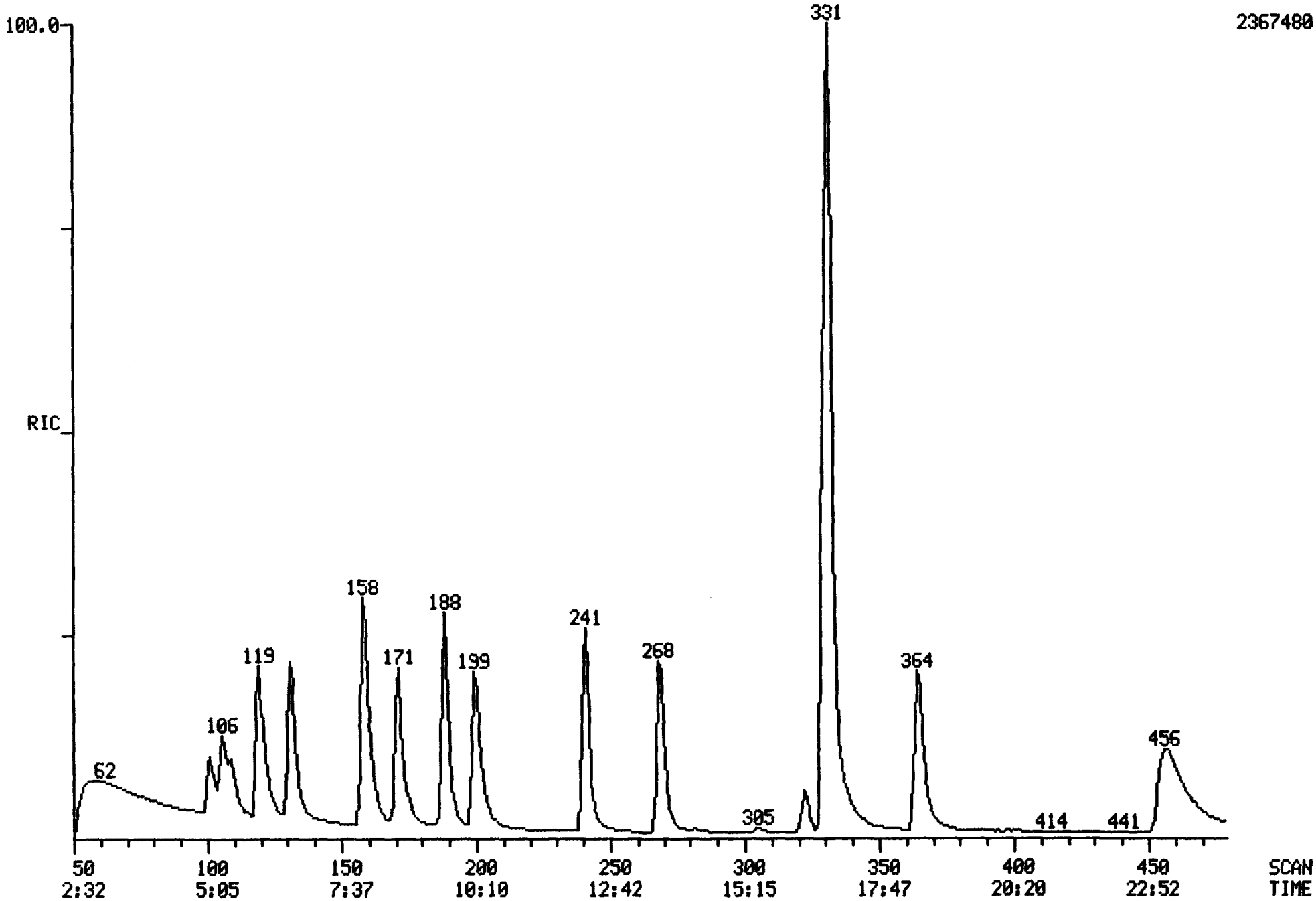
LIBRARY SEARCH
01/14/82 14:33:00 + 12:49
SAMPLE: 2 UL 11416 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011416A05 # 252
BASE M/E: 128
RIC: 85375.



RIC
01/14/82 10:25:00
SAMPLE: 2 UL ACID STANDARD ON OWA#5

DATA: HA820114A05 SCANS 50 TO 479



FORM IA

GC/MS PERFORMANCE STANDARD - Decafluorotriphenylphosphine

Date ___/___/___ Run no. _____ Analyst _____

#9:

m/e	Ion Abundance Criteria	SPEC #	SPEC #	SPEC #
51	30-60% of mass 198	57		
68	less than 2% of mass 69	<2		
70	less than 2% of mass 69	<2		
127	40-60% of mass 198	48		
197	less than 1% of mass 198	4		
198	base peak, 100% relative abundance	100		
199	5-9% of mass 198	6		
275	10-30% of mass 198	21		
365	1% of mass 198	1		
441	less than mass 443	<443		
442	greater than 40% of mass 198	740		
443	17-23% of mass 442	17		

TAILING FACTORS

Compound	Tailing Factor
PCP	2.8

MASS LIST

DATA: DH820114A05 # 91

BASE M/E: 198
RIC: 113408.

01/14/82 9:56:00 + 4:38
SAMPLE: 2 UL DFTPP ON OWA#5
#91 TO #92 SUMMED - #85 X1.00

Acid

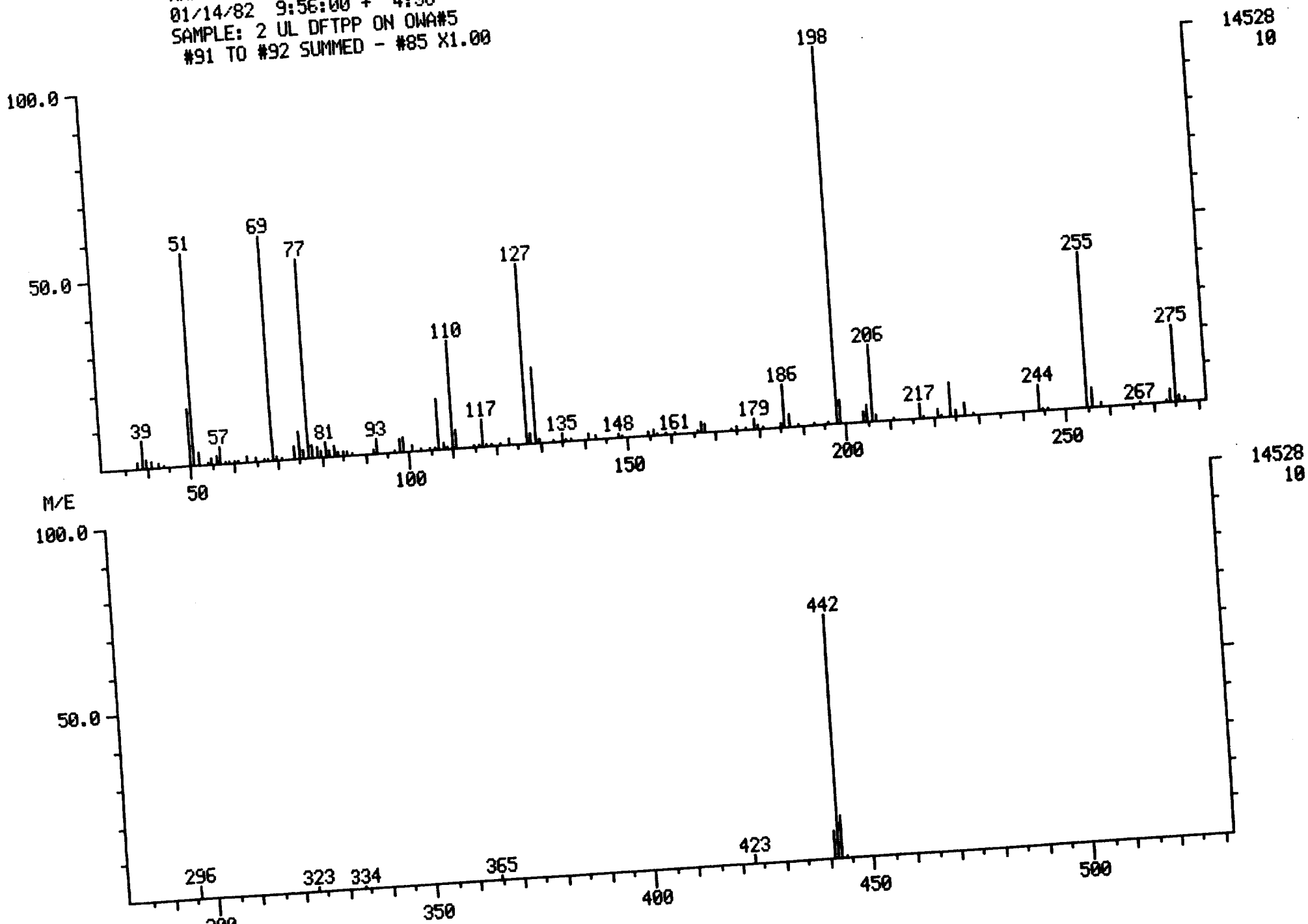
38 0.00 MINIMA MIN INTEN: 0.
444 # 0 MAXIMA

MASS	% RA	MASS	% RA	MASS	% RA
38	1.45	107	13.52	211	0.46
39	7.60	108	1.93	217	4.02
40	2.06	109	0.38	218	0.33
41	1.65	110	28.69	221	2.13
42	0.11	111	5.05	222	0.32
43	0.96	115	0.83	224	9.25
44	0.54	116	0.74	225	1.78
45	0.28	117	7.48	227	3.39
49	0.25	118	0.39	229	0.34
50	15.14	119	0.49	244	6.84
51	56.50	121	0.68	245	0.34
52	3.61	123	1.62	246	0.59
54	0.34	127	47.91	255	41.30
55	1.63	128	3.07	256	5.27
56	2.04	129	20.59	258	1.24
57	4.41	130	0.95	267	0.43
58	0.32	133	0.41	273	0.34
59	0.77	135	2.38	274	3.31
60	0.47	136	0.37	275	20.57
61	0.83	137	0.33	276	1.71
63	1.93	141	1.75	277	1.16
65	1.03	143	0.95	296	3.25
67	0.81	148	1.10	323	1.21
68	0.67	149	0.78	334	0.41
69	60.13	155	1.31	365	0.98
70	1.17	156	1.85	423	2.46
71	0.77	157	0.41	441	7.53
74	3.55	159	0.34	442	65.20
75	7.52	161	0.75	443	11.04
76	2.04	166	0.50	444	0.45
77	53.08	167	3.07		
78	3.59	168	2.33		
79	2.81	174	0.59		
80	1.72	175	1.40		
81	4.05	177	0.47		
82	1.49	179	2.95		
83	2.74	180	1.09		
84	0.98	181	0.59		
85	1.12	185	1.28		
86	1.18	186	11.21		
87	0.77	187	3.14		
92	1.03	189	0.33		
93	4.07	193	0.52		
97	0.61	196	0.82		
98	3.56	198	100.00		
99	3.83	199	6.08		
101	1.76	204	2.56		
103	0.56	205	4.32		
105	0.83	206	20.18		
106	0.45	207	1.57		

DATA: DH820114A05 #91

BASE M/E: 198
RIC: 113408.

MASS SPECTRUM
01/14/82 9:56:00 + 4:38
SAMPLE: 2 UL DFTPP ON OWA#5
#91 TO #92 SUMMED - #85 X1.00



27-JAN-82

Mead CompuChem
INITIAL CALIBRATION DATA REPORT

Time: 9: 4

Research Triangle Park
Instrument: 5
Library: 5
Version: 5
Fraction: Acid

Compounds		Lab ID: HA000040C05 Std ID: 3305 (LOW) Conc	Area	Lab ID: HA000100805 Std ID: 3306 (MED) Conc	Area	Lab ID: HA000200805 Std ID: 3307 (HIGH) Conc	Area
D-8-NAPHTHALENE	(IS)	40.00	203983	40.00	133442	40.00	143229
D-8-NAPHTHALENE	(IS)	40.00	210148	40.00	133442	40.00	143229
D-10-ANTHRACENE	(IS)	40.00	252739	40.00	163425	40.00	157587

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
2-FLUOROPHENOL	20.00	.377	.924	50.00	.397	.933	100.00	.403	.923	.903
D-6-PHENOL	20.00	.437	1.533	50.00	.432	1.524	100.00	.497	1.509	.902
PENTAFLUOROPHENOL	20.00	.310	1.590	50.00	.317	1.590	100.00	.321	1.575	.960
4-FLUOROBIPHENYL	20.00	.836	1.600	50.00	.839	1.600	100.00	.812	1.585	-.889
D-5-NITROBENZENE	20.00	.560	1.000	50.00	.542	1.010	100.00	.530	1.000	-.963
2-CHLOROPHENOL	40.00	.413	1.114	100.00	.431	1.105	200.00	.447	1.104	.983
2-NITROPHENOL	40.00	.228	1.248	100.00	.234	1.248	200.00	.251	1.238	.997
PHENOL	40.00	.479	1.524	100.00	.497	1.524	200.00	.499	1.509	.854
2,4-DIMETHYLPHENOL	40.00	.314	1.810	100.00	.314	1.800	200.00	.236	1.792	-.927
2,4-DICHLOROPHENOL	40.00	.369	1.876	100.00	.372	1.867	200.00	.378	1.858	.994
2,4,6-TRICHLOROPHENOL	40.00	.235	.752	100.00	.228	.752	200.00	.242	.752	.613
P-CHLORO-M-CRESOL	40.00	.222	.849	100.00	.216	.849	200.00	.236	.846	.785
2,4-DINITROPHENOL	200.00	.020	1.075	500.00	.024	1.037	1000.00	.056	1.044	.960
4,6-DINITRO-O-CRESOL	200.00	.069	1.057	500.00	.081	1.050	1000.00	.125	1.044	.983
PENTACHLOROPHENOL	40.00	.141	1.135	100.00	.140	1.135	200.00	.155	1.129	.907
4-NITROPHENOL	100.00	.034	1.519	250.00	.050	1.509	500.00	.047	1.498	.882

27-JAN-82

Mead CompuChem
STANDARD RESPONSE FACTOR CHECK REPORT

Time: 9: 5

Research Triangle Park
Instrument: 5
Library: 3
Version: 5
Fraction: Acid

Compounds		STD ID 3307 (HIGH) Area(C)	ID: HA820119C05 Analyst: 616 Area(CK)	RXD **	ID: HA820114A05 Analyst: 616 Area(CK)	RXD **	ID: HA820112B05 Analyst: 615 Area(CK)	RXD **
D-8-NAPHTHALENE	(IS)	143229	107378	28.6	138841	4.8	79097	37.7
D-8-NAPHTHALENE	(IS)	143229	114760	22.1	137571	4.0	79097	37.7
D-10-ANTHRACENE	(IS)	157387	141527	10.6	157909	-.3	112558	33.2
		RF (C)	RF (CK)	RXD **	RF (CK)	RXD **	RF (CK)	RXD **
2-FLUOROPHENOL		.403	.418	3.7	.409	1.8	.412	2.2
D-6-PHENOL		.497	.480	-3.5	.492	-1.0	.525	5.5
PENTAFLUOROPHENOL		.321	.042	-153.7	.290	-10.4	.341	6.0
4-FLUOROBIPHENYL		.812	.131	-144.4	.828	2.0	.898	10.2
D-5-NITROBENZENE		.530	.627	16.8	.639	18.8	.633	17.8
2-CHLOROPHENOL		.447	.443	-.9	.453	1.3	.457	2.2
2-NITROPHENOL		.251	.247	-1.7	.257	2.2	.258	2.7
PHENOL		.499	.470	-6.0	.507	1.6	.542	8.5
2,4-DIMETHYLPHENOL		.238	.345	37.5	.345	37.4	.380	46.8
2,4-DICHLOROPHENOL		.378	.380	.4	.377	-.4	.424	11.4
2,4,6-TRICHLOROPHENOL		.242	.227	-6.4	.239	-1.4	.228	-6.3
P-CHLORO-M-CRESOL		.236	.244	3.3	.262	10.5	.250	5.9
2,4-DINITROPHENOL		.030	.093	49.5	.070	21.8	.079	53.0
4,6-DINITRO-O-CRESOL		.125	.147	15.7	.135	7.2	.137	9.0
PENTACHLOROPHENOL		.155	.211	30.2	.206	28.1	.219	33.8
4-NITROPHENOL		.047	.196	122.4	.193	121.4	.205	124.4

$$** \ RXD = \frac{(CK-C)}{(CK+C) / 2} \times 100$$

27-JAN-82

Mead CompuChem
STANDARDS RELATIVE RETENTION REPORT

Time: 9: 9

Research Triangle Park
Instrument: 5
Library: 5
Version: 5
Fraction: Acid

Compounds		Initial Run ID: HA000200805 STD Conc	Initial Run RRT	Check Standards ID: HA820119C05 RRT	Diff	ID: HA820114A05 RRT	Diff	ID: HA820112805 RRT	Diff
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2-FLUOROPHENOL		100.00	.925	.920	.005	.927	-.002	.927	-.003
D-6-PHENOL		100.00	1.509	1.438	.072	1.450	.060	1.455	.055
PENTAFLUOROPHENOL		100.00	1.575	1.545	.031	1.569	.007	1.564	.012
4-FLUOROBIPHENYL		100.00	1.585	1.554	.031	1.569	.016	1.564	.021
D-5-NITROBENZENE		100.00	1.000	.973	.027	.972	.028	.973	.027
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2-CHLOROPHENOL		200.00	1.104	1.089	.014	1.092	.012	1.091	.013
2-NITROPHENOL		200.00	1.236	1.196	.039	1.202	.034	1.200	.036
PHENOL		200.00	1.509	1.438	.072	1.450	.060	1.455	.055
2,4-DIMETHYLPHENOL		200.00	1.792	1.714	.078	1.725	.068	1.727	.065
2,4-DICHLOROPHENOL		200.00	1.858	1.804	.055	1.826	.033	1.827	.031
D-10-ANTHRACENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2,4,6-TRICHLOROPHENOL		200.00	.752	.746	.006	.745	.007	.750	.002
P-CHLORO-M-CRESOL		200.00	.846	.832	.015	.832	.014	.836	.010
2,4-DINITROPHENOL		1000.00	1.044	1.018	.026	1.022	.022	1.022	.022
4,6-DINITRO-O-CRESOL		1000.00	1.044	1.024	.019	1.028	.016	1.028	.016
PENTACHLOROPHENOL		200.00	1.129	1.128	.000	1.130	-.002	1.130	-.001
4-NITROPHENOL		500.00	1.498	1.419	.079	1.416	.082	1.426	.073

MEAD CORPUCHEM
Internal Standard Response Verification Report

Research Triangle Park
Fraction: Acid

12-JAN-82 09:19 - 20-JAN-82 19:27

Instrument# 3
Library# 3
Version# 5

			Int. Std. A			Int. Std. B				Int. Std. C			
			D=8=NAPHTHALENE Conc: 40.0000			D=10=ANTHRACENE Conc: 40.0000				D=12=CHRYSENE Conc: .0000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
AH011459A05	14-JAN-82	616	108	113788.	.3354	322	208551.	1.0000	.5456				
AH011452A05	14-JAN-82	616	108	126043.	.3364	321	125560.	1.0000	1.0038				
AH011415A05	14-JAN-82	616	108	114809.5	.3364	321	152451.	1.0000	.7531				
AH011416A05	14-JAN-82	616	107	122774.	.3323	322	155308.	1.0000	.7905				
AH011417A05	14-JAN-82	616	108	131247.	.3354	322	152116.	1.0000	.8628				
HA820115A05	15-JAN-82	531	109	118564.	.3354	325	142048.	1.0000	.7875				
AH011141A05	15-JAN-82	673	109	109856.	.3364	324	153342.	1.0000	.7164				
AH011142A05	15-JAN-82	615	110	108293.10	.3385	325	144131.	1.0000	.7514				
AH011143A05	15-JAN-82	615	110	101920.	.3385	325	130747.	1.0000	.7795				
AH011144A05	15-JAN-82	615	110	90998.	.3385	325	128923.	1.0000	.7058				
AH011145A05	15-JAN-82	615	110	93588.	.3385	325	131813.	1.0000	.7099				
AH011146A05	15-JAN-82	615	110	103205.	.3385	325	139346.	1.0000	.7406				
AH011147A05	15-JAN-82	615	110	82885.	.3385	325	114002.	1.0000	.7270				
AH011578A05	16-JAN-82	593	110	73677.**16	.3374	326	94312.**16	1.0000	.7812				
HA820116A05	16-JAN-82	593	109	118557.	.3364	324	150423.	1.0000	.7882				
AH011224A05	16-JAN-82	593	109	105917.	.3354	325	126763.	1.0000	.8356				
AH011225A05	16-JAN-82	593	109	89825.	.3364	324	113366.	1.0000	.7923				
AH011226A05	16-JAN-82	593	110	81834.20	.3385	325	107341.20	1.0000	.7624				
AH011227A05	16-JAN-82	593	109	79591.**	.3354	325	105652.21	1.0000	.7533				
AH011228A05	16-JAN-82	593	109	86213.	.3354	325	114133.	1.0000	.7554				
AH011229A05	16-JAN-82	593	108	84755.	.3344	323	105329.	1.0000	.8047				
AH011567A05	16-JAN-82	593	110	94462.	.3385	325	121706.	1.0000	.7761				
AH011568A05	16-JAN-82	593	109	119328.125	.3354	325	139864.25	1.0000	.8532				
AH011570A05	16-JAN-82	593	110	90501.	.3385	325	114884.26	1.0000	.7878				
HA820119C05	20-JAN-82	616	112	107376.	.3425	327	141527.	1.0000	.7587				
AH011060C05	20-JAN-82	616	111	99408.	.3405	326	170744.	1.0000	.5822				
AH011061C05	20-JAN-82	616	110	79612.**	.3374	326	115848.	1.0000	.6872				
AH011062C05	20-JAN-82	616	110	100259.	.3374	326	132916.	1.0000	.7543				
AH011068C05	20-JAN-82	616	110	96939.	.3374	326	133546.	1.0000	.7259				
AH011073A05	20-JAN-82	593	110	67749.**	.3374	326	101718.	1.0000	.6660				
AH011072A05	20-JAN-82	593	110	75347.**	.3374	326	222576.	1.0000	.3385*				
AH011843A05	20-JAN-82	593	111	81168.	.3405	326	107329.	1.0000	.7563				

2-1

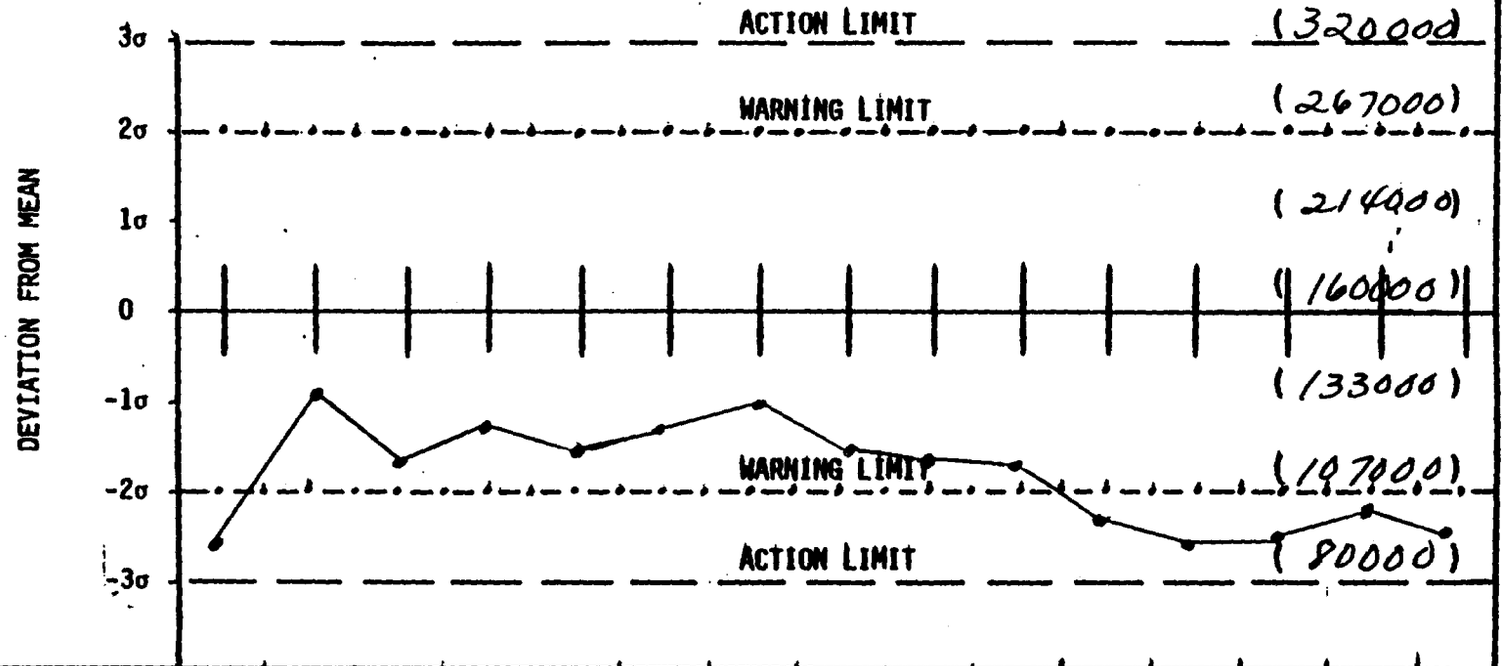
2-2

3-1

PAGE # 2-1

METHOD ACID #5-V

I. STD D8-NAPHTHALENE

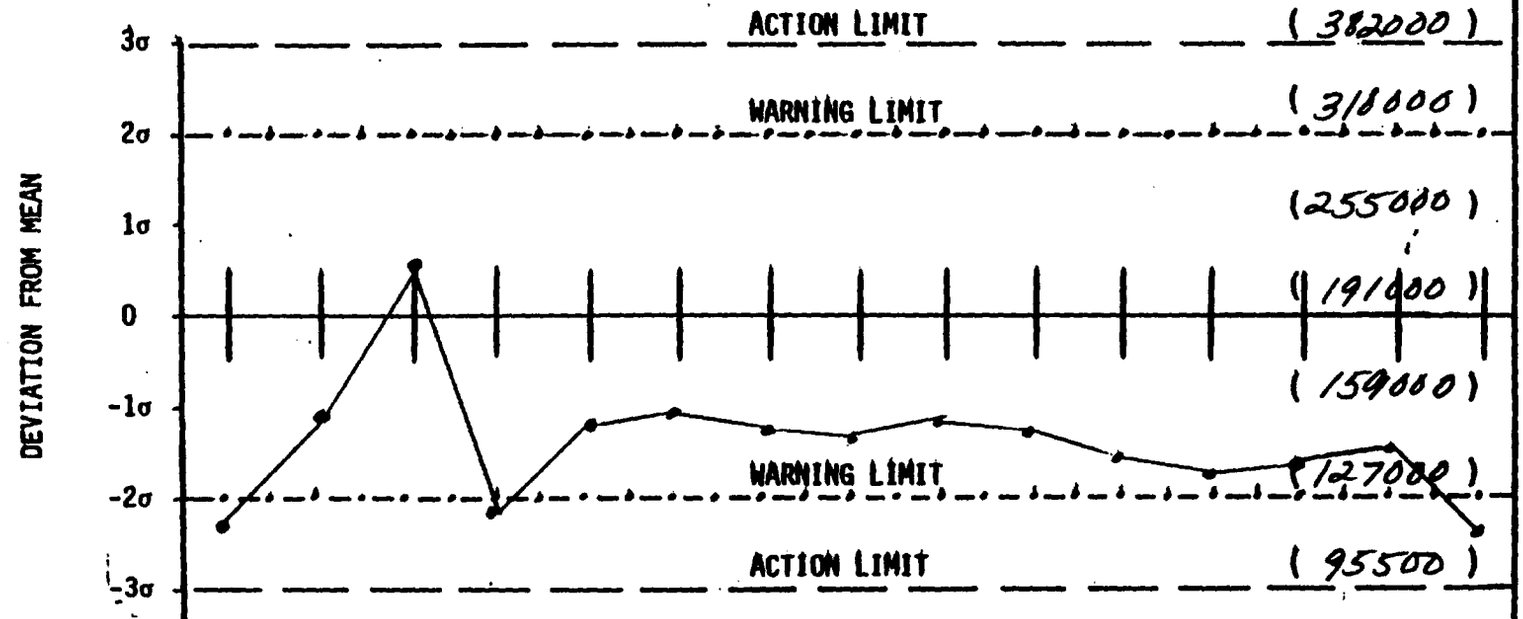


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/13/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82
OPERATOR	616	616	616	616	616	616	616	531	673	615	615	615	615	615	615
PROBLEM AND CORRECTIVE ACTION															

PAGE #2 -1

METHOD ACID #5-II

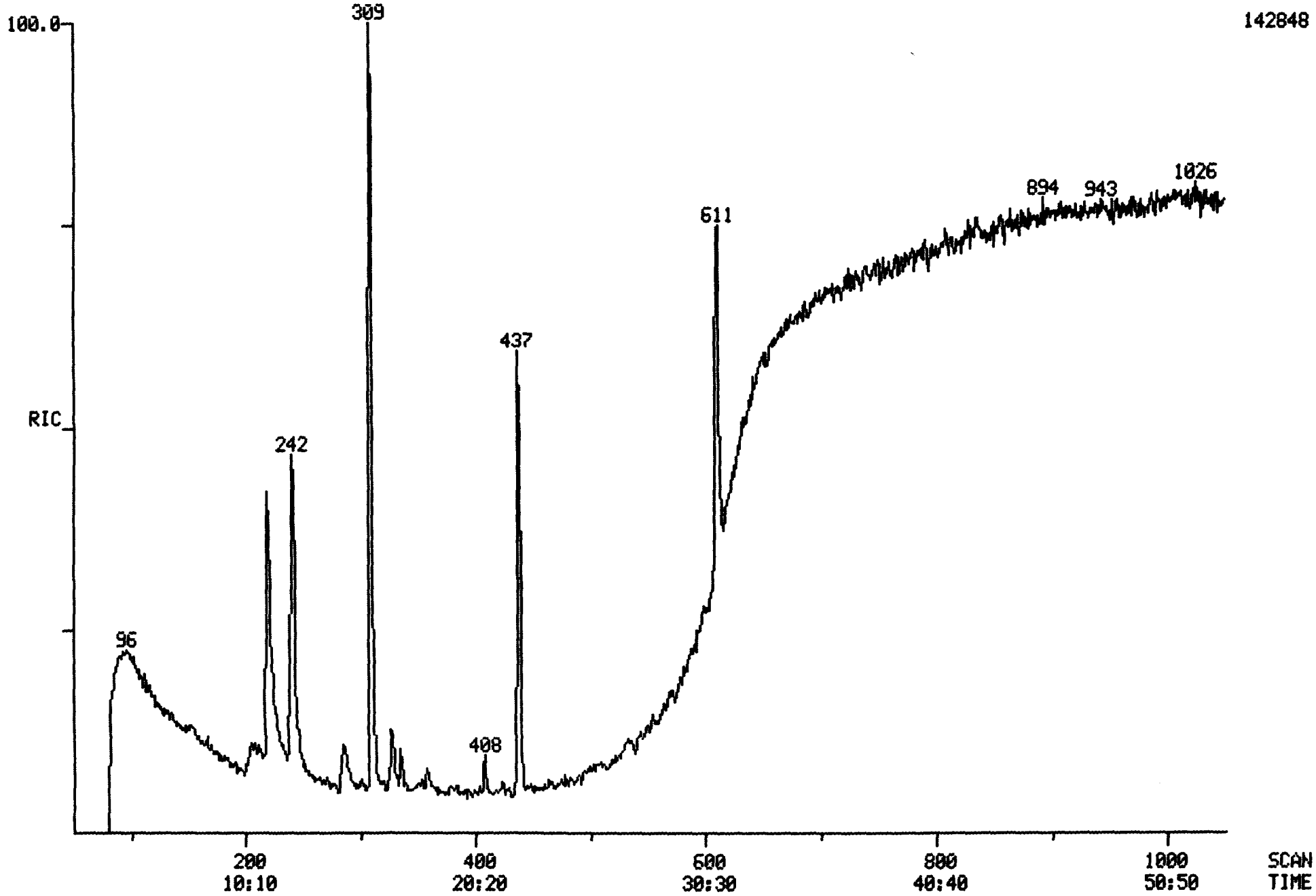
1. STD D10 ANTHRACENE



RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/13/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82
OPERATOR	616	616	616	616	616	616	616	531	673	615	615	615	615	615	615
PROBLEM AND CORRECTIVE ACTION															

RIC
01/19/82 13:15:00
SAMPLE: 2UL B/N HW 11416 ON #3

DATA: BH011416A03 SCANS 50 TO 1050



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: BH011416A03

DATA: BH011416A03.TI
01/19/82 13:15:00
SAMPLE: 2UL B/N HW 11416 ON #3
SUBMITTED BY: #3 ANALYST: SS

AMOUNT=AREA(HGHT) * REF.AMNT/(REF.AREA(HGHT)* RESP.FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	D-5 NITROBENZENE (SURROGATE STANDARD)
3	2-FLUOROBIPHENYL (SURROGATE STANDARD)
4	D-8 NAPHTHALENE (INTERNAL STANDARD)
5	1,3-DICHLOROBENZENE
6	1,4-DICHLOROBENZENE
7	HEXACHLOROETHANE
8	BIS (2-CHLOROETHYL) ETHER
9	1,2-DICHLOROBENZENE
10	BIS (2-CHLOROISOPROPYL) ETHER
11	N-NITROSO-DI-N-PROPYLAMINE
12	NITROBENZENE
13	HEXACHLOROBUTADIENE
14	1,2,4-TRICHLOROBENZENE
15	NAPHTHALENE
16	BIS (2-CHLOROETHOXY) METHANE
17	ISOPHORONE
18	ISOPHORONE
19	2-CHLORONAPHTHALENE
20	ACENAPHTHYLENE
21	D-10 ANTHRACENE (INTERNAL STANDARD)
22	ACENAPHTHENE
23	DIMETHYL PHTHALATE
24	2,6-DINITROTOLUENE
25	4-CHLOROPHENYL PHENYL ETHER
26	FLUORENE
27	2,4-DINITROTOLUENE
28	DIETHYL PHTHALATE
29	1,2-DIPHENYLHYDRAZINE
30	N-NITROSODIPHENYL AMINE
31	HEXACHLOROBENZENE
32	4-BROMOPHENYL PHENYL ETHER
33	ANTHRACENE AND/OR PHENANTHRENE
34	DI-N-BUTYL PHTHALATE
35	FLUORANTHENE
36	PYRENE
37	2,4-DINITROTOLUENE (SECONDARY ION)
38	D-12 CHRYSENE (INTERNAL STANDARD)
39	BENZIDINE
40	BUTYL BENZYL PHTHALATE
41	BIS (2-ETHYLHEXYL) PHTHALATE
42	BIS (2-HEXYLETHYL)PHTHALATE (SECONDARY ION)
43	BENZO (A) ANTHRACENE AND/OR CHRYSENE
44	3,3' DICHLOROBENZIDINE
45	DI-OCTYL PHTHALATE
46	BENZO (B AND K) FLUORANTHENES

NO	NAME
47	BENZO (A) PYRENE
48	INDENO (1,2,3-CD)PYRENE
49	DI BENZO(A,H) ANTHRACENE
50	BENZO(G,H,I) PERYLENE

D8 28%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	242	12:18	1	1.000	A BB	69525.	40.000	NG/UL	11.37
2	82	220	11:11	1	0.909	A BB	82655.	110.755	NG/UL	31.49
3	172	309	15:42	1	1.277	A BB	122228.	74.590	NG/UL	21.21
4	136	242	12:18	4	1.000	A BB	69525.	40.000	NG/UL	11.37
5	NOT FOUND									
6	146	151	7:41	4	0.624	A BB	1646.	1.826	NG/UL	0.52
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	45	179	9:06	4	0.740	A BB	296.	0.315	NG/UL	0.09
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	NOT FOUND									
15	NOT FOUND									
16	NOT FOUND									

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
17	82	272	13:50	4	1.124	A BB	324.	0.306	NG/UL	0.09
18	82	274	13:56	4	1.132	A BV	455.	0.430	NG/UL	0.12
19	NOT FOUND									
20	NOT FOUND									
21	188	437	22:13	21	1.000	A BB	94784.	40.000	NG/UL	11.37
22	NOT FOUND									
23	163	358	18:12	21	0.819	A BB	1626.	0.832	NG/UL	0.24
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	NOT FOUND									
31	NOT FOUND									
32	NOT FOUND									
33	NOT FOUND									
34	NOT FOUND									
35	202	516	26:14	21	1.181	A BB	290.	0.114	NG/UL	0.03
36	NOT FOUND									
37	NOT FOUND									
38	240	610	31:00	38	1.000	A BB	75324.	40.000	NG/UL	11.37
39	NOT FOUND									
40	149	579	29:26	38	0.949	A BB	870.	0.511	NG/UL	0.15
41	149	593	30:09	38	0.972	A VV	2657.	1.070	NG/UL	0.30
42	167	594	30:12	38	0.974	A BB	465.	0.563	NG/UL	0.16
43	NOT FOUND									
44	NOT FOUND									
45	149	633	32:11	38	1.038	A BB	1737.	0.443	NG/UL	0.13
46	NOT FOUND									
47	NOT FOUND									
48	NOT FOUND									
49	NOT FOUND									
50	NOT FOUND									

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 28 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUA

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUA

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	241	242	996	365	1	1	1	0
2	218	220	996	413	2	1	1	0
3	308	309	996	435	3	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 25 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUC

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUC

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
4	241	242	996	365	1	1	1	0
6	146	152	904	24	3	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
8	162	167	458	2	5	1	0	0
						**		
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
9	162	170	904	17	6	4	0	0
						**		
10	177	179	831	5	7	2	1	0
						**		
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
11	227	220	820	22	8	2	0	0
						**		
17	271	274	869	16	14	4	2	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 7 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
20	436	437	995	440	1	1	1	0
22	355	358	852	42	3	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
23	362	367	892	19	4	1	0	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
27	387	393	845	13	8	1	0	0
						**		
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
28	387	382	931	36	9	3	0	0
						**		
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
33	476	475	854	10	14	3	0	0
34	514	516	869	11	15	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
35	529	531	851	4	16	1	0	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -3 PERCENT OF THE LAST STANDARD

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUV

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
37	609	610	996	271	1	1	1	0
						**		
39	579	579	813	42	3	2	1	0
						**		
40	593	594	956	16	4	2	1	0
						**		
41	593	594	956	16	5	2	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
43	627	624	802	6	7	2	0	0
						**		
44	631	633	996	11	8	3	1	0
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
47	886	892	778	1	11	1	0	0

