ENVIRONMENTAL PROTECTION AGENCY Case 2459 Low Concentration
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO. RS 303-13 145

PROJECT NAME: Laclede Steel Company Landfill

SAMPLERS (Signature): Daniel J Cox

Superfund 247

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Inorganics Metals							REMARKS Phase	ITR	OTR
MW B-4	2/22/84	12:10		X	Monitoring well B-4	1	1							Water	MW 1834	E 7165
MS	2/22/84	12:38		X	Midstream Drainage Ditch	1	1							Sediment	MS 2111	E 7072
US	2/22/84	12:52		X	Upstream Drainage Ditch	1	1							Sediment	MS 2112	E 7073
DS	2/22/84	1:10		X	Downstream Drainage Ditch	1	1							Sediment	MS 2113	E 7074
Blank	2/22/84	3:15		X	Blank	1	1							Water	MW 1835	E 7071
														1 liter water lot # 33210071		
														8 oz jar sediment lot # 631103		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Daniel J Cox	2/22/84 4:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Shipped via federal express to California Analytical Laboratories Airbill # 012220633 Custody seals 20063, 20064	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-394

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CASE 2459

Low Concentration

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: RS 5303-1B -145

PROJECT NAME: Lacleede Steel Company Landfill

SAMPLERS: (Signature) Daniel J. Lagge

Superfund 247

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Priority Pollutants	Volatile Organics					REMARKS: Phase OTR ITR
well B-4	2-22-84	12:10		X	Monitoring Well B-4	4	2	2					WATER E7165 ME 1834
MS	2-22-84	12:38		X	Midstream Drainage Ditch	1	1	–					SEDIMENT E7072 ME 2111
US	2-22-84	12:52		X	Upstream Drainage Ditch	1	1	–					SEDIMENT E7073 ME 2112
DS	2-22-84	1:10		X	Downstream Drainage Ditch	1	1	–					SEDIMENT E7074 ME 2113
Blank	2-22-84	3:15		X	Blank	4	2	2					WATER E7071 ME 1833
													1½ gallon Priority Pollutant lot # 13279012
													volatile organic lot # 23320032
													8 oz jar Sediment lot # 631103

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Daniel J. Lagge	2-22-84 4:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Shipped via Federal Express to United States Testing Co. Inc. Airbill # 012220504 Custody Seals 20061, 20062	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-3942

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

(1)

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB [redacted] LOGIN DATE 3/9/84 DUE DATE 3/23/84

NUMBER Y905 RELEASE NUMBER 247 STUDY Laclede Steel Company LIF PRIORITY N CONTRACTOR U.S. Testing

LOG NUMBER	SAMPLE DESCRIPTION	ACID-BASE NEUTRAL CPDS. PRIORITY POLLUTANTS UG/L 2 TOX9561	ACID-BASE NEUTRAL CPDS. ORGANIC SCAN UG/L TOX9571	ACID-BASE NEUTRAL CPDS. PRIORITY POLLUTANTS 3 MG/KG TOX95631	ACID-BASE NEUTRAL CPDS. ORGANIC SCAN MG/KG TOX95731
84MC04531	E 7165	✓			
84MC04805	E 7071	✓			
84MC04532	E 7072			✓	
84MC04633	E 7073			✓	
84MC04534	E 7074			✓	

Case 2459
C48500

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB LOGIN DATE 3/9/84 DUE DATE 3/23/84

NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.E. PRIORITY N CONTRACTOR U.S. Testing

LOG NUMBER	SAMPLE DESCRIPTION	VOLATILE ORGANIC ANALYSES PRIORITY POLLUTANTS UG/L TOX10561	VOLATILE ORGANIC ANALYSES ORGANIC SCAN UG/L TOX10571	VOLATILE ORGANIC ANALYSES PRIORITY POLLUTANTS MG/KG TOX105631	VOLATILE ORGANIC ANALYSES ORGANIC SCAN MG/KG TOX105731
		2		3	
84MC04531	E 7165	✓			
84MC04805	E 7071	✓			
84MC04532	E 7072			✓	
84MC04533	E 7073			✓	
84MC04534	E 7074			✓	

Case 2459
4 C48500

②

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES & PCB'S

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB LOGIN DATE 3/9/84 DUE DATE 3/23/84

DU NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.F. PRIORITY N CONTRACTOR U.S. Testing

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER 2 POLYCHLORINATED BIPHENYS UG/L PES71971	WATER CHLORINATED PESTICIDES UG/L PES71881	WATER HERBICIDES UG/L PES71981	WATER BROMINATED BIPHENYLS UG/L PES71991
84MC04S31	E 7165	✓	✓	✓	✓
84MC04R05	E 7071	✓	✓	✓	✓

1

Case 2459
C48500
4

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES & PCB'S

DIVISION/BRANCH SUPER FUND FIT SAMPLING DATE 2/22/84 LAB [redacted] DATE LOGIN 3/9/84 DUE DATE 3/23/84

DUL NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.F. PRIORITY N CONTRACTOR U.S. Testing

CRL LOG NUMBER	SAMPLE DESCRIPTION	SEDIMENTS POLYCHLORINATED BIPHENYLS UG/G ✓ 3	SEDIMENTS CHLORINATED PESTICIDES UG/G ✓	SEDIMENTS HERBICIDES UG/G ✓	SEDIMENTS BROMINATED BIPHENYLS UG/G ✓
		PES3418748	PES3418848	PES3419848	PES3419948
84MC04532	E 7072	✓	✓	✓	✓
84MC04533	E 7073	✓	✓	✓	✓
84MC04534	E 7074	✓	✓	✓	✓

②

8 Case 2459
C48500

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

(1)

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAR LOGIN DATE 3/9/84 DUE DATE 3/23/84

DU NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.F. PRIORITY N CONTRACTOR Cal Analyt

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS IN WATER* TOTAL ICAP ✓ UG/L 2 MET11311	TOTAL METALS IN WATER* AS ✓ UG/L MET11361	TOTAL METALS IN WATER* SB ✓ UG/L MET113201	TOTAL METALS IN WATER* SE UG/L MET113211	TOTAL METALS IN WATER* TL UG/L MET113221
84MC04531	ME 1834	✓	✓	✓	✓	✓
84MC04R05	ME 1835	✓	✓	✓	✓	✓

Case 2459 C48500

(8)

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS 3 9

VISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB LOGIN [redacted] DATE [redacted]/84 DUE DATE 3/23/84

NUMBER Y905 DATABASE NUMBER 247 STUDY Ladiede Steel Company L.F. PRIORITY N CONTRACTOR Cal Analyt.

Case 2459
C48500
7

L LOG NUMBER	SAMPLE DESCRIPTION	SEDIMENTS SOLIDS TOTAL ICAP MG/KG (DRY WT.) MET413 3	SEDIMENTS SOLIDS TOTAL AA MG/KG (DRY WT.) MET423	SEDIMENTS SOLIDS AG MG/KG (DRY WT.) MET443	SEDIMENTS SOLIDS AS MG/KG (DRY WT.) MET463	SEDIMENTS SOLIDS CD MG/KG (DRY WT.) MET483
84MC04532	ME 2111	✓ 413	✓			
84MC04533	ME 2112	✓	✓			
84MC04534	ME 2113	✓	✓			

LOGIN SHEET FOR DATASET SF247 ON 3/26/84

STUDY : LACLEDE STEEL CO. L. F.
DU NUMBER : Y905
CONTRACTOR : NONE
ACTIVITY NO: C48500

DIVISION/BRANCH : SF
DESCRIPTION : HAZRD SUBS SPILL & SITE RESPON
LEVEL OF PRIORITY : NONE

FIRST SAMPLE NUMBER : 84MC04S31

LAST SAMPLE NUMBER : 84MC04S34

SAMPLING DATE : 2-22-84 LAB ARRIVAL DATE : 3-9-84 DUE DATE : 3-23-84

****

PARMETH CODE	AMT.REQUESTED		ANALYSES	PARAMETER	UNIT OF MEASURE
TOX9561	2	2	ACID-BASE NEUTRAL CPDS.	PRIORITY POLLUTANTS	UG/L
TOX95631	3	3	ACID-BASE NEUTRAL CPDS.	PRIORITY POLLUTANTS	MG/KG
TOX10561	2	2	VOLATILE ORGANIC ANALYSES	PRIORITY POLLUTANTS	UG/L
TOX105631	3	3	VOLATILE ORGANIC ANALYSES	PRIORITY POLLUTANTS	MG/KG
TOX2515444	4		TEAM LEADER	ANALYSES REVIEW	MAN HOURS
PES71911	2	2	WATER	POLYCHLORINATED BIPHENYS	UG/L
PES71801	2	2	WATER	CHLORINATED PESTICIDES	UG/L
PES71921	2	2	WATER	HERBICIDES	UG/L
PES71931	2	2	WATER	BROMINATED BIPHENYLS	UG/L
PES9017947	3	3	SEDIMENTS	POLYCHLORINATED BIPHENYLS	UG/G
PES9018047	3	3	SEDIMENTS	CHLORINATED PESTICIDES	UG/G
PES9019247	3	3	SEDIMENTS	HERBICIDES	UG/G
PES9019347	3	3	SEDIMENTS	BROMINATED BIPHENYLS	UG/G
PES2515444	8		TEAM LEADER	ANALYSES REVIEW	MAN HOURS
MET111	2	2	TOTAL METALS IN WATER	TOTAL ICAP	UG/L
MET161	2	2	TOTAL METALS IN WATER	AS	UG/L
MET1201	2	2	TOTAL METALS IN WATER	SB	UG/L
MET1211	2	2	TOTAL METALS IN WATER	SE	UG/L
MET1221	2	2	TOTAL METALS IN WATER	TL	UG/L
MET413	3	3	SEDIMENTS SOLIDS	TOTAL ICAP	MG/KG (DRY WT.)
MET423	3	3	SEDIMENTS SOLIDS	TOTAL AA	MG/KG (DRY WT.)
MET2515444	18	7	TEAM LEADER	ANALYSES REVIEW	MAN HOURS

Trans
4-18-84

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 4-18-84

SUBJECT: Review of Region V CLP Data
Received for Review on 3/23/84

FROM: Curtis Ross, Director
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME Laclede Steel Co. L.F. SMO Case No. 2459

EPA Data Set No. SF 247 No. of Samples 5 D.U./Activity Numbers Y9051 C48500

CRL No. 84MC04 S31 TO 84MC04 S34

SMO Traffic No. ME 1834 TO ME 2113

Contract Laboratory: Cal Analytical Hours Required for Review: 18

Following are our findings.

Contract regulations were adhered to for analyses. Quality was questioned on numerous over-range printouts for individual elements. A telephone call warranted explanation of reported values for same OVERRANGE. See attached memo. High levels of Fe in H_2O and soil samples affected Se duplicate [125.6] (soil) and spike (<10%) on both phases. Individual elements also affected in low spike recovery are Fe (soil 25.9%) and Cd (H_2O 72%). High spikes on Ba soil (148.9) and Sn (soil 137.8) as well as Sn (H_2O 149%). Soil sample spike was diluted five-fold, and may account for various high recoveries. Duplicates exceeded aimed-for RPD (20-25%) on soil for Se (125.6), Ag (60), Sn (56.4), Ba (34.8), Cd (55.7), Cu (62.2), Fe (32.6), Pb (98.7), Ni (111.8) and Zn (107.3). Water duplication exceeded 10-15% aimed for RPD only on Cr (22), Cu (18) and Ni (28.6). Dilution of highly polluted samples would have been more qualified. Note SAMPLE RESULT for Al on spike (H_2O) entered as 21866 while true sample is 21688 µg/l.

LM

(X) Data are acceptable for use.
( ) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Robert Pritchard, CLP/SMO

EPA FORM 1320-6 (REV 3-76)

SF 247

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 – Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
ME 1834
84MC0453

INORGANICS ANALYSIS DATA SHEET

LAB NAME Cal Lab
CASE NO. 2459
LAB SAMPLE ID. NO. P605
QC REPORT NO. 2459

CAL SAMPLE ID P605
TASK 1 UG/L

1. ALUMINIUM-------22000
2. CHROMIUM--------70
3. BARIUM----------1200
4. BERYLLIUM-------<5
5. COBALT----------<50
6. COPPER----------87
7. IRON------------62000
8. NICKEL----------64
9. MANGANESE-------4900
10. ZINC------------3500
11. VANADIUM--------<200
12. SILVER----------<10

TASK 2

1. ARSENIC---------61
2. ANTIMONY--------<20
3. SELENIUM--------<2
4. THALLIUM--------<10
5. MERCURY---------<0.2
6. TIN-------------<20
7. CADMIUM---------7.2
8. LEAD------------300

TASK 3

1. AMMONIA---------N/A
2. CYANIDE---------N/A
3. SULFIDE---------N/A

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 – Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
ME 1835
84MC04R05

INORGANICS ANALYSIS DATA SHEET

LAB NAME Cal Lab
CASE NO. 2459
LAB SAMPLE ID. NO. P606
QC REPORT NO. 2459

CAL SAMPLE ID P606
TASK 1 UG/L

1. ALUMINIUM-------<200
2. CHROMIUM--------<10
3. BARIUM----------<100
4. BERYLLIUM-------<5
5. COBALT----------<50
6. COPPER----------59
7. IRON------------72
8. NICKEL----------<40
9. MANGANESE-------<15
10. ZINC------------54
11. VANADIUM--------<200
12. SILVER----------<10

TASK 2

1. ARSENIC---------<10
2. ANTIMONY--------<20
3. SELENIUM--------8.8
4. THALLIUM--------<10
5. MERCURY---------<0.2
6. TIN-------------<20
7. CADMIUM---------<1
8. LEAD------------14

TASK 3

1. AMMONIA---------N/A
2. CYANIDE---------N/A
3. SULFIDE---------N/A

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 — Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
ME 2111
84MC04S32

INORGANICS ANALYSIS DATA SHEET

LAB NAME Cal Lab
CASE NO. 2459
LAB SAMPLE ID. NO. P607
QC REPORT NO. 2459

CAL SAMPLE ID P607
TASK 1 MG/KG

1. ALUMINIUM-------12000
2. CHROMIUM--------1800
3. BARIUM----------320
4. BERYLLIUM-------2300
5. COBALT----------<2.5
6. COPPER----------170
7. IRON----------140000
8. NICKEL----------75
9. MANGANESE-------34000
10. ZINC----------3700
11. VANADIUM--------380
12. SILVER----------1.3

TASK 2

1. ARSENIC---------20
2. ANTIMONY--------<1
3. SELENIUM--------0.35
4. THALLIUM--------<0.5
5. MERCURY---------<0.1
6. TIN----------10
7. CADMIUM---------16
8. LEAD----------280

TASK 3

1. AMMONIA---------N/A
2. CYANIDE---------N/A
3. SULFIDE---------N/A

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 – Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
ME 2113
84MC04534

INORGANICS ANALYSIS DATA SHEET

LAB NAME Cal Lab
CASE NO. 2459
LAB SAMPLE ID. NO. P609
QC REPORT NO. 2459

CAL SAMPLE ID P609
TASK 1 MG/KG

1. ALUMINIUM-------5000
2. CHROMIUM--------42
3. BARIUM----------150
4. BERYLLIUM-------<0.25
5. COBALT----------<2.5
6. COPPER----------39
7. IRON----------10000
8. NICKEL----------13
9. MANGANESE-------500
10. ZINC----------1000
11. VANADIUM--------11
12. SILVER----------<0.5

TASK 2

1. ARSENIC---------11
2. ANTIMONY--------<1
3. SELENIUM--------0.22
4. THALLIUM--------<0.5
5. MERCURY---------2.2
6. TIN----------1.8
7. CADMIUM---------2.1
8. LEAD----------150

TASK 3

1. AMMONIA---------N/A
2. CYANIDE---------N/A
3. SULFIDE---------N/A

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 – Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
ME 2112
84MC04533

INORGANICS ANALYSIS DATA SHEET

LAB NAME Cal Lab
CASE NO. 2459
LAB SAMPLE ID. NO. P608
QC REPORT NO. 2459

CAL SAMPLE ID P608
TASK 1 MG/KG

1. ALUMINIUM-------4100
2. CHROMIUM--------43
3. BARIUM----------100
4. BERYLLIUM-------<0.25
5. COBALT----------<2.5
6. COPPER----------49
7. IRON------------11000
8. NICKEL----------15
9. MANGANESE-------650
10. ZINC------------1050
11. VANADIUM--------14
12. SILVER----------<0.5

TASK 2

1. ARSENIC---------8.5
2. ANTIMONY--------<1
3. SELENIUM--------0.4
4. THALLIUM--------<0.5
5. MERCURY---------<0.1
6. TIN-------------1.8
7. CADMIUM---------3.3
8. LEAD------------170

TASK 3

1. AMMONIA---------N/A
2. CYANIDE---------N/A
3. SULFIDE---------N/A

In Reference to Case No(s):
2459

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 13 Apr 84

Laboratory: CAL

Lab Contact: ~~Bonnie McNeill~~, Mark Masino

Region: V

Regional Contact: JV Morris

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

ME 2111, ME 2112

Summary of Questions/Issues Discussed:

1) Validity of ICP results marked OVERRANGE in the raw data, and validity of interelement corrections on minor constituents of these samples.
2) Reason for rerun of individual elements on blanks and other samples

Summary of Resolution:

1) OVERRANGE is a designation that the software system of the IL 100 makes when the sample is 110% of the standard or greater for that channel. Data is valid to top of linear range, which is determined quarterly. Standards are chosen at 60–80% of linear range normally. Data are valid
2) rerun of individual elements is software glitch when three integrations don't add up.

Protocols are comparable to CRL protocols.