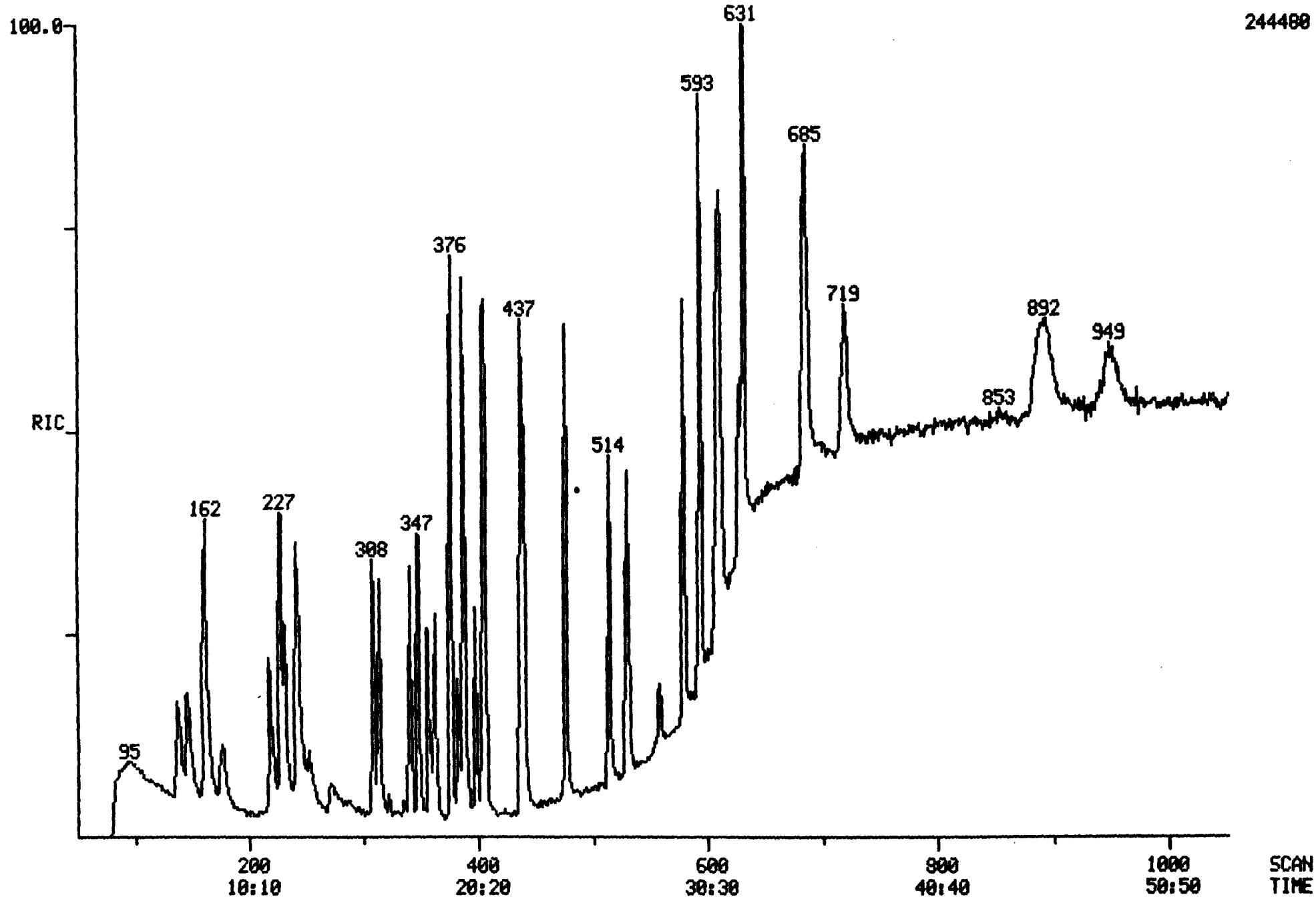
NUMBER OF COMPOUNDS IDENTIFIED 25

DATA PROCESSING OF BH011416A03 COMPLETED ON 1/19/82 14:19:03

RIC
01/19/82 10:21:00
SAMPLE: 2UL B/N HW STANDARD #3531 50NG/UL EXP.1/24/82 ON #3

DATA: HB820119A03

SCANS 50 TO 1050



GC/MS PERFORMANCE STANDARD - Decafluorotriphenylphosphine

Date 01/19/82 Run no. DH820119A03 Analyst SRS

#9:

m/e	Ion Abundance Criteria	SPEC #	SPEC #	SPEC #
51	30-60% of mass 198	31		
68	Less than 2% of mass 69	<2% 69		
70	Less than 2% of mass 69	<2% 69		
127	40-60% of mass 198	44		
197	Less than 1% of mass 198	<1% 198		
198	base peak, 100% relative abundance	100		
199	5-9% of mass 198	6		
275	10-30% of mass 198	17		
365	1% of mass 198	2		
441	Less than mass 443	<443		
442	greater than 40% of mass 198	45		
443	17-23% of mass 442	22% 442		

Tailing Factors

Compound	Tailing Factor
benzidene	1.5

MASS LIST DATA: DH820119A03 # 69 BASE M/E: 198
01/19/82 10:03:00 + 3:30 RIC: 40960.
SAMPLE: 2UL DFTPP/BENZIDENE #3540 EXP. 1/25/82 ON #3
#69 TO #70 SUMMED - #82 X1.00

BN

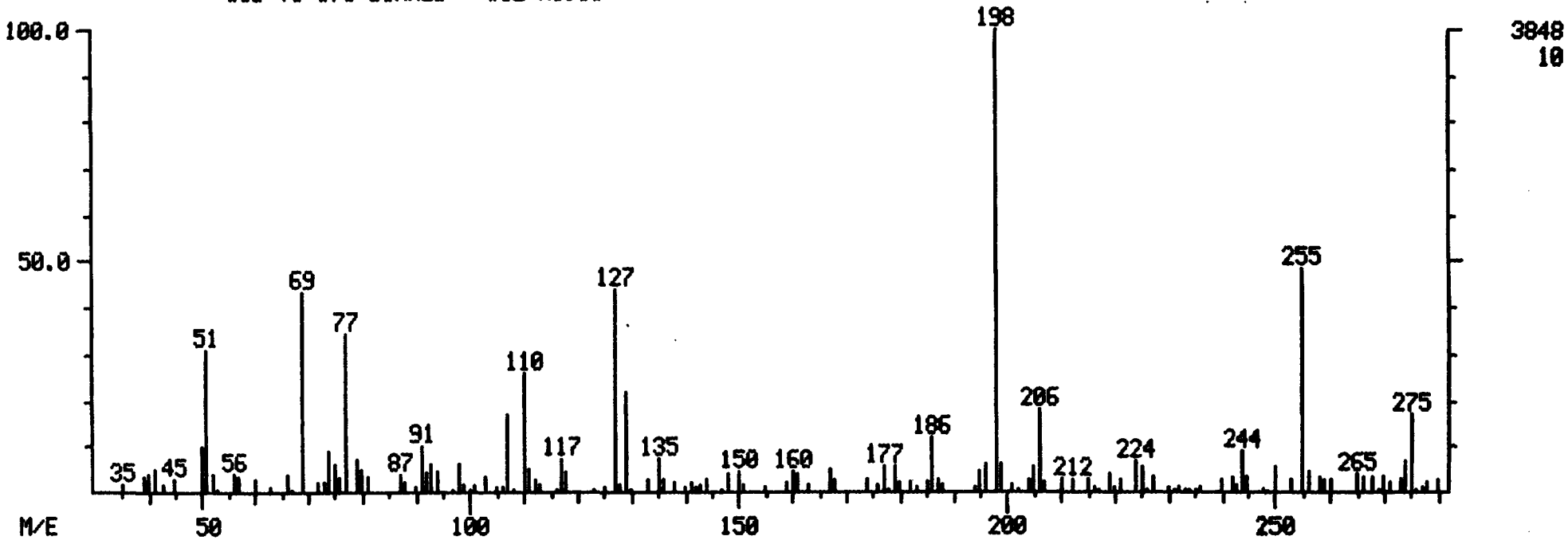
35 0.00 MINIMA MIN INTEN: 30.
449 # 0 MAXIMA

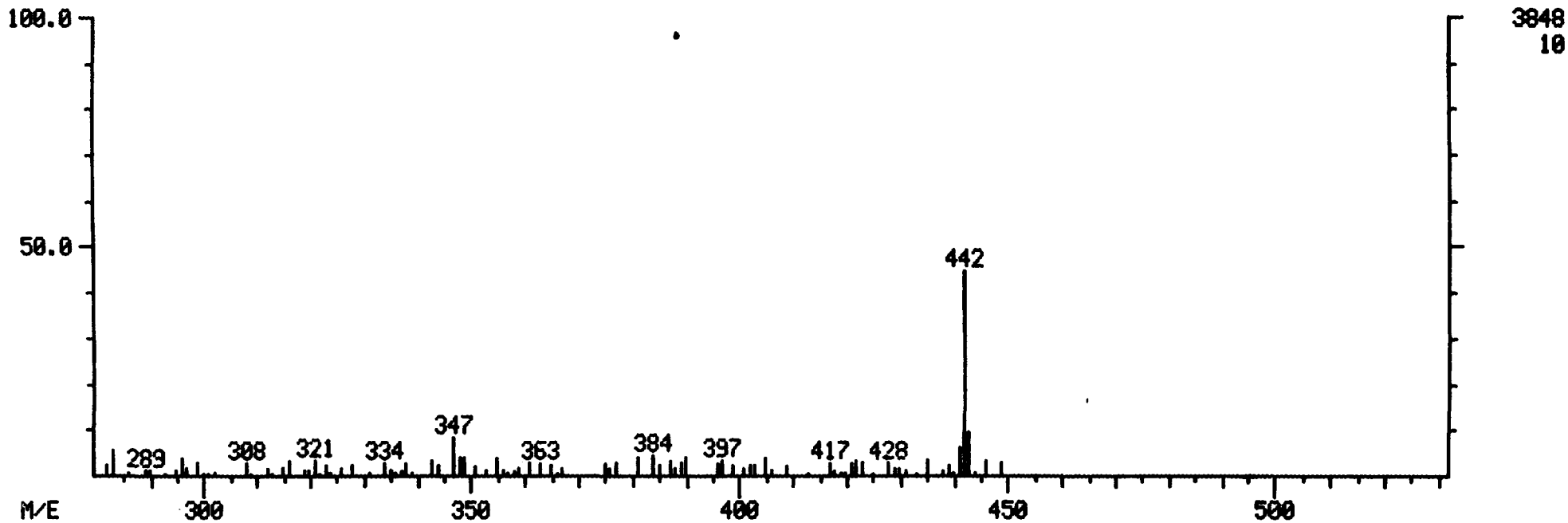
MASS	% RA	MASS	% RA	MASS	% RA	MASS	% RA
35	1.87	135	7.54	232	1.25	347	8.68
39	3.53	136	2.55	236	0.96	348	4.21
40	3.82	138	2.39	240	2.88	349	4.21
41	5.15	140	1.22	242	3.25	351	2.36
43	1.92	141	2.10	243	1.64	353	1.30
45	3.04	142	1.20	244	8.86	355	4.21
50	10.24	143	1.69	245	3.59	356	0.94
51	30.82	144	2.78	248	0.78	358	1.40
52	3.85	148	3.98	250	5.48	359	1.82
56	4.05	150	4.55	253	2.75	361	2.62
57	3.61	151	1.77	255	48.70	363	3.09
60	2.65	155	1.09	256	4.52	365	2.29
63	1.01	159	2.13	258	3.25	367	1.77
66	3.69	160	4.29	259	2.68	375	2.65
67	0.78	161	3.74	260	2.83	376	1.72
69	43.24	163	1.82	265	3.85	377	2.99
72	2.29	167	5.33	266	3.48	381	4.11
73	2.42	168	2.70	268	3.59	384	4.63
74	9.07	174	2.78	270	3.22	385	2.10
75	6.31	176	1.90	271	2.08	387	3.33
76	3.56	177	5.51	273	2.60	388	1.43
77	34.72	179	5.51	274	6.76	389	2.99
79	7.33	180	2.05	275	16.81	390	4.24
80	4.99	182	2.29	277	1.35	396	2.75
81	3.17	183	1.33	278	2.18	397	3.20
87	3.82	185	2.49	280	2.75	399	2.03
88	2.42	186	11.59	282	2.39	401	1.69
90	1.04	187	2.96	283	5.38	402	2.26
91	10.03	188	1.95	289	1.14	403	2.21
92	4.55	194	0.88	290	0.88	405	4.08
93	6.42	195	4.55	295	1.09	406	0.94
94	4.37	196	6.37	296	4.08	409	2.49
98	6.21	198	100.00	297	1.95	413	0.78
99	1.98	199	6.13	299	2.60	417	2.96
101	1.90	201	1.87	308	2.57	418	0.86
103	3.53	204	2.62	312	1.64	421	2.81
105	1.38	205	5.64	315	1.77	422	3.56
106	1.40	206	17.98	316	3.43	423	2.68
107	16.92	207	2.10	319	1.04	428	2.75
110	25.88	210	2.60	320	1.35	429	1.53
111	5.35	212	2.60	321	3.43	430	1.56
112	2.99	215	2.57	323	2.00	431	1.33
113	1.98	216	0.86	326	1.90	435	3.64
117	7.61	219	4.08	328	2.18	438	1.04
118	4.52	220	1.04	334	2.96	439	2.13
125	1.09	221	2.88	335	0.86	441	6.50
127	44.02	224	6.91	337	0.99	442	44.85
128	1.98	225	5.61	338	2.96	443	9.75
129	22.06	227	3.17	343	3.53	446	3.27
133	2.78	230	1.17	344	2.42	449	3.04

MASS SPECTRUM
01/19/82 10:03:00 + 3:30
SAMPLE: 2UL DFTPP/BENZIDENE #3540 EXP.1/25/82 ON #3
#69 TO #70 SUMMED - #82 X1.00

DATA: DH820119A03 #69

BASE M/E: 198
RIC: 40960.





27-JAN-82

Mead CompuChem
INITIAL CALIBRATION DATA REPORT

Time: 21: 0

Research Triangle Park
Instrument: 3
Library: 4
Version: 12
Fraction: Base/Neutral

Compounds		Lab ID: N8000020803 Std ID: 2311 (LOW) Conc	Area	Lab ID: N8820118803 Std ID: 2312 (MED) Conc	Area	Lab ID: N8000100803 Std ID: 2313 (HIGH) Conc	Area
D-8-NAPHTHALENE	(IS)	40.00	75324	40.00	89117	40.00	89122
D-8-NAPHTHALENE	(IS)	40.00	75324	40.00	89117	40.00	89122
D-10-ANTHRACENE	(IS)	40.00	101579	40.00	117086	40.00	115630
D-12-CHRYSENE	(IS)	40.00	80508	40.00	101568	40.00	93964

Compounds	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
D-5-NITROBENZENE	20.00	.370	.925	50.00	.387	.905	100.00	.437	.896	.990
2-FLUOROPHENOL	20.00	.918	1.275	50.00	.923	1.274	100.00	.905	1.275	-.775
1,3-DICHLOROBENZENE	20.00	.375	.600	50.00	.399	.589	100.00	.442	.592	1.000
1,4-DICHLOROBENZENE	20.00	.508	.629	50.00	.526	.618	100.00	.581	.625	.989
HEXACHLOROETHANE	20.00	.226	.683	50.00	.281	.680	100.00	.315	.683	.960
BIS (2-CHLOROETHYL) ETHER	20.00	.255	.738	50.00	.282	.697	100.00	.380	.675	.985
1,2-DICHLOROBENZENE	20.00	.402	.688	50.00	.406	.680	100.00	.454	.679	.952
BIS (2-CHLOROISOPROPYL) ETHER	20.00	.582	.746	50.00	.513	.739	100.00	.583	.738	.152
N-NITROSODI-N-PROPYLAMINE	20.00	.047	1.004	50.00	.046	.959	100.00	.018	.929	-.939
NITROBENZENE	20.00	.321	.929	50.00	.397	.909	100.00	.444	.904	.961
HEXACHLOROBUTADIENE	20.00	.383	.946	50.00	.407	.942	100.00	.402	.946	.655
1,2,4-TRICHLOROBENZENE	20.00	.391	.963	50.00	.399	.959	100.00	.410	.963	1.000
NAPHTHALENE	20.00	1.147	1.008	50.00	1.150	1.004	100.00	1.148	1.008	.133
BIS (2-CHLOROETHOXY) METHANE	20.00	.429	1.025	50.00	.426	1.012	100.00	.480	1.004	.933
ISOPHORONE	20.00	.600	1.175	50.00	.512	1.124	100.00	.434	1.096	-.984
2-CHLORONAPHTHALENE	20.00	.786	1.296	50.00	.803	1.295	100.00	.785	1.296	-.226
ACENAPHTHYLENE	20.00	1.287	1.408	50.00	1.158	1.407	100.00	1.153	1.408	-.802
ACENAPHTHENE	20.00	.600	.792	50.00	.581	.792	100.00	.579	.790	-.821
DIMETHYL PHTHALATE	20.00	.833	.819	50.00	.828	.812	100.00	.824	.808	-.982
2,6-DINITROTOLUENE	20.00	.133	.828	50.00	.156	.826	100.00	.172	.826	.968
4-CHLOROPHENYL PHENYL ETHER	20.00	.373	.858	50.00	.369	.858	100.00	.361	.858	.994
FLUORENE	20.00	.750	.860	50.00	.688	.860	100.00	.669	.858	-.902
2,4-DINITROTOLUENE	20.00	.159	.876	50.00	.183	.876	100.00	.231	.874	.999
DIETHYL PHTHALATE	20.00	.973	.892	50.00	.959	.888	100.00	.968	.886	-.226
1,2-DIPHENYLHYDRAZINE	20.00	.932	.886	50.00	.917	.886	100.00	.965	.888	.772
N-NITROSODIMETHYLAMINE	20.00	.425	.913	50.00	.409	.911	100.00	.412	.911	-.651
HEXACHLOROBENZENE	20.00	.422	.927	50.00	.405	.927	100.00	.399	.925	-.921
4-BROMOPHENYL PHENYL ETHER	20.00	.239	.931	50.00	.240	.929	100.00	.241	.929	.947
ANTHRACENE	40.00	.991	1.009	100.00	.981	1.005	200.00	.952	1.007	-.991
PHENANTHRENE	40.00	.991	1.009	100.00	.981	1.005	200.00	.952	1.007	-.991
DI-N-BUTYL PHTHALATE	20.00	1.544	1.094	50.00	1.701	1.092	100.00	1.692	1.089	.754
FLUORANTHENE	20.00	1.034	1.178	50.00	1.084	1.178	100.00	1.069	1.178	.576
PYRENE	20.00	1.095	1.215	50.00	1.130	1.215	100.00	1.110	1.213	.280
BENZIDINE	20.00	.324	.915	50.00	.174	.915	100.00	.171	.915	-.794
BUTYL BENZYL PHTHALATE	20.00	.919	.949	50.00	.859	.949	100.00	.866	.949	-.708
BIS (2-ETHYLHEXYL) PHTHALATE	20.00	1.351	.972	50.00	1.263	.972	100.00	1.295	.974	-.510
BIS (2-ETHYLHEXYL) PHTHALATE	20.00	.451	.972	50.00	.424	.972	100.00	.428	.974	-.703
BENZO (A) ANTHRACENE/CHRYSENE	40.00	1.206	1.002	100.00	1.108	1.002	200.00	1.090	.997	-.864
CHRYSENE/BENZO (A) ANTHRACENE	40.00	1.206	1.002	100.00	1.108	1.002	200.00	1.090	.997	-.864
3,3'-DICHLOROBENZIDINE	20.00	.355	1.029	50.00	.350	1.029	100.00	.337	1.029	-.996
DI-N-OCTYL PHTHALATE	20.00	2.287	1.036	50.00	2.248	1.036	100.00	2.194	1.036	-.999
3,4-BENZOFLUORANTHENE	20.00	1.087	1.121	50.00	1.111	1.121	100.00	1.075	1.121	-.474
BENZO (K) FLUORANTHENE	20.00	1.087	1.121	50.00	1.111	1.121	100.00	1.075	1.121	-.474
BENZO (A) PYRENE	20.00	.980	1.180	50.00	.979	1.180	100.00	1.005	1.180	.925
INDENO (1,2,3-CD) PYRENE	20.00	.973	1.458	50.00	.972	1.458	100.00	.995	1.460	.920

DIBENZO (A,H) ANTHRACENE	20.0U	.777	1.470	50.00	.815	1.470	100.00	.793	1.470	.274
BENZO (GHI) PERYLENE	20.0U	.848	1.560	50.00	.862	1.558	100.00	.826	1.560	-.714

27-JAN-82

Mead CompuChem
STANDARD RESPONSE FACTOR CHECK REPORT

Time: 19:24

Research Triangle Park
Instrument: 3
Library: 4
Version: 12
Fraction: Base/Neutral

STD ID 2512 (RED)
ID: HB820119A03
Analyst: 593

Compounds		Area(C)	Area(CK)	RXD **
D-8-NAPHTHALENE	(IS)	89117	53914	49.2
D-8-NAPHTHALENE	(IS)	89117	55309	46.8
D-10-ANTHRACENE	(IS)	117086	88317	28.0
D-12-CHRYSENE	(IS)	101568	76931	27.6

	RF (C)	RF (CK)	RXD **
D-5-NITROBENZENE	.387	.457	16.5
2-FLUOROPHENOL	.923	1.027	10.6
1,3-DICHLOROBENZENE	.399	.465	15.3
1,4-DICHLOROBENZENE	.526	.573	8.5
HEXACHLOROETHANE	.281	.298	5.9
BIS (2-CHLOROETHYL) ETHER	.282	.338	18.0
1,2-DICHLOROBENZENE	.406	.490	18.7
BIS (2-CHLOROISOPROPYL) ETHER	.513	.533	3.9
N-NITROSODI-N-PROPYLAMINE	.048	.029	-44.3
NITROBENZENE	.397	.461	15.0
HEXACHLOROBUTADIENE	.407	.446	9.2
1,2,4-TRICHLOROBENZENE	.399	.430	7.5
NAPHTHALENE	1.150	1.258	8.9
BIS (2-CHLOROETHOXY) METHANE	.426	.488	13.3
ISOPHORONE	.512	.494	-3.5
2-CHLORONAPHTHALENE	.803	.742	-7.8
ACENAPHTHYLENE	1.158	1.281	10.1
ACENAPHTHENE	.581	.533	-8.5
DIMETHYL PHTHALATE	.828	.810	-2.2
2,6-DINITROTOLUENE	.156	.149	-4.6
4-CHLOROPHENYL PHENYL ETHER	.389	.309	-17.6
FLUORENE	.688	.634	-8.1
2,4-DINITROTOLUENE	.183	.192	4.6
DIETHYL PHTHALATE	.959	.951	-.9
1,2-DIPHENYLHYDRAZINE	.917	.873	-5.0
N-NITROSODIMETHYLAMINE	.409	.379	-7.6
HEXACHLOROBENZENE	.405	.377	-7.1
4-BROMOPHENYL PHENYL ETHER	.240	.242	.6
ANTHRACENE	.981	.960	-2.1
PHENANTHRENE	.981	.960	-2.1
DI-N-BUTYL PHTHALATE	1.701	1.720	1.1
FLUORANTHENE	1.084	1.103	1.8
PYRENE	1.130	1.161	2.7
BENZIDINE	.174	.295	51.9
BUTYL BENZYL PHTHALATE	.859	.898	4.5
BIS (2-ETHYLHEXYL) PHTHALATE	1.263	1.347	6.4
BIS (2-ETHYLHEXYL) PHTHALATE	.424	.430	1.5
BENZO (A) ANTHRACENE/CHRYSENE	1.108	.549	-67.4
CHRYSENE/BENZO (A) ANTHRACENE	1.108	.549	-67.4
3,3'-DICHLOROBENZIDINE	.350	.293	-17.5
DI-N-OCTYL PHTHALATE	2.248	1.915	-16.0
3,4-BENZOFLUORANTHENE	1.111	2.120	62.5
BENZO (K) FLUORANTHENE	1.111	2.120	62.5
BENZO (A) PYRENE	.979	.936	-4.5
INDENO (1,2,3-CD) PYRENE	.972	.903	-7.3

DIBENZO (A,H) ANTHRACENE	.815	.782	-4.2
BENZO (GHI) PERYLENE	.862	.827	-4.1

$$** \quad RXD = \frac{(CK-C)}{(CK+C)\ /\ 2} \times 100$$

27-JAN-82

Mead CompuChem
STANDARDS RELATIVE RETENTION REPORT

Time: 19:41

Research Triangle Park
Instrument: 3
Library: 4
Version: 12
Fraction: Base/Neutral

Compounds		Initial Run ID: H8820118B03 STD Conc	Initial Run RRT	Check Standards ID: H8820119A03 RRT	Diff
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000
D-5-NITROBENZENE		50.00	.905	.905	.000
2-FLUOROPHENOL		50.00	1.274	1.278	-.004
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000
1,3-DICHLOROBENZENE		50.00	.589	.573	.017
1,4-DICHLOROBENZENE		50.00	.618	.606	.012
HEXACHLOROETHANE		50.00	.680	.668	.012
BIS (2-CHLOROETHYL) ETHER		50.00	.697	.672	.025
1,2-DICHLOROBENZENE		50.00	.680	.672	.008
BIS (2-CHLOROISOPROPYL) ETHER		50.00	.739	.734	.004
N-NITROSODI-N-PROPYLAMINE		50.00	.959	.942	.017
NITROBENZENE		50.00	.909	.909	.000
HEXACHLOROBUTADIENE		50.00	.942	.942	.000
1,2,4-TRICHLOROBENZENE		50.00	.959	.959	.000
NAPHTHALENE		50.00	1.004	1.004	.000
BIS (2-CHLOROETHOXY) METHANE		50.00	1.012	1.017	-.004
ISOPHORONE		50.00	1.124	1.124	.000
2-CHLORONAPHTHALENE		50.00	1.295	1.299	-.004
ACENAPHTHYLENE		50.00	1.407	1.411	-.004
D-10-ANTHRACENE	(IS)	40.00	1.000	1.000	.000
ACENAPHTHENE		50.00	.792	.796	-.004
DIMETHYL PHTHALATE		50.00	.812	.814	-.002
2,6-DINITROTOLUENE		50.00	.826	.830	-.004
4-CHLOROPHENYL PHENYL ETHER		50.00	.858	.860	-.002
FLUORENE		50.00	.860	.862	-.002
2,4-DINITROTOLUENE		50.00	.876	.876	.000
DIETHYL PHTHALATE		50.00	.888	.888	.000
1,2-DIPHENYLHYDRAZINE		50.00	.886	.888	-.002
N-NITROSODIMETHYLAMINE		50.00	.911	.911	.000
HEXACHLOROBENZENE		50.00	.927	.927	.000
4-BROMOPHENYL PHENYL ETHER		50.00	.929	.929	.000
ANTHRACENE		100.00	1.005	1.005	-.000
PHENANTHRENE		100.00	1.005	1.005	-.000
DI-N-BUTYL PHTHALATE		50.00	1.092	1.092	-.000
FLUORANTHENE		50.00	1.178	1.179	-.000
PYRENE		50.00	1.215	1.213	.002
D-12-CHRYSENE	(IS)	40.00	1.000	1.000	.000
BENZIDINE		50.00	.915	.916	-.001
BUTYL BENZYL PHTHALATE		50.00	.949	.951	-.001
BIS (2-ETHYLHEXYL) PHTHALATE		50.00	.972	.974	-.002
BIS (2-ETHYLHEXYL) PHTHALATE		50.00	.972	.974	-.002
BENZO (A) ANTHRACENE/CHRYSENE		100.00	1.002	.997	.005
CHRYSENE/BENZO (A) ANTHRACENE		100.00	1.002	.997	.005
3,3'-DICHLOROBENZIDINE		50.00	1.029	1.030	-.000
DI-N-OCTYL PHTHALATE		50.00	1.036	1.036	-.000
3,4-BENZOFLUORANTHENE		50.00	1.121	1.123	-.002
BENZO (K) FLUORANTHENE		50.00	1.121	1.123	-.002
BENZO (A) PYRENE		50.00	1.180	1.181	-.001
INDENO (1,2,3-CD) PYRENE		50.00	1.458	1.455	.003
DIBENZO (A,H) ANTHRACENE		50.00	1.470	1.466	.003
BENZO (GHI) PERYLENE		50.00	1.558	1.557	.001

27-JAN-82 21:03
Research Triangle Park
Fraction: Base/Neutral
Instrument# 3
Library# 4
Version# 12

MEAD COMPUCHEM
Internal Standard Response Verification Report

19-JAN-82 00:00 - 20-JAN-82 23:59

			Int. Std. A			Int. Std. B				Int. Std. C			
			D-8-NAPHTHALENE Conc: 40.0000			D-10-ANTHRACENE Conc: 40.0000				D-12-CHRYSENE Conc: 40.0000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
HB000020B03	18-JAN-82	615	240	75324.	.3928	437	101579.	.7152	.7415	611	80508.	1.0000	.7617
HB820118B03	18-JAN-82	615	241	89117.	.3944	437	117086.	.7152	.7611	611	101568.	1.0000	1.1328
HB000100B03	18-JAN-82	615	240	69122.	.3928	438	113630.	.7169	.7708	611	93964.	1.0000	1.0306
HB820118C03	19-JAN-82	616	240	72852.	.3934	437	102857.	.7164	.7083	610	73470.	1.0000	1.4000
BH011330C03	19-JAN-82	616	239	100502.	.3918	437	144506.	.7164	.6955	610	111437.	1.0000	1.2968
BH011428C03	19-JAN-82	616	240	102273.	.3928	438	138939.	.7169	.7811	611	91159.	1.0000	1.4364
BH011457A03	19-JAN-82	593	238	88936.	.3914	435	150220.	.7155	.4589	608	79531.	1.0000	1.8888
HB820119A03	19-JAN-82	593	241	83914.	.3957	438	88317.	.7159	.8105	609	78931.	1.0000	1.1480
BH011415A03	19-JAN-82	593	241	70155.	.3951	437	101528.	.7164	.6910	610	77397.	1.0000	1.3118
BH011416A03	19-JAN-82	593	242	69525.	.3967	437	94784.	.7164	.7335	610	75324.	1.0000	1.2584
BH011452A03	19-JAN-82	593	242	65739.	.3967	437	92680.	.7164	.7093	610	77086.	1.0000	1.2023
BH011146B03	19-JAN-82	615	242	65828.	.3967	437	83914.	.7164	.7845	610	74179.	1.0000	1.1312
BH011145B03	19-JAN-82	615	242	84690.	.3967	437	98094.	.7164	.8595	610	82404.	1.0000	1.1904
HB820119C03	20-JAN-82	616	240	41931.**	.3947	435	67297.	.7155	.6231	608	51518.	1.0000	1.3063
BH011229C03	20-JAN-82	616	239	54037.	.3931	435	75958.	.7155	.7114	608	56544.	1.0000	1.3433
BH011568C03	20-JAN-82	616	242	129428.	.3961	438	121780.	.7169	1.0630*	611	74750.	1.0000	1.6289
BH011579C03	20-JAN-82	616	241	48931.	.3951	437	69075.	.7164	.7087	610	54081.	1.0000	1.2773

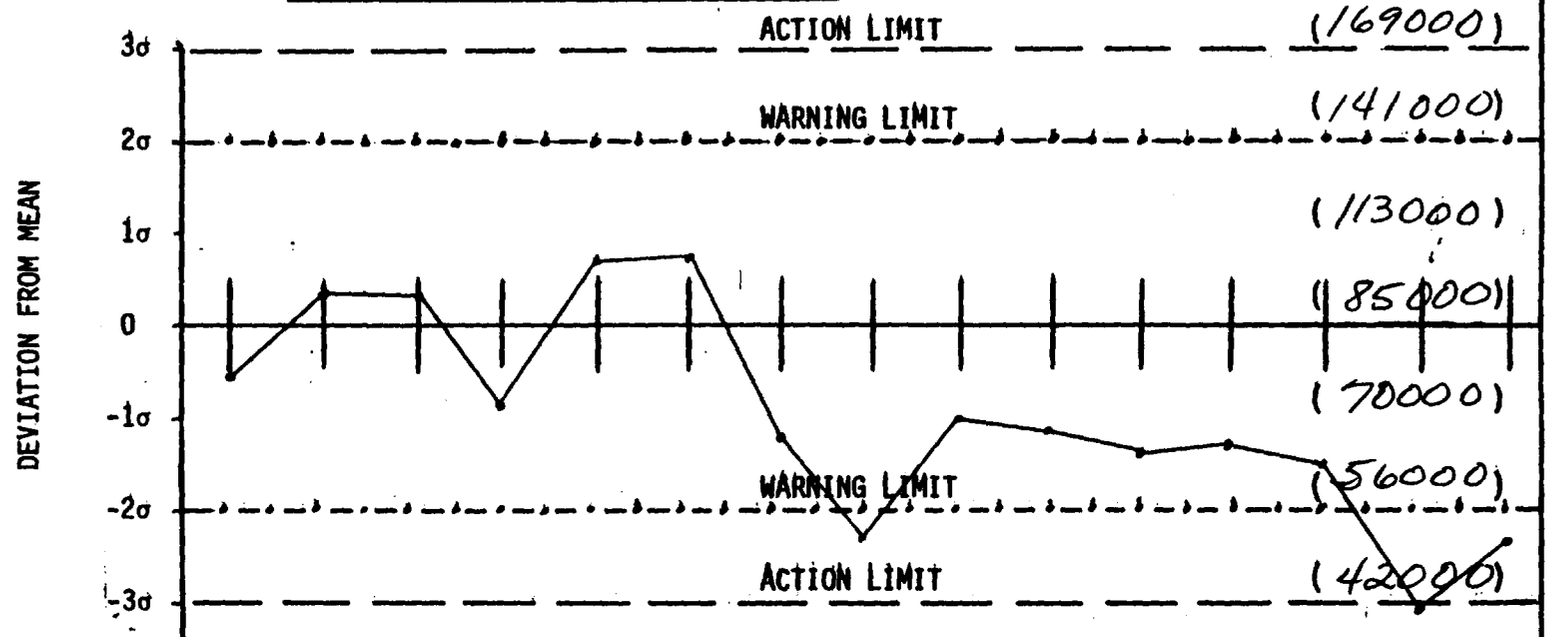
1-1

1-2

PAGE # 1-1

METHOD BASE NEUTRAL #3-XII

I. STD D8-NAPHTHALENE

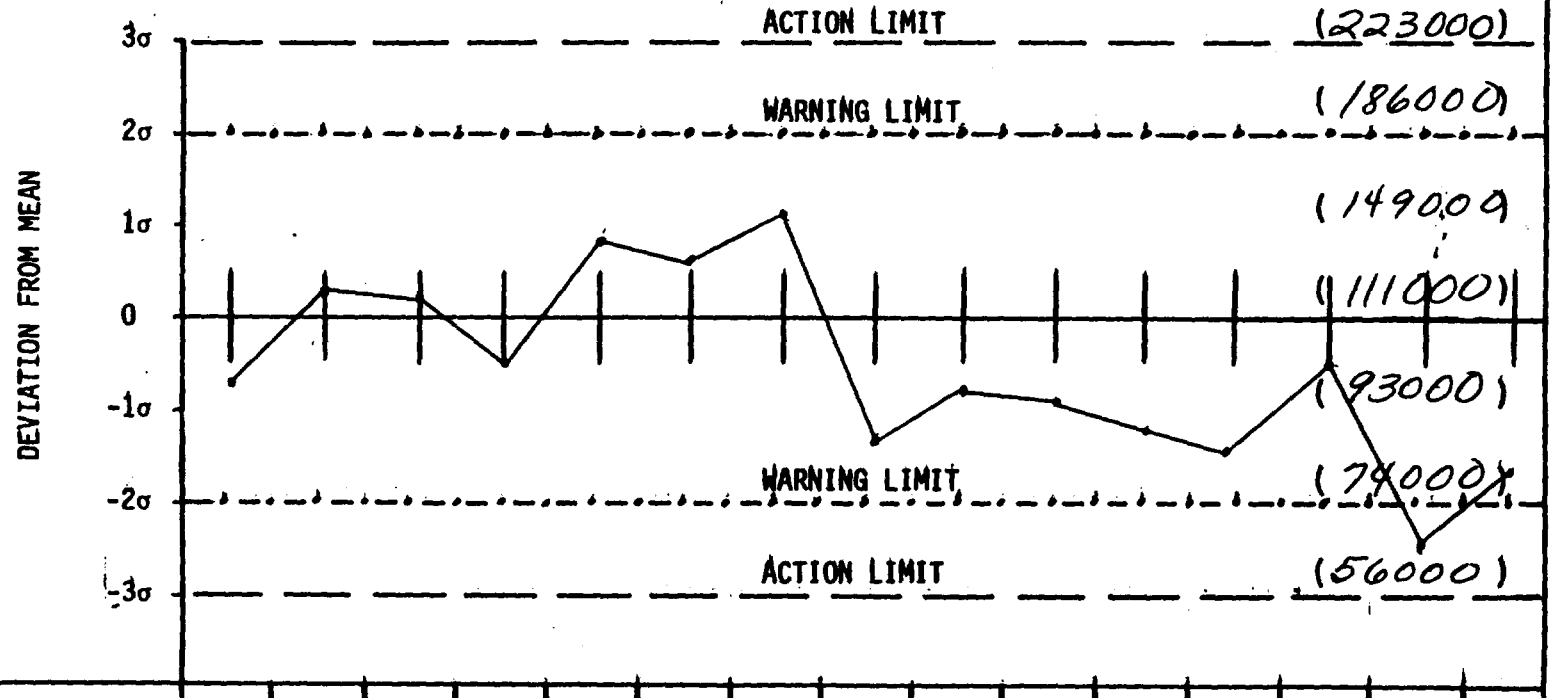


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/18/82	1/18/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/18/82	1/20/82	1/20/82
OPERATOR	615	615	615	616	616	616	593	593	593	593	593	615	615	616	616
PROBLEM AND CORRECTIVE ACTION															

PAGE # 1-1

METHOD BASE NEUTRAL # 3-XII

I. STD D10 ANTHRACENE

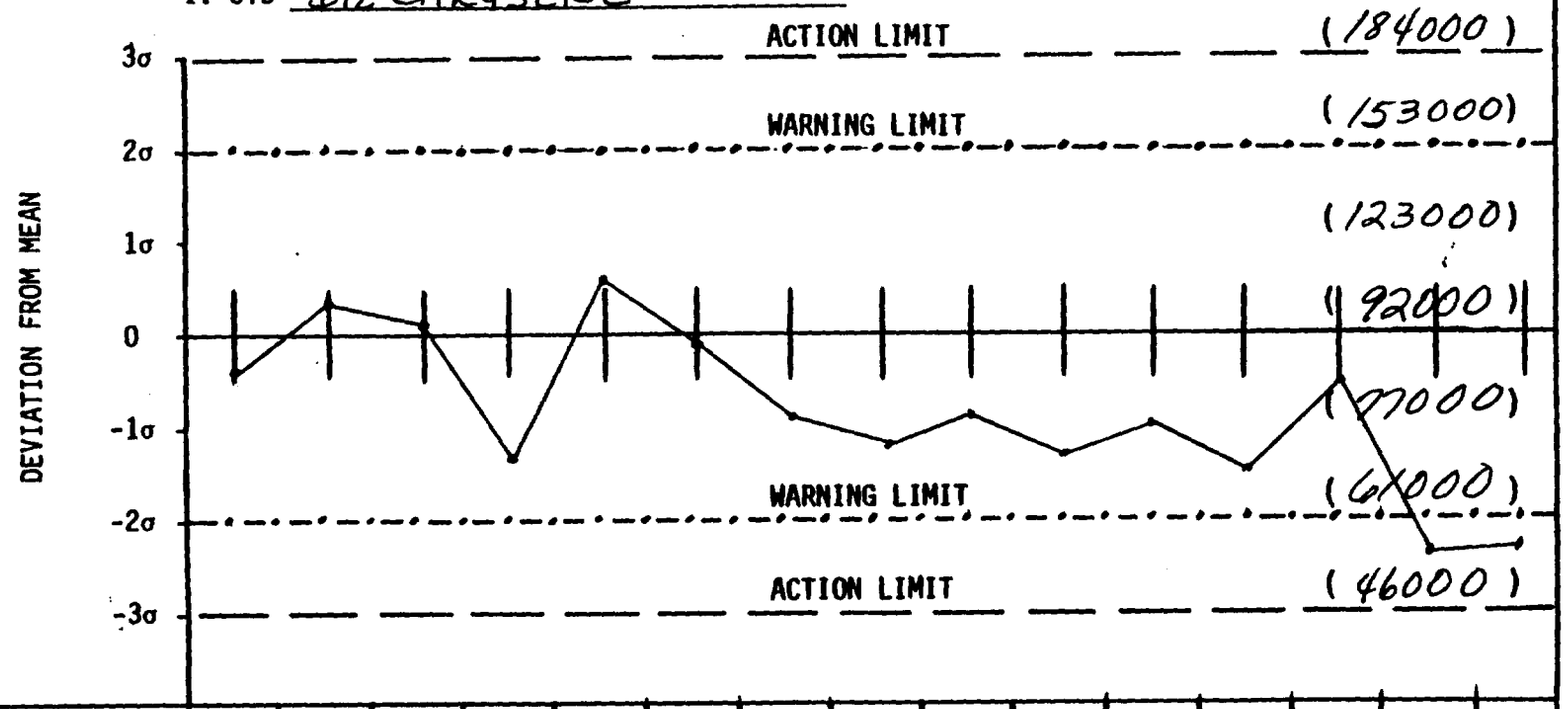


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/18/82	1/18/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/20/82	1/20/82
OPERATOR	615	615	615	616	616	616	593	593	593	593	593	615	615	616	616
PROBLEM AND CORRECTIVE ACTION															

PAGE # 1-1

METHOD BASE NEUTRAL #3-XII

I. STD D12 CHRYSENE



RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/18/82	1/18/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/20/82	1/20/82
OPERATOR	615	615	615	616	616	616	593	593	593	593	593	615	615	616	616
PROBLEM AND CORRECTIVE ACTION															

10
9
8
7
6
5
4
3
2
1
0
1/416
OV101
Supelco
2250/2401
14E:73

11416

E1203

Column A

1.5% 2250/1.95% 2401 Supelco
Cond.: 190, isothermal
Ar/CH_4, 25 cc/min.

Peaks, 0250 Standard

1A Alpha-BHC
2A Beta-BHC
3A Gamma-BHC
4A Heptachlor Epoxide
5A Alpha-Chlordane
6A p,p'-DDE
7A p,p'-DDD
8A p,p'DDT
9A Endosulfan Sulfate

Peaks, 0266 Standard

10A Delta-BHC
11A Heptachlor
12A Aldrin
13A Delta-Chlordane
14A Endosulfan I
15A Dieldrin
16A Endrin
17A Endosulfan II
18A Endrin Aldehyde

Column B

3% OV-101
Cond.: 190, isothermal
Ar/Ch_4, 25 cc/min.

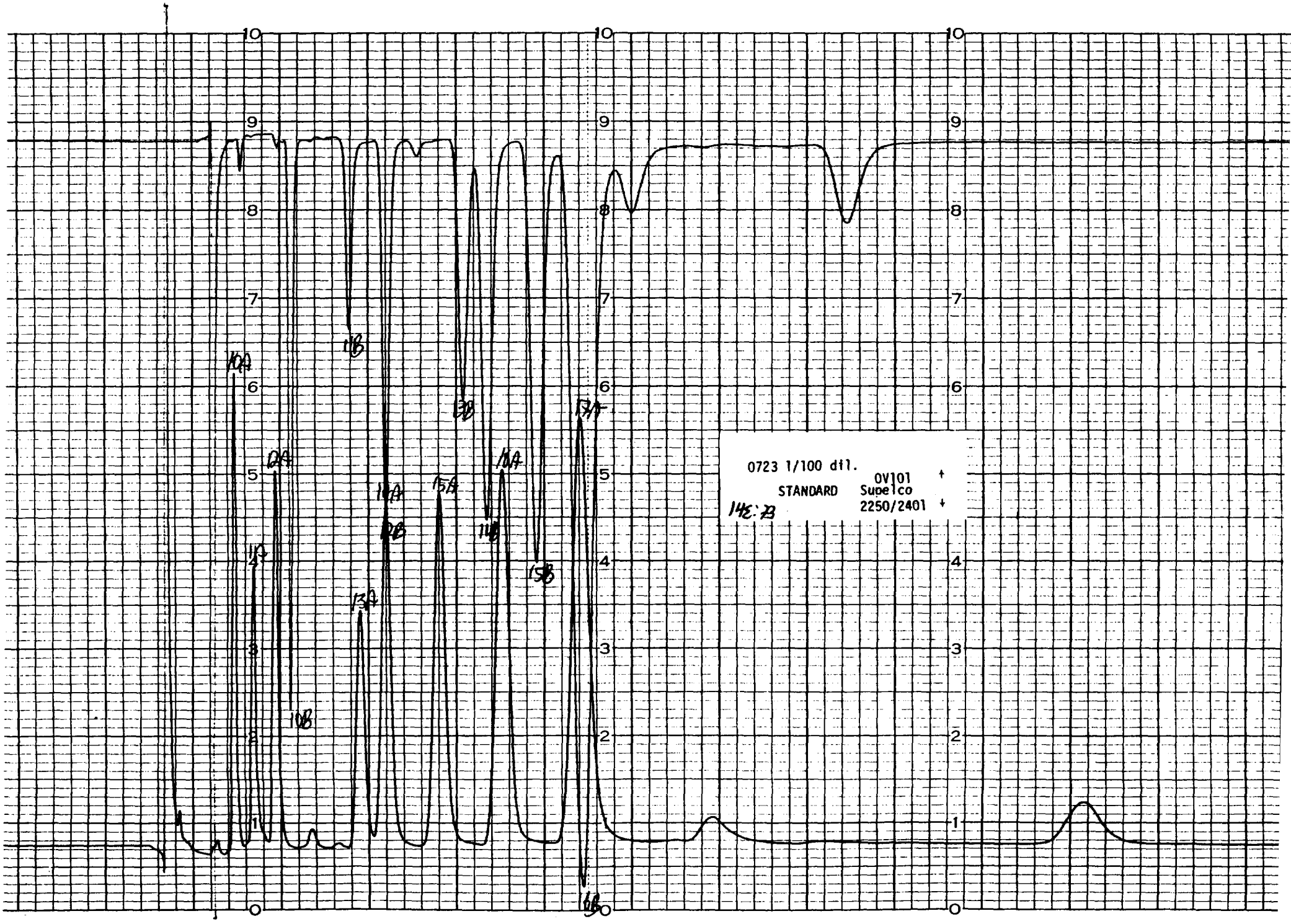
Peaks, 0250 Standard

1B Alpha-BHC
2B Beta-BHC
3B Gamma-BHC
4B Heptachlor Epoxide
5B Alpha-Chlordane
6B p,p'-DDE
7B p,p-DDD
8B Endosulfan Sulfate
9B p,p'-DDT

Peaks, 0266 Standard

10B Delta-BHC
11B Heptachlor
12B Aldrin
13B Delta-Chlordane
14B Endosulfan I
15B Dieldrin
16B Endrin and Endosulfan II
17B Endrin Aldehyde

0863 1/100 dil.
OV101
STANDARD
Supelco
2250/2401
14:33
1A
2A
3A
3B
4A
4B
5A
5B
6A
6B
7A
7B
8A
8B
9B



OmniScribe® CHART TYPE ECP-100 HOUSTON INSTRUMENT

DETECTION LIMIT STUDY

BASE-NEUTRAL COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,4-DICHLOROBENZENE	84.5	82.7	78.3	81.8	3.2	9.6
HEXACHLOROETHANE	86.2	85.6	83.0	84.9	1.7	5.1
BIS(2-CHLOROETHYL)ETHER	97.7	94.8	98.5	97.0	2.0	6.0
1,2-DICHLOROBENZENE	81.3	79.4	77.5	79.4	1.9	5.7
BIS(2-CHLOROISOPROPYL)ETHER	69.1	80.3	72.8	74.1	5.7	17.1
n-NITROSO-di-n-PROPYLAMINE	50.8	80.5	77.0	69.4	16.2	48.6
NITROBENZENE	81.1	78.8	77.3	79.1	1.9	5.7
HEXACHLOROBUTADIENE	67.5	68.3	65.8	67.2	1.3	3.9
1,2,4-TRICHLOROBENZENE	91.4	90.2	89.6	90.4	0.9	2.7
NAPHTHALENE	80.6	79.1	81.6	80.4	1.3	3.9
BIS(2-CHLOROETHOXY)METHANE	85.8	85.7	85.4	85.6	.2	0.6
ISOPHORONE	82.4	84.2	79.5	82.0	2.4	7.2
2-CHLORONAPHTHALENE	63.3	58.2	61.5	61.0	2.6	7.8
ACENAPHTHYLENE	68.5	66.1	68.8	67.8	1.5	4.5
1,3-DICHLOROBENZENE	111.0	70.6	68.7	83.4	23.9	71.7
ACENAPHTHENE	80.7	80.7	77.8	79.7	1.7	5.1
DIMETHYL PHTHALATE	88.5	87.3	80.3	85.4	4.4	13.2
2,6-DINITROTOLUENE	88.5	89.6	84.4	87.5	2.7	8.1
4-CHLOROPHENYL PHENYL ether						
FLUORENE	85.1	84.8	81.5	83.8	2.0	6.0
2,4-DINITROTOLUENE	78.4	79.1	75.7	77.7	1.8	5.4
DIETHYL PHTHALATE	82.5	83.1	79.2	81.6	2.1	6.3
1,2-DIPHENYLHYDRAZINE						
n-NITROSODIPHENYL AMINE	79.7	79.1	77.7	78.8	1.0	3.0
HEXACHLOROBENZENE	78.5	81.9	77.3	79.2	2.4	7.2
4-BROMOPHENYL PHENYL ETHER	79.1	80.5	77.1	78.9	1.7	5.1
ANTHRACENE/PHENANTHRENE	159.5	159.1	159.0	159.2	0.3	0.9
di-n-BUTYL PHTHALATE	82.1	82.3	82.5	82.6	0.4	1.2
FLUORANTHENE	81.3	82.6	81.8	81.9	0.7	2.1
PYRENE	80.9	82.5	81.3	81.6	0.8	2.4

DETECTION LIMIT STUDY

BASE-NEUTRAL COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
BENZIDINE	121.8	125.9	123.8	123.8	2.1	6.3
BUTYL BENZYL PATHALATE	87.2	87.4	87.3	87.3	.1	.3
BIS(2-ETHYLHEXYL) PATHALATE	81.3	81.3	80.1	80.9	.7	2.1
BENZO(a) / ANTHRACENE / CHRYSENE	152	156	152	153	2.3	6.9
3,3'-DICHLOROBENZIDINE	150.9	153.1	152.1	152	1.2	3.6
di-OCTYL PATHALATE	82.0	82.2	80.8	81.7	.8	2.4
BENZO(a) PYRENE	74.5	75.8	73.9	74.7	1.0	3.0
INDENO(1,2,3-cd) PYRENE						
di-BENZO(a,h) ANTHRACENE	77.5	74.3	78.4	76.7	2.2	6.6
BENZO(ghi) PERYLENE	76.9	78.4	83.4	79.6	3.4	10.2

DETECTION LIMIT STUDY

VOLATILE COMPOUNDS

LOW LEVEL

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,1-DICHLOROETHANE	0.317	0.265	0.255	0.279	0.033	0.099
TRANS-1,2-DICHLOROETHYLENE	0.333	0.278	0.267	0.293	0.035	0.105
CHLOROFORM	0.300	0.252	0.245	0.266	0.030	0.090
1,2-DICHLOROETHANE	0.292	0.246	0.241	0.260	0.028	0.084
1,1,1-TRICHLOROETHANE	0.334	0.279	0.263	0.292	0.037	0.111
BENZENE	0.284	0.250	0.239	0.258	0.023	0.069
1,1,2-TRICHLOROETHANE	0.282	0.247	0.235	0.255	0.024	0.072
DIBROMOCHLOROMETHANE	0.259	0.221	0.205	0.228	0.028	0.084
BROMOFORM	0.304	0.262	0.243	0.270	0.031	0.093
1,1,2,2-TETRACHLOROETHYLENE	0.323	0.277	0.262	0.287	0.032	0.096
1,1,2,2-TETRACHLOROETHANE	0.301	0.267	0.258	0.275	0.023	0.069
TOLUENE	0.295	0.260	0.249	0.268	0.024	0.072
CHLOROBENZENE	0.305	0.268	0.256	0.276	0.026	0.078
ETHYLBENZENE	0.307	0.271	0.260	0.279	0.025	0.075

DETECTION LIMIT STUDY

VOLATILE COMPOUNDS

MEDIUM LEVEL

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,1-DICHLOROETHANE	6.727	5.298	5.583	5.869	0.756	2.268
TRANS-1,2-DICHLOROETHYLENE	6.309	6.046	6.400	6.252	0.184	0.552
CHLOROFORM	5.655	5.152	5.520	5.442	0.260	0.780
1,2-DICHLOROETHANE	5.791	5.088	5.465	5.448	0.352	1.056
1,1,1-TRICHLOROETHANE	6.567	5.594	6.066	6.076	0.487	1.461
BENZENE	6.027	5.636	5.763	5.809	0.199	0.597
1,1,2-TRICHLOROETHANE	5.658	5.453	5.777	5.629	0.164	0.492
DIBROMOCHLOROMETHANE	4.860	4.763	4.968	4.864	0.103	0.309
BROMOFORM	5.142	5.008	5.448	5.199	0.226	0.678
1,1,2,2-TETRACHLOROETHYLENE	6.802	6.810	6.990	6.867	0.106	0.318
1,1,2,2-TETRACHLOROETHANE	5.833	5.635	6.203	5.890	0.288	0.864
TOLUENE	6.162	5.996	6.213	6.124	0.113	0.339
CHLOROBENZENE	5.563	6.314	6.523	6.133	0.505	1.515
ETHYLBENZENE	6.399	6.246	6.507	6.384	0.131	0.393

DETECTION LIMIT STUDY

ACID COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
PENTAFLUOROPHENOL	43.7	41.7	43.4	42.9	1.1	3.3
2-FLUOROBIPHENYL	41.0	40.3	41.6	41.0	.6	1.8
D-5 NITROBENZENE	37.9	37.3	37.8	37.7	.3	.9
2-CHLOROPHENOL	86.8	82.9	85.3	85.0	2.0	6.0
2-NITROPHENOL	87.1	87.3	87.6	87.3	.3	.9
PHENOL	80.1	76.3	79.3	78.6	2.0	6.0
2,4-DIMETHYLPHENOL	76.2	75.7	77.7	76.5	1.0	3.0
2,4-DICHLOROPHENOL	89.9	88.5	89.4	89.3	.7	2.1
2,4,6-TRICHLOROPHENOL	81.9	85.4	83.8	83.7	1.8	5.4
P-CHLORO-M-CRESOL	78.0	81.3	81.4	80.2	1.9	5.7
PENTACHLOROPHENOL	80.3	82.4	81.0	81.2	1.1	3.3
4-NITROPHENOL	69.4	73.1	72.0	71.2	1.9	5.7

DETECTION LIMIT STUDY

PESTICIDE COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
TOXAPHENE	0.039	0.042	0.043	0.041	0.002	0.006
BHC- BETA	0.048	0.048	0.049	0.048	0.001	0.003
BHC- DELTA	0.047	0.047	0.048	0.047	0.001	0.003
4,4'- DDD	0.048	0.051	0.051	0.500	0.001	0.003
4,4'- DDT	0.034	0.033	0.034	0.034	0.001	0.003
BHC - GAMMA	0.042	0.043	0.043	0.043	0001	0.003
HEPTACHLOR	0.046	0.047	0.048	0.047	0.001	0.003
ALDRIN	0.046	0.046	0.049	0.047	0.001	0.003
ENDOSULFAN I	0.045	0.046	0.046	0.046	0.001	0.003
DIELDRIN	0.043	0.044	0.044	0.044	0.001	0.003
ENDRIN	0.048	0.048	0.049	0.048	0.001	0.003
ENDOSULFAN II	0.041	0.042	0.042	0.042	0.001	0.003

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
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S.F 1461
SAUGET

Sample Number
E1204

82-WT06S06
801

ORGANICS ANALYSIS DATA SHEET - Page 1

TRANSMITTED
2/10/82 WB

Laboratory Name Mead CompuChem

Case Number

Lab Sample ID NO. 11417

QC Report No. 41-59,42-58,46-58

Signature of Person Authorized to Release Data: RJ Mellor

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.32
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.4
122-83-2	2,4-dichlorophenol	0.56
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.8U
51-88-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	0.42

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2 LT
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
318-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
181-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
183-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number E1204

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11417

QC Report No. 41-59, 42-58, 46-58

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropiene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride .013	
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
78-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gama	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

	DIOXINS	
1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

QUALITY CONTROL NOTICE

Base/Neutral surrogate recoveries for this sample are greater than normal. This results from a difference in the area of the internal standard used to calculate the surrogate quantity, as compared to the old standard's area. The internal standard area used to calculate the surrogate quantities did not meet the criteria requiring reanalysis, when the value is compared to the internal standard area control charts, the internal standard response verification data sheets, or when response factors of the corresponding standard are compared to the initial multi-point calibration data. The surrogate recoveries are reported as is.

Paul Nill

Director, Quality Assurance

QUALITY CONTROL NOTICE

Internal standard area control charts have been included in this report as required by the contract. Areas outside the stated control limits have triggered an examination of internal standard area ratios (as reported on the Internal Standard Response Verification data sheet), the comparison of raw areas in the affected sample to the corresponding standard, and the comparison of the response factors obtained for the corresponding standard to the initial multipoint calibration data. Corrective action is necessary only if one or more of those checks are outside the established control limits. If no corrective action is noted on the internal standard area control chart, all other factors were within limits and action was not required.

Patty L. Ragsdale
Quality Control Manager

LIST OF COMMONLY USED FOOTNOTES FOR COMMERCIAL AND EPA

II Indistingushable isomers.

I Presence indicated by extracted ion current profile; definitive spectra not obtainable due to interference.

Q Quantiatated from secondary ion.

CI Concentration estimated; interferences present with primary quantitation ions.

D Sample analysis using a _____ dilution.

SE Sample extract could not be concentrated to 1.0 ml, thus the detection limits are higher than normal.

DL Detection limits are adjusted to show change in sample quantity processed. The surrogate recoveries are not available.

SR Surrogate recoveries are not available because it was necessary to dilute the extract, based on GC screening results.

SC Suspected laboratory contaminant.

LT Less than the specified detection limit but greater than one half of the detection limit (present but BDL).

EV Estimated value (previously j) in house note: This footnote may not be used for PP compounds.

H Volatile vial received with headspace.

SV Amount corrected for sample volume.

TN Acid & BN recoveries adjusted 10/9 for volume change. (medium level 026 only)

DC Compound calculated from a _____ dilution.

CR Compound calculated using total RIC area. All secondary ions saturated.

PC Pesticide or PCB confirmed by GC/MS.

PN Pesticide or PCB cannot be confirmed by GC/MS.

1-04-82

Lab Name: Mead CompuChem

Lab Sample I.D. No. C#801 / 11417

SAMPLE NUMBER
E1204

A. SURROGATE SPIKE RESULTS

COMPOUND	FRACTION	CONC (ug/g)	(Surrogates only) Spike Added (ug/g)	% Recovery
d-$_6$-Benzene	VOA	0.036	0.05	72
d-$_8$-Toluene	VOA	0.049	0.05	98
Fluorophenol	A	1.75	2.5	70
d-$_6$-Phenol	A	1.77	2.5	71
Pentafluorophenol	A	1.57	2.5	63
d-$_5$-Nitrobenzene	B/N	2.59	2.5	104
Fluorobiphenyl	B/N	1.03	2.5	41

C# 801-[illegible]
Acid

FORM 4. ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS

Sample Identification 11417 Calculations by SW

SCAN NUMBER	COMPOUND IDENTIFICATION	CASS NO.	% PURITY	RIC PEAK AREA OF TENT. COMP.	RIC PEAK AREA OF INT. STD.	EST. AMT. OF TENT COMPOUND Amt.tent = $\frac{PKA_{tent.} \text{ Concentration of}}{PKA_{is} \cdot 1}$ ~.8
(11) 149	Benzenamine, 2-chloro	95-51-2	88	290816	349824	.66
(12) 180	Uracil, 5-Bromo-3-sec-Butyl-	24561-91-9	27	179456		.41
(13) 187	Phenol, 2,4-Dichloro	120-83-2	84	145856		.34
(14) 217	Benzenamine, 2,4,5-Trichloro	636-30-6	72	226240		.53
252	Phenol, 3-chloro	108-43-0	86	632968		1.4

GH801-E1209 B/N

FORM 4. ESTIMATED CONCENTRATION OF TENTATIVELY IDENTIFIED COMPOUNDS

Sample Identification 11417 Calculations by DMC

SCAN NUMBER	COMPOUND IDENTIFICATION	CASS NO.	% PUR.	RIC PEAK AREA OF TENT. COMP.	RIC PEAK AREA OF INT. STD.	EST. AMT. OF TENT. COMP. Amt.tent = PKA tent. / PKA Is. · Conc. of I
199 (1)	2-chloro-benzenamine	95-51-2	841	547413	238592	92 ÷ 50 = 1.8 EV ug/g

Sample No: 11425 / 11416 E1203 / 11415 → 11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAN Consul/Chem
Report No: 41-39
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (ug/l)			
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*
0	0	4	V	BENZENE	ND	0.021	0.013 ug/g	162
0	0	7	V	CHLOROBENZENE	ND	0.020	0.013 ug/g	154
0	8	6	V	TOLUENE	ND	0.019	0.013 ug/g	146

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)} \times 100$

2/15/80

Sample No: 11426 / 11417 E1204

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPU/CHEM
Report No: 41-59
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (Including surrogates)					CONCENTRATION (µg/l)		Relative Percent Difference (RPD)*
P.	P.		#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
			V	d_6-BENZENE	0.036	0.054	40
			V	d_8-TOLUENE	0.049	0.055	12
0	4	4	V	Methylene Chloride	0.013	0.006	74

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

Sample No: 11428/ 11416 E1203
11415 → 11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPU/CHEM
Report No: 42-58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	% Recovery*
0	2	7	B	1,4-DICHLOROBENZENE	ND	0.66	1.0	66
0	8	4	B	PYRENE	ND	0.74	1.0	74
0	7	6	B	CHRYSENE	ND	0.88	1.0	88
0	0	1	B	ACENAPHTHENE	ND	0.70	1.0	70
0	0	8	B	1,2,4-TRICHLOROBENZENE	ND	0.62	1.0	62
0	6	8	B	Di-n-Butyl PHTHALATE	ND	0.64	1.0	64
0	3	5	B	2,4-DINITROTOLUENE	ND	0.62	1.0	62
0	6	9	B	Di-n-Octyl PHTHALATE	ND	0.84	1.0	84
0	6	3	B	N-NITROSODI-n-PROPYLAMINE	ND	3.0	4.0	75
0	2	4	A	2-CHLOROPHENOL	0.20	1.6	1.0	140
0	6	5	A	PHENOL	0.50	1.9	1.0	140
0	2	2	A	3-METHYL-4-CHLOROPHENOL	ND	0.92	1.0	92
0	6	4	A	PENTACHLOROPHENOL	ND	0.80	1.0	80
0	5	8	A	4-NITROPHENOL	ND	3.4	6.0	57

This QC Report also covers the following sample numbers: C#801 - E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)}$ X 100

2/15/80

Sample No: 11429/11417 E1204 U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Standard ID: _____

Lab Name: MEAD COMPU/CHEM
Report No: 42-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)		Relative Percent Difference (RPD)*
P.	P.	P.	#	COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
			A	2-FLUOROPHENOL	1.76	1.84	4
			A	d_6-PHENOL	1.77	1.87	5
			A	PENTAFLUOROPHENOL	1.57	1.48	6
			B	d_5-NITROBENZENE	2.59	1.20	73
			B	2-FLUOROBIPHENYL	1.03	1.10	7
0	2	4	A	2-chlorophenol	0.40	0.30	29
0	3	1	A	2,4-dichlorophenol	0.56	0.52	7
0	6	5	A	Phenol	0.42	0.62	38
0	2	1	A	2,4,6-trichlorophenol	0.32	0.15	72

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

Sample No: 11432/11415 E1202
11415→11417

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MEAD COMPUCHEM
Report No: 46 - 58
Page 1 of 2

QUALITY CONTROL REPORT

A. MATRIX SPIKE ANALYSIS

COMPOUND (including surrogates)					CONCENTRATION (µg/l)			%
P.	P.	#		COMPOUND NAME	Sample Result (SR)	Spiked Sample Result (SSR)	Spike Added (SA)	Recovery*
1	0	0	P	HEPTACHLOR	ND	0.37	0.43	86
0	8	9	P	ALDRIN	ND	0.37	0.41	90
0	9	0	P	DIELDRIN	ND	0.40	0.40	100

This QC Report also covers the following sample numbers: CA801-E1202, E1203, E1204

*% Recovery = $\frac{(SSR - SR)}{(SA)}$ X 100

2/15/80

Sample No: 11433/11415 E1202

Lab Standard ID: _____

U. S. ENVIRONMENTAL PROTECTION AGENCY
HWI SAMPLE MANAGEMENT OFFICE

Lab Name: MERA CONSULTCHEM
Report No: 46-58
Page 2 of 2

QUALITY CONTROL REPORT

B. DUPLICATE ANALYSIS

COMPOUND (Including surrogates)						CONCENTRATION (µg/L)		Relative Percent Difference (RPD)*
P.	P.	#			COMPOUND NAME	Aliquot 1 (D_1)	Aliquot 2 (D_2)	
					PESTICIDES / PCB'S	NA	NA	0

This QC Report also covers the following sample numbers: C#801-E1202, E1203, E1204-

$$*RPD = \frac{(D_1 - D_2)}{\left[(D_1 + D_2)/2\right]} \times 100$$

2/15/80

ORGANICS ANALYSIS DATA SHEET—Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. EB8022A02 INSTRUMENT BLANK for 11417.

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-0X-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. EB811222A02 INSTRUMENT BLANK

GC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_6-Benzene	VOA	0.050	0.05 ug/ml	100
d_8-Toluene	VOA	0.050	0.05 ug/ml	100

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. EB8113222A01 INSTRUMENT BLANK

QC Report No: 41-57

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

ORGANICS ANALYSIS DATA SHEET-Page 2

Sample Number

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. 11429 COMPOSITE BLANK

QC Report No. 41-59

	VOLATILES	ug/g
107-02-8	acrolein	0.10U
107-13-1	acrylonitrile	0.10U
71-43-2	benzene	0.01U
56-23-5	carbon tetrachloride	0.01U
108-90-7	chlorobenzene	0.01U
107-06-2	1,2-dichloroethane	0.01U
71-55-6	1,1,1-trichloroethane	0.01U
75-34-3	1,1-dichloroethane	0.01U
79-00-5	1,1,2-trichloroethane	0.01U
79-34-5	1,1,2,2-tetrachloroethane	0.01U
75-00-3	chloroethane	0.01U
110-75-8	2-chloroethylvinyl ether	0.01U
67-66-3	chloroform	0.01U
75-35-4	1,1-dichloroethene	0.01U
156-60-5	1,2-trans-dichloroethene	0.01U
78-87-5	1,2-dichloropropane	0.01U
10061-02-XX	1,3-dichloropropene	0.01U
100-41-4	ethylbenzene	0.01U
75-09-2	methylene chloride	0.01U
74-87-3	chloromethane	0.01U
74-83-9	bromomethane	0.01U
75-25-2	bromoform	0.01U
75-27-4	dichlorobromomethane	0.01U
75-69-4	trichlorofluoromethane	0.01U
75-71-8	dichlorodifluoromethane	0.01U
124-48-1	chlorodibromomethane	0.01U
127-18-4	tetrachloroethylene	0.01U
108-88-3	toluene	0.01U
79-01-6	trichloroethylene	0.01U
75-01-4	vinyl chloride	0.01U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
d_5-Benzene	VOA	0.054	0.05 ug/ml	108
d_8-Toluene	VOA	0.055	0.05 ug/ml	110

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11427 BLANK

QC Report No: 41-59

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRACTION	% Pur.	Est. Conc.
1			BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11			ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21		NONE	VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

U.S. ENVIRONMENTAL PROTECTION AGENCY-HWI Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/683-0885

Sample Number

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem

Case Number 801

Lab Sample ID NO. BLANK 11430

QC Report No. 42-58

	ACID COMPOUNDS	ug/g
88-06-2	2,4,6-trichlorophenol	0.2U
59-50-7	p-chloro-m-cresol	0.4U
95-57-8	2-chlorophenol	0.2U
122-83-2	2,4-dichlorophenol	0.2U
105-67-9	2,4-dimethylphenol	0.2U
88-75-5	2-nitrophenol	0.2U
100-02-7	4-nitrophenol	1.8U
51-28-5	2,4-dinitrophenol	0.8U
534-52-1	4,6 dinitro-o-cresol	0.4U
87-86-5	pentachlorophenol	0.5U
108-95-2	phenol	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
83-32-9	acenaphthene	0.2U
92-87-5	benzidine	0.5U
120-82-1	1,2,4-trichlorobenzene	0.2U
118-74-1	hexachlorobenzene	0.2U
67-72-1	hexachloroethane	0.2U
111-44-4	bis(2-chloroethyl)ether	0.2U
91-58-7	2-chloronaphthalene	0.2U
95-50-1	1,2-dichlorobenzene	0.2U
541-73-1	1,3-dichlorobenzene	0.2U
106-46-7	1,4-dichlorobenzene	0.2U
91-94-1	3,3'-dichlorobenzidine	0.2U
121-14-2	2,4-dinitrotoluene	0.2U
606-20-2	2,6-dinitrotoluene	0.2U
	1,2-diphenylhydrazine	0.2U
122-66-7	(as azobenzene)	0.2U
206-44-0	fluoranthene	0.2U
7005-72-3	4-chlorophenyl phenyl ether	0.2U

	BASE/NEUTRAL COMPOUNDS	ug/g
101-55-3	4-bromophenyl phenyl ether	0.2U
39638-32-9	bis-(2-chloroisopropyl)ether	0.2U
111-91-1	bis(2-chloroethoxy)methane	0.2U
87-68-3	hexachlorobutadiene	0.2U
77-47-4	hexachlorocyclopentadiene	0.2U
78-59-1	isophorone	0.2U
91-20-3	naphthalene	0.2U
98-95-3	nitrobenzene	0.2U
NA	N-nitrosodimethylamine	NA
86-30-6	N-nitrosodiphenylamine	0.2U
621-64-7	N-nitrosodi-n-propylamine	0.2U
117-81-7	bis(2-ethylhexyl)phthalate	0.2U
85-68-7	butyl benzyl phthalate	0.2U
84-74-2	di-n-butyl phthalate	0.2U
117-84-0	di-n-octyl phthalate	0.2U
84-66-2	diethyl phthalate	0.2U
131-11-3	dimethyl phthalate	0.2U
56-55-3	benzo(a)anthracene	0.2U
50-33-8	benzo(a)pyrene	0.2U
205-99-2	3,4-benzofluoranthene	0.5U
207-08-9	benzo(k)fluoranthene	0.2U
218-01-9	chrysene	0.2U
208-96-8	acenaphthylene	0.2U
120-12-7	anthracene	0.2U
191-24-2	benzo(ghi)perylene	0.5U
86-73-7	fluorene	0.2U
85-01-8	phenanthrene	0.5U
53-70-3	dibenzo(a,h)anthracene	0.5U
193-39-5	indeno(1,2,3-cd)pyrene	0.5U
129-00-0	pyrene	0.5U

ORGANICS ANALYSIS DATA SHEET - Page 3

Lab Name: Mead CompuChem Case No: 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42- 58

Sample Number

A. SURROGATE SPIKE RESULTS

COMPOUND	Fraction	Conc (ug/l)	(Surrogates only) Spike Added (ug/l)	% Recovery
2-Fluorophenol	Acid	2.22	2.5 ug/g	89
d_5-Phenol	Acid	2.28	2.5 ug/g	91
Pentafluorophenol	Acid	1.99	2.5 ug/g	80
d_5-Nitrobenzene	B/N	2.01	2.5 ug/g	80
2-Fluorobiphenyl	B/N	2.05	2.5 ug/g	82

Form 1 (continued) Data Reporting Qualifiers

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

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

(b) U - Indicates compound was analyzed for but not detected. Report the minimum detection limit value with the U, e.g., 10U. The footnote should read: U - Compound was analyzed for but not detected. The number is the minimum detection limit.

(c) K - If the mass spectral data indicate the presence of a compound that meets the identification criteria but the quantitative results is less than the specified detection limit but greater than zero, report the detection limit as K, e.g., 10K. The footnote should read: K- Actual value, within the limitations of this method, is less than the value given.

(d) J - Indicates as estimated value which is used when estimating a concentration for tentatively identified compounds, e.g., 1200J. The footnote should read: J - Estimated value.

(e) Other - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described in a page attached to the data summary report.

(f) ** - This flag applies to pesticides parameters where the identification has been performed using two column confirmation (as specified in Method 608) but the level is too low for verification of the compound by mass spectrometry.

ORGANICS ANALYSIS DATA SHEET - Page 4

Lab Name: Mead CompuChem Case No. 801

Lab Sample I.D. No. 11430 BLANK

QC Report No: 42-58

Sample Number

B. TENTATIVELY IDENTIFIED COMPOUNDS

	CAS #	COMPOUND NAME	FRAC-TION	% Pur.	Est. Conc.
1		NONE	BN		
2			BN		
3			BN		
4			BN		
5			BN		
6			BN		
7			BN		
8			BN		
9			BN		
10			BN		
11		NONE	ACID		
12			ACID		
13			ACID		
14			ACID		
15			ACID		
16			ACID		
17			ACID		
18			ACID		
19			ACID		
20			ACID		
21			VOA		
22			VOA		
23			VOA		
24			VOA		
25			VOA		
26			VOA		
27			VOA		
28			VOA		
29			VOA		
30			VOA		

ORGANICS ANALYSIS DATA SHEET—Page 2

Sample Number

Laboratory Name Mead CompuChem

Lab Sample ID NO. BLANK 11434

Case Number 801

QC Report No. 46-58

	PESTICIDES	ug/g
309-00-2	aldrin	0.01U
60-57-1	dieldrin	0.01U
57-74-9	chlordane	0.01U
50-29-3	4,4'-DDT	0.01U
72-55-9	4,4'-DDE	0.01U
72-54-8	4,4'-DDD	0.01U
115-29-7	endosulfan I	0.01U
115-29-7	endosulfan II	0.01U
1031-07-8	endosulfan sulfate	0.01U
72-20-8	endrin	0.01U
7421-43-4	endrin aldehyde	0.01U
76-44-8	heptachlor	0.01U
1024-57-3	heptachlor epoxide	0.01U
319-84-6	BHC-Alpha	0.01U
319-85-7	BHC-Beta	0.01U
319-86-8	BHC-Delta	0.01U
58-89-9	BHC-Gamma	0.01U
53469-21-9	PCB-1242	0.01U
11097-69-7	PCB-1254	0.01U
11104-28-2	PCB-1221	0.01U
11141-16-5	PCB-1232	0.01U
12672-24-6	PCB-1248	0.01U
11096-82-5	PCB-1260	0.01U
12674-11-2	PCB-1016	0.01U
8001-35-2	toxaphene	0.04U

DIOXINS

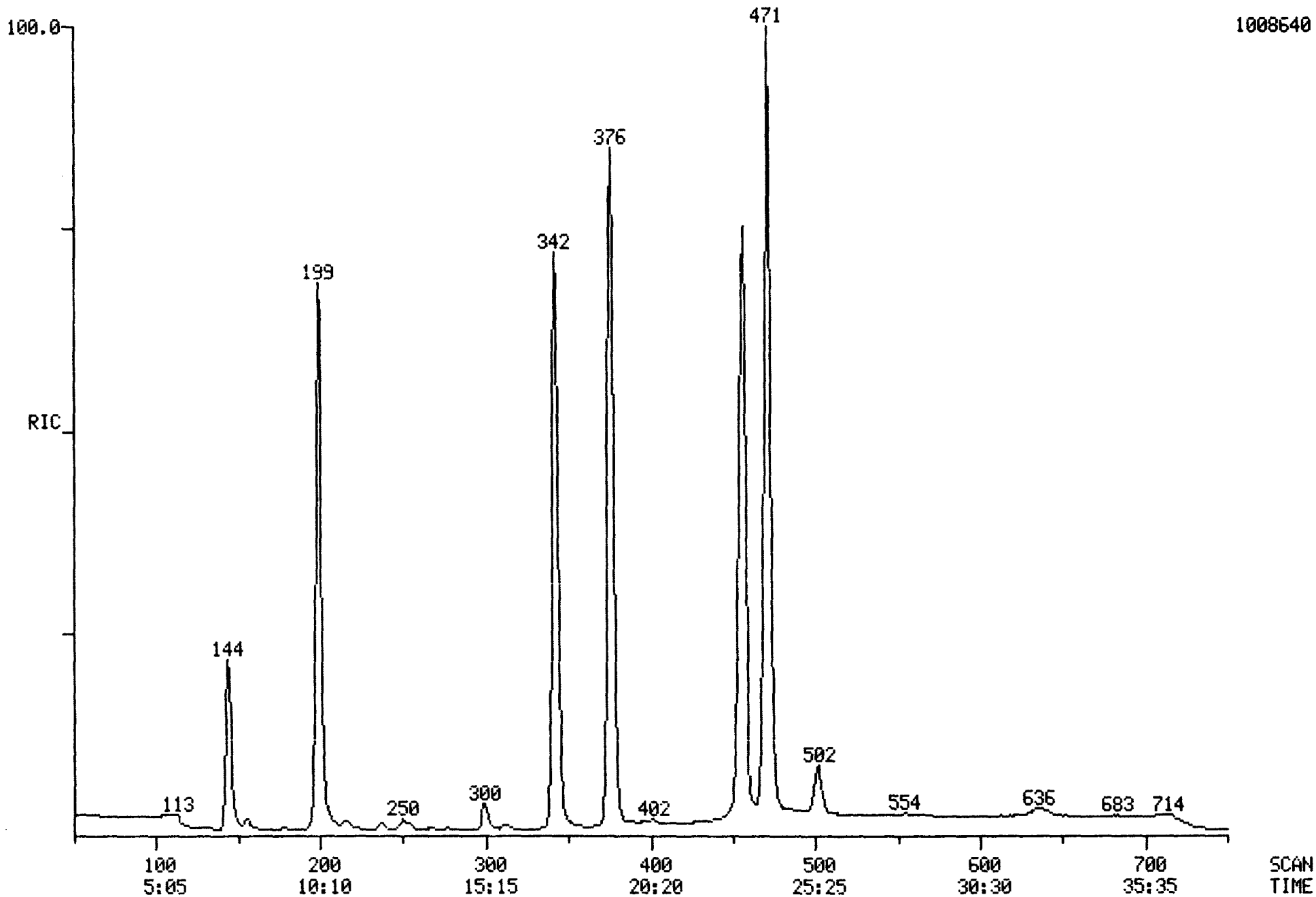
	2,3,7,8-tetrachlorodibenzo-	
1746-01-6	p-dioxin	0.01U

*Less than 0.2 ug/l

(pesticides less than, 0.01 ug/l)

RIC
12/22/81 18:22:00
SAMPLE: EHP 10G #11417/10ML H2O + 5UL(3370 & 3374)

DATA: EI011417B02 SCANS 50 TO 750



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: EI011417B02

DATA: EI011417B02.TI
12/22/81 18:22:00
SAMPLE: EHP 10G #11417/10ML H20 + 5UL(3370 & 3374)
SUBMITTED BY: 02 ANALYST: CAC

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

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD)
2	CHLOROMETHANE
3	VINYL CHLORIDE
4	CHLOROETHANE
5	BROMOMETHANE
6	ACROLEIN
7	ACRYLONITRILE
8	BROMOCHLOROMETHANE (INTERNAL STANDARD)
9	METHYLENE CHLORIDE
10	TRICHLOROFLUOROMETHANE
11	1,1-DICHLOROETHYLENE
12	1,1-DICHLOROETHANE
13	TRANS-1,2-DICHLOROETHYLENE
14	CHLOROFORM
15	1,2-DICHLOROETHANE
16	1,1,1-TRICHLOROETHANE
17	CARBON TETRACHLORIDE
18	BROMODICHLOROMETHANE
19	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
20	1,2-DICHLOROPROPANE
21	TRANS-1,3-DICHLOROPROPENE
22	TRICHLOROETHYLENE
23	BENZENE
24	CIS-1,3-DICHLOROPROPENE
25	1,1,2-TRICHLOROETHANE
26	DIBROMOCHLOROMETHANE
27	BROMOFORM
28	1,1,2,2-TETRACHLOROETHYLENE
29	1,1,2,2-TETRACHLOROETHANE
30	TOLUENE
31	CHLOROBENZENE
32	ETHYLBENZENE
33	2-CHLOROETHYL VINYL ETHER
34	2-BROMO-1-CHLOROPROPANE(INTERNAL STANDARD)
35	D6 BENZENE (SURROGATE STD)
36	D8 TOLUENE (SURROGATE STD)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	199	10:07	1	1.000	A BB	384109.	0.500 UG	16.29
2	NOT FOUND								
3	NOT FOUND								
4	64	104	5:17	1	0.523	A BV	858.	0.001 UG	0.04
5	NOT FOUND								
6	56	157	7:59	1	0.789	A BB	140.	0.000 UG	0.01
7	NOT FOUND								
8	130	199	10:07	8	1.000	A BB	384109.	0.500 UG	16.29