Signature: John V. Morris Date: 13 Apr 84

(1) Lab Copy (2) Region Copy (3) SMO Copy

California Analytical Laboratories, Inc.
2544 Industrial Boulevard • West Sacramento, CA 95691 • (916) 372-1393

SF247

RECEIVED
MAR 22 1984
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

Cal Lab: P605-P609
Received: 2-23-84
Contract: 68-01-6810
QC Report # 2459

March 20, 1984

Dr. Fred Haeberer
US. EPA
401 M Street
Washington, DC 20460

Dear Dr. Haeberer:

Enclosed please find data and quality assurance summary sheets for samples and QA/QC comprising case 2459 of contract 68-01-6810. These samples were received February 23, 1984 and logged under Cal Lab numbers P605 through P609.

Cal Lab Number	Sample Identification		Task
P605	ME1834	low water	1 & 2
P606	ME1835	low water	1 & 2
P607	ME2111	low soil	1 & 2
P608	ME2112	low soil	1 & 2
P609	ME2113	low soil	1 & 2

DATA REVIEW: Please review the spiked recovery limits form for elements that were not within control limits.

If you have any questions, please do not hesitate to have SMO contact us.

Sincerely yours,

Mark Masino
Director of Inorganic Services

Anthony S. Wong, PhD
Vice President
Research and Analytical Services

This report is for the sole and exclusive use of the client to whom it is addressed.
Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

(1)

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB LOGIN DATE 3/9/84 DUE DATE 3/23/84

DU NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.F. PRIORITY N CONTRACTOR Cal Analyt

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS IN WATER* TOTAL ICAP UG/L MET11311	TOTAL METALS IN WATER* AS UG/L MET11361	TOTAL METALS IN WATER* SB UG/L MET113201	TOTAL METALS IN WATER* SE UG/L MET113211	TOTAL METALS IN WATER* TL UG/L MET113221
84MC04531	ME 1834	✓	✓	✓	✓	✓
84MC04R05	ME 1835	✓	✓	✓	✓	✓

2

Case 2459
C48500

(8)

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

VISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB [redacted] DATE [redacted]/84 DUE DATE 3/23/84

NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.F. PRIORITY N CONTRACTOR Cal Analyt.

Case 2459
C48500
7

L LOG NUMBER	SAMPLE DESCRIPTION	SEDIMENTS SOLIDS TOTAL ICAP MG/KG (DRY WT.) MET413 3	SEDIMENTS SOLIDS TOTAL AA MG/KG (DRY WT.) MET423	SEDIMENTS SOLIDS AG MG/KG (DRY WT.) MET443	SEDIMENTS SOLIDS AS MG/KG (DRY WT.) MET463	SEDIMENTS SOLIDS CD MG/KG (DRY WT.) MET483
84MC04532	ME 2111	✓	✓			
84MC04533	ME 2112	✓	✓			
84MC04534	ME 2113	✓	✓			

INSTRUMENT DETECTION LIMITS
ICP/AA/FLAME AA

	µg/L, ppb
Aluminum	67
Barium	2.7
Boron	15.0
Zinc	8.2
Cadmium	0.2
Lead	2.0
Cobalt	10.5
Nickel	8.4
Iron	10
Manganese	4.6
Chromium	5.4
Vanadium	12.8
Beryllium	0.8
Copper	6.3
Silver	4.0
Arsenic	2.5
Selenium	0.75
Antimony	5.0
Mercury	0.1
Tin	5.0
Thallium	2.0

INORGANICS QUALITY ASSURANCE

CASE #: 2459
OF SAMPLES: 5
LAB: CAL ANALYTICAL

QC REPORT #: 2459
DATE: 3/20/84
BATCH #:

TASK I/INDUCTIVELY COUPLED PLASMA

EPA CASE# 2459		AL (UG/L)	CR (UG/L)	BA (UG/L)	BE(UG/L)	CD (UG/L)	CO (UG/L)	CU (UG/L)	FE (UG/L)	PB (UG/L)	NI (UG/L)	MN (UG/L)	ZN (UG/L)	V (UG/L)
REF STD	FOUND	2016	2099	2053	1999	2052	2075	2085	2047	1975	2051	1989	2016	2140
SOURCE:	TRUE	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
SPEX	% RECOVERY	100.8	105	102.7	100	102.6	103.8	104.3	102.4	98.8	102.6	99.5	100.8	107
BK VALUE	RESULTS	<100	<5	<50	<2.5		<25	<25	<25		<20	<7.5	<5	<100
PREP BK#1	RESULTS	<100	<5	<50	<2.5		<25	<25	<25		<20	<7.5	<5	<100
PREP BK#2	RESULTS	<100	<5	<50	<2.5		<25	<25	<25		<20	<7.5	<5	<100
STD SOL 1	FOUND	1911	2063	2067	1921	2050	2057	2004	2073	1978	2049	1926	2033	2075
SOURCE:	TRUE	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
SPEX	% RECOVERY	95.6	103.2	103.4	96.1	102.5	102.9	100.2	103.7	98.9	102.5	96.3	101.7	103.8
STD SOL 2	FOUND	1917	2045	1982	1983	1988	2000	2015	1999	1888	1994	1912	2206	2096
SOURCE:	TRUE	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
SPEX	% RECOVERY	95.9	102.3	99.1	99.2	99.4	100	100.8	100	94.4	99.7	95.6	110.3	104.8
STD SOL 3	FOUND													
SOURCE	TRUE													
	% RECOVERY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STD SOL 4	FOUND													
SOURCE:	TRUE													
	% RECOVERY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DUPLI #1	SAMPLE RESULT	21688	70	1156	<5		<50	87	62100	300	64	4937	3499	<200
SAMPLE #:	DUPLICATE RESULT	22620	56	1219	<5		<50	104	64100	321	48	4586	3383	<200
P605	RPD %	4.2	22.2	5.3	0	N/A	0	17.8	3.2	6.8	28.6	7.4	3.4	0
ME1834														
DUPLI #2	SAMPLE RESULT	231500	36612	6386	45	319	<50	3429	2738000	5510	1507	671000	73949	7575
SAMPLE #:	DUPLICATE RESULT	280900	37300	9076	55	180	<50	1803	1971000	1869	426	745000	22300	9176
P607	RPD %	19.3	1.9	34.8	20	55.7	0	62.2	32.6	98.7	111.8	10.5	107.3	19.1
ME2111														
SPIKE #1	SAMPLE RESULT	21866	70	1156	<5		<50	87	62100	300	64	4937	3499	<200
SAMPLE #:	SPIKE RESULT	56600	185	3369	96		502	609	150300	851	442	13500	10289	2132
P605	SPIKE ADDED	43000	100	2300	100		500	500	100000	500	400	10000	7000	2000
ME1834	% RECOVERY	80.8	115	96.2	96	N/A	100	104.4	88.2	110.2	94.5	85.6	97	107
SPIKE #2	SAMPLE RESULT	231500	36612	6386	45	319	<50	3429	2738000	5510	1507	671000	73949	7575
SAMPLE #:	SPIKE RESULT	660000	107500	25000	505	2800	2500	10625	2867500	15205	4575	1115000	235000	23310
P607	SPIKE ADDED	450000	70000	12500	500	2500	2500	7000	500000	11000	3000	500000	150000	15000
ME2111	% RECOVERY	95.2	101.3	148.9	92	99.2	100	102.8	25.9	88.1	102.3	88.8	107.4	104.9

INORGANICS QUALITY ASSURANCE

CASE #: 2459 QC REPORT #: 2459

OF SAMPLES: 5 DATE: 3/20/84

LAB: CAL ANALYTICAL BATCH #:

TASK II/FLAMELESS ATOMIC ABSORPTION

EPA CASE# 2459		AG(UG/L)	AS(UG/L)	SB(UG/L)	SE(UG/L)	SN(UG/L)	TL(UG/L)	CD(UG/L)	PB(UG/L)	HG(UG/L) *
REF STD	FOUND	26	60	104	29.2	92	78	5.7	52	3
SOURCE:	TRUE	24	60	97.5	30	100	80	6.5	60	3
EPA	% RECOVERY	108.3	100	106.7	97.3	92	97.5	87.7	87	100
BK VALUE	RESULTS	<5	<5	<10	<1	<10	<5	<0.5	<2.5	<0.1
PREP BK#1	RESULTS	<5	<5	<10	<1	<10	<5	<0.5	<2.5	<0.1
PREP BK#2	RESULTS	<5	<5	<10	<1	<10	<5	<0.5	<2.5	<0.1
STD SOL 1	FOUND	76	65	101	17.8	98	75	4.6	51	0.95
SOURCE:	TRUE	70	60	100	20	100	80	5	50	1
EPA	% RECOVERY	108.6	108.3	101	89	98	93.8	92	102	95
STD SOL 2	FOUND	77	61	107	18	103	75	4.8	54	0.95
SOURCE:	TRUE	70	60	100	20	100	80	5	50	1
EPA	% RECOVERY	110	101.7	107	90	103	93.8	96	108	95
STD SOL 3	FOUND									
SOURCE	TRUE									
	% RECOVERY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STD SOL 4	FOUND									
SOURCE:	TRUE									
	% RECOVERY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DUPLI #1	SAMPLE RESULT	<10	60.7	<20	<2	<20	<10	7.2		<0.2
SAMPLE #:	DUPLICATE RESULT	<10	55.7	<20	<2	<20	<10	7.4		<0.2
P605	RPD %	0	8.6	0	0	0	0	2.7	SEE ICP	0
ME1834										
DUPLI #2	SAMPLE RESULT	26	392	<20	7	209	<10			<0.2
SAMPLE #:	DUPLICATE RESULT	14	399	<20	1.6	117	<10			<0.2
P607	RPD %	60	1.8	0	125.6 △	56.4	0	SEE ICP	SEE ICP	0
ME2111										
SPIKE #1	SAMPLE RESULT	<10	60.7	<20	<2	<20	<10	7.2		<0.2
SAMPLE #:	SPIKE RESULT	100	218	200	<2	298	92	14.4		1.77
P605	SPIKE ADDED	100	200	200	20	200	100	10		2
ME1834	% RECOVERY	100	78.7	100	<10	149	92	72 ▽	SEE ICP	89
SPIKE #2	SAMPLE RESULT	26	392	<20	7	209	<10			<0.2
SAMPLE #:	SPIKE RESULT	124	1260	224	<2	760	84			1.77
P607	SPIKE ADDED	100	800	200	20	400	100			2
ME2111	% RECOVERY	98	108.5	112	<10	137.8	84	SEE ICP	SEE ICP	89
					▽	△				

* Hg - Cold Vapor AA

SPIKED SAMPLE RECOVERY LIMITS

CASE NO. 2459

ANALYSIS METHOD	INORGANIC SPECIES	QC LIMITS	OUTSIDE LIMITS	COMMENTS
ICP	Aluminum	80-120		
	Barium	80-120		
	Beryllium	80-120		
	Chromuim	80-120		
	Cobalt	80-120		
	Copper	80-120		
	Iron	80-120	25.9	High Fe conc. in the sample
	Manganese	80-120		
	Nickel	80-120		
	Silver	80-120		
	Vanadium	80-120		
	Zinc	80-120		
AA	Arsenic	75-125		
	Antimony	75-125		
	* Cadmium	75-125	72	Interference / matrix
	Lead	75-125		
	Mercury	75-125		
	* Selenium	75-125	<10	are above
	Thallium	75-125		
	* Tin	75-125	149, 138	are above
Other Analyses	Ammonia	80-120		
	Cyanide	80-120		
	Sulfide	80-120		

* An additional spike was made

_____ All spikes within QC limits.

Approved [signature] Date 3-20-84

[illegible] 3/19/84

5=247

06/A

INORGANICS TRAFFIC REPORT

Sample Number
ME 1834

① Case Number: 2459
Sample Site Name/Code:

② SAMPLE CONCENTRATION
(Check One)
___ Low Concentration
___ Medium Concentration

③ SAMPLE MATRIX
(Check One)
✓ Water
___ Soil/Sediment

④ Ship To: MAR - 7 1984
California Analytical Laboratories
2544 Industrial Blvd
West Sacramento CA 95691
Attn: Bonnie McNeil

Transfer
Ship To:

⑤ Sampling Office: Z
Sampling Personnel:
(Name) Dan Cozza
(Phone) 312 663-9415
Sampling Date:
(Begin) 2-22-84 (End) —

⑥ Shipping Information:
Name Of Carrier: Federal Express
Date Shipped: 2-22-84
Airbill Number: 012220633

⑨ ANALYSIS LAB:
Recd by: [illegible]
Date Recd: 2/23/84

⑦ Sample Description:
(Check One)
___ Surface Water
✓ Ground Water
___ Leachate
___ Mixed Media
___ Solids
___ Other Well B-4 (specify) TE 7/105
MATCHES ORGANIC SAMPLE NO. ___

⑧ Mark Volume Level
On Sample Bottle
Check Analysis required
✓ Task 1 & 2
___ Task 3 Ammonia
Sulfide
Cyanide

⑩ Sample Condition
On Receipt:
(eg. broken, leakage, chain of custody, etc.)
Samples received in good condition - Chain of Custody received - TRi received - Docume agree.

LAB COPY FOR RETURN TO SMO

INORGANICS TRAFFIC REPORT

Sample Number
ME 1835

MAR -7 1984

(1) Case Number: 2459
Sample Site Name/Code:

(2) SAMPLE CONCENTRATION
(Check One)
✓ Low Concentration
___ Medium Concentration

(3) SAMPLE MATRIX
(Check One)
✓ Water
___ Soil/Sediment

(4) Ship To: California Analytical Labs
2544 Industrial Blvd
West Sacramento CA 95691
Attn: Bonnie McNeil
Transfer Ship To:

(5) Sampling Office: K
Sampling Personnel:
(Name) D Carr
(Phone) 312-663-9415
Sampling Date:
(Begin) 2-22-84 (End) ✓

(6) Shipping Information:
Name Of Carrier: Federal Express
Date Shipped: 2-22-84
Airbill Number: 012220633

(9) ANALYSIS LAB:
Recd by: [signature]
Date Recd: 2/23/84

(7) Sample Description:
(Check One)
___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
___ Solids
✓ Other Blank
(specify) E 7071
MATCHES ORGANIC SAMPLE NO. ___

(8) Mark Volume Level On Sample Bottle
Check Analysis required
✓ Task 1 & 2
___ Task 3 Ammonia
Sulfide
Cyanide

(10) Sample Condition On Receipt:
(eg. broken, leakage, chain of custody, etc.)
OK

LAB COPY FOR RETURN TO SMO

U.S. ENVIRONMENTAL PROTECTION AGENCY

INORGANICS TRAFFIC REPORT

Sample Number
ME 2111

(1) Case Number: 2459
Sample Site Name/Code:

(2) SAMPLE CONCENTRATION
(Check One)
✓ Low Concentration
___ Medium Concentration

(3) SAMPLE MATRIX
(Check One)
___ Water
✓ Soil/Sediment

(4) Ship To: MAR -7 1984
California Analytical Lab
2544 Industrial Blvd
West Sacramento, California 95691
Attn: Bonnie McNeil
Transfer Ship To:

(5) Sampling Office: IV
Sampling Personnel:
(Name) D. Cozza
(Phone) 212 663 9475
Sampling Date:
(Begin) 2-22-84 (End)

(6) Shipping Information:
Name Of Carrier: Federal Express
Date Shipped: 2-22-84
Airbill Number: 012220633

(9) ANALYSIS LAB:
Recd by: [signature]
Date Recd: 2/23/84

(7) Sample Description:
(Check One)
___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids mid stream
___ Other Drainage Ditch
(specify)
MATCHES ORGANIC SAMPLE NO. E7092

(8) Mark Volume Level On Sample Bottle
Check Analysis required
✓ Task 1 & 2
___ Task 3 Ammonia
Sulfide
Cyanide

(10) Sample Condition On Receipt:
(eg. broken, leakage, chain of custody, etc.)
OK

LAB COPY FOR RETURN TO SMO

U.S. ENVIRONMENTAL PROTECTION AGENCY HWIS Emergency Response

INORGANICS TRAFFIC REPORT

Sample Number
ME 2112

(1) Case Number: 2459
Sample Site Name/Code:

(2) SAMPLE CONCENTRATION
(Check One)
✓ Low Concentration
___ Medium Concentration

(3) SAMPLE MATRIX
(Check One)
___ Water
✓ Soil/Sediment

(4) Ship To: California Analytical Lab
2544 Industrial Blvd
West Sacramento California
95691
Attn: Bonnie McNeil

MAR 07 1984

Transfer
Ship To:

(5) Sampling Office: IV

Sampling Personnel:
(Name) D. Cozza
(Phone) 312-663-9413
Sampling Date:
(Begin) 2-22-84 (End)

(6) Shipping Information:
Name Of Carrier: Federal Express
Date Shipped: 2-22-84
Airbill Number: 012220633

(9) ANALYSIS LAB:
Recd by: [signature]
Date Recd: 2/23/84

(7) Sample Description:
(Check One)
___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids upstream
___ Other Drainage D. Ch
(specify) E7073
MATCHES ORGANIC SAMPLE NO.

(8) Mark Volume Level
On Sample Bottle
Check Analysis required
✓ Task 1 & 2
___ Task 3 Ammonia
Sulfide
Cyanide

(10) Sample Condition
On Receipt:
(eg. broken, leakage, chain of custody, etc.)
OK

LAB COPY FOR RETURN TO SMO

U.S. ENVIRONMENTAL PROTECTION AGENCY HWI Sample Management Office

INORGANICS TRAFFIC REPORT

Sample Number
ME 2113

MAR - 7 1984

(1) Case Number: 2459
Sample Site Name/Code:

(2) SAMPLE CONCENTRATION
(Check One)
✓ Low Concentration
___ Medium Concentration

(3) SAMPLE MATRIX
(Check One)
___ Water
✓ Soil/Sediment

(4) Ship To: California Analytical Labs
2544 Industrial Blvd
West Sacramento CA 95691
Attn: Bonnie McNeil

Transfer
Ship To:

(5) Sampling Office: V

Sampling Personnel:
(Name) D. Cotter
(Phone) 312 663 9415
Sampling Date:
(Begin) 2-22-84 (End)

(6) Shipping Information:
Name Of Carrier: Federal Express
Date Shipped: 2-22-84
Airbill Number: 012220633

(9) ANALYSIS LAB:
Recd by: Paula Pederson
Date Recd: 2/28/84

(10) Sample Condition On Receipt:
(eg. broken, leakage, chain of custody, etc.)
OK

(7) Sample Description:
(Check One)
___ Surface Water
___ Ground Water
___ Leachate
___ Mixed Media
✓ Solids Downstream
___ Other Drainage Ditch
(specify)
MATCHES ORGANIC SAMPLE NO. C7074

(8) Mark Volume Level On Sample Bottle
Check Analysis required
✓ Task 1 & 2
___ Task 3 Ammonia
Sulfide
Cyanide

LAB COPY FOR RETURN TO SMO

Chem Dyne

ACUREX Corporation

DEC 09

Energy & Environmental Division
415-964-3200

December 8, 1983

RECEIVED
MAR 20 1984
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

Sample Management Office
300 North Lee Street
Suite 200
Alexandria, VA 22314

Attention: Dick Thacker

Subject: TCDD Analysis, Case 735S

Enclosed please find a partial data package for soil samples (S-2241, S-2242, S-2242D, S-2244, MB) from Case 735S. Also enclosed are the results for soil samples S-2240, S-2243, S-2245, A-2246, S-2247, S-2248, which have been analyzed following extraction and cleanup procedure A. Since the results indicate no recovery of either internal standard or surrogate, we are in the process of repeating the analysis following sample reextraction and cleanup using cleanup procedures C and A.

Please note the following:

- Source of standards used in quantitation is given in the attached Table.
- Regarding RRF for the native TCDD, we have checked all calculations and found no errors in making the stock solutions for ^{13}C-TCDD, and native TCDD.

Sincerely yours,

Viorica Lopez Avila

Viorica Lopez-Avila Ph.D.
Technical Director

VLA/mcr
attachments

DEC 09 1984

Source of Standards

Material	Source	Lot	Purity
2,3,7,8-TCDD	EPA-LV (7.87 μg/mL)	NA	NA
2,3,7,8-TCDD	Supelco (10 μg/mL)	LA-11412	NA
$^{13}C_{12}$-2,3,7,8-TCDD	Kor	J-2-70	98
$^{37}Cl_4$-2,3,7,8-TCDD	Kor	SSY-6-123	94

NA - Not available

DEC 09

CALIBRATION SUMMARY (10/12/83)

Native TCDD	RRF (Native)	Date	RRF Surrogate
1.0	1.7806	10/14	1.2960
5.0	1.5091	10/14	1.2935
25.0	1.5393	10/14	a

RRF_{Native} = 1.6097
S = 0.1488
% RSD = 9.2

$RRF_{Surrogate}$ = 1.2948
S = 0.0018
% RSD = 0.1

a - ^{37}Cl-TCDD not scanned for in the high level standard

DEC 0 9 1983

CALIBRATION SUMMARY (12/03/83)

µg/Kg* Native TCDD	RRF (Native)	Date	RRF (Surrogate)
1.0	2.094	12/3	1.087
5.0	2.127	12/3	1.087
25.0	2.426	12/3	1.182[a]
	RRF = 2.216		RRF = 1.119
	S = 0.182		S = 0.055
	% RSD = 8.2		% RSD = 4.9
1.0	2.113	12/4	1.229

a - High level standard contains only 300 pg/µL ^{37}Cl-TCDD

* Assumes 10 g sample

(Mass Chromatograms Attached)

TCDD Data Report

ab: Acurex

ase: 735 S

Date: December 7, 1983

GC Column: CP Sil 88 for 12/3
SP 2330 for 10/14

ample umber	Extraction Method	Cleanup Option	Grams Net Weight	PPB TCDD	D.L.	Analytical Date	Analytical Time	320/322	332/334	Surrogate Percent Accuracy	320	322	257	328+	332	334	Comments
ethod lank(MB)	J			ND	0.1	10-14	18:54	--	0.83	88	ND	ND	ND	85728	84966	102182	
-2241	J		10.0	ND	0.1	10-14	20:31	--	0.81	61	ND	ND	ND	50276	71458	88120	
-2242	J		10.0	ND	0.4	10-14	21:45	--	0.81	81	ND	ND	ND	57624	61138	75416	
-2242D	J	A	10.0	ND	0.1	12-3	18:49	--	0.77	104	ND	ND	ND	93520	87220	113068	
-2244	J	A	10.0	ND	0.4	12-4	5:28	--	0.77	121	ND	ND	ND	71095	57182	73972	

+ = Corrected for contribution by native TCDD (subtract 0.009 of m/e 322)

ND = Not detected

J = Jar

DEC 0 9 1983

ACUREX Corporation

Energy & Environmental Division

April 10, 1984

RECEIVED
APR 11 1984
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

USEPA Region V
536 South Clark Street
Tenth Floor, CRL
Chicago, Illinois 60605

Attention: Marsha Kuehl

Subject: Case 735S

Dear Ms. Kuehl:

Enclosed please find the raw data for Case 735S (S-2240; S-2242; S-2244) which you requested.

Sincerely,

Viorica Lopez-Avila, Ph.D.
Technical Director

VLA/ats

Enclosures

555 Clyde Avenue, P.O. Box 7555, Mountain View, CA 94039 (415) 964-3200 Telex: 34-6391 TWX: 910-7796593

* Will 2459 *

EPA Case # 2404, 2364
2398, 2403
2428, 2459
2389 [redacted]

Sample, Dup + Spike only

P 100 120588-04 Rev 1 27 FEB 84

SAMPLE	OPERATOR	PWR	TIME	NAME
CAL	0004	4	08:37:50	INORGANICS 11/83

EL	NM	CH	SEC
AL	308.22	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	363	0	0
1	24856	20000	19998
23	2767	1963	1998

-1 417 -418 0

EL	NM	CH	SEC
AL	226.34	A	1.0

B#	INTENSITY	RAW-CONC	CONC
99	-27	0.0d	0.0
51	52974	1000.0	999.9
50	5499	104.2	99.9

0 -451 450 0

EL	NM	CH	SEC
CR	267.71	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	-76	0	0
1	112110	10000	9999
23	11897	1067	999

0 -710 709 0

EL	NM	CH	SEC
BA	455.40	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	-316	0	0
1	501948	10000	9998
23	50593	1013	998

-1 -144 143 0

EL	NM	CH	SEC
FE	234.35	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	54	0d	0
1	55107	20000	19997
23	5714	2056	1998

EL NM CH SEC
FE 234.35 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	54	0d	0
1	55107	20000	19997
23	5714	2056	1998

-1 -612 610 0

EL NM CH SEC
FE 373.48 A 1.0

B#	INTENSITY	RAW-CONC	CONC
99	62	0.0d	0.0
51	191556	1000.0	999.8
50	19789	102.9	99.7

-1 -328 327 0

EL NM CH SEC
BE 313.11 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	2889	0	0
1	673096	2000	2000
23	70053	200	200

0 0 0 0

EL NM CH SEC
CD 226.50 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-7	0d	0
1	84932	10000	9998
23	8675	1021	998

-1 -230 229 0

EL NM CH SEC
CO 230.79 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	85	0d	0
1	30144	10000	9998
23	3153	1020	998

-1 -219 218 0

EL NM CH SEC
CU 327.40 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-179	0d	0
1	40483	10000	9998
23	3997	1027	998

-1 -295 294 0

EL NM CH SEC
PB 220.35 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-32	0.000d	0.000
1	4140	10.000	9.998
23	389	1.009	0.999

0 -102 100 0

EL NM CH SEC

EL NM CH SEC
NI 231.60 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	153	0d	0
1	29867	10000	9998
23	3154	1009	999

0 -102 100 0

EL NM CH SEC
MN 257.61 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	228	0d	0
1	626163	10000	9998
23	64217	1021	998

-1 -230 229 0

EL NM CH SEC
MN 344.19 A 1.0

B#	INTENSITY	RAW-CONC	CONC
99	6595	0.0d	0.0
51	45566	100.0	99.9
50	10682	10.4	9.9

0 -43 42 0

EL NM CH SEC
ZN 206.20 A 1.0

B#	INTENSITY	RAW-CONC	CONC
99	49	0d	0
1	12653	10000	9999
23	1311	1001	999

0 -12 11 0

EL NM CH SEC
ZN 213.86 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	328	0	0
24	8675	1000	999
25	1069	88	99

0 147 -148 0

EL NM CH SEC
V 310.23 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	2740	0	0
1	139965	10000	9998
23	16003	966	999

-1 392 -393 0

EL NM CH SEC
AG 328.07 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	872	0	0
1	59998	10000	9998
23	6383	931	999

-1 820 -821 0

V	310.23	A	[illegible]	[illegible]
BE	313.11	A	693907	2062
BE	313.11	A	700481	2081
BE	313.11	A	697192	2071
CU	327.40	A	9032	2212
CU	327.40	A	8965	2195
CU	327.40	A	8985	2200
AG	328.07	A	12375	2072
AG	328.07	A	12348	2067
AG	328.07	A	12446	2084
MN	344.19	A	7448	2.0
MN	344.19	A	7461	2.1
MN	344.19	A	7448	2.0

Reference Standard

P 100 120588-04 Rev 1 27 FEB 84

SAMPLE	OPERATOR	PWR	TIME	NAME
1	0004	4	08:48:48	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	2079	PPB	35.5	1.70	2.0
AL	226.34	A	2.0d	PPM	0.10	5.00	1.0
CR	267.71	A	2102	PPB	7.9	0.37	2.0
BA	455.40	A	2074	PPB	17.5	0.84	2.0
FE	234.35	A	2097	PPB	16.7	0.79	2.0
FE	373.48	A	1.5	PPM	0.40	26.66	1.0
BE	313.11	A	2071	PPB	9.5	0.45	2.0
CD	226.50	A	2046	PPB	10.1	0.49	2.0
CO	230.79	A	2054	PPB	17.6	0.85	2.0
CU	327.40	A	2202	PPB	8.7	0.39	2.0
PB	220.35	A	2.056	PPM	0.0673	3.26	2.0
NI	231.60	A	2100	PPB	31.0	1.47	2.0
MN	257.61	A	2019	PPB	18.6	0.92	2.0
MN	344.19	A	2.0	PPM	0.07	3.50	1.0
ZN	206.20	A	2069	PPB	8.3	0.39	1.0
ZN	213.86	A	OVRANGE	PPB	2.3	0.13	2.0
V	310.23	A	2125	PPB	19.9	0.93	2.0
AG	328.07	A	2074	PPB	8.7	0.41	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	99623	511.5
FE	373.48	A	99896	512.9
FE	373.48	A	99940	513.1
ZN	206.20	A	1303	992
ZN	206.20	A	1303	992
ZN	206.20	A	1285	978
ZN	213.86	A	8576	988
ZN	213.86	A	8489	978
ZN	213.86	A	8544	984
PB	220.35	A	567	1.422
PB	220.35	A	598	1.496
PB	220.35	A	578	1.449
AL	226.34	A	5917	107.6
AL	226.34	A	5979	108.7
AL	226.34	A	5888	107.0

V	310.23	A	[illegible]	[illegible]
V	310.23	A	16064	1003
V	310.23	A	16185	1012
BE	313.11	A	332288	982
BE	313.11	A	328776	972
BE	313.11	A	328694	972
CU	327.40	A	4299	1071
CU	327.40	A	4274	1064
CU	327.40	A	4312	1073
AG	328.07	A	6266	978
AG	328.07	A	6288	983
AG	328.07	A	6273	980
MN	344.19	A	6828	0.4
MN	344.19	A	6818	0.4
MN	344.19	A	6857	0.5

Interference Standard

P 100 120588-04 Rev 1 27 FEB 84

SAMPLE	OPERATOR	PWR	TIME	NAME
2	0004	4	08:58:30	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	194.2	0.17	2.0
AL	226.34	A	107.7	PPM	0.86	0.79	1.0
CR	267.71	A	973	PPB	14.1	1.44	2.0
BA	455.40	A	1004	PPB	4.9	0.48	2.0
FE	234.35	A	OVRANGE	PPB	ERROR		2.0
FE	373.48	A	512.5	PPM	0.87	0.16	1.0
BE	313.11	A	975	PPB	5.7	0.58	2.0
CD	226.50	A	1004	PPB	4.0	0.39	2.0
CO	230.79	A	946	PPB	6.0	0.63	2.0
CU	327.40	A	1069	PPB	4.7	0.43	2.0
PB	220.35	A	0.992	PPM	0.0374	2.57	2.0
NI	231.60	A	980	PPB	8.1	0.82	2.0
MN	257.61	A	987	PPB	1.0	0.10	2.0
MN	344.19	A	0.4	PPM	0.07	17.50	1.0
ZN	206.20	A	984	PPB	8.0	0.81	1.0
ZN	213.86	A	978	PPB	5.0	0.50	2.0
V	310.23	A	1008	PPB	4.7	0.46	2.0
AG	328.07	A	980	PPB	2.5	0.25	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	180	0.3
FE	373.48	A	82	0.0
FE	373.48	A	107	0.0
ZN	206.20	A	66	12
ZN	206.20	A	66	12
ZN	206.20	A	49	0
ZN	213.86	A	416	11
ZN	213.86	A	434	13
ZN	213.86	A	429	13
PB	220.35	A	-27	0.010
PB	220.35	A	-20	0.027
PB	220.35	A	-44	-0.029
[illegible]	[illegible]	A	-5	0.3

BE	313.11	A	2730	0
CU	327.40	A	-78	22
CU	327.40	A	-82	21
CU	327.40	A	-37	31
AG	328.07	A	739	-25
AG	328.07	A	694	-34
AG	328.07	A	741	-25
MN	344.19	A	6523	-0.2
MN	344.19	A	6569	-0.1
MN	344.19	A	6547	-0.2

2389
2459
To be used for 2428
2404 P. BLK 1

P 100 120588-04 Rev 1 27 FEB 84

SAMPLE	OPERATOR	PWR	TIME	NAME
3	0004	4	09:10:33	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	30	PPB	20.3	67.66	2.0
AL	226.34	A	0.1d	PPM	0.15	150.00	1.0
CR	267.71	A	-2d	PPB	4.1	205.00	2.0
BA	455.40	A	-1	PPB	0.7	70.00	2.0
~~FE~~	~~234.35~~	~~A~~	~~-45~~	~~PPB~~	~~1.8~~	~~1.50~~	~~2.0~~
FE	373.48	A	0.1	PPM	0.17	170.00	1.0
BE	313.11	A	0	PPB	0.0	0.00	2.0
CD	226.50	A	1d	PPB	2.1	210.00	2.0
CO	230.79	A	-13d	PPB	2.3	17.69	2.0
CU	327.40	A	24d	PPB	5.5	22.91	2.0
PB	220.35	A	0.002d	PPM	0.0287	1435.00	2.0
NI	231.60	A	-15d	PPB	8.5	56.66	2.0
MN	257.61	A	1	PPB	0.7	70.00	2.0
MN	344.19	A	-0.2d	PPM	0.07	35.00	1.0
~~[illegible]~~	~~[illegible]~~	~~A~~	~~-7d~~	~~PPB~~	~~6.9~~	~~86.25~~	~~1.0~~
~~[illegible]~~	~~[illegible]~~	~~A~~	~~-15~~	~~PPB~~	~~1.2~~	~~10.00~~	~~2.0~~
V	310.23	A	-68	PPB	4.7	6.91	2.0
AG	328.07	A	-28	PPB	5.1	18.21	2.0

below

below.

EL	NM	CH	SEC
FE	234.35	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	358	0	0
1	60108	20000	19998
23	5964	1876	2000

-1 1474 -1475 0

EL	NM	C	INTENSITY	CONC
FE	234.35	A	238	-45
FE	234.35	A	267	-34
FE	234.35	A	244	-42

P. BLK 1

EL	NM	C	INTENSITY	CONC
FE	234.35	A	238	-45
FE	234.35	A	267	-34
FE	234.35	A	244	-42

P. BLK 1

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
FE	234.35	A	-41	PPB	5.7	13.90	2.0

EL	NM	C	INTENSITY	CONC
ZN	213.86	A	210	-18
ZN	213.86	A	233	-14
ZN	213.86	A	239	-13

P. BLK 1

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
ZN	213.86	A	-15d	PPB	2.6	17.33	2.0

EL	NM	CH	SEC
B	208.96	A	1.0

B#	INTENSITY	RAW-CONC	CONC
99	1621	0	0
1	8265	10000	9999
23	2209	885	998

0 1412 -1413 0

EL	NM	C	INTENSITY	CONC
B	208.96	A	2898	2141
B	208.96	A	2926	2186
B	208.96	A	2958	2238

Ref. std

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
B	208.96	A	2188	PPB	48.5	2.21	1.0

EL	NM	C	INTENSITY	CONC
B	208.96	A	2884	2117
B	208.96	A	2894	2134
B	208.96	A	2918	2173

Ref. std.