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
9	84	144	7:19	8	0.724	A BB	175609.	0.127 UG	4.12 YES
10	101	179	9:06	8	0.899	A BB	4562.	0.004 UG	0.14
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	83	237	12:03	8	1.191	A BB	7516.	0.003 UG	0.11
15	62	252	12:49	8	1.266	A BB	877.	0.001 UG	0.02
16	97	277	14:05	8	1.392	A BB	3229.	0.003 UG	0.09
17	117	277	14:05	8	1.392	A BB	84.	0.000 UG	0.00
18	NOT FOUND								
19	55	456	23:11	19	1.000	A BB	1217880.	0.500 UG	16.29
20	NOT FOUND								
21	NOT FOUND								
22	130	335	17:02	19	0.735	A BB	235.	0.000 UG	0.01
23	78	343	17:26	19	0.752	A BB	19279.	0.005 UG	0.18
24	NOT FOUND								
25	97	351	17:51	19	0.770	A BB	8173.	0.008 UG	0.26
26	NOT FOUND								
27	NOT FOUND								
28	164	448	22:46	19	0.982	A BB	108.	0.000 UG	0.00
29	83	449	22:49	19	0.985	A BB	17064.	0.008 UG	0.27
30	92	475	24:09	19	1.042	A BB	6385.	0.003 UG	0.11
31	112	502	25:31	19	1.101	A BB	88489.	0.041 UG	1.32
32	106	556	28:16	19	1.219	A BB	2660.	0.003 UG	0.09
33	63	376	19:07	19	0.825	A BB	11555.	0.015 UG	0.50
34	77	376	19:07	34	1.000	A BB	961197.	0.500 UG	16.29
35	84	342	17:23	34	0.910	A BB	1293790.	0.357 UG	11.63
36	100	471	23:57	34	1.253	A BB	933262.	0.489 UG	15.92

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 7 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUS

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUS

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	198	199	975	531	1	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA								
2	47	55	756	1	2	1	0	0
						**		
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA								
3	88	85	947	6	3	3	0	0
						**		
4	107	112	997	11	4	3	1	0
6	152	156	933	4	6	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 7 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUO

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUO

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
8	198	199	975	531	1	1	1	0
9	142	144	989	643	2	1	1	0
10	178	179	998	179	3	1	1	0
14	236	237	999	200	7	1	1	0
15	250	252	852	16	8	1	1	0
16	276	277	973	129	9	1	1	0
17	283	277	866	6	10	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -7 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUI

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUI

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
19	454	456	976	416	1	1	1	0
22	334	335	965	44	4	1	1	0
23	344	343	996	5	5	1	1	0
25	350	351	995	139	7	1	1	0
28	447	448	829	12	10	1	1	0
29	448	449	995	179	11	1	1	0
30	473	475	992	30	12	1	1	0
31	500	502	995	229	13	1	1	0
						**		
32	554	556	990	73	14	2	1	0
33	371	376	947	4	15	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 0 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT	EXPECTED	BEST			LIBRARY	PEAKS	PEAKS	SATURATED

ENTRY NO.	SCAN	SCAN	FIT	PURITY	ENTRY NO.	FOUND	QUANT	PEAKS
34	374	376	993	348	1	1	1	0
35	341	342	997	420	2	1	1	0
36	469	471	996	521	3	1	1	0

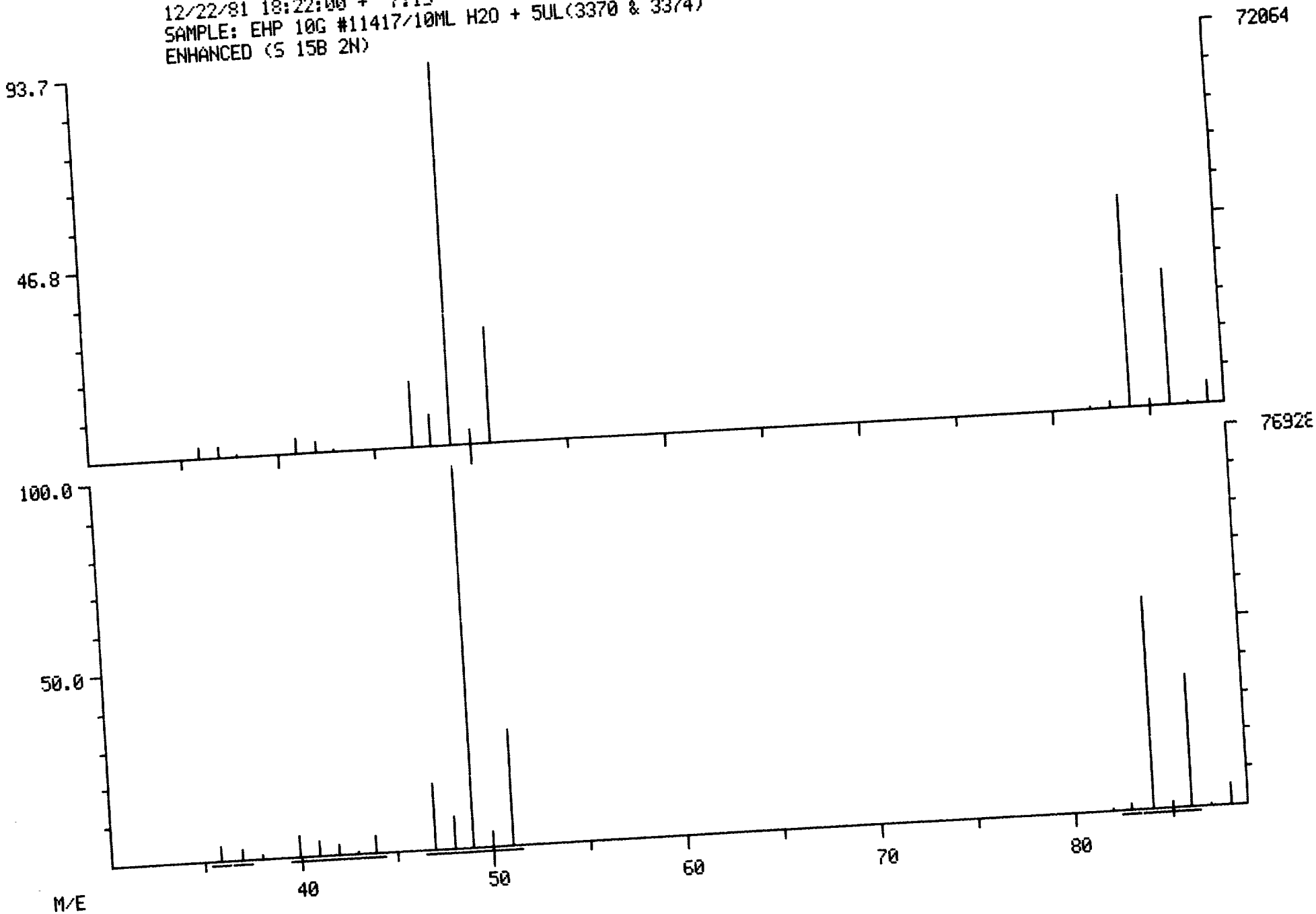
NUMBER OF COMPOUNDS IDENTIFIED 25

DATA PROCESSING OF EI011417B02 COMPLETED ON 12/22/81 19:08:52

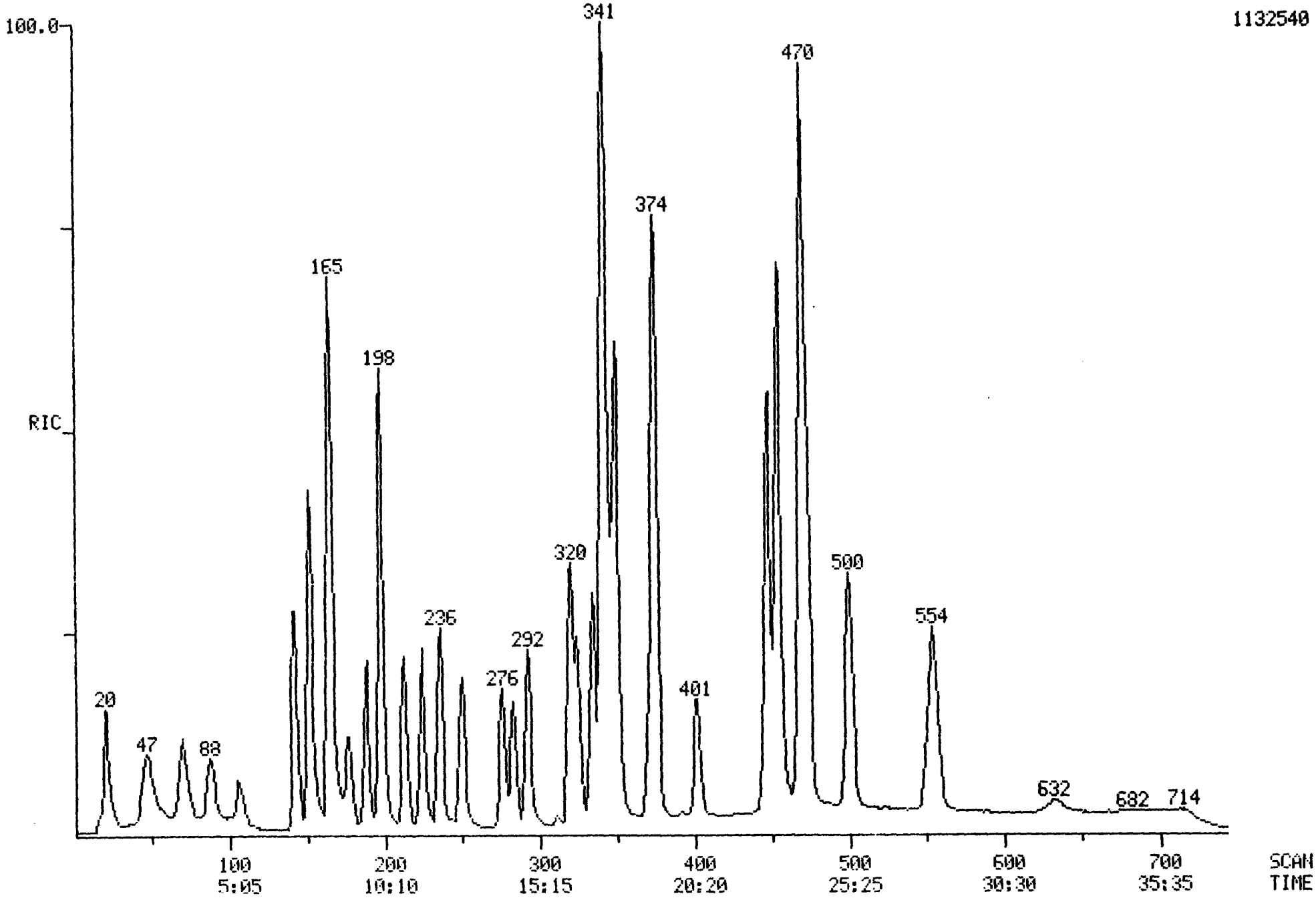
0222 75-09-2

DATA: EI011417B02 #144 BASE M/E: 49/ 49
RIC: 198399./ 220159.

DUAL MASS SPECTRUM
12/22/81 18:22:00 + 7:19
SAMPLE: EHP 10G #11417/10ML H2O + 5UL(3370 & 3374)
ENHANCED (S 15B 2N)



RIC DATA: ES811222A02 SCANS 1 TO 742
12/22/81 14:17:00
SAMPLE: 10MLDIH2O+5UL#3370&3374+2UL#3383&3388+1UL#3384&3390-EPA H P



FORM 2

GC/MS PERFORMANCE STANDARD - BROMOFLUOROBENZENE

DATE 12/22/81 RUN NO. BF811222A02 ANALYST N. Clements

m/e	Ion Abundance Criteria	% Relative Abundance
50	15-40% of the base peak	24.26
75	30-60% of the base peak	42.11
95	Base Peak, 100% relative abundance	100.00
96	5-9% of the base peak	6.70
173	Less than 1% of the base peak	—
174	Greater than 50% of the base peak	56.04
175	5-9% of mass 174	3.43 (6.12)
176	Greater than 50% of the base peak	55.65
177	5-9% of mass 176	3.49 (6.27)

MASS LIST DATA: BF811222A02 # 211 BASE M/E: 95
12/22/81 12:33:00 + 10:44 RIC: 43328.
SAMPLE: 2UL BFB (#3355)-EXP:12/22/81
#211 - #227 X1.00

10A

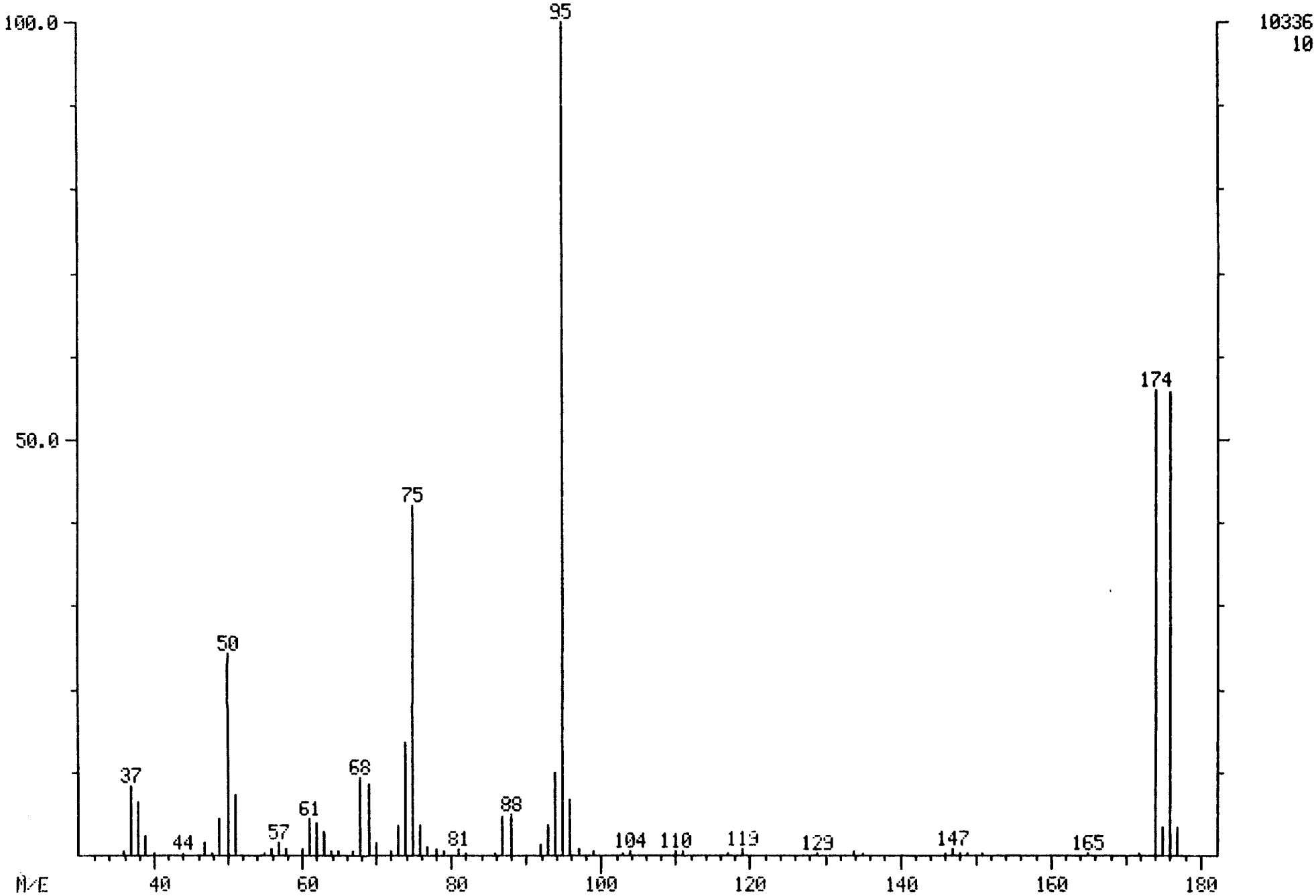
36 0.00 MINIMA MIN INTEN: 0.
177 # 0 MAXIMA

MASS	% RA	MASS	% RA
36	0.46	111	0.40
37	8.37	113	0.06
38	6.67	117	0.23
39	2.49	119	0.81
40	0.21	123	0.06
44	0.17	125	0.06
47	1.59	127	0.04
48	0.24	129	0.18
49	4.41	134	0.50
50	24.26	135	0.20
51	7.43	146	0.20
52	0.07	147	0.67
55	0.18	148	0.21
56	0.73	149	0.21
57	1.59	151	0.30
58	0.88	165	0.22
60	0.69	172	0.29
61	4.58	174	56.04
62	3.96	175	3.43
63	2.97	176	55.65
64	0.41	177	3.49
65	0.48		
67	0.58		
68	9.43		
69	8.58		
70	1.48		
72	0.64		
73	3.64		
74	13.60		
75	42.11		
76	3.60		
77	1.00		
78	0.82		
79	0.57		
81	0.74		
82	0.31		
86	0.29		
87	4.75		
88	5.03		
92	1.29		
93	3.64		
94	9.87		
95	100.00		
96	6.70		
97	0.91		
99	0.48		
103	0.26		
104	0.56		
106	0.03		
110	0.52		

MASS SPECTRUM
12/22/81 12:33:00 + 10:44
SAMPLE: 2UL BFB (#3355)-EXP:12/22/81
#211 - #227 X1.00

DATA: BF811222A02 #211

BASE M/E: 95
RIC: 43328.



25-JAN-82

Mead CompuChem

INITIAL CALIBRATION DATA REPORT

Time: 21: 0

Research Triangle Park
Instrument: 2
Library: 5
Version: 8
Fraction: Volatile

Compounds		Lab ID: ET811218C02 Std ID: 1801 (LOW) Conc	Area	Lab ID: EU811218C02 Std ID: 1802 (MED) Conc	Area	Lab ID: ES811218C02 Std ID: 1803 (HIGH) Conc	Area
BROMOCHLOROMETHANE	(IS)	.50	343676	.50	352796	.50	356701
BROMOCHLOROMETHANE	(IS)	.50	343676	.50	352796	.50	356701
1,4-DICHLOROBUTANE	(IS)	.50	1354920	.50	1372740	.50	1431980
2-BROMO-1-CHLOROPROPANE	(IS)	.50	995218	.50	1030920	.50	1077490

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
METHYL CHLORIDE	.20	1.552	.241	.40	1.609	.236	.60	1.587	.246	.600
VINYL CHLORIDE	.20	1.377	.442	.40	1.331	.442	.60	1.227	.452	-.976
CHLOROETHANE	.20	.757	.548	.40	.659	.538	.60	.583	.543	-.998
METHYL BROMIDE	.20	1.496	.362	.40	1.470	.362	.60	1.405	.367	-.971
ACROLEIN	2.00	.496	.774	4.00	.493	.774	6.00	.548	.779	.843
ACRYLONITRILE	2.00	1.038	.839	4.00	1.025	.839	6.00	.963	.844	-.937
METHYLENE CHLORIDE	.20	1.607	.724	.40	1.490	.724	.60	1.526	.729	-.676
TRICHLOROFLUOROMETHANE	.20	.966	.899	.40	.979	.899	.60	1.015	.905	.962
1,1-DICHLOROETHYLENE	.20	.906	.955	.40	.902	.955	.60	.932	.955	.800
1,1-DICHLOROETHANE	.20	.930	1.075	.40	.869	1.075	.60	.924	1.080	-.079
1,2-TRANS-DICHLOROETHYLENE	.20	1.197	1.136	.40	1.159	1.136	.60	1.191	1.136	-.153
CHLOROFORM	.20	2.584	1.191	.40	2.444	1.191	.60	2.535	1.196	-.366
1,2-DICHLOROETHANE	.20	1.850	1.261	.40	1.687	1.261	.60	1.732	1.266	-.705
1,1,1-TRICHLOROETHANE	.20	1.391	1.392	.40	1.348	1.392	.60	1.375	1.397	-.375
CARBON TETRACHLORIDE	.20	1.112	1.427	.40	1.089	1.427	.60	1.147	1.432	.607
DICHLOROBROMOMETHANE	.20	2.148	1.477	.40	2.113	1.477	.60	2.239	1.477	.700
1,2-DICHLOROPROPANE	.20	.165	.704	.40	.156	.704	.60	.165	.705	-.014
TRANS-1,3-DICHLOROPROPYLENE	.20	.523	.715	.40	.523	.715	.60	.536	.713	.830
TRICHLOROETHYLENE	.20	.348	.737	.40	.330	.737	.60	.330	.735	-.867
BENZENE	.20	1.321	.757	.40	1.222	.757	.60	1.247	.757	-.724
CIS-1,3-DICHLOROPROPYLENE	.20	.454	.770	.40	.452	.770	.60	.467	.770	.800
1,1,2-TRICHLOROETHANE	.20	.460	.770	.40	.364	.770	.60	.399	.770	-.627
CHLORODIBROMOMETHANE	.20	.309	.765	.40	.307	.765	.60	.322	.766	.812
BROMOFORM	.20	.345	.884	.40	.311	.884	.60	.328	.882	-.509
TETRACHLOROETHYLENE	.20	.270	.985	.40	.249	.985	.60	.253	.982	-.780
1,1,2,2-TETRACHLOROETHANE	.20	1.073	.985	.40	.799	.985	.60	.760	.985	-.917
TOLUENE	.20	.717	1.042	.40	.669	1.042	.60	.679	1.042	-.752
CHLOROBENZENE	.20	.786	1.101	.40	.712	1.101	.60	.719	1.101	-.818
ETHYLBENZENE	.20	.383	1.219	.40	.352	1.219	.60	.354	1.221	-.836
2-CHLOROETHYLVINYL ETHER	.20	.303	.816	.40	.352	.816	.60	.318	.816	.317
D-6 BENZENE	.50	2.153	.910	.50	2.107	.910	.50	1.995	.912	-.000
D-8 TOLUENE	.50	.961	1.253	.50	.965	1.253	.50	.901	1.255	.000

25-JAN-82

Mead CompuChem

STANDARD RESPONSE FACTOR CHECK REPORT

Time: 17:51

Research Triangle Park
Instrument: 2
Library: 5
Version: 8
Fraction: Volatile

Compounds		STD ID 1801 (LOW) Area(C)	ID: ES811230B02 Analyst: 670 Area(CK)	RXD **	ID: ES811222A02 Analyst: 586 Area(CK)	RXD **	ID: ES811221A02 Analyst: 586 Area(CK)	RXD **
BROMOCHLOROMETHANE	(IS)	343676	395629	-14.1	356656	-3.7	363575	-5.6
BROMOCHLOROMETHANE	(IS)	343676	395629	-14.1	356656	-3.7	363575	-5.6
1,4-DICHLOROBUTANE	(IS)	1354920	1307400	3.6	1308360	3.5	1224600	10.1
2-BROMO-1-CHLOROPROPANE	(IS)	995218	1026460	-3.1	953080	4.3	933912	6.4
		RF (C)	RF (CK)	RXD **	RF (CK)	RXD **	RF (CK)	RXD **
METHYL CHLORIDE		1.552	2.396	42.7	3.275	71.4	.617	-86.2
VINYL CHLORIDE		1.377	1.920	33.0	2.065	40.0	.638	-73.3
CHLOROETHANE		.757	.746	-1.4	.902	17.5	.375	-67.4
METHYL BROMIDE		1.496	1.693	12.3	1.913	24.5	.935	-46.2
ACROLEIN		.496	.459	-7.8	.624	22.9	.279	-56.0
ACRYLONITRILE		1.038	.784	-27.9	.898	-14.4	.807	-25.0
METHYLENE CHLORIDE		1.607	1.717	6.6	1.806	11.7	1.569	-2.4
TRICHLOROFLUOROMETHANE		.966	1.334	31.9	1.389	35.9	.979	1.3
1,1-DICHLOROETHYLENE		.904	1.085	18.1	1.115	20.7	.832	-8.1
1,1-DICHLOROETHANE		.930	1.006	7.9	1.025	9.8	.876	-5.9
1,2-TRANS-DICHLOROETHYLENE		1.197	1.281	6.8	1.302	8.4	1.136	-5.2
CHLOROFORM		2.584	2.851	9.8	2.900	11.5	2.659	2.9
1,2-DICHLOROETHANE		1.850	1.965	6.0	2.101	12.7	1.947	5.1
1,1,1-TRICHLOROETHANE		1.391	1.583	12.9	1.585	13.8	1.442	3.5
CARBON TETRACHLORIDE		1.112	1.387	22.0	1.352	19.5	1.167	4.9
DICHLOROBROMOMETHANE		2.148	2.318	7.6	2.402	11.2	2.258	5.0
1,2-DICHLOROPROPANE		.165	.204	21.3	.186	11.7	.183	10.2
TRANS-1,3-DICHLOROPROPYLENE		.523	.617	16.4	.586	11.2	.603	14.1
TRICHLOROETHYLENE		.348	.478	31.4	.400	14.0	.403	14.8
BENZENE		1.321	1.596	18.9	1.451	9.4	1.448	9.1
CIS-1,3-DICHLOROPROPYLENE		.454	.546	18.4	.520	13.6	.545	18.3
1,1,2-TRICHLOROETHANE		.460	.457	-.7	.421	-8.8	.490	6.3
CHLORODIBROMOMETHANE		.309	.423	31.3	.374	19.0	.383	21.3
BROMOFORM		.345	.409	16.9	.354	2.7	.399	14.6
TETRACHLOROETHYLENE		.270	.374	32.3	.314	14.9	.325	18.3
1,1,2,2-TETRACHLOROETHANE		1.073	.771	-32.7	.835	-24.9	.969	-10.2
TOLUENE		.717	.884	20.8	.799	10.9	.816	12.9
CHLOROBENZENE		.786	.988	22.8	.895	12.9	.893	12.8
ETHYLBENZENE		.383	.463	18.9	.413	7.6	.430	11.6
2-CHLOROETHYLVINYL ETHER		.303	.410	30.1	.308	1.8	.392	25.8
D-6 BENZENE		2.153	1.734	-21.6	1.886	-13.2	2.118	-1.6
D-8 TOLUENE		.961	.945	-1.7	.993	3.3	.970	.9

$$** \ RXD = \frac{(CK-C)}{(CK+C)\ /\ 2} \times 100$$

Mead CompuChem

25-JAN-82 STANDARDS RELATIVE RETENTION REPORT Time: 17:55

Research Triangle Park
Instrument: 2
Library: 5
Version: 8
Fraction: Volatile

Compounds		Initial Run ID: ET811218C02 STD Conc	RRT	Check Standards ID: ES811230B02 RRT	Diff	ID: ES811222A02 RRT	Diff	ID: ES811221A02 RRT	Diff
BROMOCHLOROMETHANE	(IS)	.50	1.000	1.000	.000	1.000	.000	1.000	.000
METHYL CHLORIDE		.20	.241	.241	.000	.237	.004	.240	.001
VINYL CHLORIDE		.20	.442	.447	-.005	.444	-.002	.440	.002
CHLOROETHANE		.20	.548	.543	.005	.540	.007	.545	.003
METHYL BROMIDE		.20	.362	.362	.000	.354	.008	.360	.002
ACROLEIN		2.00	.774	.774	.000	.768	.006	.775	-.001
ACRYLONITRILE		2.00	.839	.839	.000	.833	.006	.840	-.001
BROMOCHLOROMETHANE	(IS)	.50	1.000	1.000	.000	1.000	.000	1.000	.000
METHYLENE CHLORIDE		.20	.724	.724	.000	.717	.006	.725	-.001
TRICHLOROFLUOROMETHANE		.20	.899	.899	.000	.899	.001	.900	-.001
1,1-DICHLOROETHYLENE		.20	.955	.955	.000	.955	.000	.955	-.000
1,1-DICHLOROETHANE		.20	1.075	1.075	.000	1.076	-.000	1.075	.000
1,2-TRANS-DICHLOROETHYLENE		.20	1.136	1.136	.000	1.131	.004	1.130	.006
CHLOROFORM		.20	1.191	1.191	.000	1.192	-.001	1.190	.001
1,2-DICHLOROETHANE		.20	1.261	1.261	.000	1.263	-.001	1.260	.001
1,1,1-TRICHLOROETHANE		.20	1.392	1.392	.000	1.394	-.002	1.390	.002
CARBON TETRACHLORIDE		.20	1.427	1.427	.000	1.429	-.002	1.425	.002
DICHLOROBROMOMETHANE		.20	1.477	1.477	.000	1.475	.003	1.475	.002
1,4-DICHLOROBUTANE	(IS)	.50	1.000	1.000	.000	1.000	.000	1.000	.000
1,2-DICHLOROPROPANE		.20	.704	.704	.000	.705	-.001	.705	-.001
TRANS-1,3-DICHLOROPROPYLENE		.20	.715	.715	.000	.714	.001	.716	-.001
TRICHLOROETHYLENE		.20	.737	.735	.002	.736	.001	.737	-.001
BENZENE		.20	.757	.757	.000	.758	-.001	.757	-.001
CIS-1,3-DICHLOROPROPYLENE		.20	.770	.770	.000	.771	-.001	.770	-.001
1,1,2-TRICHLOROETHANE		.20	.770	.770	.000	.771	-.001	.770	-.001
CHLORODIBROMOMETHANE		.20	.765	.765	.000	.767	-.001	.766	-.001
BROMOFORM		.20	.884	.884	.000	.883	.001	.884	-.000
TETRACHLOROETHYLENE		.20	.985	.985	.000	.985	.000	.985	-.000
1,1,2,2-TETRACHLOROETHANE		.20	.985	.985	.000	.987	-.002	.985	-.000
TOLUENE		.20	1.042	1.042	.000	1.042	-.000	1.042	.000
CHLOROBENZENE		.20	1.101	1.101	.000	1.101	-.000	1.101	.000
ETHYLBENZENE		.20	1.219	1.219	.000	1.220	-.001	1.221	-.002
2-CHLOROETHYLVINYL ETHER		.20	.816	.816	.000	.817	-.001	.816	-.000
2-BROMO-1-CHLOROPROPANE	(IS)	.50	1.000	1.000	.000	1.000	.000	1.000	.000
D-6 BENZENE		.50	.910	.910	.000	.912	-.002	.910	-.000
D-8 TOLUENE		.50	1.253	1.253	.000	1.254	-.001	1.252	.001

Internal Standard Response Verification Report

Research Triangle Park
Fraction: Volatile 19-DEC-81 00:00 - 30-DEC-81 23:59
Instrument# 2
Library# 5
Version# 8

			Int. Std. A			Int. Std. B				Int. Std. C			
			BROMOCHLOROMETHANE Conc: .5000			1,4-DICHLOROBUTANE Conc: .5000				2-BROMO-1-CHLOROPROP Conc: .5000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
EH011333C02	22-DEC-81	584	199	339796.	.4364	456	999012.	1.0000	.3401	376	824375.	.8246	1.2118
EC811221C02	22-DEC-81	584	200	402549.	.4367	458	1249660.	1.0000	.3221	378	989382.	.8253	1.2631
EH011334C02	22-DEC-81	584	200	333454.	.4367	458	943931.	1.0000	.3554*	378	830442.	.8253	1.1367
EB811221C02	22-DEC-81	584	199	388401.	.4354	457	1255108.	1.0000	.3095	377	970461.	.8249	1.2933
ES811221C02	22-DEC-81	584	200	370006.	.4376	457	1334670.	1.0000	.2772	377	1004030.	.8249	1.3293
EH011427C02	22-DEC-81	584	199	327578.	.4354	457	989878.	1.0000	.3309	377	827679.	.8249	1.1957
EH011337C02	22-DEC-81	584	200	344346.	.4376	457	989147.	1.0000	.3481	377	877967.	.8249	1.1266
EH011425A02	22-DEC-81	586	200	358314.	.4376	457	1183480.	1.0000	.3028	377	903035.	.8249	1.3106
EH011426A02	22-DEC-81	586	200	403692.	.4376	457	1285990.	1.0000	.3139	377	997801.	.8249	1.2888
EH011115A02	22-DEC-81	586	199	360502.	.4364	456	1146460.	1.0000	.3144	376	890273.	.8246	1.2878
EH011338A02	22-DEC-81	586	199	342541.	.4364	456	1015190.	1.0000	.3374	375	848259.	.8224	1.1968
EB811222A02	22-DEC-81	586	198	341452.	.4361	454	1181580.	1.0000	.2890	374	848813.	.8238	1.3695
ES811222A02	22-DEC-81	586	198	356896.	.4361	454	1308360.	1.0000	.2726	374	953080.	.8238	1.3228
EH011326A02	22-DEC-81	586	196	272538.	.4327	453	886335.	1.0000	.3074	373	685778.	.8234	1.2927
EH011328B02	22-DEC-81	670	198	331746.	.4352	455	1076380.	1.0000	.3082	375	838850.	.8242	1.2832
EH011330B02	22-DEC-81	670	198	338944.	.4338	452	1041080.	1.0000	.3236	372	848710.	.8230	1.2267
EI011417B02	22-DEC-81	670	199	384109.	.4364	456	1217880.	1.0000	.3154	376	961197.	.8246	1.2670
EB811229A02	29-DEC-81	586	200	337083.	.4376	457	1071140.	1.0000	.3193	377	813671.	.8249	1.3164
ES811229A02	29-DEC-81	586	198	378611.	.4342	456	1281620.	1.0000	.2954	376	980622.	.8246	1.3069
EH011215B02	29-DEC-81	670	199	372694.	.4364	456	1014530.	1.0000	.3674*	376	913140.	.8246	1.1110
EH011142B02	29-DEC-81	670	199	376056.	.4364	456	1140790.	1.0000	.3296	376	902959.	.8246	1.2634
EH011213B02	29-DEC-81	670	198	357152.	.4352	455	1084780.	1.0000	.3292	375	868024.	.8242	1.2497
EH011214B02	29-DEC-81	670	198	377902.	.4352	455	1101440.	1.0000	.3431	375	907057.	.8242	1.2143
EH011143B02	29-DEC-81	670	199	336721.	.4364	456	945873.	1.0000	.3560*	376	821802.	.8246	1.1510
EH011144B02	29-DEC-81	670	199	359260.	.4364	456	1057150.	1.0000	.3398	376	878989.	.8246	1.2027
EB811230A02	30-DEC-81	586	199	409493.	.4364	456	1221380.	1.0000	.3353	376	979143.	.8246	1.2474
ES811230A02	30-DEC-81	586	199	402849.	.4374	455	1320760.	1.0000	.3050	375	1033540.	.8242	1.2536
EH011145A02	30-DEC-81	586	199	309819.	.4364	456	857861.	1.0000	.3612*	376	690388.	.8246	1.2426
EH011146A02	30-DEC-81	586	199	334196.	.4364	456	871723.	1.0000	.3834*	376	755247.	.8246	1.1542
EH011141A02	30-DEC-81	586	198	339715.	.4352	455	863212.	1.0000	.3935*	376	846095.	.8264	1.0202
EH011224A02	30-DEC-81	586	199	352483.	.4374	455	1051480.	1.0000	.3352	376	830736.	.8264	1.2657
EH011225A02	30-DEC-81	586	198	333355.	.4342	456	1055540.	1.0000	.3158	375	794134.	.8224	1.3292

2-1

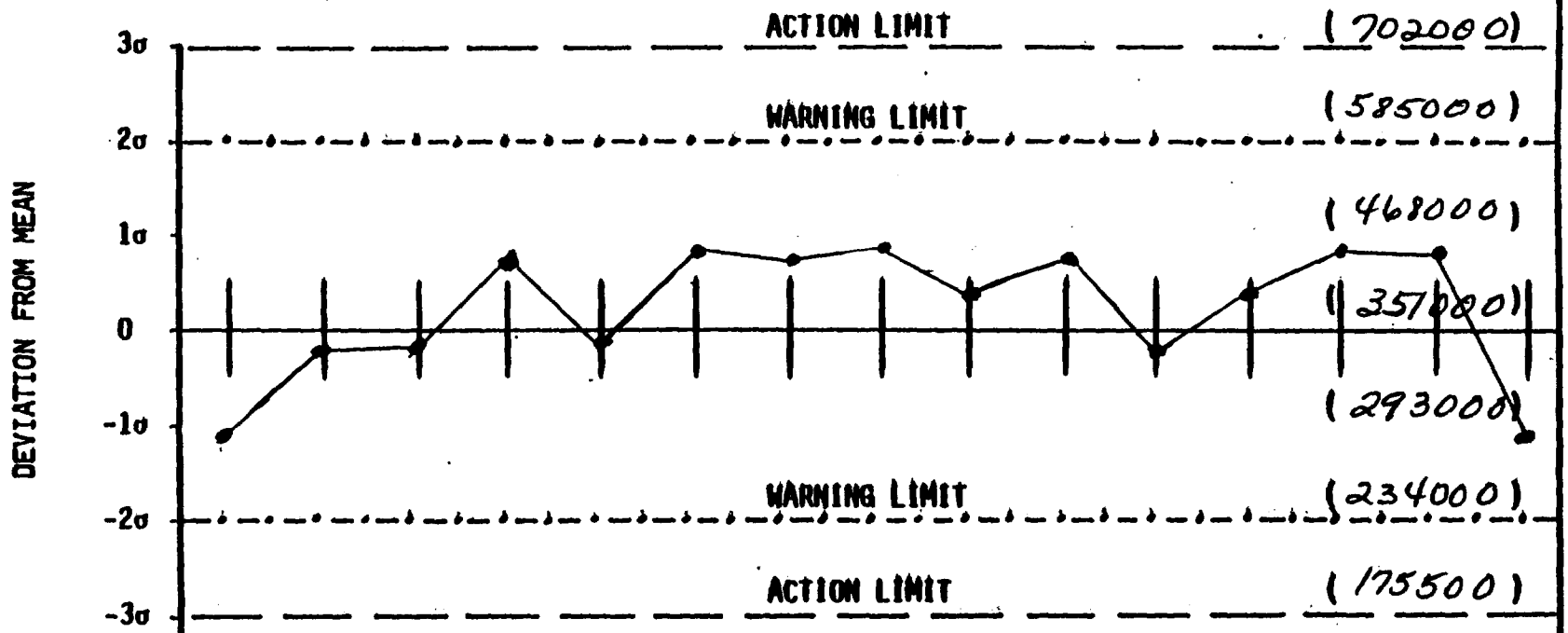
2-2

3-1

PAGE # 2-2

METHOD VOLATILE # 2-VIII

I. STD BROMOCHLOROMETHANE

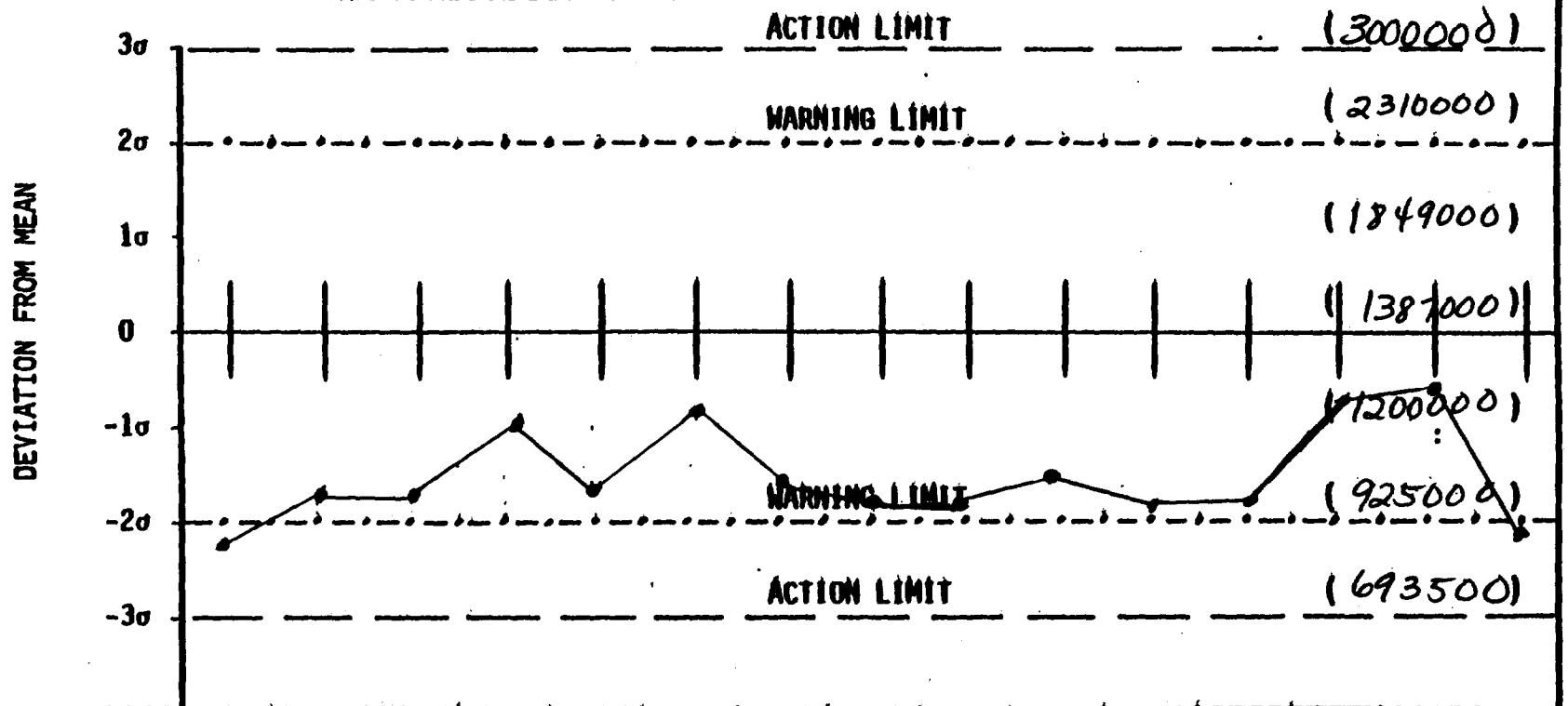


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/29/82	12/29/82	12/29/82	12/29/82	12/29/81	12/29/81	12/29/81	12/29/81	12/30/81	12/30/81	12/30/81
OPERATOR	586	670	670	670	586	586	670	670	670	670	670	670	586	586	586
PROBLEM AND CORRECTIVE ACTION															