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
B	208.96	A	2141	PPB	28.7	1.34	1.0

EL	NM	C	INTENSITY	CONC
B	208.96	A	2884	2117
B	208.96	A	2894	2134
B	208.96	A	2918	2173

Rep 5

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
B	208.96	A	2141	PPB	28.7	1.34	1.0

EL	NM	C	INTENSITY	CONC
B	208.96	A	2315	1175
B	208.96	A	2285	1125
B	208.96	A	2303	1155

Int-std

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
B	208.96	A	1151	PPB	25.1	2.18	1.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	63	0.0
FE	373.48	A	105	0.0
FE	373.48	A	132	0.1
ZN	206.20	A	58	6
ZN	206.20	A	68	14
ZN	206.20	A	63	10
B	208.96	A	1906	485
B	208.96	A	1885	450
B	208.96	A	1908	489
ZN	213.86	A	438	14
ZN	213.86	A	410	10
ZN	213.86	A	434	13
PB	220.35	A	-59	-0.065
PB	220.35	A	-51	-0.046
PB	220.35	A	-20	0.027
AL	226.34	A	-20	0.0
AL	226.34	A	-16	0.0
AL	226.34	A	-10	0.2
CD	226.50	A	40	3
CD	226.50	A	24	1
CD	226.50	A	63	6
BA	455.40	A	172	7
BA	455.40	A	143	6
BA	455.40	A	1	4
CO	230.79	A	123	10
CO	230.79	A	79	-2
CO	230.79	A	105	4
NI	231.60	A	162	2
NI	231.60	A	158	0
NI	231.60	A	109	-15
FE	234.35	A	236	-45
FE	234.35	A	266	-34
FE	234.35	A	271	-33
MN	257.61	A	332	-1
MN	257.61	A	301	-1
MN	257.61	A	251	0
CR	267.71	A	-179	-10
CR	267.71	A	-176	-9
CR	267.71	A	-99	-3
AL	308.22	A	351	-11

NI	231.60	A	2390	1061
FE	234.35	A	1061051	534275
FE	234.35	A	1049583	535413
FE	234.35	A	1054704	534910
MN	257.61	A	48915	992
MN	257.61	A	48714	988
MN	257.61	A	48351	981
CR	267.71	A	9267	1038
CR	267.71	A	9167	1026
CR	267.71	A	9232	1033
AL	308.22	A	134874	138352
AL	308.22	A	134805	138345
AL	308.22	A	133426	138194
V	310.23	A	13760	1040
V	310.23	A	13709	1035
V	310.23	A	13680	1033
BE	313.11	A	283390	989
BE	313.11	A	281970	984
BE	313.11	A	285805	997
CU	327.40	A	3667	1094
CU	327.40	A	3740	1115
CU	327.40	A	3810	1135
MN	344.19	A	8820	0.4
MN	344.19	A	8808	0.4
MN	344.19	A	8817	0.4

Interference standard End

P 100 120588-04 Rev 1 5 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
79	0005	4	23:23:40	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	89.2	0.06	2.0
AL	226.34	A	110.4	PPM	0.26	0.23	1.0
CR	267.71	A	1032	PPB	6.0	0.58	2.0
BA	455.40	A	1065	PPB	2.6	0.24	2.0
FE	234.35	A	OVRANGE	PPB	570.2	0.10	2.0
FE	373.48	A	544.8	PPM	2.06	0.37	1.0
BE	313.11	A	990	PPB	6.5	0.65	2.0
CD	226.50	A	1085	PPB	4.1	0.37	2.0
CO	230.79	A	1057	PPB	5.7	0.53	2.0
CU	327.40	A	1114	PPB	20.5	1.84	2.0
PB	220.35	A	1.051	PPM	0.0352	2.30	2.0
NI	231.60	A	1052	PPB	8.0	0.76	2.0
MN	257.61	A	987	PPB	5.5	0.55	2.0
MN	344.19	A	0.4	PPM	0.00	0.00	1.0
ZN	206.20	A	1070	PPB	17.0	1.58	1.0
ZN	213.86	A	1108	PPB	8.1	0.72	2.0
V	310.23	A	1036	PPB	3.6	0.34	2.0

29A Conc # 2389
2459
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2369
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* Original with 29A 2459

P 100 120588-04 Rev 1 5 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
CAL	0005	4	11:23:14	INORGANICS 11/83

EL NM CH SEC
AL 308.22 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	69	0d	0
1	21832	20000	19998
23	2374	2118	1997

-1 -1260 1259 0

EL NM CH SEC
AL 226.34 A 1.0

B#	INTENSITY	RAW-CONC	CONC
99	-27	0.0d	0.0
51	40995	1000.0	999.8
50	4368	107.1	99.9

-1 -741 740 0

EL NM CH SEC
CR 267.71 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-87	0d	0
1	90222	10000	9999
23	8924	997	999

0 33 -34 0

EL NM CH SEC
BA 455.40 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-451	0	0
1	567537	10000	9999
23	55542	985	998

1 169 169 0

EL NM CH SEC
FE 234.35 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	28	0d	0
23	4027	2000	1998

EL NM CH SEC
FE 234.35 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	28	0d	0
23	4027	2000	1998
25	486	229	198

-1 -288 287 0

EL NM CH SEC
FE 373.48 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	133	0.0d	0.0
51	162720	1000.0	999.9
50	17188	104.8	99.8

0 -526 525 0

EL NM CH SEC
BE 313.11 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	3796	0	0
1	577834	2000	1998
23	59529	194	198

-1 68 -69 0

EL NM CH SEC
CD 226.50 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	15	0d	0
1	60427	10000	9998
23	5883	971	998

-1 330 -331 0

EL NM CH SEC
CD 230.79 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	37	0d	0
1	22005	10000	9998
23	2189	979	999

-1 239 -240 0

EL NM CH SEC
CU 327.40 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-106	0d	0
1	35208	10000	9998
23	3340	975	999

-1 285 -286 0

EL NM CH SEC
PB 220.35 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	-15	0.000d	0.000
1	2719	10.000	9.999
23	219	0.855	1.000

-1 1880 -1880 0

EL NM CH SEC

B#	INTENSITY	RAW-CONC	CONC
99	-15	0.000d	0.000
1	2719	10.000	9.999
23	219	0.855	1.000

-1 1880 -1880 0

EL NM CH SEC
NI 231.60 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	67	0d	0
1	22037	10000	9999
23	2256	996	999

0 44 -45 0

EL NM CH SEC
MN 257.61 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	138	0	0
23	47139	1000	999
25	5027	104	99

0 -43 42 0

EL NM CH SEC
MN 344.19 A 1.0

B#	INTENSITY	RAW-CONC	CONC
99	8568	0.0d	0.0
51	47984	100.0	99.8
50	12843	10.8	9.8

-1 -83 82 0

EL NM CH SEC
ZN 206.20 A 1.0

B#	INTENSITY	RAW-CONC	CONC
99	8	0d	0
1	9217	10000	9999
23	931	1002	999

0 -23 22 0

EL NM CH SEC
ZN 213.86 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	83	0d	0
24	6394	1000	999
25	776	109	99

0 -93 92 0

EL NM CH SEC
V 310.23 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	3168	0	0
1	112212	10000	9998
23	13340	932	999

-1 808 -809 0

EL NM CH SEC
FE 234.35 A 2.0

B#	INTENSITY	RAW-CONC	CONC
99	45	0	0
1	41768	20000	19999

-1 808 -809 0

EL	NM	CH	SEC
FE	234.35	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	45	0	0
1	41768	20000	19998
23	4127	1956	1998
25	448	192	196

1 483 -486 0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	442	1.7
FE	373.48	A	505	2.0
FE	373.48	A	489	1.9
ZN	206.20	A	1868	2015
ZN	206.20	A	1869	2016
ZN	206.20	A	1889	2038
ZN	213.86	A	12911	2220
ZN	213.86	A	12755	2189
ZN	213.86	A	13024	2244
PB	220.35	A	571	2.458
PB	220.35	A	521	2.255
PB	220.35	A	544	2.348
AL	226.34	A	63	1.8
AL	226.34	A	85	2.4
AL	226.34	A	86	2.4
CD	226.50	A	12073	2046
CD	226.50	A	12108	2052
CD	226.50	A	12150	2059
BA	455.40	A	114512	2049
BA	455.40	A	114376	2047
BA	455.40	A	115358	2064
CO	230.79	A	4497	2067
CO	230.79	A	4516	2075
CO	230.79	A	4538	2085
NI	231.60	A	4599	2069
NI	231.60	A	4480	2014
NI	231.60	A	4600	2070
FE	234.35	A	4233	2050
FE	234.35	A	4264	2064
FE	234.35	A	4188	2028
MN	257.61	A	95804	2120
MN	257.61	A	96082	2126
MN	257.61	A	96104	2126
CR	267.71	A	18752	2090
CR	267.71	A	18918	2109
CR	267.71	A	18843	2100
AL	308.22	A	2341	1968
AL	308.22	A	2453	2066
AL	308.22	A	2395	2015
V	310.23	A	25098	2138
V	310.23	A	24959	2126
V	310.23	A	25289	2157
BE	313.11	A	575864	1991
BE	313.11	A	582493	2011
BE	313.11	A	577782	1997
CU	327.40	A	7107	2087
CU	327.40	A	7087	2081
CU	327.40	A	7106	2087
MN	344.19	A	9285	1.5
MN	344.19	A	9281	1.5
MN	344.19	A	9282	1.5

to be used for all of the instrument calibration
Reference standard beginning

P 100 120588-04 Rev 1 5 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
1	0005	4	11:40:43	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	2016	PPB	49.0	2.43	2.0
AL	226.34	A	2.2d	PPM	0.34	15.45	1.0
CR	267.71	A	2099	PPB	9.5	0.45	2.0
BA	455.40	A	2053	PPB	9.3	0.45	2.0
FE	234.35	A	2047	PPB	18.1	0.88	2.0
FE	373.48	A	1.8	PPM	0.15	8.33	1.0
BE	313.11	A	1997	PPB	10.2	0.51	2.0
CD	226.50	A	2052	PPB	6.5	0.31	2.0
CO	230.79	A	2075	PPB	9.0	0.43	2.0
CU	327.40	A	2085	PPB	3.4	0.16	2.0
PB	220.35	A	2.344	PPM	0.1016	4.31	2.0
NI	231.60	A	2051	PPB	32.0	1.56	2.0
MN	[illegible]	A	OVERRANGE	PPB	3.4	0.16	2.0

see below
see below

AL	226.34	A	2.2d	PPM	0.34	15.45	1.0
CR	267.71	A	2099	PPB	9.5	0.45	2.0
BA	455.40	A	2053	PPB	9.3	0.45	2.0
FE	234.35	A	2047	PPB	18.1	0.88	2.0
FE	373.48	A	1.8	PPM	0.15	8.33	1.0
BE	313.11	A	1999	PPB	10.2	0.51	2.0
CD	226.50	A	2052	PPB	6.5	0.31	2.0
CO	230.79	A	2075	PPB	9.0	0.43	2.0
CU	327.40	A	2085	PPB	3.4	0.16	2.0
PB	220.35	A	2.344	PPM	0.1016	4.31	2.0
NI	231.60	A	2051	PPB	32.0	1.56	2.0
[redacted]		A	OVRANGE	PPB	3.4	0.16	2.0
MN	[redacted].19	A	1.5	PPM	0.00	0.00	1.0
ZN	206.20	A	2016	PPB	13.0	0.64	1.0
ZN	213.86	A	OVRANGE	PPB	27.5	1.24	2.0
V	310.23	A	2140	PPB	15.6	0.72	2.0

see below

see below

EL	NM	CH	SEC
MN	257.61	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	815	0	0
1	490252	10000	9998
23	49203	988	998

-1 135 -136 0

Ref. std.

EL	NM	C	INTENSITY	CONC
MN	257.61	A	97362	1992
MN	257.61	A	97583	1997
MN	257.61	A	96662	1978

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
MN	257.61	A	1989	PPB	9.8	0.49	2.0

EL	NM	CH	SEC
PB	220.35	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	-28	0.000	0.000
1	2845	10.000	9.999
23	261	1.005	0.999

0 -57 56 0

Ref. std.

EL	NM	C	INTENSITY	CONC
PB	220.35	A	546	1.987
PB	220.35	A	523	1.907
PB	220.35	A	559	2.033

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
PB	220.35	A	1.975	PPM	0.0637	3.22	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	86692	519.1
FE	373.48	A	85994	514.8
FE	373.48	A	86342	517.0
ZN	206.20	A	953	1023
ZN	206.20	A	959	1029
ZN	206.20	A	952	1022
ZN	213.86	A	6731	1056
ZN	213.86	A	6788	1066
ZN	213.86	A	6826	1073
PB	220.35	A	414	1.530
PB	220.35	A	395	1.464
PB	220.35	A	415	1.533
AL	226.34	A	4637	106.0
AL	226.34	A	4618	105.6
AL	226.34	A	4735	108.2
CD	226.50	A	6172	1048
CD	226.50	A	6126	1039
CD	226.50	A	6168	1047
BA	455.40	A	56881	1023
BA	455.40	A	56620	1018
BA	455.40	A	56413	1015
CO	230.79	A	2212	1010
CO	230.79	A	2266	1034
CO	230.79	A	2199	1004
NI	231.60	A	2319	1028
NI	231.60	A	2291	1015
NI	231.60	A	2345	1040

CU	327.40	A	[illegible]	[illegible]
CU	327.40	A	3697	1102
CU	327.40	A	3764	1121
MN	344.19	A	8969	0.8
MN	344.19	A	8943	0.7
MN	344.19	A	8941	0.7

Interference standard.

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SAMPLE	OPERATOR	PWR	TIME	NAME
2	0005	4	12:04:36	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	98.0	0.10	2.0
AL	226.34	A	106.6	PPM	1.40	1.31	1.0
CR	267.71	A	992	PPB	5.0	0.50	2.0
BA	455.40	A	1018	PPB	4.0	0.39	2.0
FE	234.35	A	OVRANGE	PPB	448.6	0.09	2.0
FE	373.48	A	516.9	PPM	2.15	0.41	1.0
BE	313.11	A	957	PPB	4.1	0.42	2.0
CD	226.50	A	1044	PPB	4.9	0.46	2.0
CO	230.79	A	1016	PPB	15.8	1.55	2.0
CU	327.40	A	1109	PPB	10.4	0.93	2.0
PB	220.35	A	1.051	PPM	0.0390	2.58	2.0
NI	231.60	A	1027	PPB	12.5	1.21	2.0
MN	257.61	A	957	PPB	3.8	0.39	2.0
MN	344.19	A	0.7	PPM	0.07	10.00	1.0
ZN	206.20	A	1021	PPB	3.8	0.37	1.0
ZN	213.86	A	1060	PPB	8.5	0.79	2.0
V	310.23	A	1010	PPB	6.2	0.61	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	96	-0.3
FE	373.48	A	148	0.0
FE	373.48	A	77	-0.4
ZN	206.20	A	79	76
ZN	206.20	A	57	52
ZN	206.20	A	72	68
ZN	213.86	A	614	76
ZN	213.86	A	615	76
ZN	213.86	A	639	80
PB	220.35	A	-17	0.037
PB	220.35	A	-21	0.023
PB	220.35	A	-18	0.033
AL	226.34	A	-28	-0.1
AL	226.34	A	-14	0.0
AL	226.34	A	-11	0.1
CD	226.50	A	33	1
CD	226.50	A	14	-2
CD	226.50	A	7	-3
BA	455.40	A	100	8

MN 344.19 A 8506 -0.2

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SAMPLE	OPERATOR	PWR	TIME	NAME
3	0005	4	12:16:37	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	226.34	A	0.0d	PPM	0.10	0.00	1.0
CR	267.71	A	-3d	PPB	4.1	136.66	2.0
BA	455.40	A	8	PPB	1.0	12.50	2.0
FE	234.35	A	28d	PPB	4.6	16.42	2.0
FE	373.48	A	-0.3d	PPM	0.21	70.00	1.0
BE	313.11	A	0	PPB	0.0	0.00	2.0
CD	226.50	A	-2d	PPB	2.1	105.00	2.0
CO	230.79	A	-16d	PPB	6.8	42.50	2.0
CU	327.40	A	-9d	PPB	5.7	63.33	2.0
PB	220.35	A	0.031d	PPM	0.0072	23.22	2.0
NI	231.60	A	9d	PPB	10.0	111.11	2.0
MN	257.61	A	-14d	PPB	1.2	8.57	2.0
MN	344.19	A	-0.2d	PPM	0.07	35.00	1.0
ZN	206.20	A	66d	PPB	12.2	18.76	1.0
ZN	213.86	A	78	PPB	2.3	2.98	2.0
V	310.23	A	-48	PPB	3.2	6.66	2.0

EL	NM	C	INTENSITY	CONC

EL	NM	CH	SEC
AL	308.22	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	376	0	0
1	22500	20000	19999
23	2373	1805	1933
25	427	46	49

74 1504 -1579 0

EL	NM	C	INTENSITY	CONC
AL	308.22	A	465	85
AL	308.22	A	410	32
AL	308.22	A	412	34

P. Blk

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	50	PPB	30.0	60.00	2.0

EL	NM	C	INTENSITY	CONC

EL	NM	C	INTENSITY	CONC
ZN	213.86	A	149	9
ZN	213.86	A	129	6
ZN	213.86	A	130	6

P. BLK

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
ZN	213.86	A	7	PPB	1.7	24.28	2.0

EL	NM	C	INTENSITY	CONC

EL	NM	C	INTENSITY	CONC
FE	373.48	A	335	1.1
FE	373.48	A	535	2.2
FE	373.48	A	529	2.2
ZN	206.20	A	857	919
ZN	206.20	A	867	930
ZN	206.20	A	826	886
ZN	213.86	A	5971	924
ZN	213.86	A	5939	919
ZN	213.86	A	5979	926
PB	220.35	A	-50	-0.077
PB	220.35	A	-13	0.051
PB	220.35	A	-5	0.079
AL	226.34	A	45	1.4
AL	226.34	A	26	1.0
AL	226.34	A	16	0.8
CD	226.50	A	-11	-6
CD	226.50	A	34	1
CD	226.50	A	17	0
BA	455.40	A	4336	83
BA	455.40	A	4183	81
BA	455.40	A	4192	81
CO	230.79	A	20	-9
CO	230.79	A	19	-10
CO	230.79	A	-13	-24
NI	231.60	A	116	22
NI	231.60	A	197	59
NI	231.60	A	121	24
FE	234.35	A	3479	1682
FE	234.35	A	3491	1687
FE	234.35	A	3488	1685
MN	257.61	A	3549	54
MN	257.61	A	3526	54
MN	257.61	A	3485	53
CR	267.71	A	-59	3
CR	267.71	A	-2	9
CR	267.71	A	23	11
AL	308.22	A	1146	748
AL	308.22	A	1250	848

AL	308.22	A	[illegible]	21641
V	310.23	A	3345	16
V	310.23	A	3347	16
V	310.23	A	3340	15
BE	313.11	A	4124	0
BE	313.11	A	4141	0
BE	313.11	A	4090	0
CU	327.40	A	215	91
CU	327.40	A	158	75
CU	327.40	A	237	97
MN	344.19	A	10445	4.2
MN	344.19	A	10471	4.3
MN	344.19	A	10446	4.2

Case # 2489

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SAMPLE	OPERATOR	PWR	TIME	NAME
4	0005	4	13:05:00	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	21688	PPB	58.6	0.27	2.0
AL	226.34	A	21.6	PPM	0.07	0.32	1.0
CR	267.71	A	70	PPB	3.0	4.28	2.0
BA	455.40	A	1156	PPB	5.5	0.47	2.0
FE	234.35	A	OVRANGE	PPB	94.4	0.16	2.0
FE	373.48	A	62.1	PPM	0.30	0.48	1.0
BE	313.11	A	0	PPB	0.0	0.00	2.0
CD	226.50	A	22d	PPB	3.0	13.63	2.0
CO	230.79	A	5d	PPB	4.1	82.00	2.0
CU	327.40	A	87	PPB	11.3	12.98	2.0
PB	220.35	A	0.300d	PPM	0.0696	17.75	2.0
NI	231.60	A	64d	PPB	4.1	6.40	2.0
MN	257.61	A	4937	PPB	42.4	0.85	2.0
MN	344.19	A	4.2	PPM	0.07	1.66	1.0
ZN	206.20	A	3499	PPB	53.8	1.53	1.0
ZN	213.86	A	OVRANGE	PPB	15.8	0.37	2.0
V	310.23	A	15	PPB	0.7	4.66	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	11216	64.7
FE	373.48	A	11132	64.2
FE	373.48	A	10982	63.4
ZN	206.20	A	3112	3364
ZN	206.20	A	3172	3429
ZN	206.20	A	3105	3357
ZN	213.86	A	21247	4073
ZN	213.86	A	21118	4042
ZN	213.86	A	20959	4004
PB	220.35	A	102	0.449
PB	220.35	A	82	0.379
PB	220.35	A	94	0.421
AL	226.34	A	950	21.8
AL	226.34	A	975	22.5
AL	226.34	A	971	22.4
CD	226.50	A	109	14

AL	308.22	A	25599	22546
V	310.23	A	3400	21
V	310.23	A	3393	20
V	310.23	A	3484	29
BE	313.11	A	4004	0
BE	313.11	A	4046	0
BE	313.11	A	3977	0
CU	327.40	A	302	117
CU	327.40	A	232	96
CU	327.40	A	243	99
MN	344.19	A	10490	4.3
MN	344.19	A	10484	4.3
MN	344.19	A	10473	4.3

1605 hr

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SAMPLE	OPERATOR	PWR	TIME	NAME
5	0005	4	13:12:42	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	22620	PPB	73.0	0.32	2.0
AL	226.34	A	22.2	PPM	0.38	1.71	1.0
CR	267.71	A	56	PPB	5.5	9.82	2.0
BA	455.40	A	1219	PPB	5.0	0.41	2.0
FE	234.35	A	OVRANGE	PPB	113.1	0.19	2.0
FE	373.48	A	64.1	PPM	0.65	1.01	1.0
BE	313.11	A	0	PPB	0.0	0.00	2.0
CD	226.50	A	10d	PPB	3.0	30.00	2.0
CO	230.79	A	5d	PPB	8.6	172.00	2.0
CU	327.40	A	104	PPB	11.3	10.86	2.0
PB	220.35	A	0.321d	PPM	0.0352	8.46	2.0
NI	231.60	A	48d	PPB	1.2	2.50	2.0
MN	257.61	A	4586	PPB	17.3	0.37	2.0
MN	344.19	A	4.3	PPM	0.00	0.00	1.0
ZN	206.20	A	3383	PPB	39.7	1.17	1.0
ZN	213.86	A	OVRANGE	PPB	34.5	0.85	2.0
V	310.23	A	23	PPB	4.9	21.30	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	131	-0.1
FE	373.48	A	139	0.0
FE	373.48	A	91	-0.3
ZN	206.20	A	55	50
ZN	206.20	A	64	59
ZN	206.20	A	57	52
ZN	213.86	A	473	55
ZN	213.86	A	479	56
ZN	213.86	A	470	55
PB	220.35	A	-22	0.019
PB	220.35	A	-5	0.079
PB	220.35	A	-18	0.033
AL	226.34	A	-13	0.1
AL	226.34	A	-18	-0.1
AL	226.34	A	-47	-0.5

BE	313.11	A	3845	0
BE	313.11	A	3875	0
BE	313.11	A	3856	0
CU	327.40	A	141	69
CU	327.40	A	119	63
CU	327.40	A	58	46
MN	344.19	A	8560	-0.1
MN	344.19	A	8584	0.0
MN	344.19	A	8553	-0.1

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Pb06

SAMPLE	OPERATOR	PWR	TIME	NAME
6	0005	4	13:20:23	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	-28	PPB	31.8	113.57	2.0
AL	226.34	A	-0.2d	PPM	0.30	150.00	1.0
CR	267.71	A	-1d	PPB	4.6	460.00	2.0
BA	455.40	A	3	PPB	2.6	86.66	2.0
FE	234.35	A	72	PPB	6.0	8.33	2.0
FE	373.48	A	-0.2d	PPM	0.15	75.00	1.0
BE	313.11	A	0	PPB	0.0	0.00	2.0
CD	226.50	A	-3d	PPB	5.0	166.66	2.0
CO	230.79	A	-13d	PPB	4.7	36.15	2.0
CU	327.40	A	59	PPB	11.9	20.16	2.0
PB	220.35	A	0.044d	PPM	0.0313	72.79	2.0
NI	231.60	A	4d	PPB	4.1	102.50	2.0
MN	257.61	A	-7	PPB	1.7	24.28	2.0
MN	344.19	A	-0.1d	PPM	0.07	70.00	1.0
ZN	206.20	A	54d	PPB	4.7	8.86	1.0
ZN	213.86	A	55	PPB	0.7	1.27	2.0
V	310.23	A	-49	PPB	2.3	4.69	2.0

EL	NM	C	INTENSITY	CONC	
FE	373.48	A	412952	2743.6	
FE	373.48	A	412997	2744.2	2738.0
FE	373.48	A	410603	2726.3	
ZN	206.20	A	67232	73998	
ZN	206.20	A	67251	74018	73944
ZN	206.20	A	67082	73832	
ZN	213.86	A	480684	78226	
ZN	213.86	A	475189	65320	
ZN	213.86	A	477161	69956	
PB	220.35	A	1876	6.613	
PB	220.35	A	1844	6.501	
PB	220.35	A	1816	6.403	
AL	226.34	A	10049	231.7	
AL	226.34	A	10047	231.6	
AL	226.34	A	10040	231.4	
CD	226.50	A	1892	318	
CD	226.50	A	1901	320	
CD	226.50	A	1903	320	
BA	455.40	A	360032	6383	

MN	344.19	A	207935	672.4	6'
MN	344.19	A	208002	672.7	

1607

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SAMPLE	OPERATOR	PWR	TIME	NAME
7	0005	4	13:28:09	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	321.3	0.10	2.0
AL	226.34	A	231.5	PPM	0.15	0.06	1.0
CR	267.71	A	3617 OVRANGE	PPB	131.6	0.35	2.0
BA	455.40	A	6386	PPB	11.9	0.18	2.0
FE	234.35	A	OV FLOW	PPB	53.5	0.00	2.0
FE	373.48	A	2798 ~~OVRANGE~~	PPM	10.16	0.37	1.0
BE	313.11	A	45	PPB	0.0	0.00	2.0
CD	226.50	A	319	PPB	1.2	0.37	2.0
CO	230.79	A	44d	PPB	2.1	4.77	2.0
CU	327.40	A	3429	PPB	29.9	0.87	2.0
PB	220.35	A	5.510	PPM	0.1050	1.61	2.0
NI	231.60	A	1507	PPB	10.0	0.66	2.0
MN	257.61	A	671 OV FLOW	PPB	0.7	0.00	2.0
MN	344.19	A	OVRANGE	PPM	2.34	0.34	1.0
ZN	206.20	A	OVRANGE	PPB	102.1	0.13	1.0
ZN	213.86	A	OVRANGE	PPB	ERROR		2.0
V	310.23	A	7575	PPB	17.0	0.22	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	306519	1971.6
FE	373.48	A	306436	1971.1
FE	373.48	A	306481	1971.4
ZN	206.20	A	20442	22244
ZN	206.20	A	20613	22432
ZN	206.20	A	20458	22261
ZN	213.86	A	146125	4693
ZN	213.86	A	145937	4559
ZN	213.86	A	145080	3848
PB	220.35	A	836	2.994
PB	220.35	A	868	3.105
PB	220.35	A	875	3.130
AL	226.34	A	12257	283.7
AL	226.34	A	12167	281.5
AL	226.34	A	12003	277.7
CD	226.50	A	1058	176
CD	226.50	A	1092	182
CD	226.50	A	1102	183
BA	455.40	A	515348	9093
BA	455.40	A	516029	9105
BA	455.40	A	511778	9031
CO	230.79	A	43	1
CO	230.79	A	60	9
CO	230.79	A	70	14
NI	231.60	A	1010	430
NI	231.60	A	971	412

CU	[illegible]	A	[illegible]	[illegible]
CU	327.40	A	6207	1827
CU	327.40	A	6115	1801
MN	344.19	A	222828	739.6
MN	344.19	A	222713	739.2
MN	344.19	A	225167	750.5

P607 dup

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SAMPLE	OPERATOR	PWR	TIME	NAME
8	0005	4	13:35:57	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	3181.6	0.95	2.0
AL	226.34	A	280.9	PPM	3.03	1.07	1.0
CR	267.71	A	3770 OVRANGE	PPB	237.7	0.63	2.0
BA	455.40	A	9076	PPB	39.7	0.43	2.0
FE	234.35	A	1971 OV FLOW	PPB	62.3	0.00	2.0
FE	373.48	A	OVRANGE	PPM	0.25	0.01	1.0
BE	313.11	A	55	PPB	0.7	1.27	2.0
CD	226.50	A	180	PPB	3.8	2.11	2.0
CO	230.79	A	8d	PPB	6.5	81.25	2.0
CU	327.40	A	1803	PPB	22.5	1.24	2.0
PB	220.35	A	1.869	PPM	0.0723	2.35	2.0
NI	231.60	A	426	PPB	12.4	2.91	2.0
MN	257.61	A	OV FLOW	PPB	3.0	0.00	2.0
MN	344.19	A	745 ~~OVRANGE~~	PPM	6.41	0.86	1.0
ZN	206.20	A	OVRANGE	PPB	103.9	0.46	1.0
ZN	213.86	A	22700 ~~OVRANGE~~	PPB	454.1	10.40	2.0
V	310.23	A	9176	PPB	37.3	0.40	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	36881	216.7
FE	373.48	A	37523	220.5
FE	373.48	A	37358	219.6
ZN	206.20	A	19349	21050
ZN	206.20	A	19319	21017
ZN	206.20	A	19314	21012
ZN	213.86	A	133071	-5587
ZN	213.86	A	132725	-5848
ZN	213.86	A	133294	-5424
PB	220.35	A	1068	3.800
PB	220.35	A	1045	3.720
PB	220.35	A	1036	3.689
AL	226.34	A	3553	81.1
AL	226.34	A	3551	81.1
AL	226.34	A	3554	81.1
CD	226.50	A	427	69
CD	226.50	A	410	66
CD	226.50	A	408	65
BA	455.40	A	112992	2022
BA	455.40	A	112619	2015
BA	455.40	A	112387	2011
CO	230.79	A	127	39
CO	230.79	A	153	52

CU	327.40	A	3195	957
CU	327.40	A	3309	989
CU	327.40	A	3232	968
MN	344.19	A	14235	13.1
MN	344.19	A	14194	13.0
MN	344.19	A	14239	13.1

P602

P 100 120588-04 Rev 1 5 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
9	0005	4	13:43:43	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	109.3	0.17	2.0
AL	226.34	A	81.1	PPM	0.00	0.00	1.0
CR	267.71	A	854	PPB	1.5	0.17	2.0
BA	455.40	A	2016	PPB	5.5	0.27	2.0
FE	234.35	A	OVRANGE	PPB	457.8	0.20	2.0
FE	373.48	A	218.9	PPM	1.98	0.90	1.0
BE	313.11	A	2	PPB	0.0	0.00	2.0
CD	226.50	A	66	PPB	2.1	3.18	2.0
CO	230.79	A	43d	PPB	7.5	17.44	2.0
CU	327.40	A	971	PPB	16.2	1.66	2.0
PB	220.35	A	3.388	PPM	0.0572	1.53	2.0
NI	231.60	A	290	PPB	10.7	3.68	2.0
MN	257.61	A	OVRANGE	PPB	34.3	0.25	2.0
MN	344.19	A	13.0	PPM	0.07	0.53	1.0
ZN	206.20	A	>100 OVRANGE	PPB	20.6	0.09	1.0
ZN	213.86	A	OVRANGE	PPB	213.8	3.80	2.0
V	310.23	A	277	PPB	9.3	3.35	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	31732	186.0
FE	373.48	A	31859	186.7
FE	373.48	A	32011	187.6
ZN	206.20	A	17037	18522
ZN	206.20	A	16931	18407
ZN	206.20	A	16993	18474
ZN	213.86	A	119584	50158
ZN	213.86	A	118576	49453
ZN	213.86	A	118562	49448
PB	220.35	A	916	3.272
PB	220.35	A	908	3.244
PB	220.35	A	912	3.258
AL	226.34	A	4315	98.6
AL	226.34	A	4378	100.0
AL	226.34	A	4346	99.3
CD	226.50	A	257	40
CD	226.50	A	258	40
CD	226.50	A	286	44
BA	455.40	A	164498	2936
BA	455.40	A	164100	2930
BA	455.40	A	162991	2910
CO	230.79	A	89	22

CU	327.40	A	2572	776
MN	344.19	A	13108	10.5
MN	344.19	A	13140	10.5
MN	344.19	A	13044	10.3

P009

P 100 120588-04 Rev 1 5 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
11	0005	4	14:21:57	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	ERROR		2.0
AL	226.34	A	102.3	PPM	0.46	0.44	1.0
CR	267.71	A	845	PPB	12.2	1.44	2.0
BA	455.40	A	2993	PPB	13.4	0.44	2.0
FE	234.35	A	OVRANGE	PPB	ERROR		2.0
FE	373.48	A	200.6	PPM	2.33	1.16	1.0
BE	313.11	A	3	PPB	0.0	0.00	2.0
CD	226.50	A	42	PPB	2.5	5.95	2.0
CO	230.79	A	26d	PPB	8.5	32.69	2.0
CU	327.40	A	777	PPB	2.6	0.33	2.0
PB	220.35	A	3.003	PPM	0.0801	2.32	2.0
NI	231.60	A	257	PPB	7.0	2.72	2.0
MN	257.61	A	10350	PPB	38.0	0.36	2.0
MN	344.19	A	10.4	PPM	0.12	1.15	1.0
ZN	206.20	A	OVRANGE	PPB	216.5	1.10	1.0
ZN	213.86	A	OVRANGE	PPB	517.4	4.02	2.0
V	310.23	A	217	PPB	3.2	1.47	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	507	2.0
FE	373.48	A	396	1.4
FE	373.48	A	503	2.0
ZN	206.20	A	2011	2170
ZN	206.20	A	1995	2152
ZN	206.20	A	1996	2153
ZN	213.86	A	13693	2382
ZN	213.86	A	13589	2360
ZN	213.86	A	13579	2358
PB	220.35	A	575	2.088
PB	220.35	A	574	2.085
PB	220.35	A	597	2.165
AL	226.34	A	82	2.3
AL	226.34	A	91	2.4
AL	226.34	A	60	1.7
CD	226.50	A	12767	2163
CD	226.50	A	12867	2181
CD	226.50	A	12796	2168
BA	455.40	A	119365	2136
BA	455.40	A	119866	2144
BA	455.40	A	118613	2121
CO	230.79	A	4611	2120
CO	230.79	A	4591	2111
CO	230.79	A	4640	2133
NI	231.60	A	1794	2154

CR	267.71	A	18634	2077
AL	308.22	A	2316	1878
AL	308.22	A	2380	1940
AL	308.22	A	2354	1915
V	310.23	A	24453	2076
V	310.23	A	24525	2084
V	310.23	A	24340	2066
BE	313.11	A	553967	1915
BE	313.11	A	556731	1925
BE	313.11	A	556826	1925
CU	327.40	A	6879	2021
CU	327.40	A	6732	1979
CU	327.40	A	6852	2013
MN	344.19	A	9305	1.5
MN	344.19	A	9287	1.5
MN	344.19	A	9288	1.5

for 29A Cont. #
[redacted]
24928
24959
23[redacted]
~~P526~~ cont. Cal.