PAGE # 2-2

METHOD VOLATILE #2-VIII

I. STD 1,4-DICHLOROBUTANE

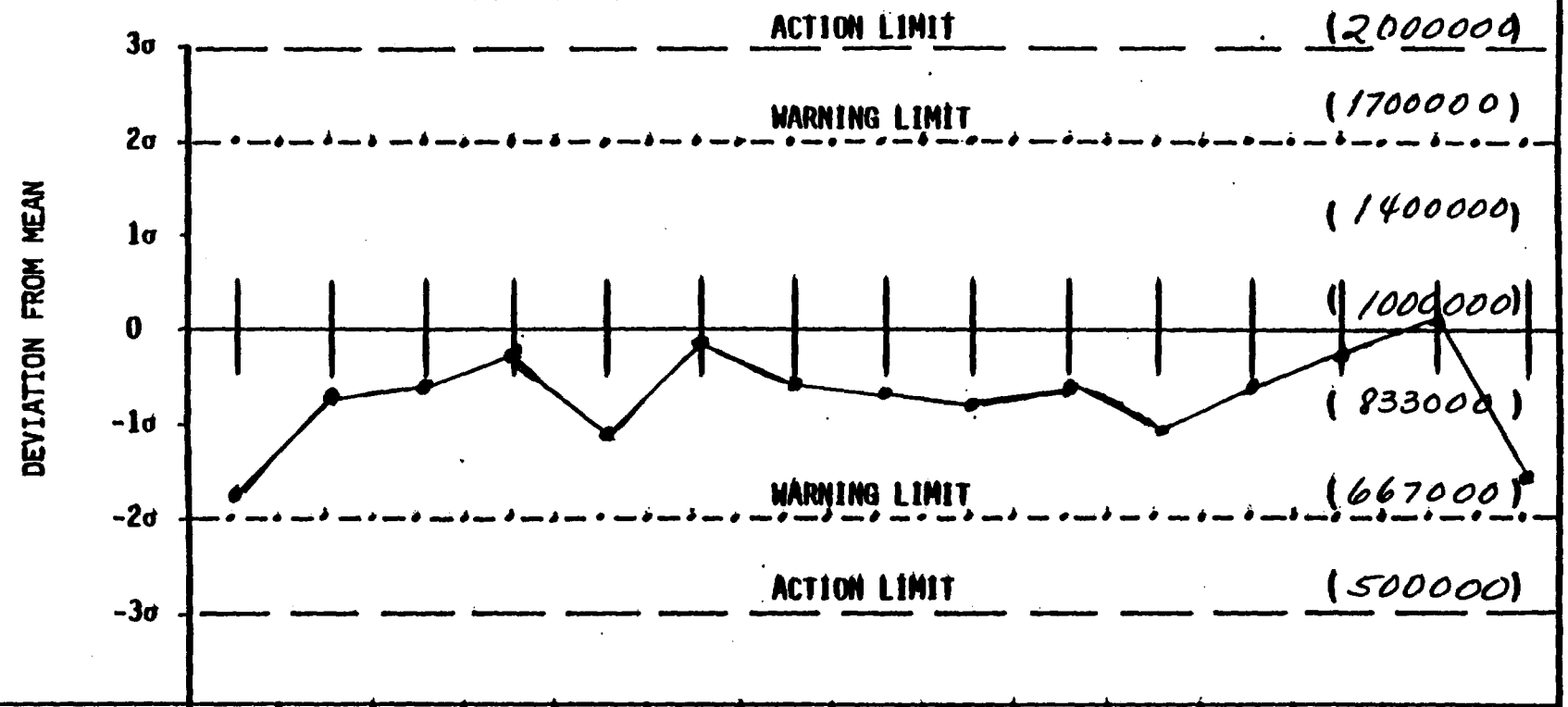


RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/27/81	12/22/81	12/22/81	12/22/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/30/81	12/30/81	12/30/81
OPERATOR	586	670	670	670	586	586	670	670	670	670	670	670	586	586	586
PROBLEM AND CORRECTIVE ACTION															

PAGE # 2-2

METHOD VOLATILE #2-VIII

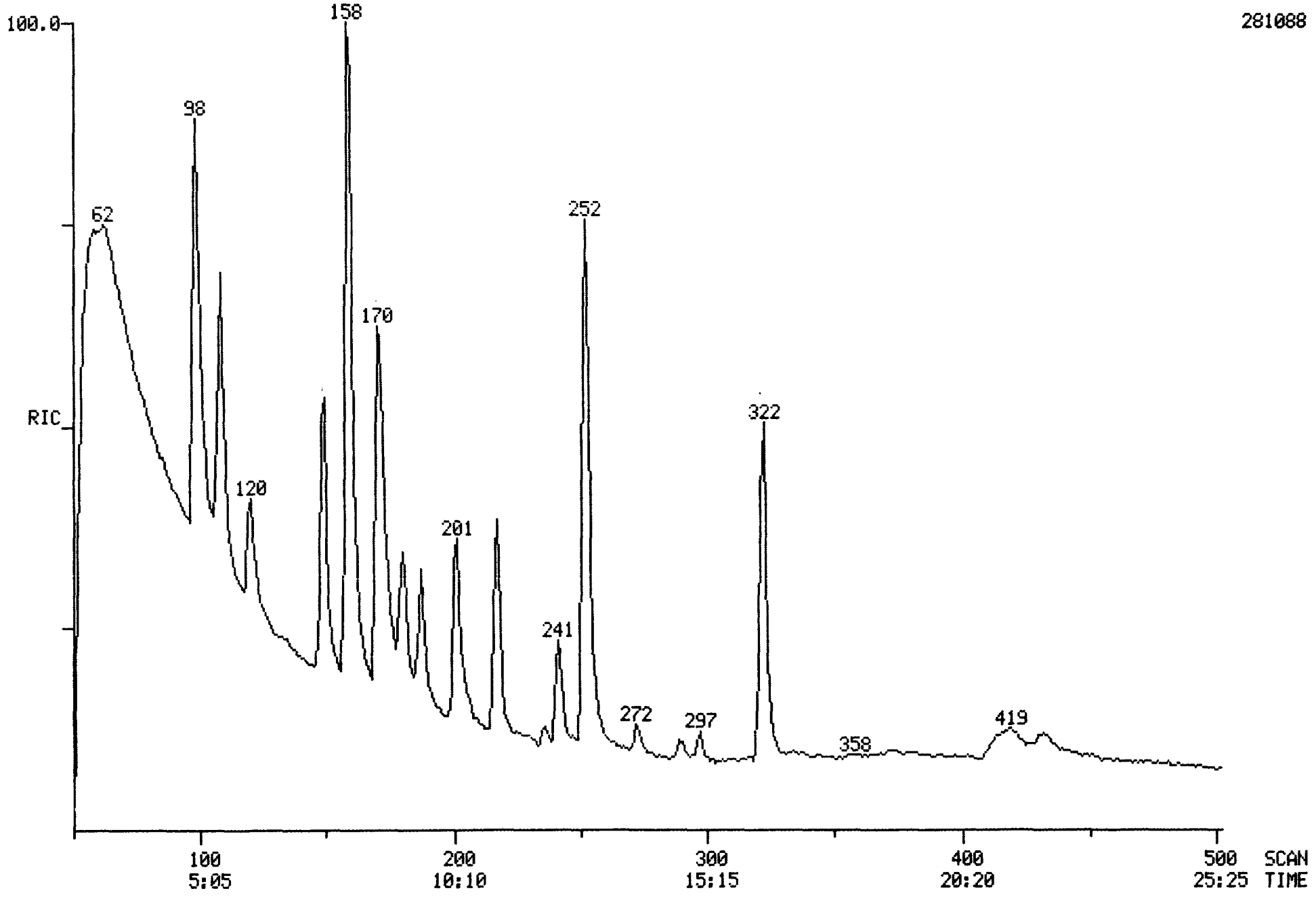
I. STD 2-BROMO-1-CHLOROPROPANE



RUN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DATE/TIME	12/22/81	12/22/81	12/22/81	12/22/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/29/81	12/30/81	12/30/81	12/30/81
OPERATOR	586	670	670	670	586	586	670	670	670	670	670	670	586	586	586
PROBLEM AND CORRECTIVE ACTION															

RIC
01/14/82 15:15:00
SAMPLE: 2 UL 11417 ON OWA#5

DATA: AH011417A05 SCANS 50 TO 502



FINNIGAN TARGET COMPOUND ANALYSIS
QUANTITATION REPORT FILE: AH011417A05

DATA: AH011417A05.TI
01/14/82 15:15:00
SAMPLE: 2 UL 11417 ON OWA#5
SUBMITTED BY: 5 ANALYST: LRF

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	FLUOROPHENOL (SURROGATE STANDARD)
3	D-6 PHENOL (SURROGATE STANDARD)
4	PENTAFLUOROPHENOL (SURROGATE)
5	2-FLUOROBIPHENYL (SURROGATE)
6	D-5 NITROBENZENE (SURROGATE)
7	D-8 NAPHTHALENE (INTERNAL STANDARD)
8	2-CHLOROPHENOL
9	2-NITROPHENOL
10	PHENOL
11	2,4-DIMETHYLPHENOL
12	2,4-DICHLOROPHENOL
13	D10-ANTHRACENE (INTERNAL STANDARD)
14	2,4,6-TRICHLOROPHENOL
15	P-CHLORO-M-CRESOL
16	2,4-DINITROPHENOL
17	4,6-DINITRO-O-PHENOL
18	PENTACHLOROPHENOL
19	4-NITROPHENOL

d_8-5%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	136	108	5:29	1	1.000	A BB	131247.	40.000	NG/UL	8.35
2	112	98	4:59	1	0.907	A BB	118519.	87.740	NG/UL	18.32
3	99	158	8:02	1	1.463	A BV	144894.	88.426	NG/UL	18.46
4	184	170	8:38	1	1.574	A BB	77946.	78.387	NG/UL	16.36
5	172	171	8:42	1	1.583	A BB	47791.	19.004	NG/UL	3.97
6	NOT FOUND									
7	136	108	5:29	7	1.000	A BB	131247.	40.000	NG/UL	8.35
8	128	120	6:06	7	1.111	A BB	27937.	20.170	NG/UL	4.21
9	NOT FOUND									
10	94	158	8:02	7	1.463	A BV	32772.	20.583	NG/UL	4.30
11	NOT FOUND									
12	162	201	10:13	7	1.861	A BB	32412.	28.052	NG/UL	5.86
13	188	222	16:22	13	1.000	A BB	152116.	40.000	NG/UL	8.35
14	196	241	12:15	13	0.748	A BB	13056.	15.571	NG/UL	3.25
15	NOT FOUND									
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
19	65	456	23:11	13	1.416	A VV	390.	1.090 NG/UL	0.23

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -5 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUJ

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUJ

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	109	108	997	232	1	1	1	0
2	101	98	998	246	2	1	1	0
3	158	158	996	248	3	1	1	0
4	171	170	999	261	4	1	1	0
5	171	171	995	111	5	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT								
6	106	106	992	6	6	1	0	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -5 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUK

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUK

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
7	109	108	997	232	1	1	1	0
8	119	120	996	124	2	1	1	0
10	158	158	997	89	4	1	1	0
12	199	201	1000	180	6	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -4 PERCENT OF THE LAST STANDARD
INTERNAL STANDARD FOUND FOR LIBRARY: LIBRARYUL

COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
13	322	322	998	375	1	1	1	0
14	240	241	1000	139	2	1	1	0
						**		
19	456	456	769	9	7	2	1	0

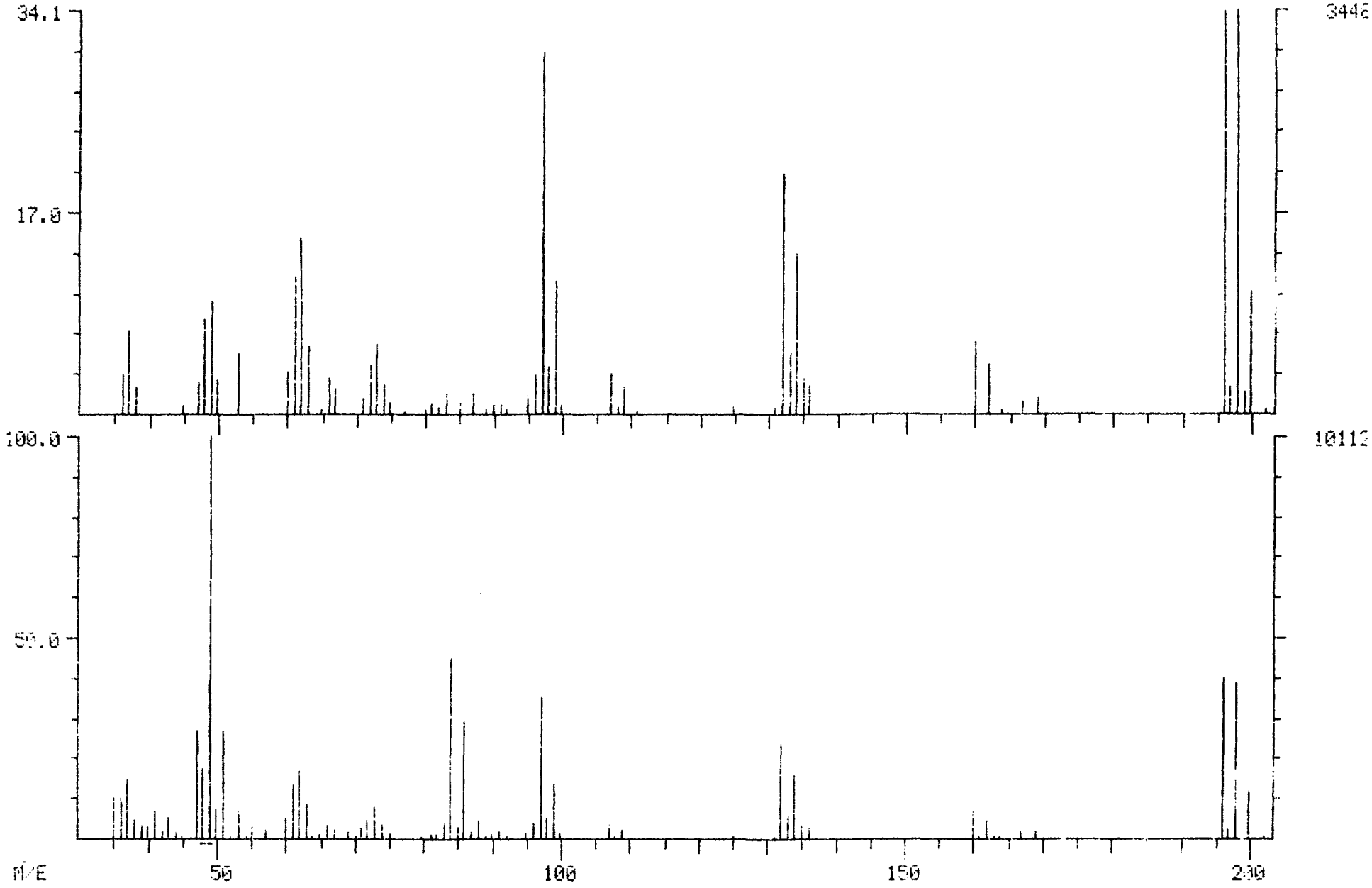
NUMBER OF COMPOUNDS IDENTIFIED 13

DATA PROCESSING OF AH011417A05 COMPLETED ON 1/14/82 15:45:43

611 88-06-2

DUAL MASS SPECTRUM
01/14/82 15:15:00 + 12:15
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 #241 BASE M/E: 198/ 49
CALI: AH011417A05 #1 RIC: 31295./ 65791.

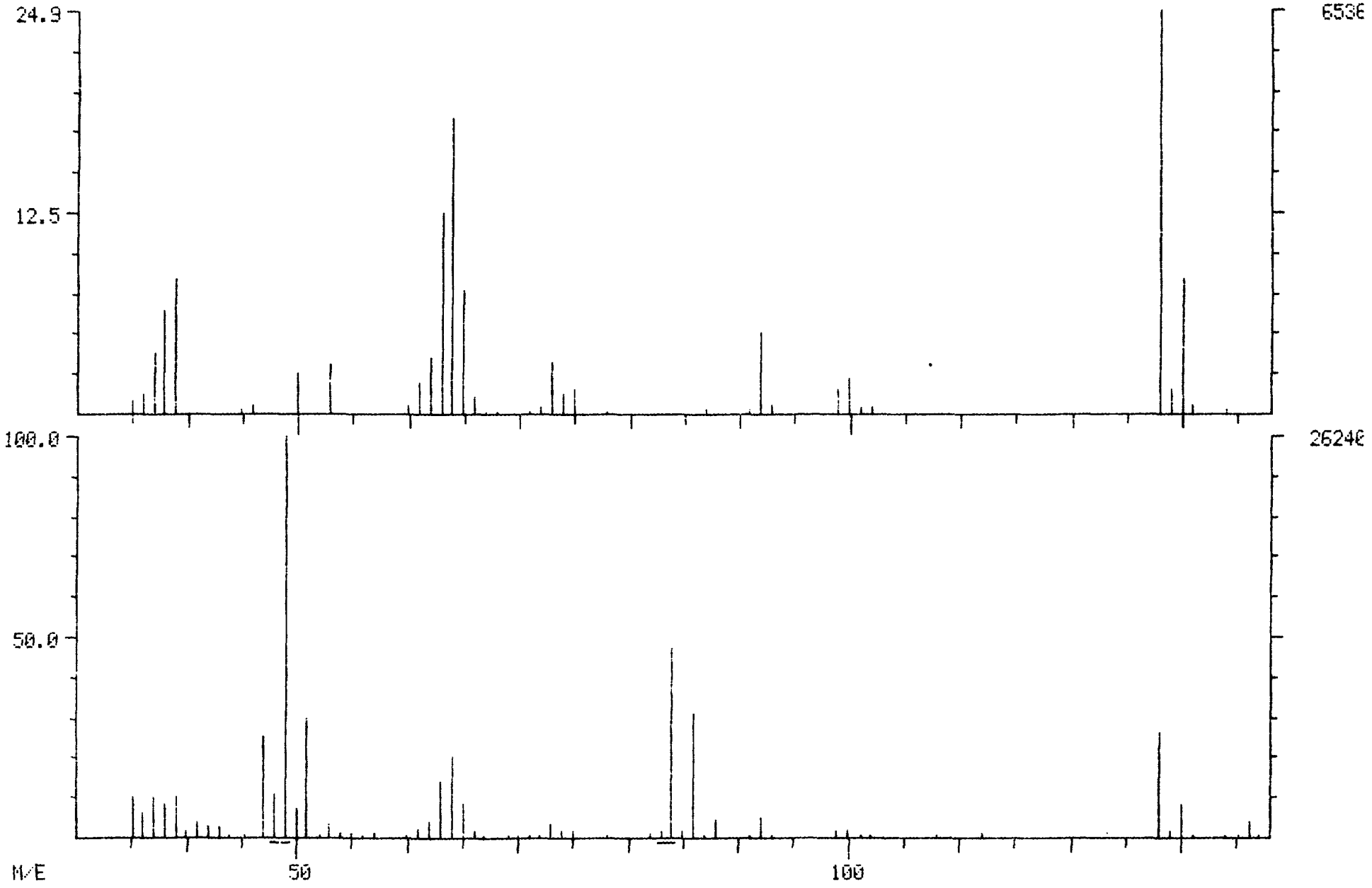


601

45-57-8

DUAL MASS SPECTRUM
01/14/82 15:15:00 + 6:06
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 #120 BASE M/E: 128/ 49
CALI: AH011417A05 #1 RIC: 33215./ 116095.

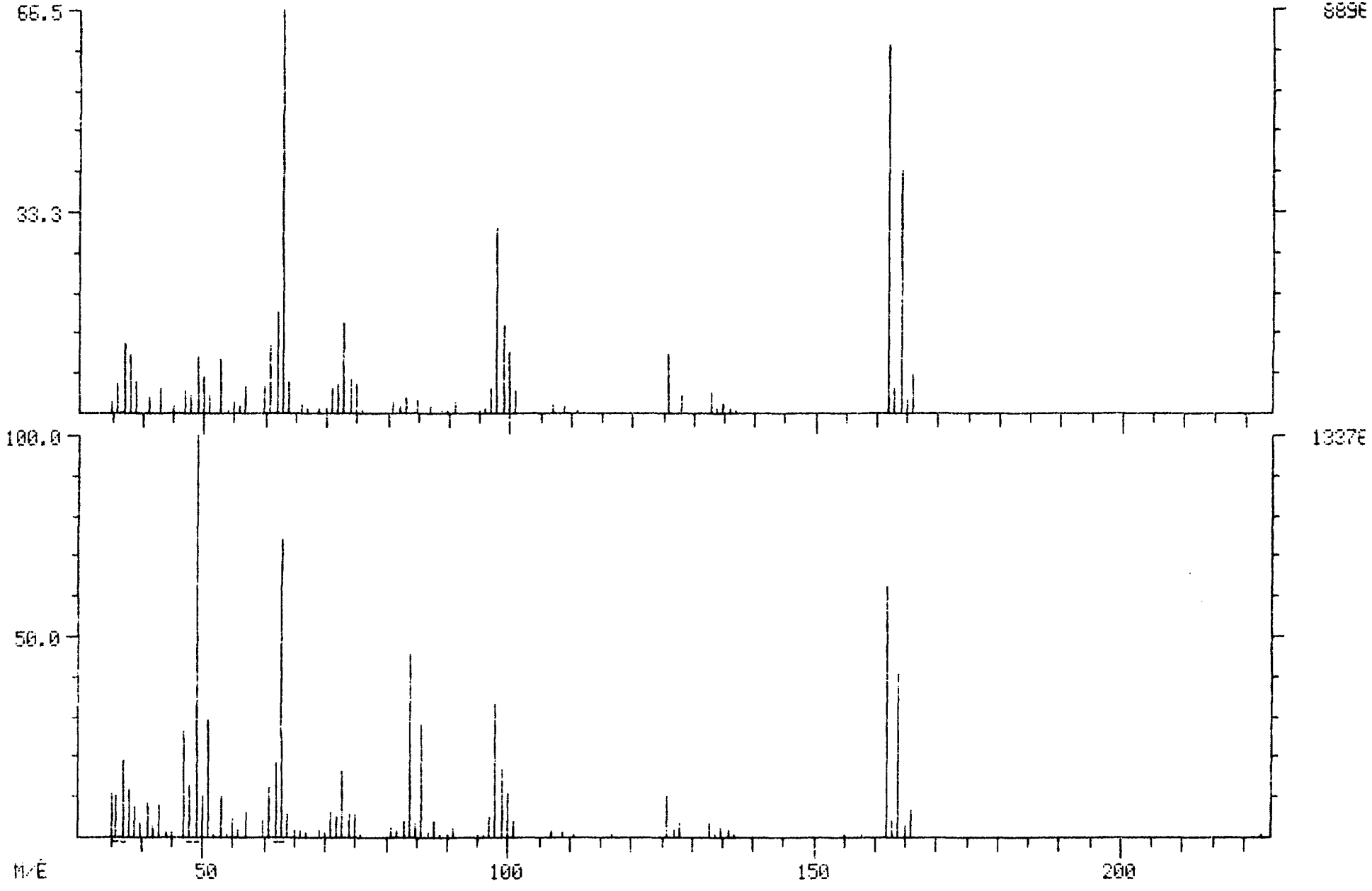


602

122 83-2

DUAL MASS SPECTRUM
01/14/82 15:15:00 + 10:13
SAMPLE: 2 UL 11417 ON DWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 #201 BASE M/E: 63/ 49
CALI: AH011417A05 #1 RIC: 58879./ 100991.

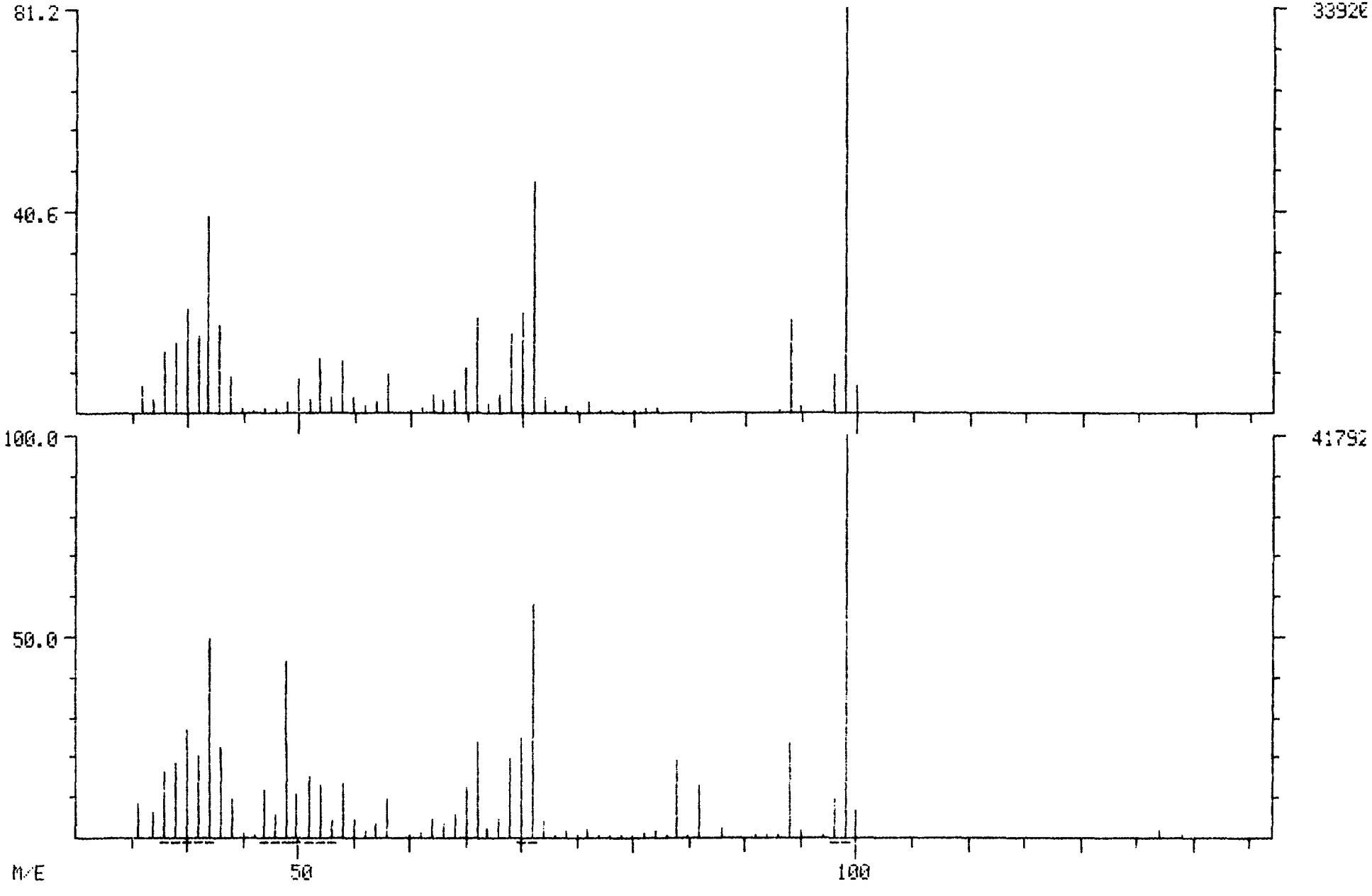


6 / 0

108-95-2

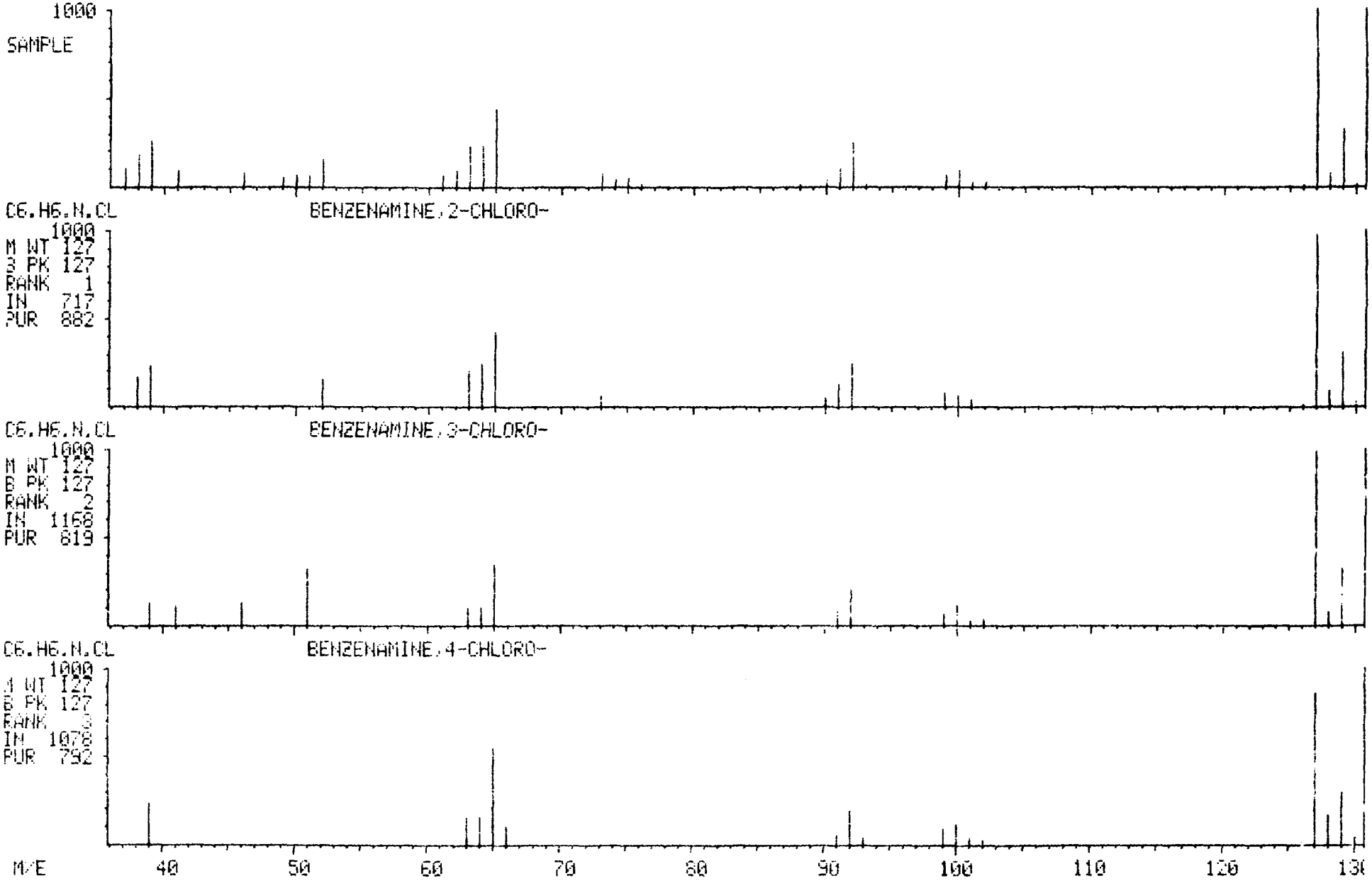
DUAL MASS SPECTRUM
01/14/82 15:15:00 + 8:02
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 #158 BASE M/E: 99/ 99
CALI: AH011417A05 #1 RIC: 186623./ 280575.



LIBRARY SEARCH
01/14/82 15:15:00 + 7:34
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

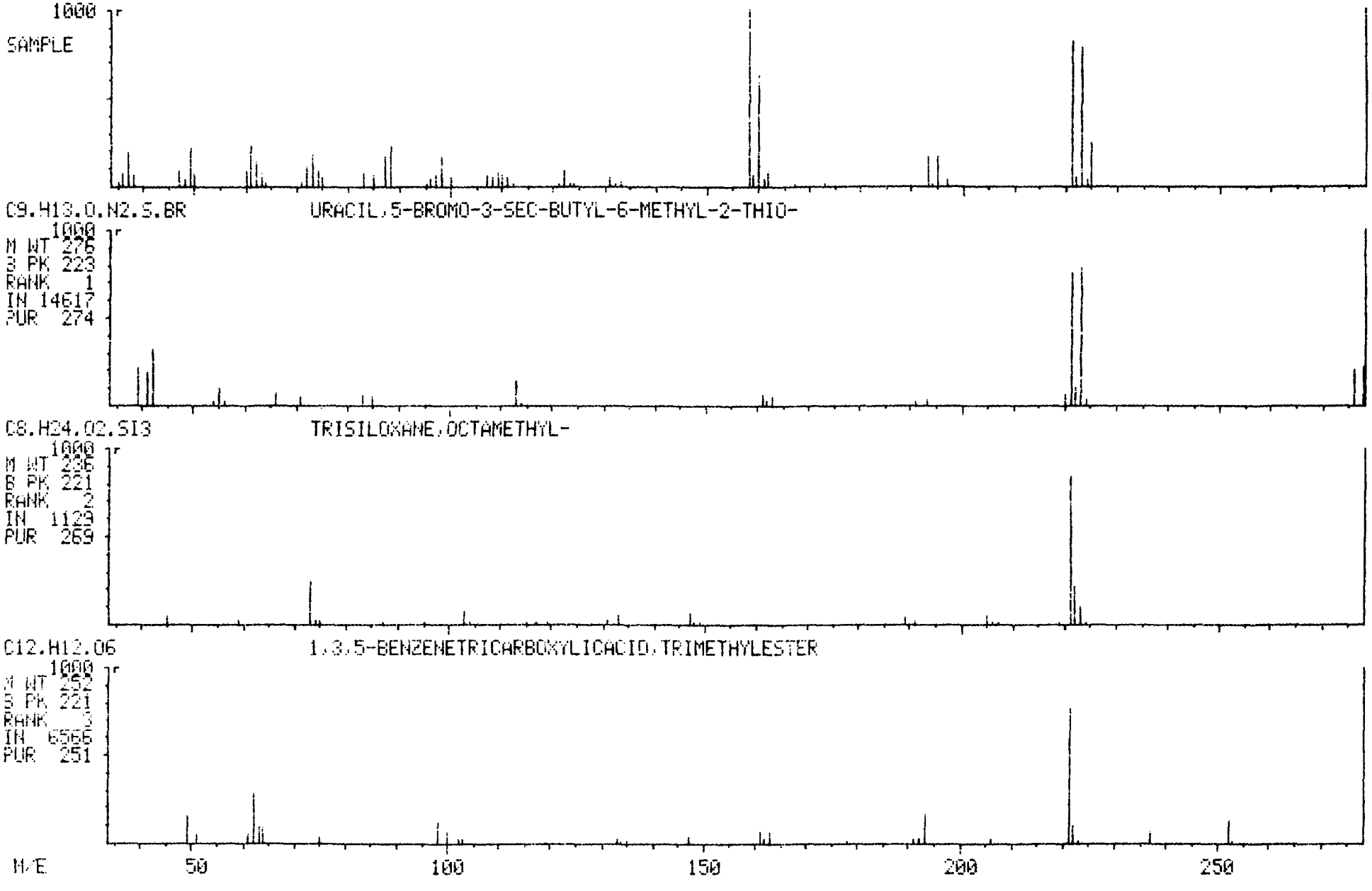
DATA: AH011417A05 # 149 BASE M/E: 127
CALI: AH011417A05 # 1 RIC: 82687.



12

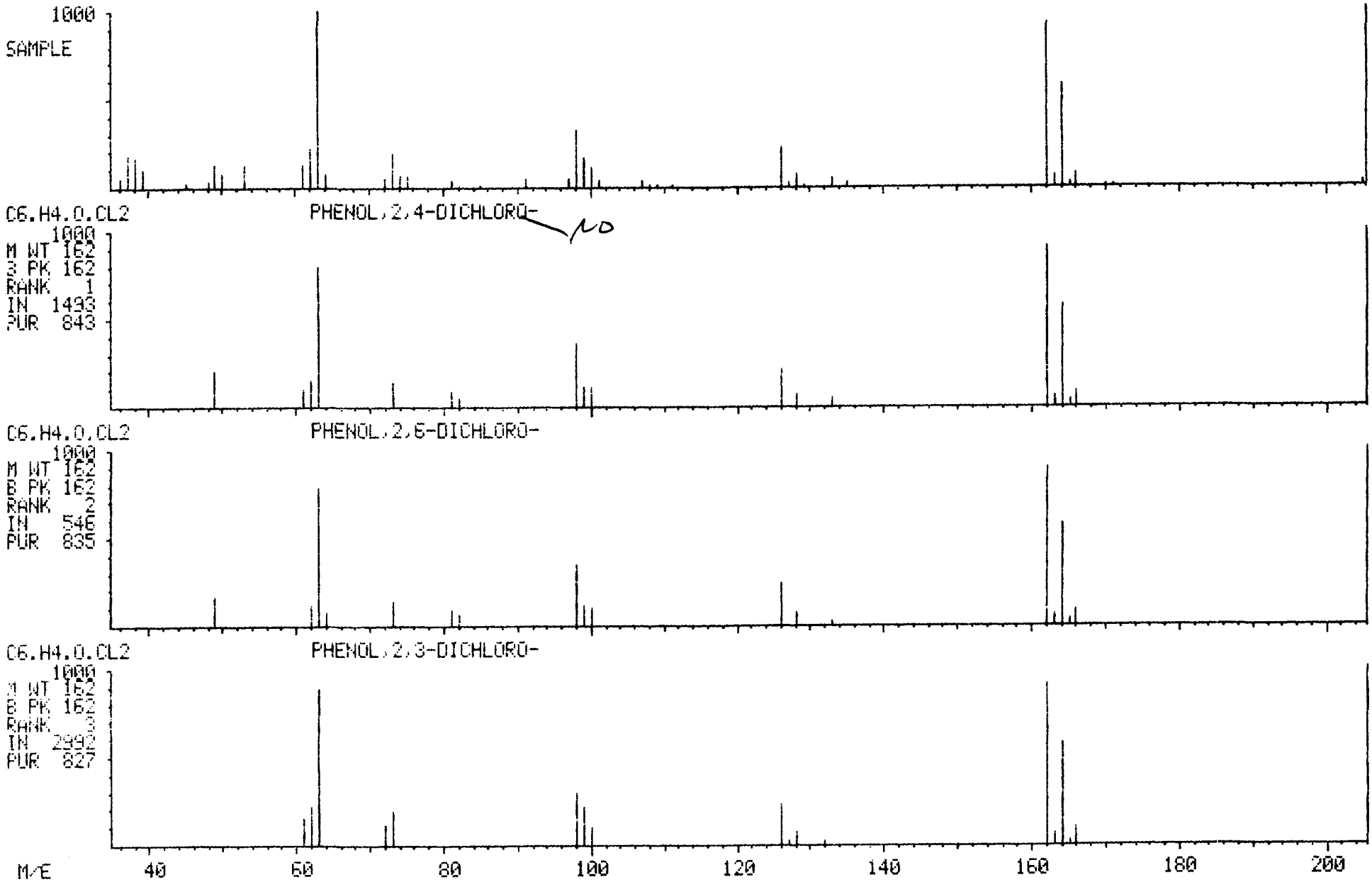
LIBRARY SEARCH
01/14/82 15:15:00 + 9:09
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 # 180 BASE M/E: 158
CALI: AH011417A05 # 1 RIC: 37311.