P 100 120588-04 Rev 1 5 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
13	0005	4	14:53:01	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	1911	PPB	31.1	1.62	2.0
AL	226.34	A	2.3d	PPM	0.26	11.30	1.0
CR	267.71	A	2063	PPB	22.8	1.10	2.0
BA	455.40	A	2067	PPB	1.2	0.05	2.0
FE	234.35	A	2073	PPB	2.9	0.13	2.0
FE	373.48	A	1.6	PPM	0.15	9.37	1.0
BE	313.11	A	1921	PPB	5.7	0.29	2.0
CD	226.50	A	2050	PPB	8.1	0.39	2.0
CD	230.79	A	2057	PPB	9.0	0.43	2.0
CU	327.40	A	2004	PPB	22.3	1.11	2.0
PB	220.35	A	1.978	PPM	0.0783	3.94	2.0
NI	231.60	A	2049	PPB	13.3	0.64	2.0
MN	257.61	A	1926	PPB	15.8	0.82	2.0
MN	344.19	A	1.5	PPM	0.00	0.00	1.0
ZN	206.20	A	2033	PPB	22.6	1.10	1.0
ZN	213.86	A	OVRANGE	PPB	15.0	0.66	2.0
V	310.23	A	2075	PPB	9.0	0.43	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	208640	1301.2
FE	373.48	A	209168	1304.6
FE	373.48	A	209101	1304.2
ZN	206.20	A	8982	9742
ZN	206.20	A	8997	9759
ZN	206.20	A	9007	9769
ZN	213.86	A	61944	17722
ZN	213.86	A	61979	17740
ZN	213.86	A	61859	17686
PB	220.35	A	82	0.379
PB	220.35	A	76	0.359
PB	220.35	A	116	0.498

AL	308.22	A	2401	1960
AL	308.22	A	2386	1946
V	310.23	A	24807	2111
V	310.23	A	24691	2099
V	310.23	A	24485	2079
BE	313.11	A	572081	1977
BE	313.11	A	574395	1986
BE	313.11	A	574929	1987
CD	327.40	A	6832	2007
CD	327.40	A	6897	2026
CD	327.40	A	6854	2013
MN	344.19	A	9560	2.1
MN	344.19	A	9585	2.1
MN	344.19	A	9586	2.1

for 24-89 Std. Pkt (Contains Cal blank.)

P 100 120588-04 Rev 1 6 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
83	0005	4	08:49:13	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	1917	PPB	62.1	3.23	2.0
AL	226.34	A	1.8d	PPM	0.30	16.66	1.0
CR	267.71	A	2045	PPB	2.6	0.12	2.0
BA	455.40	A	1982	PPB	4.0	0.20	2.0
FE	234.35	A	1999	PPB	31.5	1.57	2.0
FE	373.48	A	1.3	PPM	0.07	5.38	1.0
BE	313.11	A	1983	PPB	5.5	0.27	2.0
CD	226.50	A	1988	PPB	4.6	0.23	2.0
CO	230.79	A	2000	PPB	14.7	0.73	2.0
CU	327.40	A	2015	PPB	9.7	0.48	2.0
PB	220.35	A	1.888	PPM	0.0500	2.63	2.0
NI	231.60	A	1994	PPB	17.6	0.88	2.0
MN	257.61	A	1912	PPB	5.5	0.28	2.0
MN	344.19	A	2.1	PPM	0.00	0.00	1.0
ZN	206.20	A	2206	PPB	15.5	0.70	1.0
ZN	213.86	A	OVRANGE	PPB	19.0	0.79	2.0
V	310.23	A	2096	PPB	16.1	0.76	2.0

EL	NM	C	INTENSITY	CONC
FE	373.48	A	327	1.0
FE	373.48	A	432	1.7
FE	373.48	A	399	1.5
ZN	206.20	A	1870	2017
ZN	206.20	A	1868	2015
ZN	206.20	A	1931	2084
ZN	213.86	A	12873	2214
ZN	213.86	A	12999	2240
ZN	213.86	A	12901	2219
PB	220.35	A	513	1.874
PB	220.35	A	483	1.769
PB	220.35	A	478	1.752
AL	226.34	A	75	2.1
AL	226.34	A	76	2.1
AL	226.34	A	67	1.9
CD	226.50	A	11462	1943
CD	226.50	A	11513	1952
CD	226.50	A	11544	1957
BA	455.40	A	109334	1957
BA	455.40	A	110081	1971
BA	455.40	A	109504	1960
CO	230.79	A	4314	1982
CO	230.79	A	4278	1966
CO	230.79	A	4270	1961
NI	231.60	A	4468	2009
NI	231.60	A	4381	1969
NI	231.60	A	4312	1938

EL	NM	C	INTENSITY	CONC
FE	373.48	A	475	1.8
FE	373.48	A	465	1.8
FE	373.48	A	446	1.8
ZN	206.20	A	1820	1963
ZN	206.20	A	1807	1949
ZN	206.20	A	1812	1954
ZN	213.86	A	12452	2129
ZN	213.86	A	12470	2132
ZN	213.86	A	12351	2108
PB	220.35	A	510	1.863
PB	220.35	A	532	1.939
PB	220.35	A	518	1.891

EL	NM	C	INTENSITY	CONC
FE	373.48	A	[illegible]	[illegible]
FE	373.48	A	1051	5.3

MN	257.61	A	[illegible]	[illegible]
CR	267.71	A	1262	149
CR	267.71	A	1248	147
CR	267.71	A	1236	146
AL	308.22	A	67058	50689
AL	308.22	A	66646	50465
AL	308.22	A	66764	50528
V	310.23	A	25059	2135
V	310.23	A	24960	2126
V	310.23	A	25072	2136
BE	313.11	A	31296	97
BE	313.11	A	31204	97
BE	313.11	A	30563	94
CU	327.40	A	1977	603
CU	327.40	A	2043	623
CU	327.40	A	1970	601
MN	344.19	A	14415	13.6
MN	344.19	A	14407	13.6
MN	344.19	A	14307	13.3

Case 2449
P605 spike

P 100 120588-04 Rev 1 6 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
85	0005	4	09:57:12	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	115.5	0.22	2.0
AL	226.34	A	56.6	PPM	0.35	0.61	1.0
~~CR~~	~~267.71~~	~~A~~	~~147~~	~~PPB~~	~~1.5~~	~~1.02~~	~~2.0~~
BA	455.40	A	3369	PPB	20.0	0.59	2.0
FE	234.35	A	OVRANGE	PPB	192.0	0.15	2.0
FE	373.48	A	150.3	PPM	1.05	0.69	1.0
BE	313.11	A	96	PPB	1.7	1.77	2.0
CD	226.50	A	507	PPB	1.5	0.29	2.0
CO	230.79	A	502	PPB	13.5	2.68	2.0
CU	327.40	A	609	PPB	12.1	1.98	2.0
~~PB~~	~~220.35~~	~~A~~	~~0.573d~~	~~PPM~~	~~0.0952~~	~~11.86~~	~~2.0~~
NI	231.60	A	442	PPB	12.1	2.73	2.0
MN	257.61	A	OVRANGE	PPB	45.7	0.34	2.0
MN	344.19	A	13.5	PPM	0.17	1.25	1.0
ZN	206.20	A	10289	PPB	40.8	0.39	1.0
ZN	213.86	A	OVRANGE	PPB	122.8	0.65	2.0
V	310.23	A	2132	PPB	5.5	0.25	2.0

See below
VC3

EL	NM	C	INTENSITY	CONC
FE	373.48	A	94834	569.5
FE	373.48	A	95586	574.2
FE	373.48	A	96036	577.0
ZN	206.20	A	42642	46657
ZN	206.20	A	42835	46872
ZN	206.20	A	42841	46879
ZN	213.86	A	292505	42897
ZN	213.86	A	287807	35946
ZN	213.86	A	289323	38184
PB	220.35	A	1011	3.602
PB	220.35	A	1033	3.679

FE	234.35	A	1085701	531607
FE	234.35	A	1079677	532286
MN	257.61	A	2017753	39449
MN	257.61	A	2017950	39453
MN	257.61	A	2018005	39454
CR	267.71	A	194769	21487
CR	267.71	A	194106	21414
CR	267.71	A	195011	21514
AL	308.22	A	158524	139090
AL	308.22	A	157985	139118
AL	308.22	A	158439	139094
V	310.23	A	51684	4647
V	310.23	A	51788	4656
V	310.23	A	52093	4684
BE	313.11	A	32328	101
BE	313.11	A	32278	101
BE	313.11	A	32385	101
CU	327.40	A	7354	2158
CU	327.40	A	7151	2099
CU	327.40	A	7220	2119
MN	344.19	A	90261	224.7
MN	344.19	A	89918	223.7
MN	344.19	A	89562	222.5

Case 24459

P607 spike

1/5 dilution

P 100 120588-04 Rev 1 6 MAR 84

SAMPLE	OPERATOR	PWR	TIME	NAME
86	0005	4	10:04:58	INORGANICS 11/83

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
AL	308.22	A	OVRANGE	PPB	15.1	0.01	2.0
AL	226.34	A	131.9	PPM	0.71	0.53	1.0
CR	267.71	A	21500 ~~OVRANGE~~	PPB	51.7	0.24	2.0
BA	455.40	A	4984	PPB	12.0	0.24	2.0
FE	234.35	A	OVRANGE	PPB	943.3	0.17	2.0
FE	373.48	A	573.5	PPM	3.79	0.66	1.0
BE	313.11	A	101	PPB	0.0	0.00	2.0
CD	226.50	A	559	PPB	0.7	0.12	2.0
CO	230.79	A	500	PPB	10.5	2.10	2.0
CU	327.40	A	2125	PPB	30.0	1.41	2.0
PB	220.35	A	3.041	PPM	0.0681	1.88	2.0
NI	231.60	A	915	PPB	4.5	0.49	2.0
MN	257.61	A	OV FLOW	PPB	2.6	0.00	2.0
MN	344.19	A	223 ~~OVRANGE~~	PPM	1.10	0.49	1.0
ZN	206.20	A	OVRANGE	PPB	126.2	0.26	1.0
ZN	213.86	A	17002 ~~OVRANGE~~	PPB	ERROR		2.0
V	310.23	A	4662	PPB	19.3	0.41	2.0

EL	NM	CH	SEC
PB	220.35	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	-9	0.000	0.000
1	2682	10.000	9.999
23	243	0.936	0.9[illegible]9

EL	NM	CH	SEC
PB	220.35	A	2.0

B#	INTENSITY	RAW-CONC	CONC
99	-9	0.000	0.000
1	2682	10.000	9.999
23	243	0.936	0.999

-1 761 -761 0

Pbos spike

EL	NM	C	INTENSITY	CONC
PB	220.35	A	203	0.841
PB	220.35	A	194	0.806
PB	220.35	A	220	0.908

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
PB	220.35	A	0.851d	PPM	0.0518	6.08	2.0

EL	NM	C	INTENSITY	CONC

Pbos spike

EL	NM	C	INTENSITY	CONC
EL	NM	C	INTENSITY	CONC
CR	267.71	A	1555	181
CR	267.71	A	1590	185
CR	267.71	A	1640	190

EL	NM	CH	CONC	UNIT	SD	RSD	SEC
CR	267.71	A	185	PPB	4.5	2.43	2.0

CALIFORNIA ANALYTICAL LABS. INC.

AA RUNNING REPORT

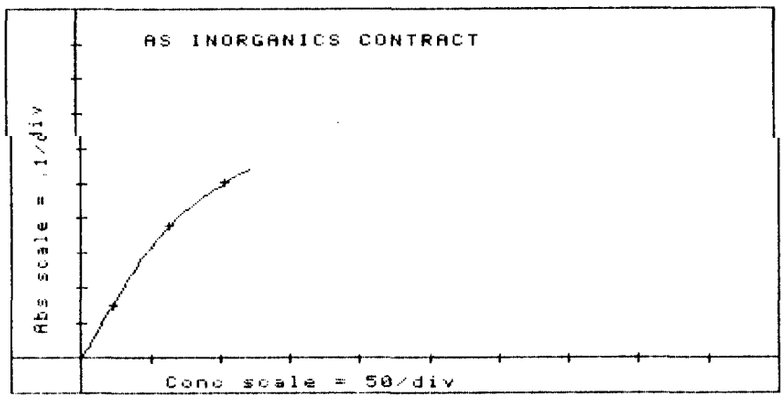
OPERATOR: BEV

DATE: 3/10/84 With 2459

BATCH: EPA 2459,2389

PROGRAM # 1 AS INORGANICS CONTRACT

SOLUTION	CONC PPB	RSD %	MEAN ABS.	ABSORBANCE READINGS		RESLOPE FACTOR
BLANK	0.000	62.	-.008	-.012	-.004	1.000
STANDARD 1	20	1.5	.133	.135	.131	1.000
STANDARD 2	60	1.4	.364	.367	.36	1.000
STANDARD 3	100	1.6	.491	.497	.485	1.000



SAMPLE 1	60.46	1.1	.366	.363	.369	1.000
SAMPLE 2	.601	50	.004	.002	.005	1.000
SAMPLE 3	60.69	1.9	.367	.372	.361	1.000
SAMPLE 4	55.74	16.8	.345	.303	.386	1.000
SAMPLE 5	26.75	142.	.179	-.002	.359	1.000
SAMPLE 6	72.86	4.8	.414	.428	.399	1.000
SAMPLE 7	0.000	75	-.004	-.006	-.001	1.000
SAMPLE 8	>185.6	3.4	.763	.781	.744	1.000
SAMPLE 9	>117.9	16.1	.548	.61	.485	1.000
SAMPLE 10	>255.5	.8	.985	.991	.979	1.000
SAMPLE 11	>176.5	9.1	.734	.782	.686	1.000
SAMPLE 12	64.57	1.3	.383	.387	.379	1.000
SAMPLE 13	>406.1	61.5	1.463	.826	2.1	1.000
SAMPLE 14	>238.5	3.5	.931	.907	.954	1.000
SAMPLE 15	.751	40	.005	.007	.003	1.000
SAMPLE 16	2.105	21.4	.014	.016	.011	1.000
SAMPLE 17	1.654	45.5	.011	.007	.014	1.000
SAMPLE 18	48.58	2.9	.34	.347	.333	1.000
SAMPLE 19	73.14	.7	.415	.417	.412	1.000
SAMPLE 20	5.413	2.8	.036	.037	.035	1.000
SAMPLE 21	102.3	1.8	.497	.504	.49	1.000
SAMPLE 22	>116.0	11.1	.542	.584	.499	1.000
SAMPLE 23	61.40	6.2	.37	.386	.353	1.000
SAMPLE 24	39.22	5	.258	.267	.248	1.000
SAMPLE 25	39.90	.4	.262	.261	.263	1.000
SAMPLE 26	44.47	2.4	.288	.293	.282	1.000
SAMPLE 27	45.39	.3	.293	.294	.292	1.000
SAMPLE 28	11.87	3.8	.079	.081	.076	1.000
SAMPLE 29	31.46	12.4	.21	.229	.191	1.000
SAMPLE 30	34.45	15.7	.229	.203	.255	1.000
SAMPLE 31	43.93	0.0	.285	.285	.285	1.000
SAMPLE 32	59.07	3.1	.36	.352	.368	1.000
SAMPLE 33	63.58	2.4	.379	.372	.385	1.000
SAMPLE 34	.15	200	.001	-.001	.003	1.000
SAMPLE 35	0.000	300	-.001	.002	-.003	1.000
SAMPLE 36	1.804	8.3	.012	.011	.012	1.000
SAMPLE 37	64.82	1.6	.384	.379	.388	1.000
SAMPLE 38	1.052	0.0	.007	.007	.388	1.000
SAMPLE 39	0.000	0.0	0.000	.007	.388	1.000

AS INORGANICS CONTRACT

SAMPLE 35	0.000	300	-.001	.002	-.003	1.000
SAMPLE 36	1.804	8.3	.012	.011	.012	1.000
SAMPLE 37	64.82	1.6	.384	.379	.388	1.000
SAMPLE 38	1.052	0.0	.007	.007	.388	1.000
SAMPLE 39	0.000	0.0	0.000	.007	.388	1.000