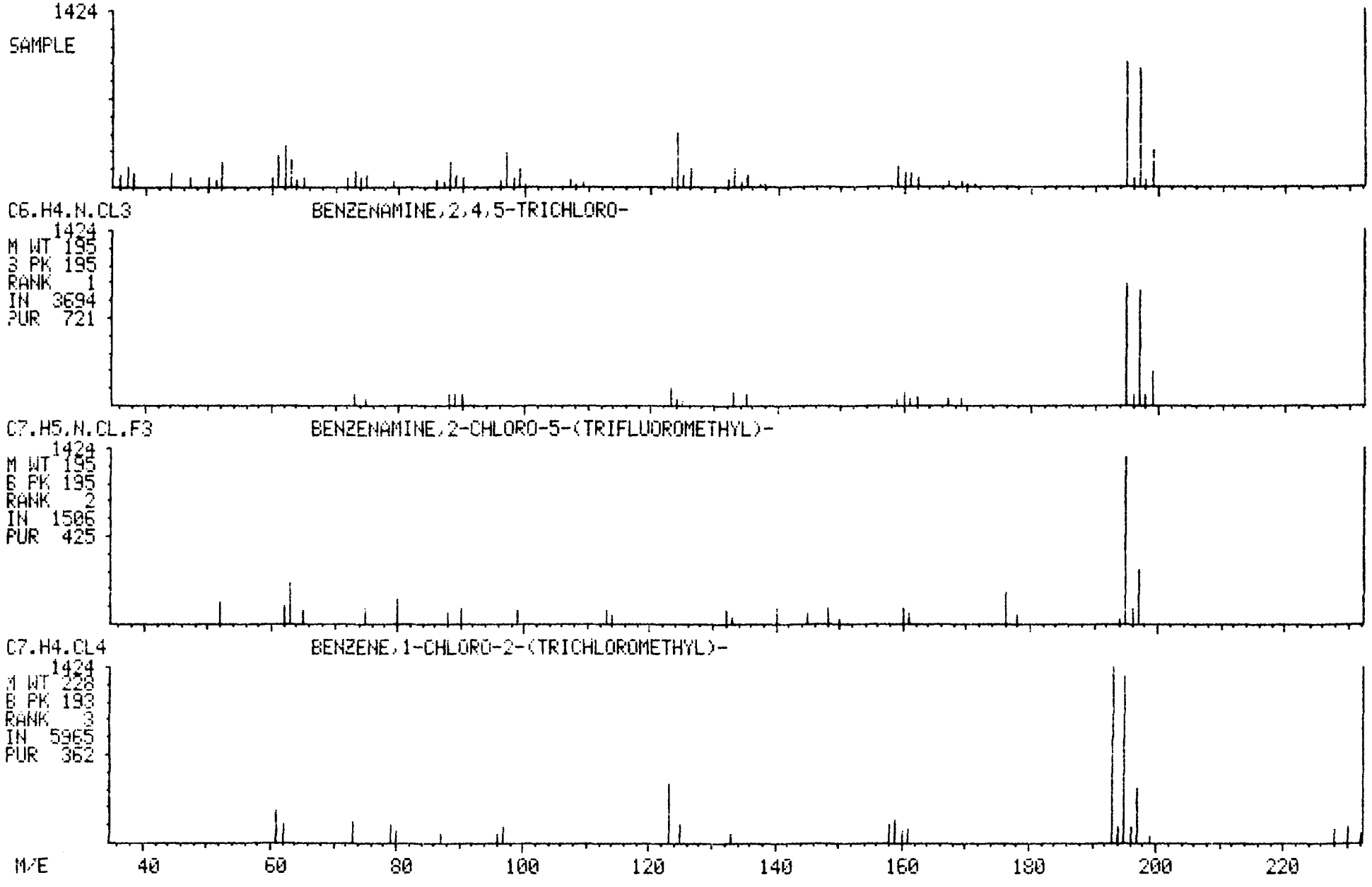
LIBRARY SEARCH
01/14/82 15:15:00 + 9:30
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 # 187 BASE M/E: 63
CALI: AH011417A05 # 1 RIC: 35455.



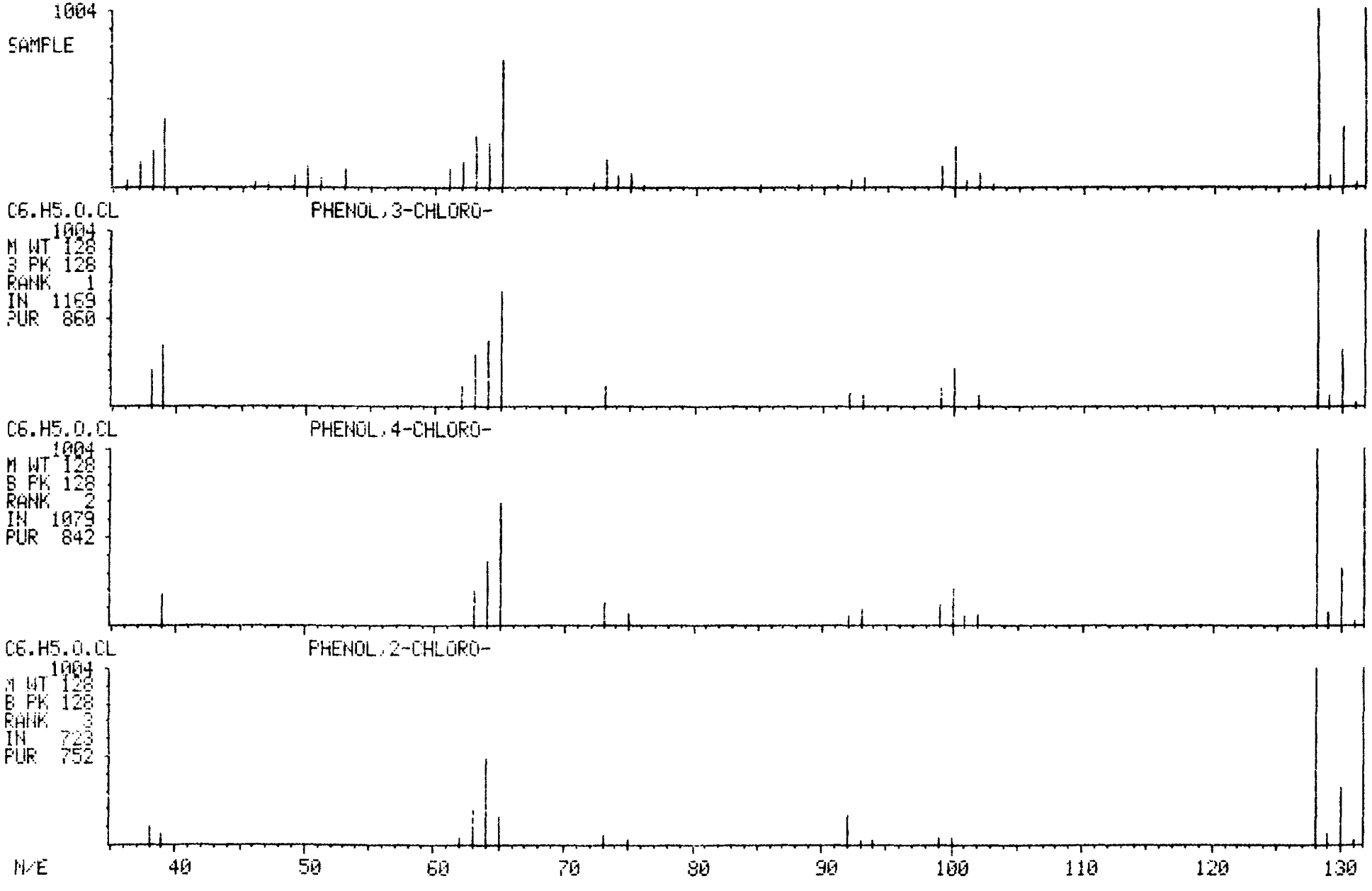
LIBRARY SEARCH
01/14/82 15:15:00 + 11:02
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

DATA: AH011417A05 # 217 BASE M/E: 195
CALI: AH011417A05 # 1 RIC: 62975.



LIBRARY SEARCH
01/14/82 15:15:00 + 12:49
SAMPLE: 2 UL 11417 ON OWA#5
ENHANCED (S 15B 2N 0T)

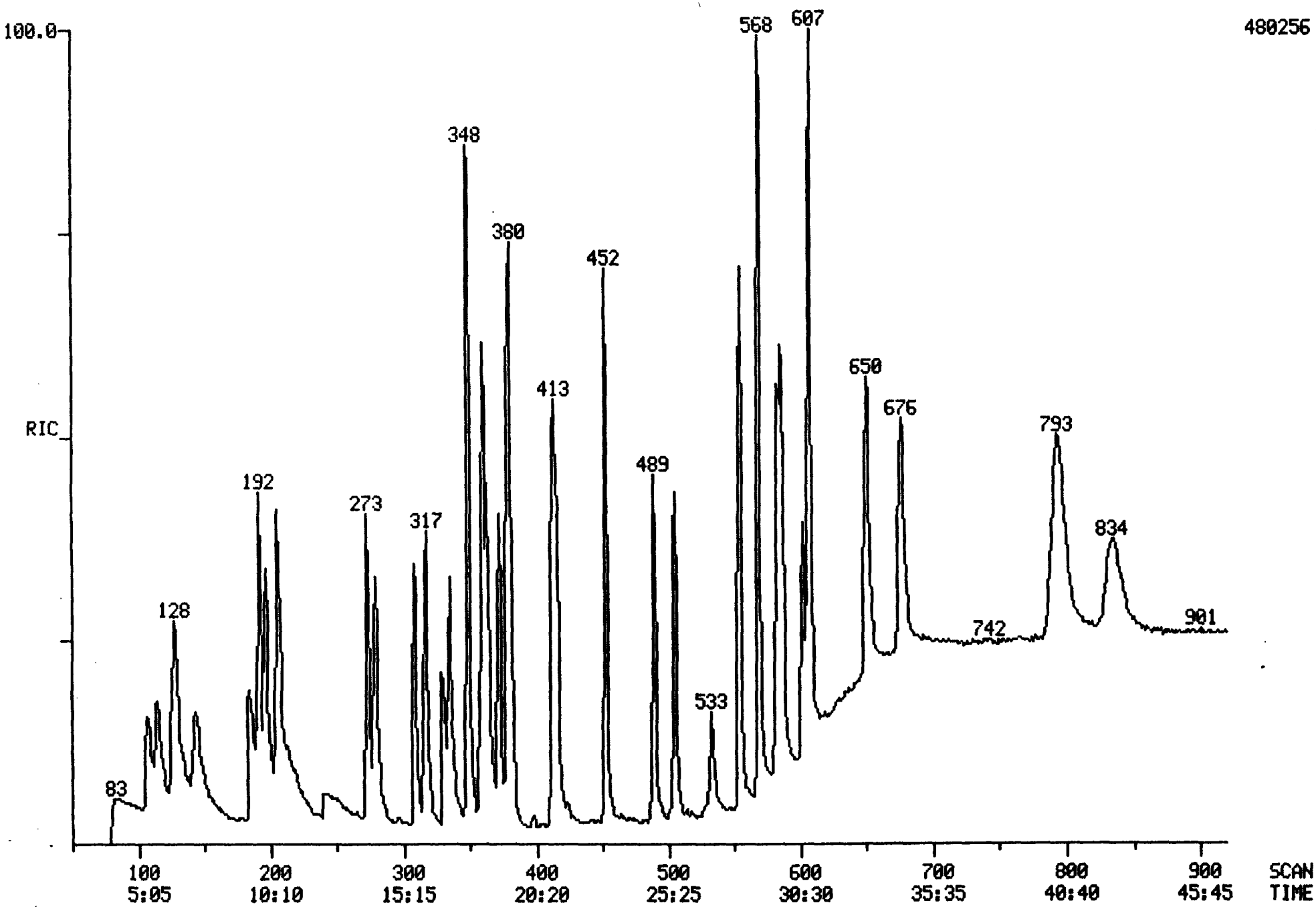
DATA: AH011417A05 # 252 BASE M/E: 128
CALI: AH011417A05 # 1 RIC: 162303.



RIC
01/14/82 11:29:00
SAMPLE: 2 UL B/N STANDARD FOR HW ON OWA#4 100 NG/UL

DATA: HB820114A05

SCANS 50 TO 919



FORM IA

GC/MS PERFORMANCE STANDARD - Decafluorotriphenylphosphine

Date ___/___/___ Run no. _____ Analyst _____

#9:

m/e	Ion Abundance Criteria	SPEC #	SPEC #	SPEC #
51	30-60% of mass 198	57		
68	Less than 2% of mass 69	<2		
70	Less than 2% of mass 69	<2		
127	40-60% of mass 198	45		
197	Less than 1% of mass 198	<1		
198	base peak, 100% relative abundance	100		
199	5-9% of mass 198	9		
275	10-30% of mass 198	23		
365	1% of mass 198	2		
441	Less than mass 443	<443		
442	greater than 40% of mass 198	74		
443	17-23% of mass 442	19		

TAILING FACTORS

Compound	Tailing Factor
BENZIDINE	2.0

MASS LIST
01/14/82 10:59:00 + 2:26
SAMPLE: 2 UL DFTPP ON OWA#4
#47 TO #49 SUMMED - #15 X2.00

DATA: DH820114A04 # 48

BASE M/E: 198
RIC: 34560.

Acid

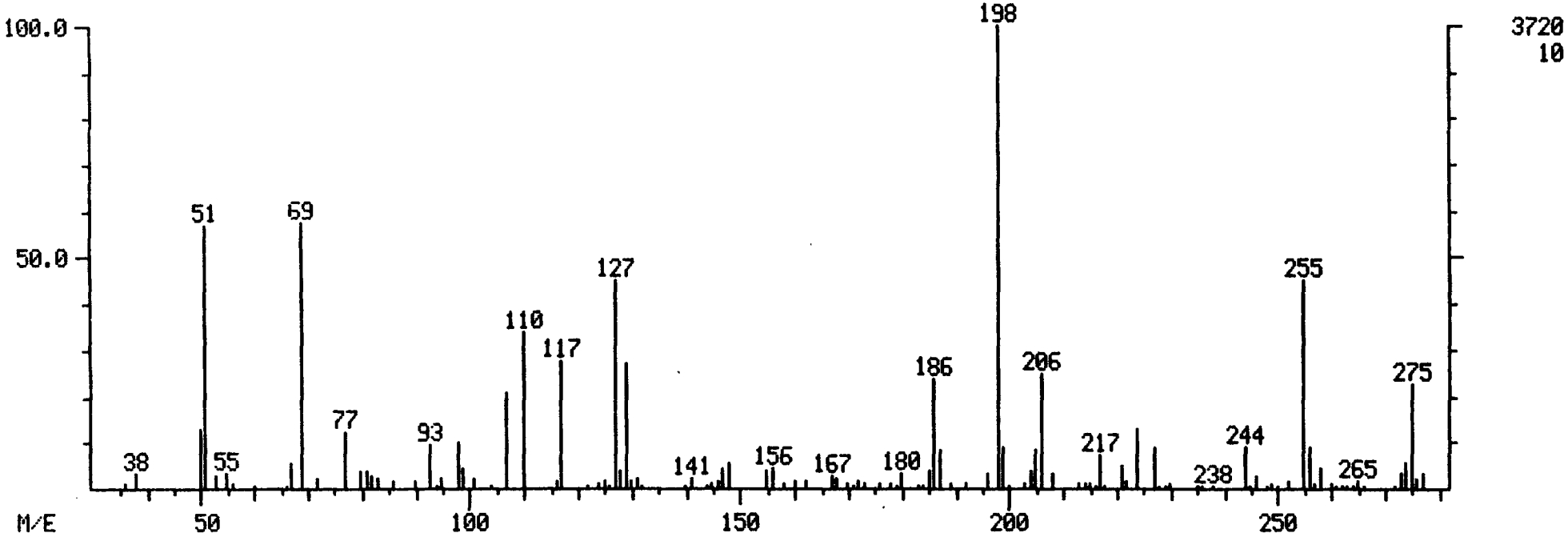
36 0.00 MINIMA MIN INTEN: 0.
455 # 0 MAXIMA

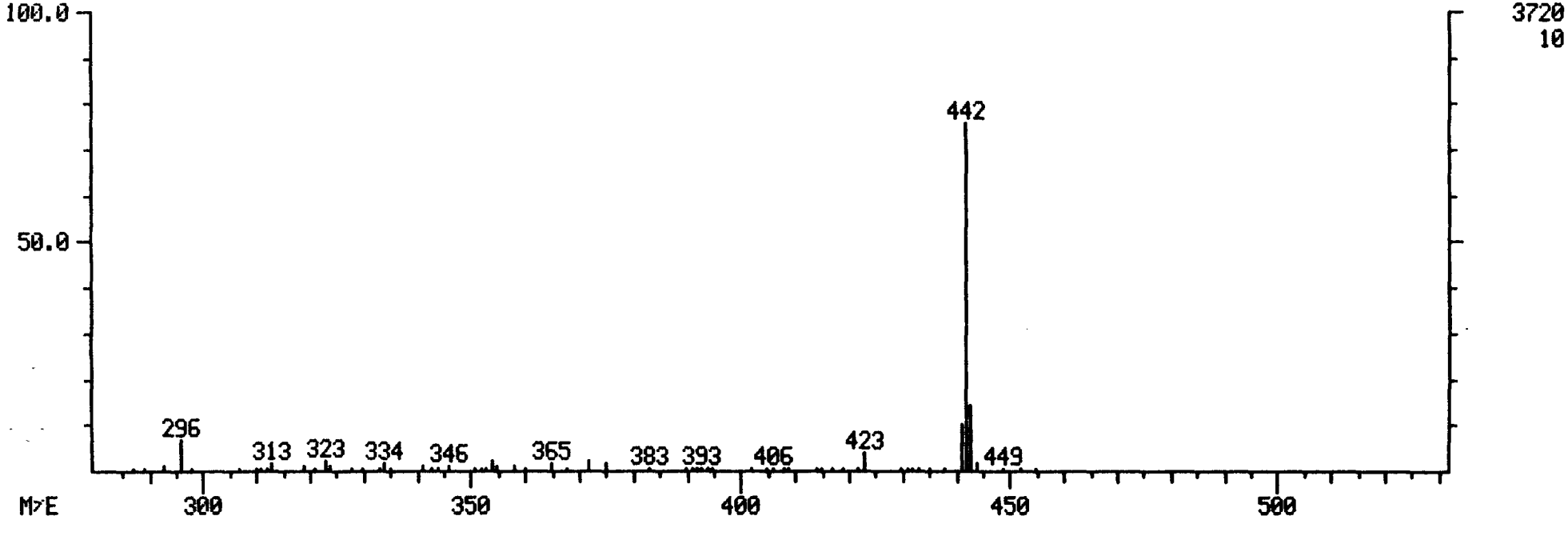
MASS	% RA	MASS	% RA	MASS	% RA	MASS	% RA
36	1.29	156	4.38	248	0.38	355	1.10
38	3.25	158	1.32	249	1.37	358	0.91
49	0.24	160	1.48	250	0.70	360	0.32
50	13.06	162	1.75	252	1.51	365	1.88
51	56.99	167	2.77	255	45.32	368	0.32
53	3.04	168	2.02	256	9.19	372	2.31
55	3.55	170	0.89	257	1.08	374	0.27
56	1.02	171	0.32	258	4.73	375	1.51
60	0.65	172	1.56	260	1.08	383	0.38
66	0.30	173	1.34	261	0.43	390	0.35
67	5.54	176	0.86	262	0.30	391	0.78
69	57.42	178	1.18	263	0.62	392	0.32
72	2.18	179	0.30	264	0.30	393	0.81
77	12.37	180	3.33	265	1.61	394	0.35
80	4.19	183	0.83	266	0.30	395	0.30
81	4.11	184	0.65	272	0.38	402	0.43
82	2.90	185	3.74	273	3.49	405	0.35
83	2.39	186	23.47	274	5.86	406	0.65
86	1.94	187	8.39	275	22.82	408	0.46
90	1.53	189	1.40	276	2.42	409	0.32
93	9.52	192	0.94	277	3.52	414	0.32
94	0.70	196	3.58	287	0.30	415	0.75
95	2.18	198	100.00	289	0.40	417	0.59
98	9.92	199	8.84	293	0.89	419	0.35
99	4.33	200	0.43	295	0.27	422	0.59
101	2.15	203	1.16	296	6.75	423	4.03
104	0.38	204	4.09	298	0.35	430	0.32
107	20.81	205	8.33	307	0.30	431	0.32
108	0.03	206	25.05	310	0.30	432	0.40
110	34.14	208	3.15	311	0.70	433	0.30
116	1.53	211	0.03	312	0.30	435	0.32
117	27.58	213	1.16	313	1.77	436	0.27
122	0.83	214	0.89	319	1.32	438	0.65
124	1.34	215	0.94	321	0.56	441	10.24
125	1.85	216	0.30	323	2.37	442	75.48
126	0.35	217	7.28	324	1.08	443	14.25
127	45.22	218	0.62	325	0.27	444	1.45
128	4.14	221	4.92	328	0.59	449	0.62
129	27.34	222	1.64	330	0.83	452	0.40
130	1.77	224	12.93	333	0.59	455	0.38
131	2.15	227	9.25	334	1.67		
132	0.30	228	0.51	335	0.81		
140	0.38	229	0.35	341	1.26		
141	2.18	230	0.89	343	0.83		
144	0.32	235	0.48	344	0.30		
145	1.29	236	0.35	346	1.40		
146	1.83	238	0.73	351	0.30		
147	4.52	244	9.01	352	0.30		
148	5.78	245	0.83	353	0.46		
155	3.98	246	2.69	354	2.18		

MASS SPECTRUM
01/14/82 10:59:00 + 2:26
SAMPLE: 2 UL DFTPP ON OWA#4
#47 TO #49 SUMMED - #15 X2.00

DATA: DH820114A04 #48

BASE M/E: 198
RIC: 34560.





27-JAN-82

Mead CompuChem
INITIAL CALIBRATION DATA REPORT

Time: 9: 4

Research Triangle Park
Instrument: 5
Library: 3
Version: 5
Fraction: Acid

Compounds		Lab ID: HA000040C05 Std ID: 3305 (LOW) Conc	Area	Lab ID: HA000100B05 Std ID: 3306 (MED) Conc	Area	Lab ID: HA000200B05 Std ID: 3307 (HIGH) Conc	Area
D-8-NAPHTHALENE	(IS)	40.00	203983	40.00	133442	40.00	143229
D-8-NAPHTHALENE	(IS)	40.00	210148	40.00	133442	40.00	143229
D-10-ANTHRACENE	(IS)	40.00	252739	40.00	163425	40.00	157387

	Conc	RF	RRT	Conc	RF	RRT	Conc	RF	RRT	Correlation Coefficients
2-FLUOROPHENOL	20.00	.377	.924	50.00	.397	.933	100.00	.403	.925	.903
D-6-PHENOL	20.00	.437	1.533	50.00	.432	1.524	100.00	.497	1.509	.902
PENTAFLUOROPHENOL	20.00	.310	1.590	50.00	.317	1.590	100.00	.321	1.575	.960
4-FLUOROBIPHENYL	20.00	.836	1.600	50.00	.839	1.600	100.00	.812	1.585	-.889
D-5-NITROBENZENE	20.00	.560	1.000	50.00	.542	1.010	100.00	.530	1.000	-.963
2-CHLOROPHENOL	40.00	.413	1.114	100.00	.431	1.105	200.00	.447	1.104	.983
2-NITROPHENOL	40.00	.226	1.248	100.00	.234	1.248	200.00	.251	1.236	.997
PHENOL	40.00	.479	1.524	100.00	.497	1.524	200.00	.499	1.509	.854
2,4-DIMETHYLPHENOL	40.00	.314	1.810	100.00	.314	1.800	200.00	.236	1.792	-.927
2,4-DICHLOROPHENOL	40.00	.369	1.876	100.00	.372	1.867	200.00	.378	1.858	.994
2,4,6-TRICHLOROPHENOL	40.00	.235	.752	100.00	.228	.752	200.00	.242	.752	.613
P-CHLORO-M-CRESOL	40.00	.222	.849	100.00	.216	.849	200.00	.236	.846	.785
2,4-DINITROPHENOL	200.00	.020	1.075	500.00	.024	1.057	1000.00	.026	1.044	.960
4,6-DINITRO-O-CRESOL	200.00	.049	1.057	500.00	.081	1.050	1000.00	.125	1.044	.983
PENTACHLOROPHENOL	40.00	.141	1.135	100.00	.140	1.135	200.00	.155	1.129	.907
4-NITROPHENOL	100.00	.034	1.519	250.00	.050	1.509	500.00	.047	1.498	.682

27-JAN-82

Mead CompuChem
STANDARD RESPONSE FACTOR CHECK REPORT

Time: 9: 5

Research Triangle Park
Instrument: 5
Library: 5
Version: 5
Fraction: Acid

Compounds		STD ID 3307 (HIGH) Area(C)	ID: HA820119C05 Analyst: 616 Area(CK)	RXD **	ID: HA820114A05 Analyst: 616 Area(CK)	RXD **	ID: HA820112B05 Analyst: 615 Area(CK)	RXD **
D-8-NAPHTHALENE	(IS)	143229	107378	28.6	136841	4.6	79097	57.1
D-8-NAPHTHALENE	(IS)	143229	114760	22.1	137571	4.0	79097	57.7
D-10-ANTHRACENE	(IS)	157387	141527	10.6	157909	-.3	112558	33.2
		RF (C)	RF (CK)	RXD **	RF (CK)	RXD **	RF (CK)	RXD **
2-FLUOROPHENOL		.403	.418	3.7	.409	1.6	.412	2.2
D-6-PHENOL		.497	.480	-3.5	.492	-1.0	.525	5.5
PENTAFLUOROPHENOL		.321	.042	-153.7	.290	-10.4	.341	6.0
4-FLUOROBIPHENYL		.812	.131	-144.4	.828	2.0	.898	10.2
D-5-NITROBENZENE		.530	.627	16.8	.639	18.8	.633	17.8
2-CHLOROPHENOL		.447	.443	-.9	.453	1.3	.457	2.2
2-NITROPHENOL		.251	.247	-1.7	.257	2.2	.256	2.1
PHENOL		.499	.470	-6.0	.507	1.6	.542	8.3
2,4-DIMETHYLPHENOL		.236	.345	37.5	.345	37.4	.380	46.8
2,4-DICHLOROPHENOL		.378	.380	.4	.377	-.4	.424	11.4
2,4,6-TRICHLOROPHENOL		.242	.227	-6.4	.239	-1.4	.228	-6.3
P-CHLORO-M-CRESOL		.236	.244	3.3	.262	10.5	.250	5.9
2,4-DINITROPHENOL		.050	.093	49.3	.070	21.8	.079	33.8
4,6-DINITRO-O-CRESOL		.125	.147	15.7	.135	7.2	.137	9.0
PENTACHLOROPHENOL		.155	.211	30.2	.206	28.1	.219	33.8
4-NITROPHENOL		.047	.196	122.4	.193	121.4	.203	124.4

$$** \quad RXD = \frac{(CK-C)}{(CK+C) / 2} \times 100$$

27-JAN-82

Mead CompuChem
STANDARDS RELATIVE RETENTION REPORT

Time: 9: 9

Research Triangle Park
Instrument: 5
Library: 3
Version: 5
Fraction: Acid

Compounds		Initial Run ID: HA000200B05 STD Conc	Initial Run ID: HA000200B05 RRT	Check Standards ID: HA820119C05 RRT	Check Standards ID: HA820119C05 Diff	Check Standards ID: HA820114A05 RRT	Check Standards ID: HA820114A05 Diff	Check Standards ID: HA820112B05 RRT	Check Standards ID: HA820112B05 Diff
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2-FLUOROPHENOL		100.00	.925	.920	.005	.927	-.002	.927	-.003
D-6-PHENOL		100.00	1.509	1.438	.072	1.450	.060	1.455	.055
PENTAFLUOROPHENOL		100.00	1.575	1.545	.031	1.569	.007	1.564	.012
4-FLUOROBIPHENYL		100.00	1.585	1.554	.031	1.569	.016	1.564	.021
D-5-NITROBENZENE		100.00	1.000	.973	.027	.972	.028	.973	.027
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2-CHLOROPHENOL		200.00	1.104	1.089	.014	1.092	.012	1.091	.013
2-NITROPHENOL		200.00	1.238	1.198	.039	1.202	.036	1.200	.038
PHENOL		200.00	1.509	1.438	.072	1.450	.060	1.455	.055
2,4-DIMETHYLPHENOL		200.00	1.792	1.714	.078	1.725	.068	1.727	.065
2,4-DICHLOROPHENOL		200.00	1.858	1.804	.055	1.826	.033	1.827	.031
D-10-ANTHRACENE	(IS)	40.00	1.000	1.000	.000	1.000	.000	1.000	.000
2,4,6-TRICHLOROPHENOL		200.00	.752	.746	.006	.745	.007	.750	.002
P-CHLORO-M-CRESOL		200.00	.846	.832	.015	.832	.014	.836	.010
2,4-DINITROPHENOL		1000.00	1.044	1.018	.026	1.022	.022	1.022	.022
4,6-DINITRO-O-CRESOL		1000.00	1.044	1.024	.019	1.028	.016	1.028	.016
PENTACHLOROPHENOL		200.00	1.129	1.128	.000	1.130	-.002	1.130	-.001
4-NITROPHENOL		500.00	1.498	1.419	.079	1.416	.082	1.426	.073

MEAD COMPUCHEM

27-JAN-82 09:14 — Internal Standard Response Verification Report — Page 2

Research Triangle Park

Fraction: Acid — 12-JAN-82 09:19 - 20-JAN-82 19:27

Instrument# 3
Library# 3
Version# 5

			Int. Std. A			Int. Std. B				Int. Std. C			
			D-8-NAPHTHALENE Conc: 40.0000			D-10-ANTHRACENE Conc: 40.0000				D-12-CHRYSENE Conc: .0000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
AH011459A05	14-JAN-82	616	108	113788.	.3354	322	208551.	1.0000	.5456				
AH011452A05	14-JAN-82	616	108	126043.	.3364	321	129960.	1.0000	1.0038				
AH011415A05	14-JAN-82	616	108	114809.5	.3364	321	152451.	1.0000	.7531				
AH011416A05	14-JAN-82	616	107	122772.	.3323	322	155308.	1.0000	.7905				
AH011417A05	14-JAN-82	616	108	131247.	.3354	322	152116.	1.0000	.8628				
HA820115A05	15-JAN-82	531	109	111856.	.3354	325	142040.	1.0000	.7875				
AH011141A05	15-JAN-82	673	109	109858.	.3364	324	153342.	1.0000	.7164				
AH011142A05	15-JAN-82	615	110	108293.10	.3385	325	144131.	1.0000	.7514				
AH011143A05	15-JAN-82	615	110	101920.	.3385	325	130747.	1.0000	.7795				
AH011144A05	15-JAN-82	615	110	90998.	.3385	325	128923.	1.0000	.7058				
AH011145A05	15-JAN-82	615	110	93568.	.3385	325	131813.	1.0000	.7099				
AH011146A05	15-JAN-82	615	110	103209.	.3385	325	139346.	1.0000	.7406				
AH011147A05	15-JAN-82	615	110	82885.	.3385	325	114002.	1.0000	.7270				
AH011578A05	16-JAN-82	593	110	73677.**16	.3374	326	94312.**16	1.0000	.7812				
HA820116A05	16-JAN-82	593	109	118557.	.3364	324	150423.	1.0000	.7882				
AH011224A05	16-JAN-82	593	109	105917.	.3354	325	126763.	1.0000	.8356				
AH011225A05	16-JAN-82	593	109	89825.	.3364	324	113366.	1.0000	.7923				
AH011226A05	16-JAN-82	593	110	81834.20	.3385	325	107361.20	1.0000	.7624				
AH011227A05	16-JAN-82	593	109	79591.**	.3354	325	105652.21	1.0000	.7533				
AH011228A05	16-JAN-82	593	109	86213.	.3354	325	114133.	1.0000	.7554				
AH011229A05	16-JAN-82	593	108	84755.	.3344	323	105329.	1.0000	.8047				
AH011567A05	16-JAN-82	593	110	94462.	.3385	325	121706.	1.0000	.7761				
AH011568A05	16-JAN-82	593	109	119328.125	.3354	325	139864.25	1.0000	.8532				
AH011570A05	16-JAN-82	593	110	90501.	.3385	325	114884.26	1.0000	.7878				
HA820119C05	20-JAN-82	616	112	107378.	.3425	327	141527.	1.0000	.7587				
AH011060C05	20-JAN-82	616	111	99408.	.3405	326	170744.	1.0000	.5822				
AH011061C05	20-JAN-82	616	110	79612.**	.3374	326	115848.	1.0000	.6872				
AH011062C05	20-JAN-82	616	110	100259.	.3374	326	132916.	1.0000	.7543				
AH011068C05	20-JAN-82	616	110	96939.	.3374	326	133546.	1.0000	.7259				
AH011073A05	20-JAN-82	593	110	67749.**	.3374	326	101718.	1.0000	.6660				
AH011072A05	20-JAN-82	593	110	75347.**	.3374	326	222576.	1.0000	.3385*				
AH011843A05	20-JAN-82	593	111	81168.	.3405	326	107329.	1.0000	.7563				

2-1

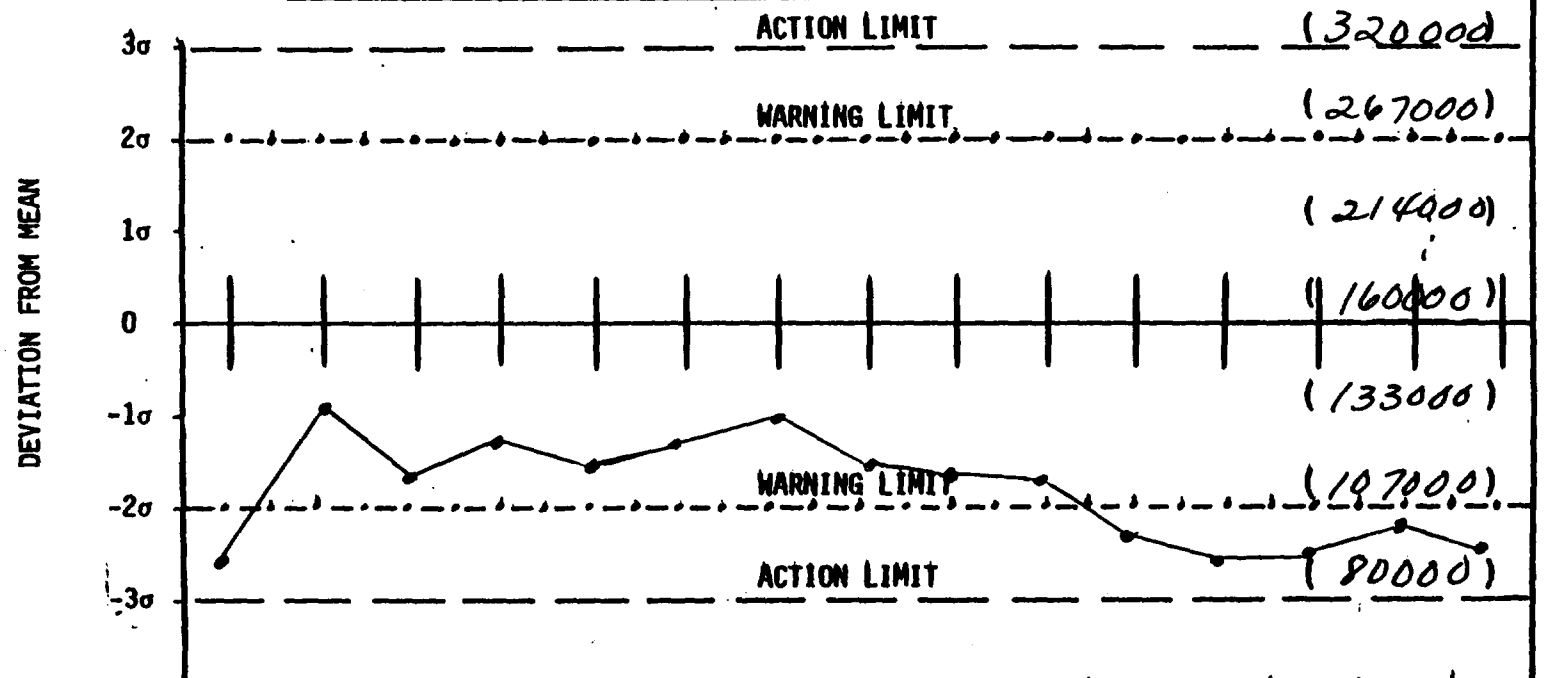
2-2

3-1

PAGE # 2-1

METHOD ACID #5-V

I. STD D8-NAPHTHALENE

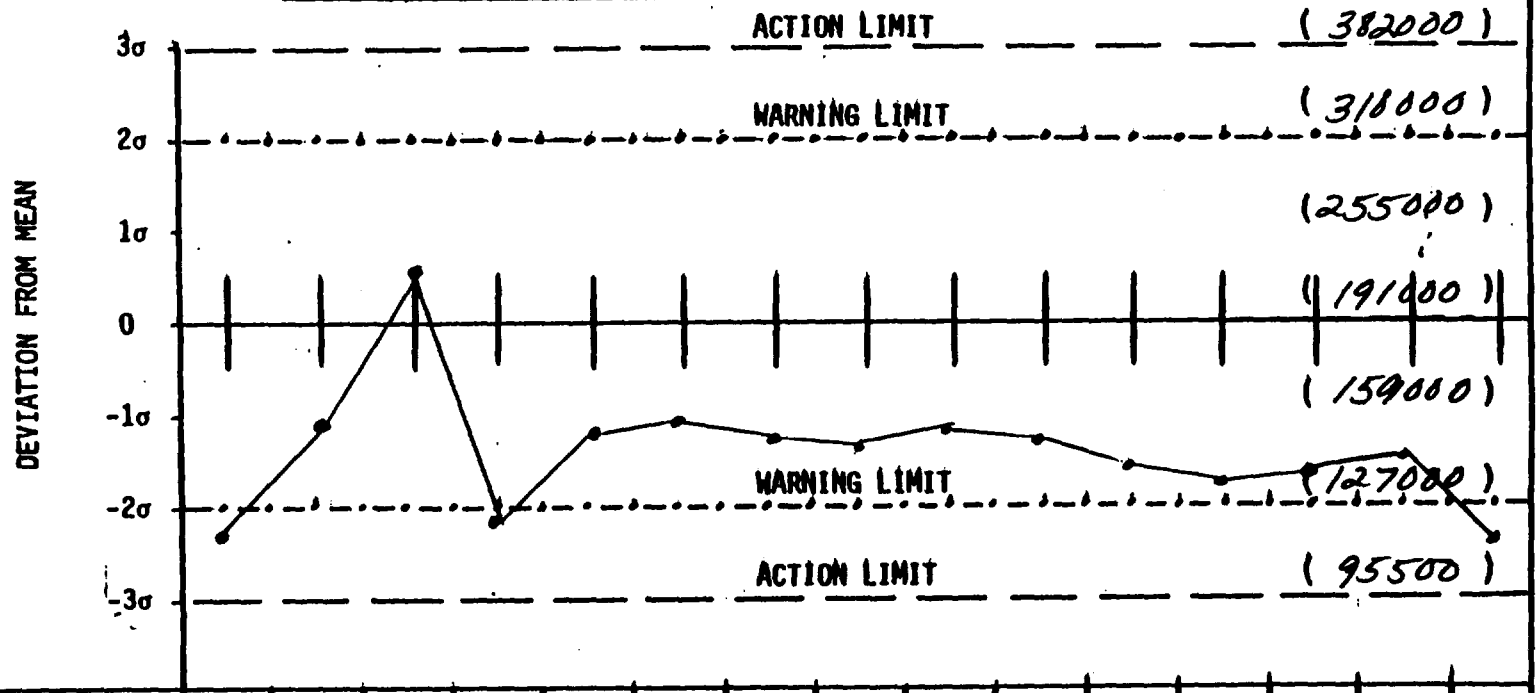


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/13/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82
OPERATOR	616	616	616	616	616	616	616	531	673	615	615	615	615	615	615
PROBLEM AND CORRECTIVE ACTION															

PAGE # 2 -1

METHOD ACID #5-II

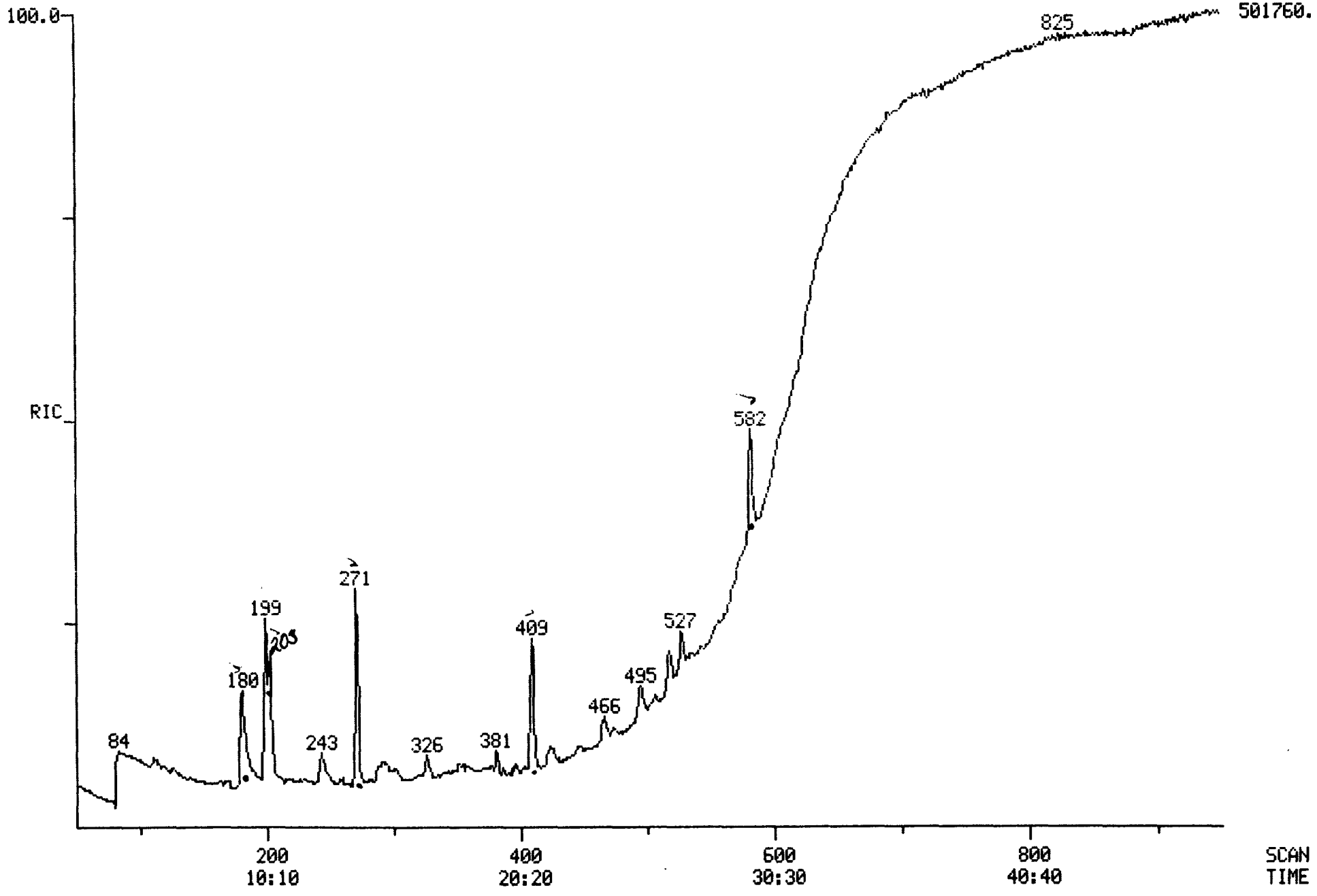
I. STD D10 ANTHRACENE



RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/13/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/14/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82	1/15/82
OPERATOR	616	616	616	616	616	616	616	531	673	615	615	615	615	615	615
PROBLEM AND CORRECTIVE ACTION															

RIC
01/19/82 15:09:00
SAMPLE: 2UL B/N HW 11417 ON #4

DATA: BH011417A04 SCANS 50 TO 950



FINNIGAN ORGANICS IN WATER ANALYZER
QUANTITATION REPORT FILE: BH011417A04

DATA: BH011417A04.TI
01/19/82 15:09:00
SAMPLE: 2UL B/N HW 11417 ON #4
SUBMITTED BY: #4 ANALYST: SS

AMOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
RESP. FAC. FROM LINEAR FIT TO WHOLE .RL

NO	NAME
1	D-8 NAPHTHALENE (INTERNAL STANDARD)
2	D-5 NITROBENZENE (SURROGATE STANDARD)
3	2-FLUOROBIPHENYL (SURROGATE STANDARD)
4	D-8 NAPHTHALENE (INTERNAL STANDARD)
5	1,3-DICHLOROBENZENE
6	1,4-DICHLOROBENZENE
7	HEXACHLOROETHANE
8	BIS (2-CHLOROETHYL) ETHER
9	1,2-DICHLOROBENZENE
10	BIS (2-CHLOROISOPROPYL) ETHER
11	N-NITROSO-DI-N-PROPYLAMINE
12	NITROBENZENE
13	HEXACHLOROBUTADIENE
14	1,2,4-TRICHLOROBENZENE
15	NAPHTHALENE
16	BIS (2-CHLOROETHOXY) METHANE
17	ISOPHORONE
18	2-CHLORONAPHTHALENE
19	ACENAPHTHYLENE
20	D-10 ANTHRACENE (INTERNAL STANDARD)
21	ACENAPHTHENE
22	DIMETHYL PHTHALATE
23	2,6-DINITROTOLUENE
24	4-CHLOROPHENYL PHENYL ETHER
25	FLUORENE
26	2,4-DINITROTOLUENE
27	DIETHYL PHTHALATE
28	1,2-DIPHENYLHYDRAZINE
29	N-NITROSODIPHENYL AMINE
30	HEXACHLOROBENZENE
31	4-BROMOPHENYL PHENYL ETHER
32	ANTHRACENE AND/OR PHENANTHRENE
33	DI-N-BUTYL PHTHALATE
34	FLUORANTHENE
35	PYRENE
36	2,4-DINITROTOLUENE (SECONDARY ION)
37	D-12 CHRYSENE (INTERNAL STANDARD)
38	BENZIDINE
39	BUTYL BENZYL PHTHALATE
40	BIS (2-ETHYLHEXYL) PHTHALATE
41	BIS (2-HEXYLETHYL)PHTHALATE (SECONDARY ION)
42	BENZO (A) ANTHRACENE AND/OR CHRYSENE
43	3,3' DICHLOROBENZIDINE
44	DI-OCTYL PHTHALATE
45	BENZO (B AND/OR K) FLUORANTHENE(S)
46	BENZO (A) PYRENE

NO	NAME
47	INDENO (1, 2, 3-CD)PYRENE
48	DI BENZO(A, H) ANTHRACENE
49	BENZO(G, H, I) PERYLENE
50	BENZO(G, H, I) PERYLENE

D8 53%

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT	
1	136	203	10:19	1	1.000	A BB	55624.	40.000	NG/UL	9.92	
2	82	180	9:09	1	0.887	A BB	71714.	129.631	NG/UL	32.14	
3	172	271	13:47	1	1.335	A BB	71942.	51.701	NG/UL	12.82	
4	136	203	10:19	4	1.000	A BB	55624.	40.000	NG/UL	9.92	
5	NOT FOUND										
6	146	111	5:39	4	0.547	A BB	4422.	6.655	NG/UL	1.65	—YES
7	NOT FOUND										
8	NOT FOUND										
9	146	126	6:24	4	0.621	A BB	2213.	~~4.585~~	~~NG/UL~~	~~1.12~~	~~—YES~~ NO
10	NOT FOUND										
11	130	199	10:07	4	0.980	A BB	1349.	32.393	NG/UL	8.03	—NO
12	NOT FOUND										
13	NOT FOUND										
14	NOT FOUND										
15	NOT FOUND										
16	NOT FOUND										
17	NOT FOUND										
18	NOT FOUND										
19	152	307	15:36	4	1.512	A BB	263.	0.143	NG/UL	0.04	
20	188	409	20:47	20	1.000	A BB	72637.	40.000	NG/UL	9.92	
21	154	313	15:55	20	0.765	A BB	127.	0.135	NG/UL	0.03	
22	163	326	16:34	20	0.797	A BB	4696.	3.681	NG/UL	0.91	
23	165	327	16:37	20	0.800	A BB	645.	3.342	NG/UL	0.83	
24	NOT FOUND										
25	166	345	17:32	20	0.844	A BV	452.	0.386	NG/UL	0.10	
26	165	352	17:54	20	0.861	A BB	452.	2.216	NG/UL	0.55	
27	149	365	18:33	20	0.892	A BB	658.	0.394	NG/UL	0.10	

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
28	NOT	FOUND								
29	NOT	FOUND								
30	NOT	FOUND								
31	NOT	FOUND								
32	178	411	20:54	20	1.005	A BB	1096.	0.594	NG/UL	0.15
33	149	451	22:56	20	1.103	A BB	859.	0.267	NG/UL	0.07
34	202	488	24:48	20	1.193	A BB	451.	0.198	NG/UL	0.05
35	202	503	25:34	20	1.230	A BB	860.	0.361	NG/UL	0.09
36	NOT	FOUND								
37	240	582	29:35	37	1.000	A BB	72646.	40.000	NG/UL	9.92
38	NOT	FOUND								
39	149	553	28:07	37	0.950	A BB	1354.	1.135	NG/UL	0.28
40	149	568	28:52	37	0.976	A BB	3674.	1.888	NG/UL	0.47
41	167	567	28:49	37	0.974	A BB	785.	1.225	NG/UL	0.30
42	228	583	29:38	37	1.002	A BB	1389.	1.019	NG/UL	0.25
43	NOT	FOUND								
44	149	606	30:48	37	1.041	A BB	1493.	0.475	NG/UL	0.12
45	NOT	FOUND								
46	NOT	FOUND								
47	NOT	FOUND								
48	NOT	FOUND								
49	276	827	42:02	37	1.421	A VV	728.	0.417	NG/UL	0.10
50	276	830	42:11	37	1.426	A VV	1043.	0.598	NG/UL	0.15

UNKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 53 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUA

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	203	203	995	227	1	1	1	0
2	183	179	991	243	2	1	1	0
3	271	271	993	263	3	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 53 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUC

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
4	203	203	992	227	1	1	1	0
6	112	111	996	36	3	1	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
8	134	137	764	10	5	2	0	0
9	127	126	988	23	6	1	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTIT							
10	141	148	793	14	7	5	0	0
						**		
11	198	203	932	28	8	4	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTI							
12	184	185	989	8	9	4	0	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTI							
16	207	200	984	7	13	3	0	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTI							
17	242	235	732	16	14	4	0	0
						**		
19	306	307	854	7	16	2	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 32 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUL

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
20	409	409	992	257	1	1	1	0
						**		
21	314	313	975	9	2	3	1	0
						**		
22	327	326	940	28	3	2	1	0
						**		
23	333	327	927	32	4	2	1	0
						**		
25	347	353	917	13	6	2	1	0
						**		
26	355	357	922	15	7	7	1	0
						**		
27	361	364	940	7	8	2	1	0
						**		
	COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANT							

28	359	360	861	23	9	4	0	

COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA

29	371	371	987	6	10	1	0	0
32	411	411	808	5	13	1	1	0
						**		
33	451	451	949	16	14	3	1	0
34	487	488	901	3	15	1	1	0
35	502	503	959	5	16	1	1	0
						**		

COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA

36	355	357	928	15	17	5	0	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -19 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUV

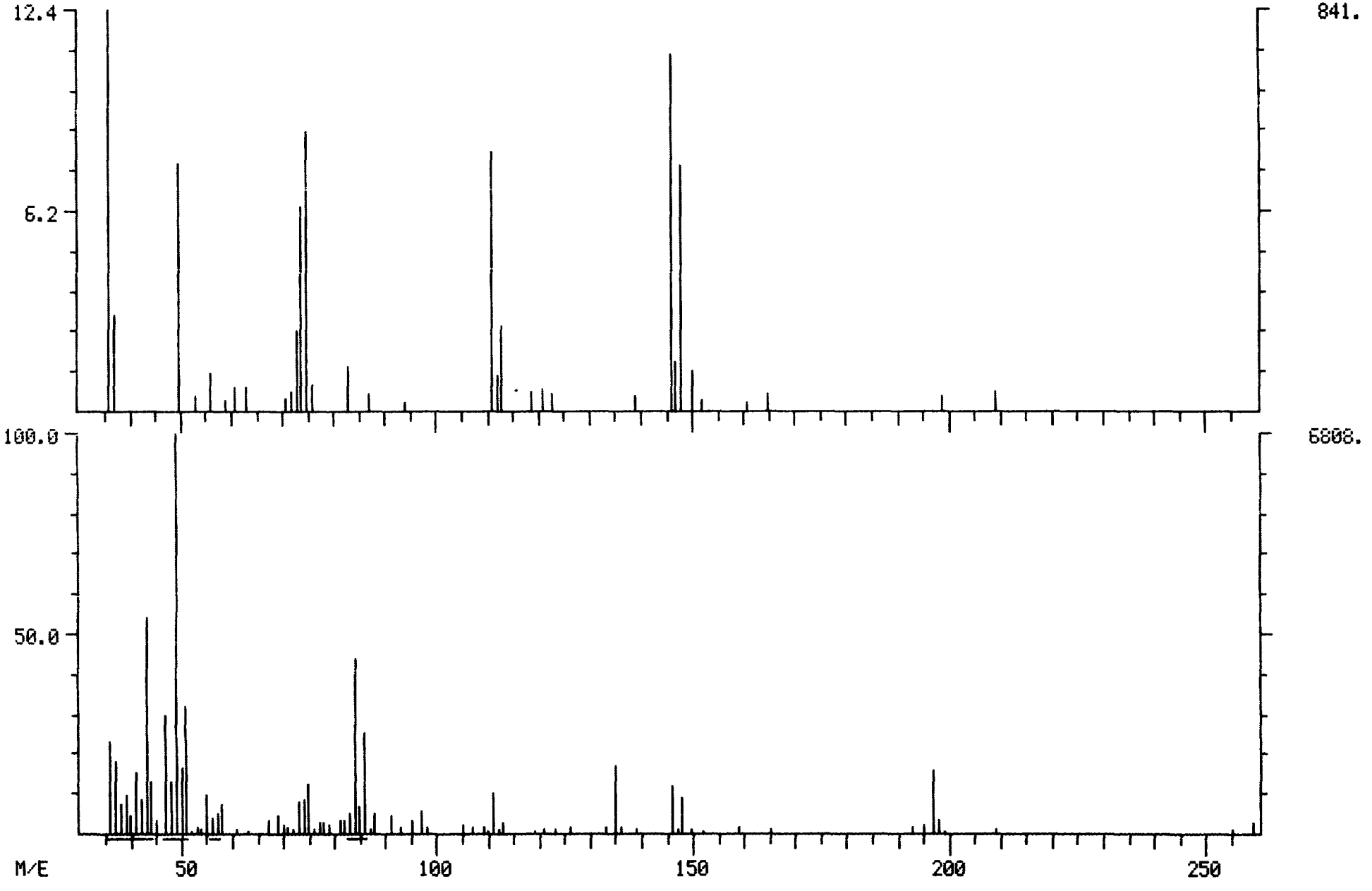
REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
37	582	582	991	114	1	1	1	0
39	553	553	787	26	3	1	1	0
						**		
40	568	568	992	16	4	2	1	0
						**		
41	568	568	992	16	5	2	1	0
						**		
42	580	584	936	2	6	2	1	0
						**		
44	606	613	1000	4	8	3	1	0
						**		
49	832	829	790	1	13	2	2	0

NUMBER OF COMPOUNDS IDENTIFIED 34
DATA PROCESSING OF BH011417A04 COMPLETED ON 1/19/82 16:05:34

106-46-7 Ø422

DUAL MASS SPECTRUM
01/19/82 15:09:00 + 5:39
SAMPLE: 2UL B/N HW 11417 ON #4
ENHANCED (S 15B 2N)

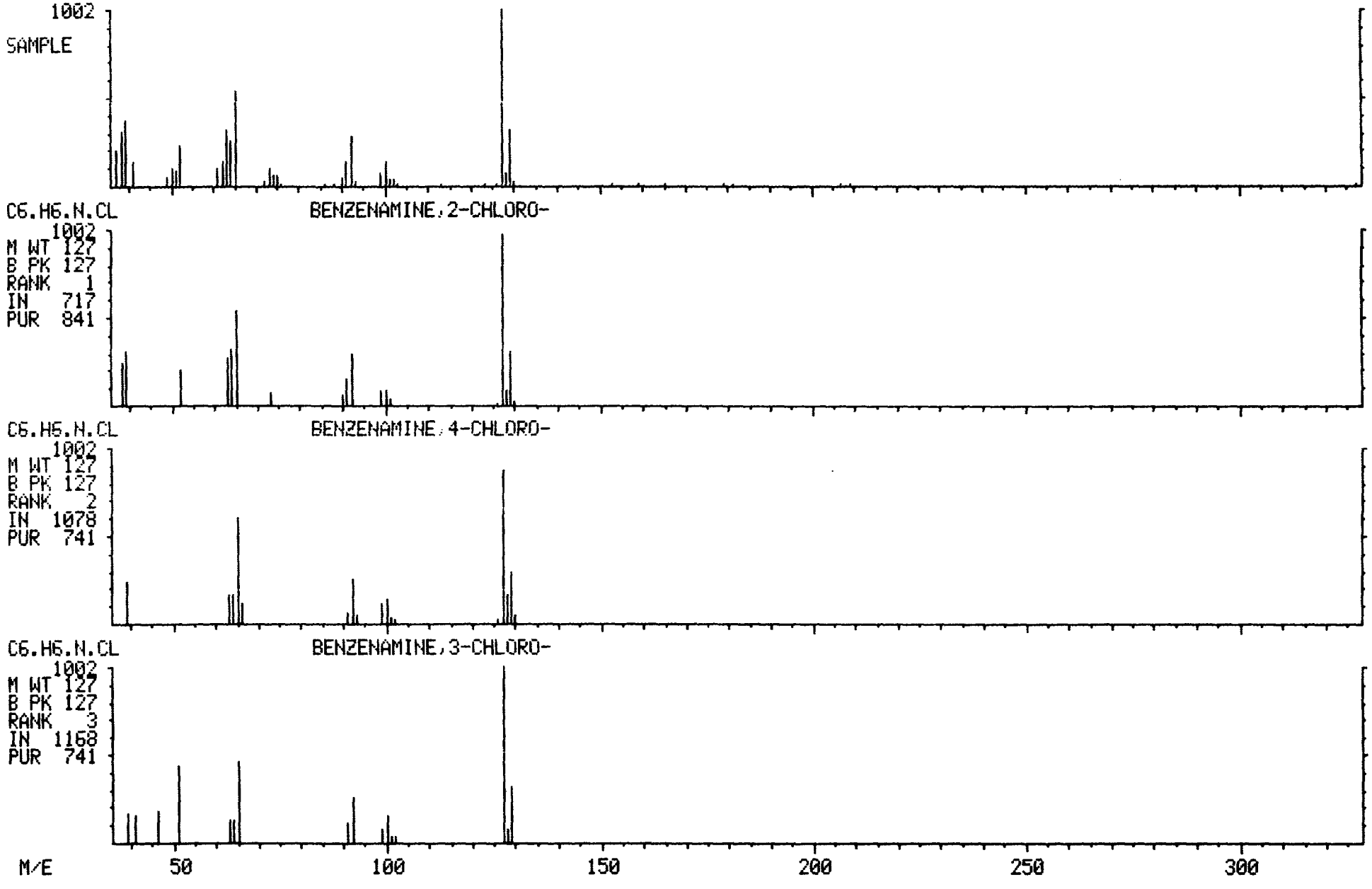
DATA: BH011417A04 #111 BASE M/E: 36/ 49
RIC: 5855./ 43391.



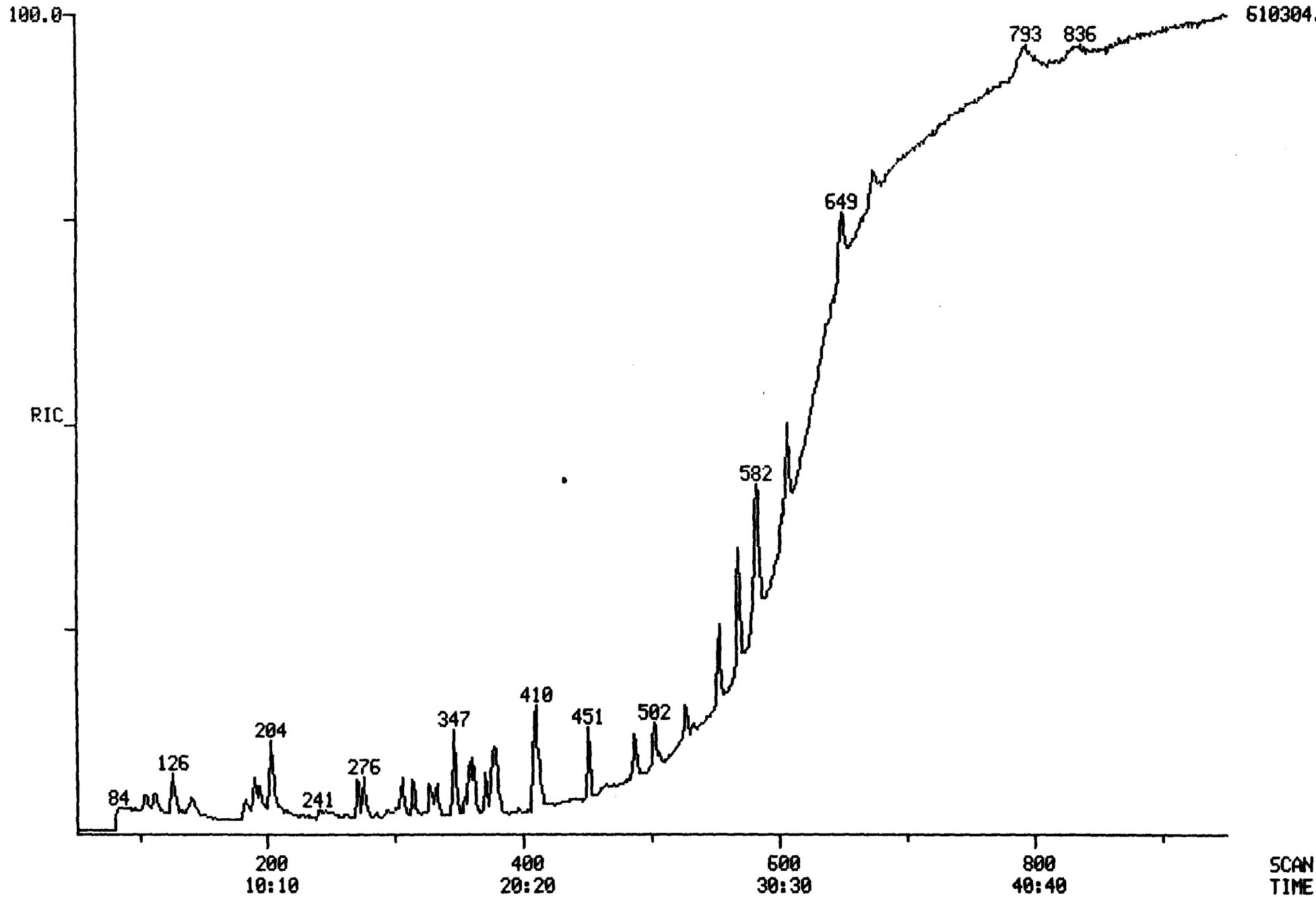
1

LIBRARY SEARCH
01/19/82 15:09:00 + 10:07
SAMPLE: 2UL B/N HW 11417 ON #4
ENHANCED (S 15B 2N 0T)

DATA: BH011417A04 # 199
BASE M/E: 127
RIC: 75263.



RIC DATA: HB820119B04 SCANS 50 TO 950
01/19/82 13:38:00
SAMPLE: 2UL B/N HW STANDARD #3530 20NG/UL EXP.1/24/82 ON #4



GC/MS PERFORMANCE STANDARD - Decafluorotriphenylphosphine

Date 01/19/82 Run no. DH820119B04 Analyst SRS

m/e	Ion Abundance Criteria	SPEC #	SPEC #	SPEC #
51	30-60% of mass 198	45		
68	Less than 2% of mass 69	<2%69		
70	Less than 2% of mass 69	<2%69		
127	40-60% of mass 198	45		
197	Less than 1% of mass 198	<1%198		
198	base peak, 100% relative abundance	100		
199	5-9% of mass 198	7		
275	10-30% of mass 198	22		
365	1% of mass 198	3		
441	Less than mass 443	<443		
442	greater than 40% of mass 198	62		
443	17-23% of mass 442	20% 442		

TAILING FACTORS

Compound	Tailing Factor
benzidene	2.0

MASS LIST DATA: DH820119804 # 49 BASE M/E: 198
01/19/82 13:16:00 + 2:29 RIC: 19424.
SAMPLE: 2UL DFTPP/BENZIDENE #3540 EXP. 1/25/82 ON #4
#49 - #55 X1.30

35 0.00 MINIMA MIN INTEN: 0. MAX INTEN: 2580.
456 # 0 MAXIMA

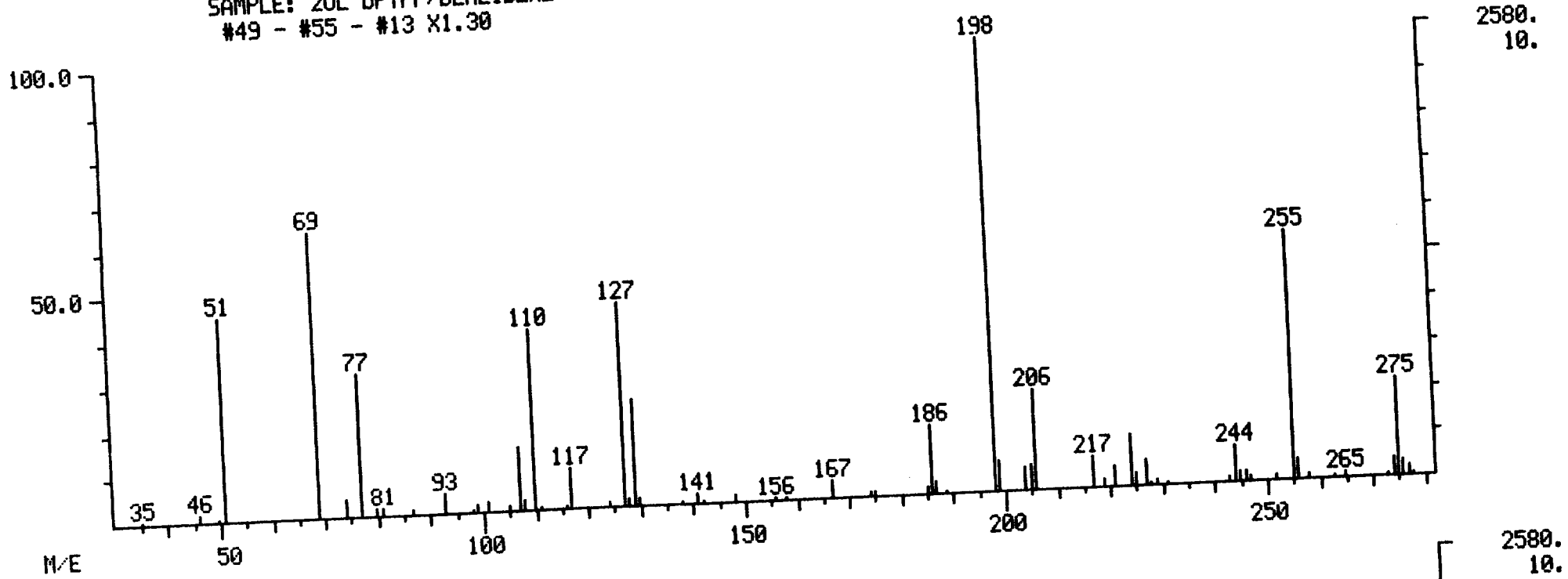
B/N

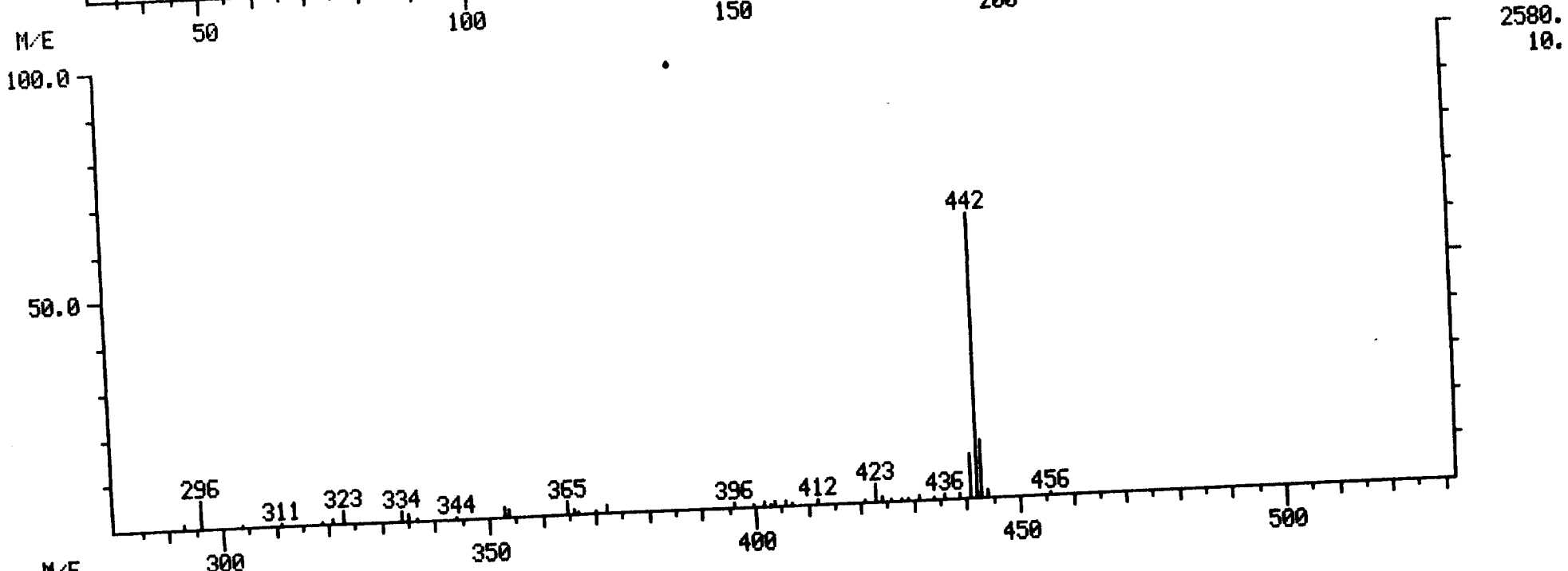
MASS	% RA	MASS	% RA	MASS	% RA
35	0.81	206	22.05	351	0.23
37	0.35	217	6.78	352	0.35
46	1.71	219	1.47	353	2.09
50	0.74	221	4.30	354	1.63
51	45.19	222	0.31	356	0.35
69	63.33	224	11.20	360	0.12
74	3.68	225	2.98	365	2.75
77	31.47	227	5.66	366	1.09
79	0.35	228	0.62	367	0.47
80	1.63	229	1.24	370	0.47
81	1.71	231	0.62	371	0.04
87	1.12	234	0.08	372	1.55
93	4.77	238	0.08	383	0.23
98	0.58	243	1.40	392	0.12
99	1.43	244	7.83	395	0.27
101	2.40	245	2.17	396	1.16
105	0.89	246	2.02	398	0.08
107	14.15	247	1.16	399	0.35
108	2.29	252	1.01	400	0.50
110	40.23	255	54.81	402	1.09
111	0.70	256	4.61	403	0.39
116	0.58	258	1.12	404	0.89
117	9.07	261	0.16	406	0.93
124	1.16	263	0.47	407	0.66
127	45.04	264	0.12	412	0.89
128	1.55	265	1.09	421	0.39
129	23.68	273	0.54	423	3.72
130	1.67	274	3.68	424	1.40
138	0.70	275	21.63	426	0.50
141	2.02	276	3.18	428	0.62
142	0.58	277	2.17	429	0.58
143	0.23	278	0.58	430	0.12
148	1.86	280	0.08	431	1.16
156	0.81	292	0.27	434	0.43
158	0.58	293	1.28	436	1.16
160	0.08	296	6.28	439	0.97
167	3.68	304	0.78	441	9.88
168	0.19	307	0.16	442	62.25
174	0.89	311	0.47	443	12.25
175	0.93	314	0.35	444	1.71
184	0.19	319	0.47	451	0.08
185	1.86	320	0.16	456	0.54
186	15.12	321	0.97		
187	2.75	323	3.10		
189	0.39	334	2.52		
198	100.00	335	1.43		
199	6.59	337	0.39		
203	0.31	338	0.19		
204	5.00	341	0.16		
205	5.74	344	0.62		

DATA: DH820119B04 #49

BASE M/E: 198
RIC: 19424.