AS INORGANICS CONTRACT

Concentration units PPB

AS BLANK
ABS = -.008 CONC = 0.000
S.DEV = .005 RSD = 62.5%

READINGS
-0.012 -0.004

AS STANDARD 1
ABS = .133 CONC = 20.000
S.DEV = .002 RSD = 1.5%

READINGS
0.135 0.131

AS STANDARD 2
ABS = .364 CONC = 60.000
S.DEV = .005 RSD = 1.4%

READINGS
0.367 0.360

AS STANDARD 3
ABS = .491 CONC = 100.000
S.DEV = .008 RSD = 1.6%

READINGS
0.497 0.485

AS SAMPLE RICCA:60
ABS = .366 CONC = 60.465
S.DEV = .004 RSD = 1.1%

READINGS
0.363 0.369

AS SAMPLE P BLK
ABS = .004 CONC = .601
S.DEV = .002 RSD = 50.0%

READINGS
0.002 0.005

AS SAMPLE P605
ABS = .367 CONC = 60.699
S.DEV = .007 RSD = 1.9%

READINGS
0.372 0.361

AS SAMPLE P605D
ABS = .345 CONC = 55.746
S.DEV = .058 RSD = 16.8%

READINGS
0.303 0.386

AS SAMPLE P605SP 100 ⁷/L
ABS = .179 CONC = 26.755 X
S.DEV = .255 RSD = 142.5%

READINGS
-0.002 0.359

605 BK1

AS SAMPLE P605SP 200 ⁷/L
ABS = .414 CONC = 72.860
S.DEV = .020 RSD = 4.8%

READINGS
0.428 0.399

AS SAMPLE P606
ABS = -.004 CONC = 0.000
S.DEV = .003 RSD = 75.0%

READINGS
-0.006 -0.001

AS SAMPLE P607
ABS = .763 Overrange

S.DEV = .003 RSD = 75.0%

READINGS
-0.006 -0.001

AS SAMPLE P607
ABS = .763 Overrange
S.DEV = .026 RSD = 3.4%

READINGS
0.781 0.744

AS SAMPLE P607D
ABS = .548 Overrange
S.DEV = .088 RSD = 16.1%

READINGS
0.610 0.485

AS SAMPLE P607SP 100 ½
ABS = .985 Overrange
S.DEV = .008 RSD = .8%

READINGS
0.991 0.979

AS SAMPLE P607SP 200 ½
ABS = .734 Overrange
S.DEV = .067 RSD = 9.1%

READINGS
0.782 0.686

AS SAMPLE AS 60
ABS = .383 CONC = 64.572
S.DEV = .005 RSD = 1.3%

READINGS
0.387 0.379

AS SAMPLE P608
ABS = 1.463 Overrange
S.DEV = .900 RSD = 61.5%

READINGS
0.826 2.100

AS SAMPLE P609
ABS = .931 Overrange
S.DEV = .033 RSD = 3.5%

READINGS
0.907 0.954

AS SAMPLE P BLK
ABS = .005 CONC = .751
S.DEV = .002 RSD = 40.0%

READINGS
0.007 0.003

AS SAMPLE P603
ABS = .014 CONC = 2.105
S.DEV = .003 RSD = 21.4%

READINGS
0.016 0.011

AS SAMPLE P603D
ABS = .011 CONC = 1.654
S.DEV = .005 RSD = 45.5%

READINGS
0.007 0.014

AS SAMPLE P603SP 100 ½
ABS = .310 CONC = 48.598
S.DEV = .009 RSD = 2.9%

READINGS
0.317 0.303

AS SAMPLE P603SP 200 ½
ABS = .415 CONC = 73.147
S.DEV = .003 RSD = .7%

READINGS
0.417 0.412

AS SAMPLE P603SP 200 Y3
ABS = .415 CONC = 73.147
S.DEV = .003 RSD = .7%

READINGS
0.417 0.412

AS SAMPLE P604
ABS = .036 CONC = 5.413
S.DEV = .001 RSD = 2.8%

READINGS
0.037 0.035

AS SAMPLE VOID
ABS = .497 CONC = 102.360
S.DEV = .009 RSD = 1.8%

READINGS
0.504 0.490

AS SAMPLE VOID
ABS = .542 Overrange
S.DEV = .060 RSD = 11.1%

READINGS
0.584 0.499

AS SAMPLE AS 60
ABS = .370 CONC = 61.407
S.DEV = .023 RSD = 6.2%

READINGS
0.386 0.353

AS SAMPLE P607 1/10
ABS = .258 CONC = 39.221
S.DEV = .013 RSD = 5.0%

READINGS
0.267 0.248

AS SAMPLE P607D 1/10
ABS = .262 CONC = 39.901
S.DEV = .001 RSD = .4%

READINGS
0.261 0.263

AS SAMPLE VOID
ABS = .288 CONC = 44.477
S.DEV = .007 RSD = 2.4%

READINGS
0.293 0.282

AS SAMPLE VOID
ABS = .293 CONC = 45.392
S.DEV = .001 RSD = .3%

READINGS
0.294 0.292

AS SAMPLE VOID
ABS = .079 CONC = 11.879
S.DEV = .003 RSD = 3.8%

READINGS
0.081 0.076

AS SAMPLE P607SP 800 1/40
ABS = .210 CONC = 31.467 X40:1260
S.DEV = .026 RSD = 12.4%

READINGS
0.229 0.191

AS SAMPLE P608 1/5
ABS = .229 CONC = 34.457
S.DEV = .036 RSD = 15.7%

READINGS
0.203 0.255

AS SAMPLE P609 1/5
ABS = .285 CONC = 43.934
S.DEV = 0.000 RSD = 0.0%

```
   READINGS
   0.203   0.255


AS SAMPLE P609 1/5
   ABS =     .285  CONC =  43.934
 S.DEV =    0.000   RSD =   0.0%

   READINGS
   0.285   0.285


AS SAMPLE AS 60
   ABS =     .360  CONC =  59.079
 S.DEV =     .011   RSD =   3.1%

   READINGS
   0.352   0.368


AS SAMPLE RICCA:60
   ABS =     .379  CONC =  63.580
 S.DEV =     .009   RSD =   2.4%

   READINGS
   0.372   0.385


AS SAMPLE 17727-1
   ABS =     .001  CONC =    .150
 S.DEV =     .002   RSD = 200.0%

   READINGS
  -0.001   0.003


AS SAMPLE -2
   ABS =    -.001  CONC =   0.000
 S.DEV =     .003   RSD = 300.0%

   READINGS
   0.002  -0.003


AS SAMPLE -3
   ABS =     .012  CONC =   1.804
 S.DEV =     .001   RSD =   8.3%

   READINGS
   0.011   0.012


AS SAMPLE AS 60
   ABS =     .384  CONC =  64.822
 S.DEV =     .006   RSD =   1.6%

   READINGS
   0.379   0.388


AS SAMPLE #38
   ABS =     .007  CONC =   1.052
 S.DEV =    0.000   RSD =   0.0%

   READINGS
   0.007
```

System error 18 on line 5605
Press 'RUN' to continue program

CALIFORNIA ANALYTICAL LABS. INC.

AA RUNNING REPORT

OPERATOR: BEV

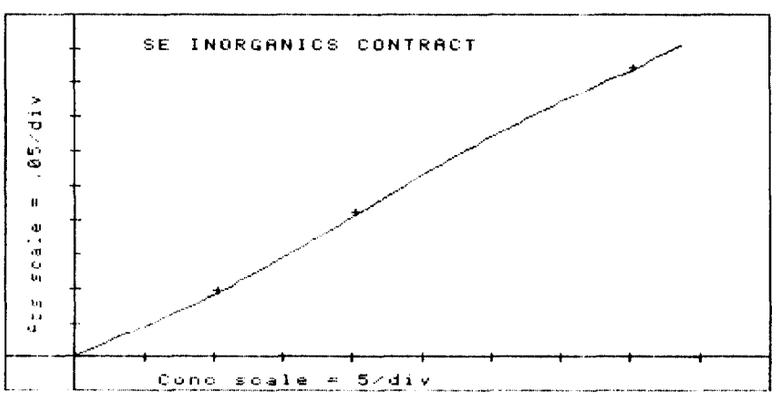
DATE: 3/10/84

BATCH: EPA 2459,2389

Wik 2459

PROGRAM # 2 SE INORGANICS CONTRACT

SOLUTION	CONC PPB	RSD %	MEAN ABS.	ABSORBANCE READINGS		RESLOPE FACTOR
BLANK	0.000	81.	.011	.004	.018	1.000
STANDARD 1	10	31.1	.09	.11	.07	1.000
STANDARD 2	20	4.4	.205	.198	.212	1.000
STANDARD 3	40	3.4	.416	.426	.406	1.000



SAMPLE 1	15.03	151.	[illegible]	.302	-.011	1.000

P Blk

SAMPLE 2	.777	328.	.007	.023	-.01	1.000
SAMPLE 3	0.000	27.8	-.018	-.014	-.021	1.000
SAMPLE 4	0.000	0.0	-.018	-.018	-.018	1.000
SAMPLE 5	0.000	5.9	-.017	-.017	-.016	1.000
SAMPLE 6	2.666	100	.024	.041	.007	1.000
SAMPLE 7	8.777	36.7	.079	.099	.058	1.000
SAMPLE 8	7	65.1	[illegible]	.072	.034	1.000
SAMPLE 9	1.555	7.1	.014	.014	.013	1.000
SAMPLE 10	0.000	16.7	-.012	-.01	-.014	1.000
SAMPLE 11	8.555	107.	.077	.136	.018	1.000
SAMPLE 12	17.32	4.5	.179	.173	.185	1.000

SAMPLE	7	8.777	36.7	.079	.099	.058	1.000
SAMPLE	8	7	65.1	.063	.092	.034	1.000
SAMPLE	9	1.555	7.1	.014	.014	.013	1.000
SAMPLE	10	0.000	16.7	-.012	-.01	-.014	1.000
SAMPLE	11	8.555	107.	.077	.136	.018	1.000
SAMPLE	12	17.82	4.5	.179	.173	.185	1.000
SAMPLE	13	8.111	147.	.073	-.004	.15	1.000
SAMPLE	14	4.333	30.8	.039	.03	.047	1.000
SAMPLE	15	0.000	7.1	-.014	-.015	-.013	1.000
SAMPLE	16	.444	175	.004	-.001	.009	1.000
SAMPLE	17	1.333	216.	.012	-.007	.031	1.000
SAMPLE	18	0.000	100	-.002	0.000	-.004	1.000
SAMPLE	19	2.333	23.8	.021	.025	.017	1.000
SAMPLE	20	.333	133.	.003	0.000	.006	1.000
SAMPLE	21	17.99	18.8	.181	.205	.156	1.000
SAMPLE	22	23.09	3.7	.242	.235	.249	1.000
SAMPLE	23	11.03	151.	.101	-.008	.209	1.000
SAMPLE	24	2.777	208	.025	-.012	.062	1.000
SAMPLE	25	1.777	112.	.016	.003	.029	1.000
SAMPLE	26	16.56	4.3	.164	.169	.158	1.000
SAMPLE	27	16.73	1.8	.166	.163	.168	1.000
SAMPLE	28	0.000	100	-.003	0.000	-.005	1.000
SAMPLE	29	0.000	28.6	-.007	-.005	-.008	1.000
SAMPLE	30	21.25	.5	.22	.219	.22	1.000
SAMPLE	31	.777	71.4	.007	.003	.01	1.000
SAMPLE	32	0.000	0.0	0.000	.003	.01	1.000

SE INORGANICS CONTRACT

Concentration units PPB

SE BLANK
ABS = .011 CONC = 0.000
S.DEV = .009 RSD = 81.8%

READINGS
0.004 0.018

SE STANDARD 1
ABS = .088 CONC = 10.000
S.DEV = .028 RSD = 31.1%

READINGS
0.110 0.070

SE STANDARD 2
ABS = .205 CONC = 20.000
S.DEV = .009 RSD = 4.4%

READINGS
0.198 0.212

SE STANDARD 3
ABS = .416 CONC = 40.000
S.DEV = .014 RSD = 3.4%

READINGS
0.426 0.406

SE SAMPLE WP475:30 29.2
ABS = .302 ~~-146~~ CONC = ~~-15.033~~ BEV
S.DEV = .221 RSD = 151.4%

READINGS
0.302 ~~-0.011~~

SE SAMPLE P BLK
ABS = .007 CONC = .777
S.DEV = .023 RSD = 328.6%

READINGS
0.023 -0.010

SE SAMPLE P605
ABS = -.018 CONC = 0.000
S.DEV = .005 RSD = 27.8%

READINGS
-0.014 -0.021

SE SAMPLE P605D
ABS = -.018 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
-0.018 -0.018

SE SAMPLE P605SP 20%
ABS = -.017 CONC = 0.000
S.DEV = .001 RSD = 5.9%

-0.018 -0.018

SE SAMPLE P605SP 20%
ABS = -.017 CONC = 0.000
S.DEV = .001 RSD = 5.9%

READINGS
-0.017 -0.016

SE SAMPLE P650SP 40%
ABS = .024 CONC = 2.666
S.DEV = .024 RSD = 100.0%

READINGS
0.041 0.007

SE SAMPLE P606
ABS = .079 CONC = 8.777
S.DEV = .029 RSD = 36.7%

READINGS
0.099 0.058

SE SAMPLE P607
ABS = .063 CONC = 7.000
S.DEV = .041 RSD = 65.1%

READINGS
0.092 0.034

SE SAMPLE P607D
ABS = .014 CONC = 1.555
S.DEV = .001 RSD = 7.1%

READINGS
0.014 0.013

SE SAMPLE P607SP 20%
ABS = -.012 CONC = 0.000
S.DEV = .002 RSD = 16.7%

READINGS
-0.010 -0.014

SE SAMPLE P607SP 40%
ABS = .077 CONC = 8.555
S.DEV = .083 RSD = 107.8%

READINGS
0.136 0.018

SE SAMPLE SE 20
ABS = .179 CONC = 17.829
S.DEV = .008 RSD = 4.5%

READINGS
0.173 0.185

SE SAMPLE P608
ABS = .073 CONC = 8.111
S.DEV = .108 RSD = 147.9%

READINGS
-0.004 0.150

SE SAMPLE P609
ABS = .039 CONC = 4.333
S.DEV = .012 RSD = 30.8%

READINGS
0.030 0.047

SE SAMPLE P BLK
ABS = -.014 CONC = 0.000
S.DEV = .001 RSD = 7.1%

READINGS
-0.015 -0.013

SE SAMPLE P603
ABS = .004 CONC = .444
S.DEV = .007 RSD = 175.0%

READINGS
-0.001 0.009

SE SAMPLE P603D

S.DEV = .007 RSD = 175.0%

READINGS
-0.001 0.009

SE SAMPLE P603D
ABS = .012 CONC = 1.333
S.DEV = .026 RSD = 216.7%

READINGS
-0.007 0.031

SE SAMPLE P603SP 50%
ABS = -.002 CONC = 0.000
S.DEV = .002 RSD = 100.0%

READINGS
0.000 -0.004

SE SAMPLE P603SP 40 1/3
ABS = .021 CONC = 2.333
S.DEV = .005 RSD = 23.8%

READINGS
0.025 0.017

SE SAMPLE P604
ABS = .003 CONC = .333
S.DEV = .004 RSD = 133.3%

READINGS
0.000 0.006

SE SAMPLE SE 20
ABS = .181 CONC = 17.997
S.DEV = .034 RSD = 18.8%

READINGS
0.205 0.156

SE SAMPLE VOID
ABS = .242 CONC = 23.098
S.DEV = .009 RSD = 3.7%

READINGS
0.235 0.249

SE SAMPLE 17727-1
ABS = .101 CONC = 11.031
S.DEV = .153 RSD = 151.5%

READINGS
-0.008 0.209

SE SAMPLE -2
ABS = .025 CONC = 2.777
S.DEV = .052 RSD = 208.0%

READINGS
-0.012 0.062

SE SAMPLE -3
ABS = .016 CONC = 1.777
S.DEV = .018 RSD = 112.5%

READINGS
0.003 0.029

SE SAMPLE VOID
ABS = .164 CONC = 16.567
S.DEV = .007 RSD = 4.3%

READINGS
0.169 0.158

SE SAMPLE VOID
ABS = .166 CONC = 16.736
S.DEV = .003 RSD = 1.8%

READINGS
0.163 0.168

SE SAMPLE VOID
ABS = -.003 CONC = 0.000
S.DEV = .003 RSD = 100.0%

READINGS
0.000 -0.005

```
SE SAMPLE VOID
   ABS =     .166  CONC =  16.736
 S.DEV =     .003   RSD =   1.8%

   READINGS
   0.163   0.168


SE SAMPLE VOID
   ABS =    -.003  CONC =   0.000
 S.DEV =     .003   RSD = 100.0%

   READINGS
   0.000  -0.005


SE SAMPLE VOID
   ABS =    -.007  CONC =   0.000
 S.DEV =     .002   RSD =  28.6%

   READINGS
  -0.005  -0.008


SE SAMPLE SE 20
   ABS =     .220  CONC =  21.251
 S.DEV =     .001   RSD =    .5%

   READINGS
   0.219   0.220
```

READINGS
0.006 0.009

CD STANDARD 1
ABS = .148 CONC = 2.000
S.DEV = .011 RSD = 7.4%

READINGS
0.156 0.140

CD STANDARD 2
ABS = .399 CONC = 6.000
S.DEV = .011 RSD = 2.8%

READINGS
0.391 0.407

CD STANDARD 3
ABS = .605 CONC = 10.000
S.DEV = .011 RSD = 1.8%

READINGS
0.597 0.613

CD SAMPLE WP475:6.5
ABS = .381 CONC = 5.683
S.DEV = 0.000 RSD = 0.0%

READINGS
0.381

CD SAMPLE P BLK
ABS = -.012 CONC = 0.000
S.DEV = .002 RSD = 16.7%

READINGS
-0.013 -0.010

CD SAMPLE P605
ABS = .463 CONC = 7.164
S.DEV = .002 RSD = .4%

READINGS
0.464 0.461

CD SAMPLE P605 DUP
ABS = .476 CONC = 7.409
S.DEV = .001 RSD = .2%

READINGS
0.477 0.475

CD SAMPLE P605SP 10%
ABS = .465 CONC = 7.202
S.DEV = .002 RSD = .4%

READINGS
0.466 0.463

CD SAMPLE P605SP 20%
ABS = .490 CONC = 7.676
S.DEV = .005 RSD = 1.0%

READINGS
0.486 0.494

CD SAMPLE P606
ABS = -.003 CONC = 0.000
S.DEV = .002 RSD = 66.7%

READINGS
-0.001 -0.004

CD SAMPLE P607
ABS = 1.459 Overrange
S.DEV = .047 RSD = 3.2%

READINGS
1.425 1.492

CD SAMPLE P607 DUP
ABS = 1.042 Overrange
S.DEV = .012 RSD = 1.2%

READINGS
1.033 1.051

CD SAMPLE P607 DUP
ABS = 1.042 Overrange
S.DEV = .012 RSD = 1.2%

READINGS
1.033 1.051

CD SAMPLE P607SP 10%
ABS = 1.289 Overrange
S.DEV = .005 RSD = .4%

READINGS
1.285 1.292

CD SAMPLE P607SP 20%
ABS = 1.183 Overrange
S.DEV = .005 RSD = .4%

READINGS
1.179 1.186

CD SAMPLE CD 5
ABS = .316 CONC = 4.582
S.DEV = .005 RSD = 1.6%

READINGS
0.319 0.312

CD SAMPLE P608
ABS = 1.223 Overrange
S.DEV = .008 RSD = .7%

READINGS
1.217 1.229

CD SAMPLE P609
ABS = 1.038 Overrange
S.DEV = .008 RSD = .8%

READINGS
1.032 1.044

CD SAMPLE P BLK
ABS = -.012 CONC = 0.000
S.DEV = .001 RSD = 8.3%

READINGS
-0.011 -0.013

CD SAMPLE P603
ABS = .011 CONC = .148
S.DEV = .002 RSD = 18.2%

READINGS
0.012 0.009

CD SAMPLE P603 DUP
ABS = .004 CONC = .054
S.DEV = .002 RSD = 50.0%

READINGS
0.002 0.005

CD SAMPLE P603 SPIKE 10%
ABS = .305 CONC = 4.402
S.DEV = .018 RSD = 5.9%

READINGS
0.292 0.318

CD SAMPLE P603 SPIKE 20%
ABS = .393 CONC = 5.894
S.DEV = .003 RSD = .8%

READINGS
0.395 0.390

CD SAMPLE P604
ABS = 1.133 Overrange
S.DEV = .005 RSD = .4%

READINGS
1.129 1.136

CD SAMPLE CD 5
ABS = .329 CONC = 4.797
S.DEV = .014 RSD = 4.3%

```
CD SAMPLE P604
   ABS =    1.133   Overrange
 S.DEV =     .005   RSD =     .4%

   READINGS
   1.129   1.136


CD SAMPLE CD 5
   ABS =     .329  CONC =    4.797
 S.DEV =     .014   RSD =    4.3%

   READINGS
   0.318   0.339


CD SAMPLE WP475:6.5
   ABS =     .382  CONC =    5.701
 S.DEV =     .002   RSD =     .5%

   READINGS
   0.383   0.380


CD SAMPLE 17727-1
   ABS =     .002  CONC =     .027
 S.DEV =     .008   RSD = 400.0%

   READINGS
  -0.004   0.008


CD SAMPLE -2
   ABS =    -.012  CONC =    0.000
 S.DEV =     .002   RSD =   16.7%

   READINGS
  -0.010  -0.014


CD SAMPLE -3
   ABS =    -.011  CONC =    0.000
 S.DEV =     .003   RSD =   27.3%

   READINGS
  -0.008  -0.013


CD SAMPLE CD 5
   ABS =     .351  CONC =    5.167
 S.DEV =     .005   RSD =    1.4%

   READINGS
   0.354   0.347


 CD SAMPLE #27
    ABS =    -.025  CONC =    0.000
  S.DEV =    0.000   RSD =    0.0%

    READINGS
   -0.025
```

CALIFORNIA ANALYTICAL LABS. INC.