MASS SPECTRUM
01/19/82 13:16:00 + 2:29
SAMPLE: 2UL DFTPP/BENZIDENE #3540 EXP.1/25/82 ON #4
#49 - #55 - #13 X1.30





27-JAN-82

Mead CompuChem
INITIAL CALIBRATION DATA REPORT

Time: 21: 0

11417

Research Triangle Park
Instrument: 4
Library: 4
Version: 12
Fraction: Base/Neutral

Compounds		Lab ID: MB000020A04 Std ID: 2311 (LOW) Conc	Area	Lab ID: MB000050A04 Std ID: 2312 (MED) Conc	Area	Lab ID: MB000100A04 Std ID: 2313 (HIGH) Conc	Area
D-8-NAPHTHALENE	(IS)	40.00	64358	40.00	53875	40.00	59419
D-8-NAPHTHALENE	(IS)	40.00	64358	40.00	54015	40.00	59419
D-10-ANTHRACENE	(IS)	40.00	102445	40.00	88703	40.00	94831
D-12-CHRYSENE	(IS)	40.00	107594	40.00	89825	40.00	99740

	Lab ID: MB000020A04 Conc	RF	RRT	Lab ID: MB000050A04 Conc	RF	RRT	Lab ID: MB000100A04 Conc	RF	RRT	Correlation Coefficients
D-5-NITROBENZENE	20.00	.351	.894	50.00	.405	.889	100.00	.439	.880	.941
2-FLUOROPHENOL	20.00	1.000	1.327	50.00	1.030	1.333	100.00	1.047	1.327	.957
1,3-DICHLOROBENZENE	20.00	.356	.529	50.00	.417	.517	100.00	.439	.519	.824
1,4-DICHLOROBENZENE	20.00	.448	.567	50.00	.532	.556	100.00	.527	.558	.745
HEXACHLOROETHANE	20.00	.278	.635	50.00	.299	.628	100.00	.301	.630	.846
BIS (2-CHLOROETHYL) ETHER	20.00	.215	.663	50.00	.266	.633	100.00	.336	.615	.998
1,2-DICHLOROBENZENE	20.00	.354	.635	50.00	.411	.623	100.00	.438	.625	.941
BIS (2-CHLOROISOPROPYL) ETHER	20.00	.472	.697	50.00	.506	.691	100.00	.496	.692	.587
N-NITROSODI-N-PROPYLAMINE	20.00	.063	.962	50.00	.060	.942	100.00	.073	.905	.821
NITROBENZENE	20.00	.371	.909	50.00	.444	.894	100.00	.454	.885	.851
HEXACHLOROBUTADIENE	20.00	.489	.938	50.00	.518	.942	100.00	.467	.938	-.558
1,2,4-TRICHLOROBENZENE	20.00	.432	.957	50.00	.466	.957	100.00	.416	.957	-.442
NAPHTHALENE	20.00	1.063	1.005	50.00	1.128	1.005	100.00	1.085	1.005	.193
BIS (2-CHLOROETHOXY) METHANE	20.00	.362	1.010	50.00	.417	1.010	100.00	.443	1.000	.943
ISOPHORONE	20.00	.578	1.168	50.00	.508	1.145	100.00	.427	1.146	.845
2-CHLORONAPHTHALENE	20.00	.865	1.351	50.00	.861	1.357	100.00	.865	1.356	.253
ACENAPHTHYLENE	20.00	1.217	1.495	50.00	1.317	1.502	100.00	1.225	1.500	-.077
ACENAPHTHENE	20.00	.475	.771	50.00	.515	.771	100.00	.484	.769	.063
DIMETHYL PHTHALATE	20.00	.700	.800	50.00	.743	.798	100.00	.742	.793	.771
2,6-DINITROTOLUENE	20.00	.096	.812	50.00	.109	.814	100.00	.127	.813	.999
4-CHLOROPHENYL PHENYL ETHER	20.00	.398	.848	50.00	.415	.848	100.00	.411	.848	.846
FLUORENE	20.00	.610	.848	50.00	.634	.848	100.00	.641	.849	.900
2,4-DINITROTOLUENE	20.00	.111	.865	50.00	.123	.865	100.00	.159	.865	.991
DIETHYL PHTHALATE	20.00	.866	.882	50.00	.891	.882	100.00	.913	.880	.985
1,2-DIPHENYLHYDRAZINE	20.00	.811	.877	50.00	.862	.877	100.00	.898	.875	.972
N-NITROSODIMETHYLAMINE	20.00	.411	.908	50.00	.406	.908	100.00	.405	.906	-.848
HEXACHLOROBENZENE	20.00	.491	.918	50.00	.447	.920	100.00	.424	.918	.968
4-BROMOPHENYL PHENYL ETHER	20.00	.285	.925	50.00	.296	.925	100.00	.297	.923	.822
ANTHRACENE	40.00	.943	1.007	100.00	.955	1.005	200.00	.958	1.007	.882
PHENANTHRENE	40.00	.943	1.007	100.00	.955	1.005	200.00	.958	1.007	.882
DI-N-BUTYL PHTHALATE	20.00	1.625	1.099	50.00	1.592	1.099	100.00	1.658	1.099	.615
FLUORANTHENE	20.00	1.197	1.188	50.00	1.184	1.188	100.00	1.210	1.188	.627
PYRENE	20.00	1.202	1.227	50.00	1.205	1.227	100.00	1.218	1.224	.890
BENZIDINE	20.00	.228	.915	50.00	.218	.915	100.00	.144	.917	-.962
BUTYL BENZYL PHTHALATE	20.00	.664	.949	50.00	.687	.949	100.00	.678	.949	.475
BIS (2-ETHYLHEXYL) PHTHALATE	20.00	1.071	.973	50.00	1.094	.975	100.00	1.093	.975	.750
BIS (2-ETHYLHEXYL) PHTHALATE	20.00	.354	.973	50.00	.374	.973	100.00	.374	.975	.780
BENZO (A) ANTHRACENE/CHRYSENE	40.00	1.140	1.002	100.00	1.133	.997	200.00	.566	.997	-.932
CHRYSENE/BENZO (A) ANTHRACENE	40.00	1.140	1.002	100.00	1.133	.997	200.00	.543	1.003	-.932
3,3'-DICHLOROBENZIDINE	20.00	.391	1.034	50.00	.368	1.034	100.00	.341	1.036	-.995
DI-N-OCTYL PHTHALATE	20.00	1.834	1.039	50.00	1.802	1.039	100.00	1.841	1.041	.304
3,4-BENZOFLUORANTHENE	20.00	1.296	1.114	50.00	1.266	1.114	100.00	1.182	1.114	-.992
BENZO (K) FLUORANTHENE	20.00	1.296	1.114	50.00	1.266	1.114	100.00	1.182	1.114	-.992
BENZO (A) PYRENE	20.00	1.288	1.158	50.00	1.071	1.160	100.00	1.106	1.160	-.684
INDENO (1,2,3-CD) PYRENE	20.00	1.202	1.368	50.00	1.220	1.370	100.00	1.229	1.370	.941

DIBENZO (A,H) ANTHRACENE	20.00	.933	1.377	50.00	.970	1.379	100.00	.999	1.379	.976
BENZO (GHI) PERYLENE	20.00	.930	1.445	50.00	.991	1.447	100.00	1.034	1.447	.971

27-JAN-82

Mead CompuChem
STANDARD RESPONSE FACTOR CHECK REPORT

Time: 19:23

Research Triangle Park
Instrument: 4
Library: 4
Version: 12
Fraction: Base/Neutral

STD ID 2314 (LOW)
ID: M8820119804
Analyst: 593

Compounds		Area(C)	Area(CK)	RXD **
D-8-NAPHTHALENE	(IS)	64358	36337	55.7
D-8-NAPHTHALENE	(IS)	84358	36337	55.7
D-10-ANTHRACENE	(IS)	102445	54757	60.7
D-12-CHRYSENE	(IS)	107594	89554	18.3

	RF (C)	RF (CK)	RXD **
D-5-NITROBENZENE	.351	.633	57.4
2-FLUOROPHENOL	1.000	1.009	.9
1,3-DICHLOROBENZENE	.356	.449	23.0
1,4-DICHLOROBENZENE	.448	.510	12.9
HEXACHLOROETHANE	.278	.347	22.1
BIS (2-CHLOROETHYL) ETHER	.215	.403	60.9
1,2-DICHLOROBENZENE	.334	.453	24.4
BIS (2-CHLOROISOPROPYL) ETHER	.472	1.069	77.4
N-NITROSODI-N-PROPYLAMINE	.063	.049	-25.3
NITROBENZENE	.371	.567	41.9
HEXACHLOROBUTADIENE	.489	.416	-16.2
1,2,4-TRICHLOROBENZENE	.432	.443	2.5
NAPHTHALENE	1.063	1.236	15.1
BIS (2-CHLOROETHOXY) METHANE	.362	.601	49.7
ISOPHORONE	.578	.865	39.7
2-CHLORONAPHTHALENE	.865	.911	5.2
ACENAPHTHYLENE	1.217	1.409	14.6
ACENAPHTHENE	.475	.569	18.0
DIMETHYL PHTHALATE	.700	.882	23.0
2,6-DINITROTOLUENE	.096	.127	27.6
4-CHLOROPHENYL PHENYL ETHER	.398	.325	-20.3
FLUORENE	.610	.660	7.8
2,4-DINITROTOLUENE	.111	.115	3.5
DIETHYL PHTHALATE	.866	1.116	25.3
1,2-DIPHENYLHYDRAZINE	.811	1.341	49.3
N-NITROSODIMETHYLAMINE	.411	.468	12.8
HEXACHLOROBENZENE	.451	.513	12.9
4-BROMOPHENYL PHENYL ETHER	.285	.344	18.6
ANTHRACENE	.943	1.039	9.7
PHENANTHRENE	.943	1.039	9.7
DI-N-BUTYL PHTHALATE	1.625	2.114	26.2
FLUORANTHENE	1.197	1.300	8.2
PYRENE	1.202	1.351	11.7
BENZIDINE	.228	.148	-42.6
BUTYL BENZYL PHTHALATE	.664	.676	1.7
BIS (2-ETHYLHEXYL) PHTHALATE	1.071	1.110	3.6
BIS (2-ETHYLHEXYL) PHTHALATE	.354	.343	-3.1
BENZO (A) ANTHRACENE/CHRYSENE	1.140	.574	-66.1
CHRYSENE/BENZO (A) ANTHRACENE	1.140	.574	-66.1
3,3'-DICHLOROBENZIDINE	.391	.362	-7.9
DI-N-OCTYL PHTHALATE	1.834	1.832	-.1
3,4-BENZOFLUORANTHENE	1.296	2.020	43.7
BENZO (K) FLUORANTHENE	1.296	2.020	43.7
BENZO (A) PYRENE	1.288	1.135	-12.6
INDENO (1,2,3-CD) PYRENE	1.202	1.098	-9.0

DIBENZO (A,H) ANTHRACENE	.933	.920	-1.5
BENZO (GHI) PERYLENE	.930	.866	-7.1

$$** \quad RXD = \frac{(CK-C)}{(CK+C)\ /\ 2} \times 100$$

28-JAN-82

Head CompuChem
STANDARDS RELATIVE RETENTION REPORT

Time: 12: 3

Research Triangle Park
Instrument: 4
Library: 4
Version: 12
Fraction: Base/Neutral

Compounds		Initial Run ID: MB000020A04 STD Conc	Initial Run RRT	Check Standards ID: MB820119B04 RRT	Check Standards Diff
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000
D-5-NITROBENZENE		20.00	.894	.901	-.007
2-FLUOROPHENOL		20.00	1.327	1.335	-.008
D-8-NAPHTHALENE	(IS)	40.00	1.000	1.000	.000
1,3-DICHLOROBENZENE		20.00	.529	.512	.017
1,4-DICHLOROBENZENE		20.00	.567	.552	.016
HEXACHLOROETHANE		20.00	.635	.621	.014
BIS (2-CHLOROETHYL) ETHER		20.00	.663	.660	.003
1,2-DICHLOROBENZENE		20.00	.635	.626	.009
BIS (2-CHLOROISOPROPYL) ETHER		20.00	.697	.695	.003
N-NITROSODI-N-PROPYLAMINE		20.00	.962	.975	-.014
NITROBENZENE		20.00	.909	.906	.002
HEXACHLOROBUTADIENE		20.00	.938	.936	.002
1,2,4-TRICHLOROBENZENE		20.00	.957	.956	.001
NAPHTHALENE		20.00	1.005	1.005	-.000
BIS (2-CHLOROETHOXY) METHANE		20.00	1.010	1.020	-.010
ISOPHORONE		20.00	1.168	1.192	-.024
2-CHLORONAPHTHALENE		20.00	1.351	1.360	-.009
ACENAPHTHYLENE		20.00	1.495	1.507	-.012
D-10-ANTHRACENE	(IS)	40.00	1.000	1.000	.000
ACENAPHTHENE		20.00	.771	.768	.003
DIMETHYL PHTHALATE		20.00	.800	.800	.000
2,6-DINITROTOLUENE		20.00	.812	.814	-.002
4-CHLOROPHENYL PHENYL ETHER		20.00	.848	.848	-.000
FLUORENE		20.00	.848	.848	-.000
2,4-DINITROTOLUENE		20.00	.865	.868	-.003
DIETHYL PHTHALATE		20.00	.882	.883	-.001
1,2-DIPHENYLHYDRAZINE		20.00	.877	.878	-.001
N-NITROSODIMETHYLAMINE		20.00	.908	.907	.001
HEXACHLOROBENZENE		20.00	.918	.919	-.001
4-BROMOPHENYL PHENYL ETHER		20.00	.925	.924	.001
ANTHRACENE		40.00	1.007	1.005	.002
PHENANTHRENE		40.00	1.007	1.005	.002
DI-N-BUTYL PHTHALATE		20.00	1.099	1.103	-.004
FLUORANTHENE		20.00	1.188	1.191	-.003
PYRENE		20.00	1.227	1.227	-.001
D-12-CHRYSENE	(IS)	40.00	1.000	1.000	.000
BENZIDINE		20.00	.915	.916	-.001
BUTYL BENZYL PHTHALATE		20.00	.949	.950	-.001
BIS (2-ETHYLHEXYL) PHTHALATE		20.00	.973	.976	-.003
BIS (2-ETHYLHEXYL) PHTHALATE		20.00	.973	.976	-.003
BENZO (A) ANTHRACENE/CHRYSENE		40.00	1.002	.997	.005
CHRYSENE/BENZO (A) ANTHRACENE		40.00	1.002	.997	.005
3,3'-DICHLOROBENZIDINE		20.00	1.034	1.034	-.000
DI-N-OCTYL PHTHALATE		20.00	1.039	1.041	-.002
3,4-BENZOFLUORANTHENE		20.00	1.114	1.115	-.001
BENZO (K) FLUORANTHENE		20.00	1.114	1.115	-.001
BENZO (A) PYRENE		20.00	1.158	1.158	-.000
INDENO (1,2,3-CD) PYRENE		20.00	1.368	1.356	.013
DIBENZO (A,H) ANTHRACENE		20.00	1.377	1.363	.014
BENZO (GHI) PERYLENE		20.00	1.445	1.430	.015

MEAD COMPUCHEM

27-JAN-82 21:01 — Internal Standard Response Verification Report — Page 1

Research Triangle Park

Fraction: Base/Neutral — 19-JAN-82 00:00 - 19-JAN-82 23:59

Instrument# 4

Library# 4

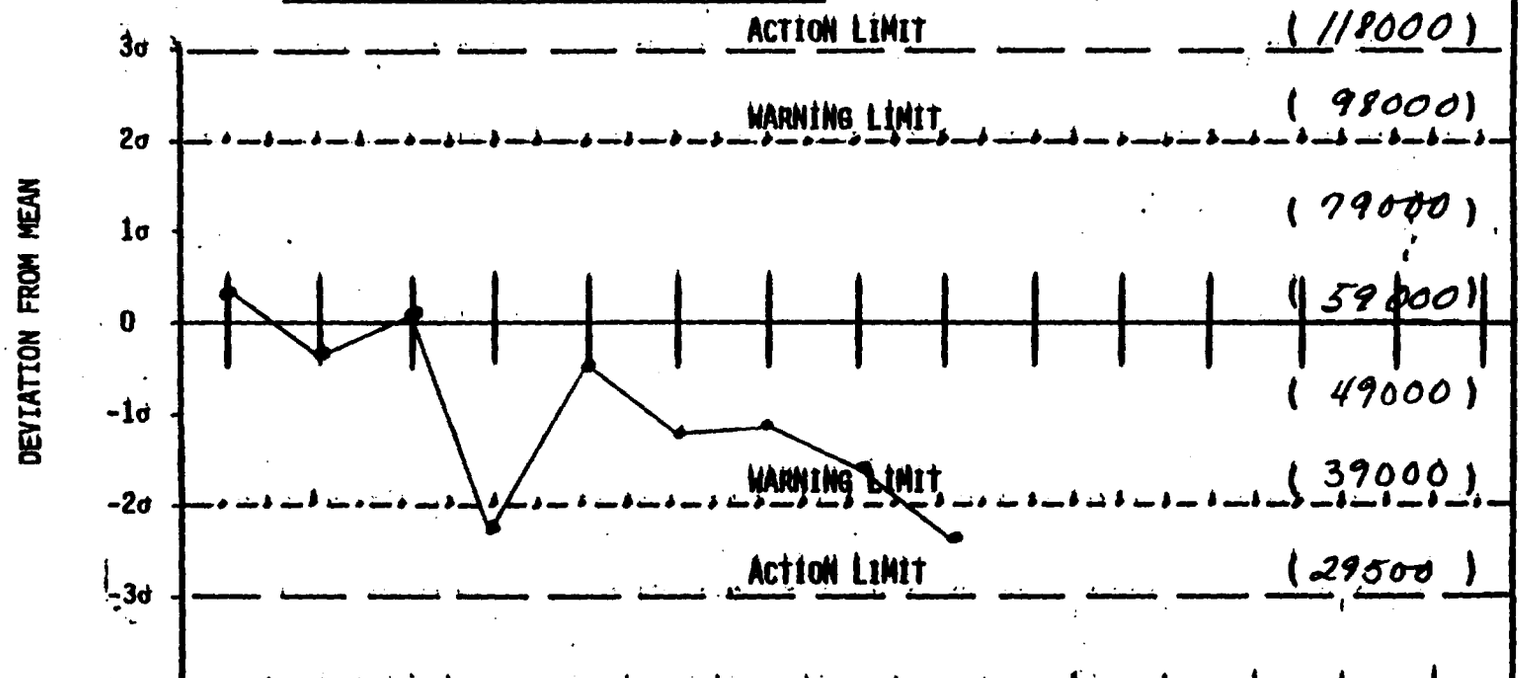
Version# 12

			Int. Std. A			Int. Std. B				Int. Std. C			
			D-8-NAPHTHALENE Conc: 40.0000			D-10-ANTHRACENE Conc: 40.0000				D-12-CHRYSENE Conc: 40.0000			
Sample/Run	Date	Analyst	Scan	Area	Relative Retention	Scan	Area	Relative Retention	Relative Response	Scan	Area	Relative Retention	Relative Response
HB000020A04	6-JAN-82	593	208	64356.	.3531	415	102445.	.7046	.6282	589	107394.	1.0000	.9521
HB000050A04	6-JAN-82	593	207	53875.	.3514	415	88703.	.7046	.6074	589	89825.	1.0000	.9875
HB000100A04	6-JAN-82	593	208	59419.	.3531	416	94831.	.7063	.6266	589	99740.	1.0000	.9308
HB820119B04	19-JAN-82	593	203	36337.	.3488	409	54757.	.7027	.6636	582	89554.	1.0000	.6114
BH011417A04	19-JAN-82	593	203	55624.	.3488	409	72637.	.7027	.7658	582	72646.	1.0000	.9999
BH011147B04	19-JAN-82	615	204	44172.	.3505	409	65224.	.7027	.6772	582	75197.	1.0000	.8674
BH011225B04	19-JAN-82	615	204	45127.	.3505	409	63079.	.7027	.7154	582	71183.	1.0000	.8861
BH011227B04	19-JAN-82	615	204	40108.	.3505	409	61041.	.7027	.6571	582	74841.	1.0000	.8158
BH011228B04	19-JAN-82	615	203	35421.	.3488	409	51968.	.7027	.6816	582	62937.	1.0000	.8257

PAGE # -1

METHOD BASE NEUTRAL #4-XII

I. STD D8-NAPHTHALENE

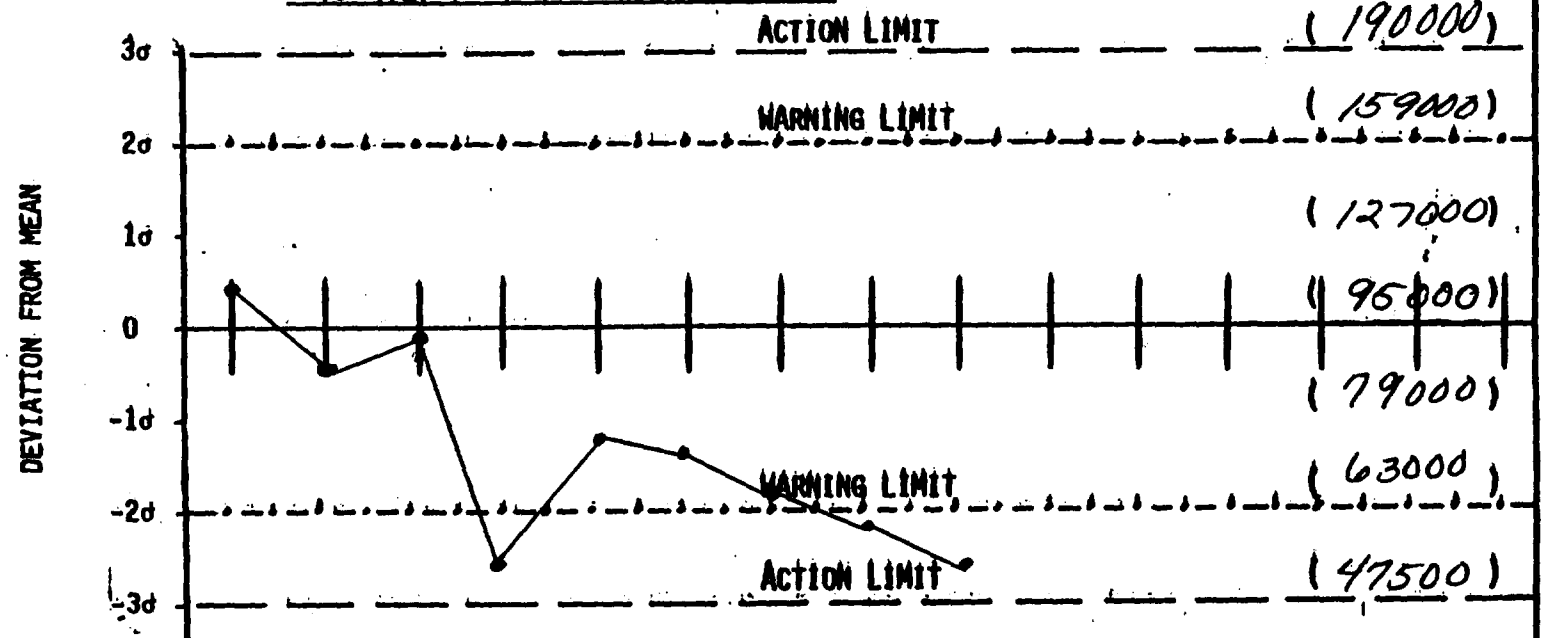


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/6/82	1/6/82	1/6/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82						
OPERATOR	593	593	593	593	593	615	615	615	615						
PROBLEM AND CORRECTIVE ACTION															

PAGE # -1

METHOD BASE NEUTRAL # 4-XII

1. STD D_{10} ANTHRACENE

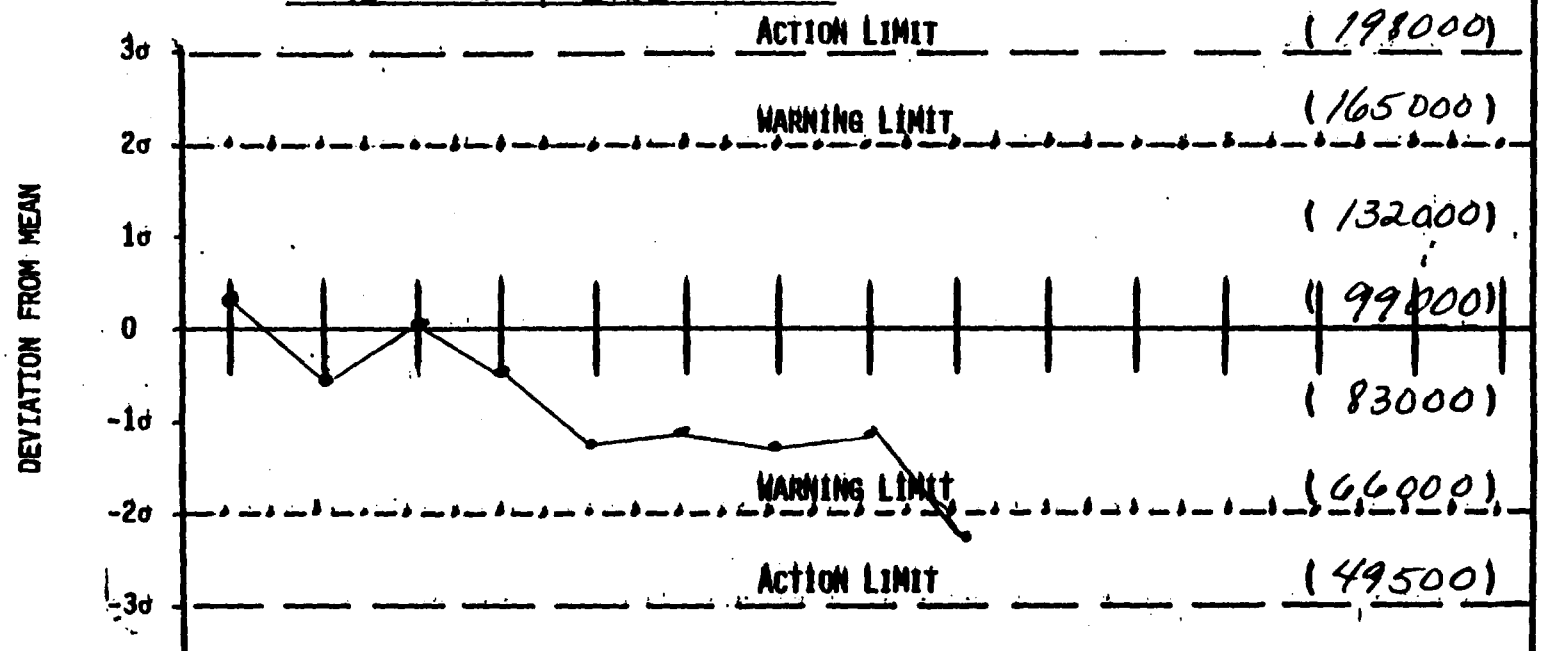


RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/6/82	1/6/82	1/6/82	1/18/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82						
OPERATOR	593	593	593	593	593	615	615	615	615						
PROBLEM AND CORRECTIVE ACTION															

PAGE # -1

METHOD BASE NEUTRAL #4-XII

I. STD D12- CHRYSENE



RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE/TIME	1/6/82	1/6/82	1/6/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82	1/19/82						
OPERATOR	593	593	593	593	593	615	615	615	615						
PROBLEM AND CORRECTIVE ACTION															

OV101
Supelco
2250/2401

11417

E 1204

Column A

1.5% 2250/1.95% 2401 Supelco
Cond.: 190, isothermal
Ar/CH_4, 25 cc/min.

Peaks, 0250 Standard

1A Alpha-BHC
2A Beta-BHC
3A Gamma-BHC
4A Heptachlor Epoxide
5A Alpha-Chlordane
6A p,p'-DDE
7A p,p'-DDD
8A p,p'DDT
9A Endosulfan Sulfate

Peaks, 0266 Standard

10A Delta-BHC
11A Heptachlor
12A Aldrin
13A Delta-Chlordane
14A Endosulfan I
15A Dieldrin
16A Endrin
17A Endosulfan II
18A Endrin Aldehyde

Column B

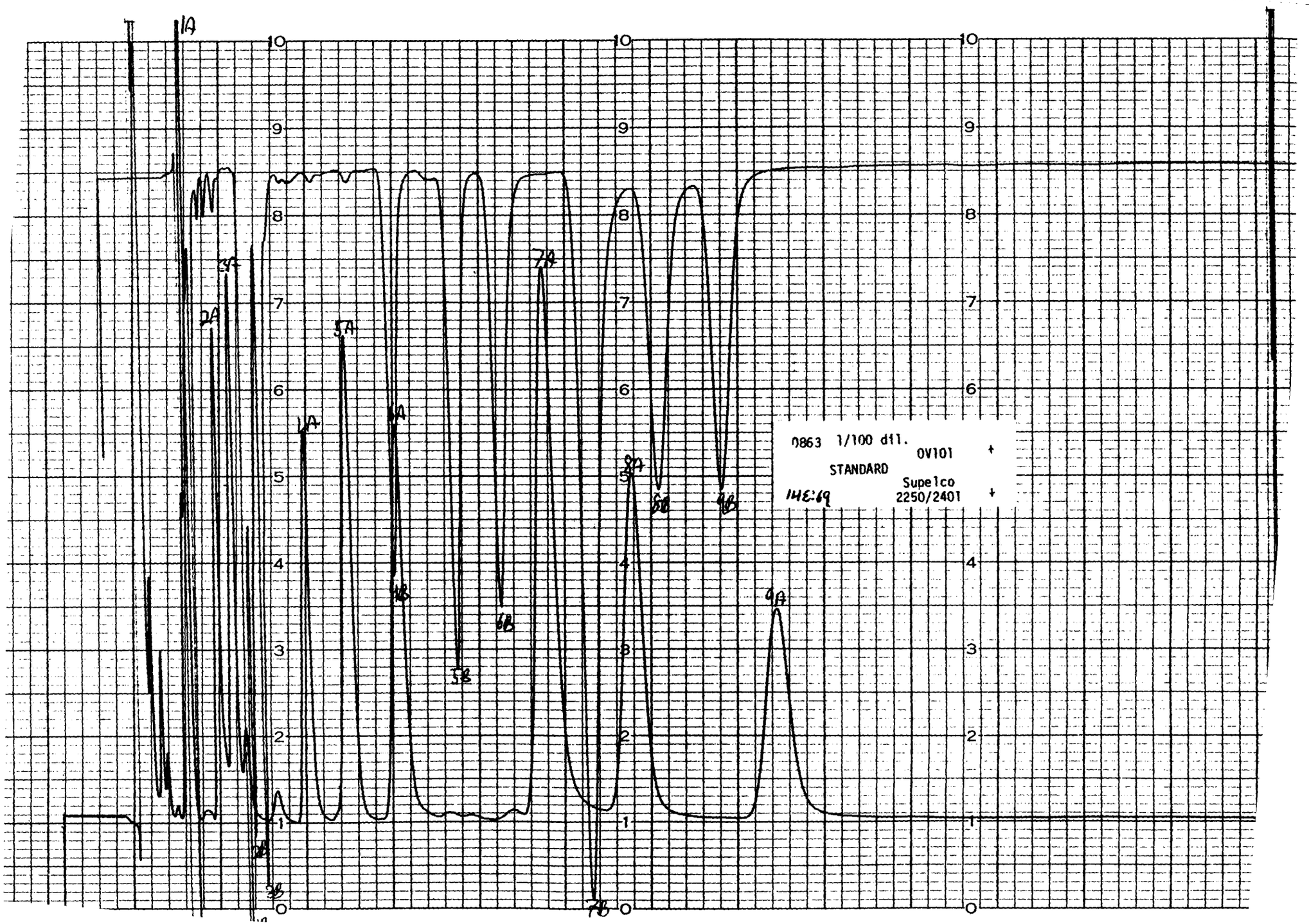
3% OV-101
Cond.: 190, isothermal
Ar/Ch_4, 25 cc/min.

Peaks, 0250 Standard

1B Alpha-BHC
2B Beta-BHC
3B Gamma-BHC
4B Heptachlor Epoxide
5B Alpha-Chlordane
6B p,p'-DDE
7B p,p-DDD
8B Endosulfan Sulfate
9B p,p'-DDT

Peaks, 0266 Standard

10B Delta-BHC
11B Heptachlor
12B Aldrin
13B Delta-Chlordane
14B Endosulfan I
15B Dieldrin
16B Endrin and Endosulfan II
17B Endrin Aldehyde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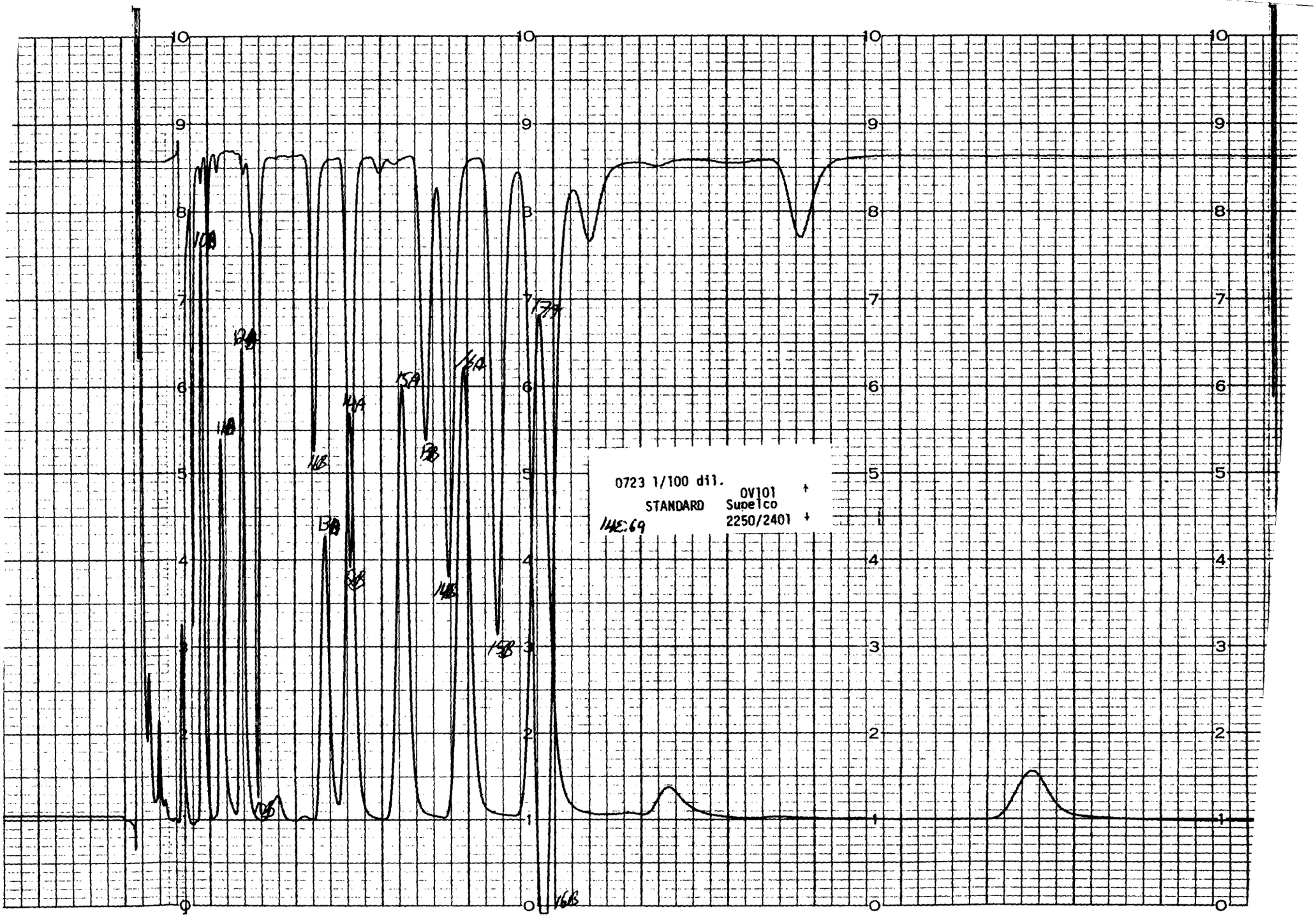
OV101
STANDARD
Supelco
2250/2401
1HE:69


0723 1/100 dil.
STANDARD
OV101
Supelco
2250/2401
14E:69
10B
11B
12B
13B
14A
15A
16A
17A
15B
16B

DETECTION LIMIT STUDY

BASE-NEUTRAL COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,4-DICHLOROBENZENE	84.5	82.7	78.3	81.8	3.2	9.6
HEXACHLOROETHANE	86.2	85.6	83.0	84.9	1.7	5.1
BIS(2-CHLOROETHYL)ETHER	97.7	94.8	98.5	97.0	2.0	6.0
1,2-DICHLOROBENZENE	81.3	79.4	77.5	79.4	1.9	5.7
BIS(2-CHLOROISOPROPYL)ETHER	69.1	80.3	72.8	74.1	5.7	17.1
n-NITROSO-di-n-PROPYLAMINE	50.8	80.5	77.0	69.4	16.2	48.6
NITROBENZENE	81.1	78.8	77.3	79.1	1.9	5.7
HEXACHLOROBUTADIENE	67.5	68.3	65.8	67.2	1.3	3.9
1,2,4-TRICHLOROBENZENE	91.4	90.2	89.6	90.4	0.9	2.7
NAPHTHALENE	80.6	79.1	81.6	80.4	1.3	3.9
BIS(2-CHLOROETHOXY)METHANE	85.8	85.7	85.4	85.6	.2	0.6
ISOPHORONE	82.4	84.2	79.5	82.0	2.4	7.2
2-CHLORONAPHTHALENE	63.3	58.2	61.5	61.0	2.6	7.8
ACENAPHTHYLENE	68.5	66.1	68.8	67.8	1.5	4.5
1,3-DICHLOROBENZENE	111.0	70.6	68.7	83.4	23.9	71.7
ACENAPHTHENE	80.7	80.7	77.8	79.7	1.7	5.1
DIMETHYL PHTHALATE	88.5	87.3	80.3	85.4	4.4	13.2
2,6-DINITROTOLUENE	88.5	89.6	84.4	87.5	2.7	8.1
4-CHLOROPHENYL PHENYL ETHER						
FLUORENE	85.1	84.8	81.5	83.8	2.0	6.0
2,4-DINITROTOLUENE	78.4	79.1	75.7	77.7	1.8	5.4
DIETHYL PHTHALATE	82.5	83.1	79.2	81.6	2.1	6.3
1,2-DIPHENYLHYDRAZINE						
n-NITROSODIPHENYL AMINE	79.7	79.1	77.7	78.8	1.0	3.0
HEXACHLOROBENZENE	78.5	81.9	77.3	79.2	2.4	7.2
4-BROMOPHENYL PHENYL ETHER	79.1	80.5	77.1	78.9	1.7	5.1
ANTHRACENE/PHENANTHRENE	159.5	159.1	159.0	159.2	0.3	0.9
di-n-BUTYL PHTHALATE	82.1	82.3	82.5	82.6	0.4	1.2
FLUORANTHENE	81.3	82.6	81.8	81.9	0.7	2.1
PYRENE	80.9	82.5	81.3	81.6	0.8	2.4

DETECTION LIMIT STUDY

BASE-NEUTRAL COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
BENZIDINE	121.8	125.9	123.8	123.8	2.1	6.3
BUTYL BENZYL PATHALATE	87.2	87.4	87.3	87.3	.1	.3
BIS(2-ETHYLHEXYL) PATHALATE	81.3	81.3	80.1	80.9	.7	2.1
BENZO (a) / ANTHRACENE / CHRYSENE	152	156	152	153	2.3	6.9
3,3'-DICHLOROBENZIDINE	150.9	153.1	152.1	152	1.2	3.6
di-OCTYL PATHALATE	82.0	82.2	80.8	81.7	.8	2.4
BENZO (a) PYRENE	74.5	75.8	73.9	74.7	1.0	3.0
INDENO(1,2,3-cd) PYRENE						
di-BENZO(a,h) ANTHRACENE	77.5	74.3	78.4	76.7	2.2	6.6
BENZO(g,h,i) PERYLENE	76.9	78.4	83.4	79.6	3.4	10.2

DETECTION LIMIT STUDY

VOLATILE COMPOUNDS

LOW LEVEL

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,1-DICHLOROETHANE	0.317	0.265	0.255	0.279	0.033	0.099
TRANS-1,2-DICHLOROETHYLENE	0.333	0.278	0.267	0.293	0.035	0.105
CHLOROFORM	0.300	0.252	0.245	0.266	0.030	0.090
1,2-DICHLOROETHANE	0.292	0.246	0.241	0.260	0.028	0.084
1,1,1-TRICHLOROETHANE	0.334	0.279	0.263	0.292	0.037	0.111
BENZENE	0.284	0.250	0.239	0.258	0.023	0.069
1,1,2-TRICHLOROETHANE	0.282	0.247	0.235	0.255	0.024	0.072
DIBROMOCHLOROMETHANE	0.259	0.221	0.205	0.228	0.028	0.084
BROMOFORM	0.304	0.262	0.243	0.270	0.031	0.093
1,1,2,2-TETRACHLOROETHYLENE	0.323	0.277	0.262	0.287	0.032	0.096
1,1,2,2-TETRACHLOROETHANE	0.301	0.267	0.258	0.275	0.023	0.069
TOLUENE	0.295	0.260	0.249	0.268	0.024	0.072
CHLOROBENZENE	0.305	0.268	0.256	0.276	0.026	0.078
ETHYLBENZENE	0.307	0.271	0.260	0.279	0.025	0.075

DETECTION LIMIT STUDY

VOLATILE COMPOUNDS

MEDIUM LEVEL

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
1,1-DICHLOROETHANE	6.727	5.298	5.583	5.869	0.756	2.268
TRANS-1,2-DICHLOROETHYLENE	6.309	6.046	6.400	6.252	0.184	0.552
CHLOROFORM	5.655	5.152	5.520	5.442	0.260	0.780
1,2-DICHLOROETHANE	5.791	5.088	5.465	5.448	0.352	1.056
1,1,1-TRICHLOROETHANE	6.567	5.594	6.066	6.076	0.487	1.461
BENZENE	6.027	5.636	5.763	5.809	0.199	0.597
1,1,2-TRICHLOROETHANE	5.658	5.453	5.777	5.629	0.164	0.492
DIBROMOCHLOROMETHANE	4.860	4.763	4.968	4.864	0.103	0.309
BROMOFORM	5.142	5.008	5.448	5.199	0.226	0.678
1,1,2,2 TETRACHLOROETHYLENE	6.802	6.810	6.990	6.867	0.106	0.318
1,1,2,2 TETRACHLOROETHANE	5.833	5.635	6.203	5.890	0.288	0.864
TOLUENE	6.162	5.996	6.213	6.124	0.113	0.339
CHLOROBENZENE	5.563	6.314	6.523	6.133	0.505	1.515
ETHYLBENZENE	6.399	6.246	6.507	6.384	0.131	0.393

DETECTION LIMIT STUDY

ACID COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
PENTAFLUOROPHENOL	43.7	41.7	43.4	42.9	1.1	3.3
2-FLUOROBIPHENYL	41.0	40.3	41.6	41.0	.6	1.8
D-5 NITROBENZENE	37.9	37.3	37.8	37.7	.3	.9
2-CHLOROPHENOL	86.8	82.9	85.3	85.0	2.0	6.0
2-NITROPHENOL	87.1	87.3	87.6	87.3	.3	.9
PHENOL	80.1	76.3	79.3	78.6	2.0	6.0
2,4-DIMETHYLPHENOL	76.2	75.7	77.7	76.5	1.0	3.0
2,4-DICHLOROPHENOL	89.9	88.5	89.4	89.3	.7	2.1
2,4,6-TRICHLOROPHENOL	81.9	85.4	83.8	83.7	1.8	5.4
P-CHLORO-M-CRESOL	78.0	81.3	81.4	80.2	1.9	5.7
PENTACHLOROPHENOL	80.3	82.4	81.0	81.2	1.1	3.3
4-NITROPHENOL	69.4	73.1	72.0	71.2	1.9	5.7

DETECTION LIMIT STUDY

PESTICIDE COMPOUNDS

COMPONENT	ANALYSIS 1	ANALYSIS 2	ANALYSIS 3	$\bar{X}$	σ	DETECTION LIMIT (3σ)
TOXAPHENE	0.039	0.042	0.043	0.041	0.002	0.006
BHC- BETA	0.048	0.048	0.049	0.048	0.001	0.003
BHC- DELTA	0.047	0.047	0.048	0.047	0.001	0.003
4,4'- DDD	0.048	0.051	0.051	0.500	0.001	0.003
4,4'- DDT	0.034	0.033	0.034	0.034	0.001	0.003
BHC - GAMMA	0.042	0.043	0.043	0.043	0.001	0.003
HEPTACHLOR	0.046	0.047	0.048	0.047	0.001	0.003
ALDRIN	0.046	0.046	0.049	0.047	0.001	0.003
ENDOSULFAN I	0.045	0.046	0.046	0.046	0.001	0.003
DIELDRIN	0.043	0.044	0.044	0.044	0.001	0.003
ENDRIN	0.048	0.048	0.049	0.048	0.001	0.003
ENDOSULFAN II	0.041	0.042	0.042	0.042	0.001	0.003