AA RUNNING REPORT

OPERATOR: LSZ

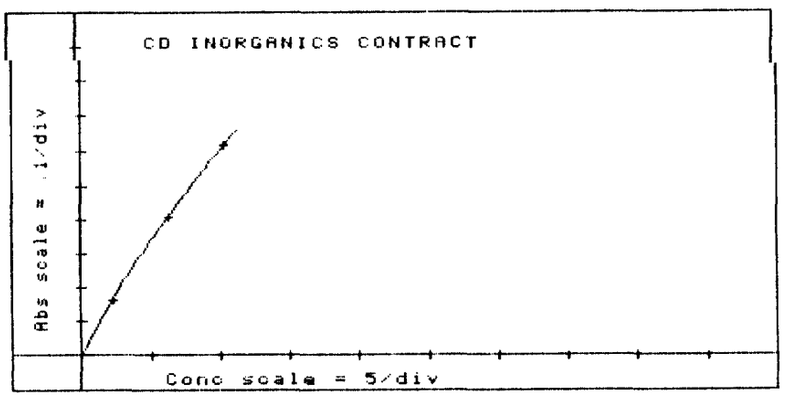
DATE: 3/8/84

BATCH: EPA 2459, 2389

With 2459

PROGRAM # 3 CD INORGANICS CONTRACT

SOLUTION	CONC PPB	RSD %	MEAN ABS.	ABSORBANCE READINGS		RESLOPE FACTOR
BLANK	0.000	25	.008	.006	.009	1.000
STANDARD 1	2	7.4	.148	.156	.14	1.000
STANDARD 2	6	2.8	.399	.391	.407	1.000
STANDARD 3	10	1.8	.605	.597	.613	1.000



SAMPLE 1	5.683	0.0	.381	.381	.613	1.000
SAMPLE 2	0.000	16.7	-.012	-.013	-.01	1.000
SAMPLE 3	7.164	.4	.463	.464	.461	1.000
SAMPLE 4	7.409	.2	.476	.477	.475	1.000
SAMPLE 5	7.202	.4	.465	.466	.463	1.000
SAMPLE 6	7.676	1	.49	.486	.494	1.000
SAMPLE 7	0.000	66.7	-.003	-.001	-.004	1.000
SAMPLE 8	>26.58	3.2	1.459	1.425	1.492	1.000
SAMPLE 9	>18.48	1.2	1.042	1.033	1.051	1.000
SAMPLE 10	>23.28	.4	1.289	1.285	1.292	1.000
SAMPLE 11	>21.22	.4	1.183	1.179	1.186	1.000
SAMPLE 12	4.582	1.6	.316	.319	.312	1.000
SAMPLE 13	>22	.7	1.223	1.217	1.229	1.000
SAMPLE 14	>18.40	.8	1.038	1.032	1.044	1.000
SAMPLE 15	0.000	8.3	-.012	-.011	-.013	1.000
SAMPLE 16	.148	18.2	.011	.012	.009	1.000
SAMPLE 17	.054	50	.004	.002	.005	1.000
SAMPLE 18	4.402	5.9	.305	.292	.318	1.000
SAMPLE 19	5.894	.8	.393	.395	.39	1.000
SAMPLE 20	>20.25	.4	1.133	1.129	1.136	1.000
SAMPLE 21	4.797	4.3	.329	.318	.339	1.000
SAMPLE 22	5.701	.5	.382	.383	.38	1.000
SAMPLE 23	.027	400	.002	-.004	.008	1.000
SAMPLE 24	0.000	16.7	-.012	-.01	-.014	1.000
SAMPLE 25	0.000	27.3	-.011	-.008	-.013	1.000
SAMPLE 26	5.167	1.4	.351	.354	.347	1.000
SAMPLE 27	0.000	0.0	-.025	-.025	.347	1.000
SAMPLE 28	0.000	0.0	0.000	-.025	.347	1.000

CD INORGANICS CONTRACT

Concentration units PPB

CD BLANK
ABS = .008 CONC = 0.000
S.DEV = .002 RSD = 25.0%

READINGS
0.006 0.009

CD STANDARD 1
ABS = .148 CONC = 2.000
S.DEV = .011 RSD = 7.4%

READINGS
0.156 0.140

BLANK 0.000 0.0 0.000 0.000 0.000 1.000

CALIFORNIA ANALYTICAL LABS. INC.

AA RUNNING REPORT

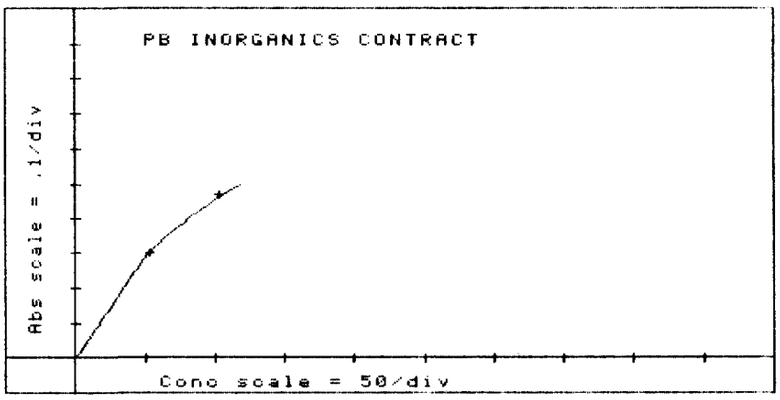
OPERATOR: LSZ

DATE: 3/8/84

BATCH: EPA 2459, 2389 With 2459

PROGRAM # 4 PB INORGANICS CONTRACT

SOLUTION	CONC PPB	RSD %	MEAN ABS.	ABSORBANCE READINGS		RESLOPE FACTOR
BLANK	0.000	0.0	-.012	-.012	-.012	1.000
STANDARD 1	50	.3	.288	.289	.287	1.000
STANDARD 2	100	.4	.456	.454	.458	1.000



SAMPLE 1	51.90	1.7	.296	.299	.292	1.000
SAMPLE 2	4.513	3.8	.026	.025	.027	1.000
SAMPLE 3	>148.8	2.1	.62	.61	.629	1.000
SAMPLE 4	>154.4	.8	.639	.642	.635	1.000
SAMPLE 5	116.9	1	.498	.501	.494	1.000
SAMPLE 6	99.62	0.0	.455	.455	.455	1.000
SAMPLE 7	14.40	1.2	.083	.082	.084	1.000
SAMPLE 8	>383.6	5	1.409	1.458	1.359	1.000
SAMPLE 9	>279.1	2	1.058	1.073	1.043	1.000
SAMPLE 10	>317.5	1.2	1.187	1.176	1.197	1.000
SAMPLE 11	>312.2	1	1.169	1.16	1.177	1.000
SAMPLE 12	51.18	2.4	.293	.298	.287	1.000
SAMPLE 13	>373.2	.2	1.374	1.371	1.376	1.000
SAMPLE 14	>362.5	.7	1.338	1.331	1.344	1.000
SAMPLE 15	0.000	0.0	0.000	0.000	0.000	1.000
SAMPLE 16	22.56	3.8	.13	.133	.126	1.000
SAMPLE 17	21.35	1.6	.123	.124	.121	1.000
SAMPLE 18	34.89	.5	.201	.2	.201	1.000
SAMPLE 19	38.88	.9	.224	.222	.226	1.000
SAMPLE 20	29.86	5.8	.172	.164	.179	1.000
SAMPLE 21	53.04	5.3	.304	.315	.292	1.000
SAMPLE 22	53.35	.7	.302	.3	.304	1.000
SAMPLE 23	21.35	.8	.123	.122	.124	1.000
SAMPLE 24	0.000	300	-.001	.002	-.003	1.000
SAMPLE 25	6.597	13.2	.038	.041	.034	1.000
SAMPLE 26	49.13	.4	.283	.282	.283	1.000
SAMPLE 27	0.000	0.0	0.000	.282	.283	1.000

PB INORGANICS CONTRACT

Concentration units PPB

PB BLANK
ABS = -.012 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
-0.012 -0.012

PB STANDARD 1
ABS = .288 CONC = 50.000
S.DEV = .001 RSD = .3%

READINGS
0.289 0.287

PB STANDARD 2
ABS = .456 CONC = 100.000
S.DEV = .002 RSD = .4%

READINGS
0.289 0.287

PB STANDARD 2
ABS = .456 CONC = 100.000
S.DEV = .002 RSD = .4%

READINGS
0.454 0.458

PB SAMPLE WP475:60
ABS = .296 CONC = 51.903
S.DEV = .005 RSD = 1.7%

READINGS
0.299 0.292

PB SAMPLE P BLK
ABS = .026 CONC = 4.513
S.DEV = .001 RSD = 3.8%

READINGS
0.025 0.027

PB SAMPLE P605
ABS = .620 Overrange
S.DEV = .013 RSD = 2.1%

READINGS
0.610 0.629

PB SAMPLE P605D
ABS = .639 Overrange
S.DEV = .005 RSD = .8%

READINGS
0.642 0.635

PB SAMPLE P605SP 50%L
ABS = .498 CONC = 116.900
S.DEV = .005 RSD = 1.0%

READINGS
0.501 0.494

PB SAMPLE P650SP 100%
ABS = .455 CONC = 99.624
S.DEV = 0.000 RSD = 0.0%

READINGS
0.455 0.455

PB SAMPLE P606
ABS = .083 CONC = 14.409
S.DEV = .001 RSD = 1.2%

READINGS
0.082 0.084

PB SAMPLE P607
ABS = 1.409 Overrange
S.DEV = .070 RSD = 5.0%

READINGS
1.458 1.359

PB SAMPLE P607D
ABS = 1.058 Overrange
S.DEV = .021 RSD = 2.0%

READINGS
1.073 1.043

PB SAMPLE P607SP 50%L
ABS = 1.187 Overrange
S.DEV = .014 RSD = 1.2%

READINGS
1.176 1.197

PB SAMPLE P607SP 100%
ABS = 1.169 Overrange
S.DEV = .012 RSD = 1.0%

READINGS
1.160 1.177

PB SAMPLE P607SP100%
ABS = 1.169 Overrange
S.DEV = .012 RSD = 1.0%

READINGS
1.160 1.177

PB SAMPLE PB 50
ABS = .293 CONC = 51.185
S.DEV = .007 RSD = 2.4%

READINGS
0.298 0.287

PB SAMPLE P608
ABS = 1.374 Overrange
S.DEV = .003 RSD = .2%

READINGS
1.371 1.376

PB SAMPLE P609
ABS = 1.338 Overrange
S.DEV = .009 RSD = .7%

READINGS
1.331 1.344

PB SAMPLE P BLK
ABS = 0.000 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
0.000 0.000

PB SAMPLE P603
ABS = .130 CONC = 22.569
S.DEV = .005 RSD = 3.8%

READINGS
0.133 0.126

PB SAMPLE P603D
ABS = .123 CONC = 21.354
S.DEV = .002 RSD = 1.6%

READINGS
0.124 0.121

PB SAMPLE P603SP50%
ABS = .201 CONC = 34.895
S.DEV = .001 RSD = .5%

READINGS
0.200 0.201

PB SAMPLE P603SP100%
ABS = .224 CONC = 38.888
S.DEV = .002 RSD = .9%

READINGS
0.222 0.226

PB SAMPLE P604
ABS = .172 CONC = 29.861
S.DEV = .010 RSD = 5.8%

READINGS
0.164 0.179

PB SAMPLE PB 50
ABS = .304 CONC = 53.846
S.DEV = .016 RSD = 5.3%

READINGS
0.315 0.292

PB SAMPLE WP475:60
ABS = .302 CONC = 53.356
S.DEV = .002 RSD = .7%

READINGS
0.300 0.304

PB SAMPLE 17727-1
ABS = .123 CONC = 21.354
S.DEV = .001 RSD = .8%

PB SAMPLE WP475:60
ABS = .302 CONC = 53.356
S.DEV = .002 RSD = .7%

READINGS
0.300 0.304

PB SAMPLE 17727-1
ABS = .123 CONC = 21.354
S.DEV = .001 RSD = .8%

READINGS
0.122 0.124

PB SAMPLE -2
ABS = -.001 CONC = 0.000
S.DEV = .003 RSD = 300.0%

READINGS
0.002 -0.003

PB SAMPLE -3
ABS = .038 CONC = 6.597
S.DEV = .005 RSD = 13.2%

READINGS
0.041 0.034

PB SAMPLE PB 50
ABS = .283 CONC = 49.131
S.DEV = .001 RSD = .4%

READINGS
0.282 0.283

S.DEV = .001 RSD = .8%

READINGS
0.134 0.132

SB STANDARD 2
ABS = .329 CONC = 100.000
S.DEV = .045 RSD = 13.7%

READINGS
0.296 0.361

SB STANDARD 3
ABS = .545 CONC = 150.000
S.DEV = .005 RSD = .9%

READINGS
0.549 0.541

SB STANDARD 4
ABS = .730 CONC = 200.000
S.DEV = .002 RSD = .3%

READINGS
0.728 0.732

SB SAMPLE WP581:97.5
ABS = .347 CONC = 104.120
S.DEV = .015 RSD = 4.3%

READINGS
0.358 0.336

SB SAMPLE P BLK
ABS = .001 CONC = .375
S.DEV = .004 RSD = 400.0%

READINGS
-0.002 0.004

SB SAMPLE P605
ABS = -.001 CONC = 0.000
S.DEV = .001 RSD = 100.0%

READINGS
-0.001 0.000

SB SAMPLE P605 DUP
ABS = .002 CONC = .751
S.DEV = .002 RSD = 100.0%

READINGS
0.003 0.000

SB SAMPLE P605SP 200 ½
ABS = .329 CONC = 100.000
S.DEV = .014 RSD = 4.3%

READINGS
0.339 0.319

SB SAMPLE P605SP 400 ⅓
ABS = .456 CONC = 128.940
S.DEV = .007 RSD = 1.5%

READINGS
0.461 0.450

SB SAMPLE P606
ABS = .002 CONC = .751
S.DEV = .005 RSD = 250.0%

READINGS
0.006 -0.002

SB SAMPLE P607
ABS = .023 CONC = 8.646
S.DEV = .005 RSD = 21.7%

READINGS
0.026 0.019

SB SAMPLE P607 DUP
ABS = .003 CONC = 1.127
S.DEV = .002 RSD = 66.7%

READINGS
0.005 0.001

READINGS
0.026 0.019

SB SAMPLE P607 DUP
ABS = .003 CONC = 1.127
S.DEV = .002 RSD = 66.7%

READINGS
0.005 0.001

SB SAMPLE P607SP 200 ½
ABS = .382 CONC = 112.080
S.DEV = .012 RSD = 3.1%

READINGS
0.373 0.391

SB SAMPLE P607SP 400 ⅓
ABS = .499 CONC = 138.960
S.DEV = .015 RSD = 3.0%

READINGS
0.488 0.510

SB SAMPLE SB 100
ABS = .332 CONC = 100.690
S.DEV = .058 RSD = 17.5%

READINGS
0.290 0.373

SB SAMPLE P608
ABS = .009 CONC = 3.383
S.DEV = .003 RSD = 33.3%

READINGS
0.006 0.011

SB SAMPLE P609
ABS = .010 CONC = 3.759
S.DEV = .003 RSD = 30.0%

READINGS
0.007 0.012

SB SAMPLE P BLK
ABS = .001 CONC = .375
S.DEV = .005 RSD = 500.0%

READINGS
-0.003 0.004

SB SAMPLE P603
ABS = .006 CONC = 2.255
S.DEV = .007 RSD = 116.7%

READINGS
0.001 0.011

SB SAMPLE P603 DUP
ABS = .011 CONC = 4.135
S.DEV = .002 RSD = 18.2%

READINGS
0.012 0.009

SB SAMPLE P603 SPIKE 200 ½
ABS = .325 CONC = 99.080
S.DEV = .018 RSD = 5.5%

READINGS
0.312 0.338

SB SAMPLE P603 SPIKE 400 ⅓
ABS = .440 CONC = 125.270
S.DEV = .016 RSD = 3.6%

READINGS
0.452 0.428

SB SAMPLE P604
ABS = .010 CONC = 3.759
S.DEV = .009 RSD = 90.0%

READINGS
0.003 0.016

SB SAMPLE SB 100

```
 S.DEV =     .016   RSD =   3.6%

   READINGS
   0.452   0.428


SB SAMPLE P604
   ABS =     .010  CONC =   3.759
 S.DEV =     .009   RSD =  90.0%

   READINGS
   0.003   0.016


SB SAMPLE SB 100
   ABS =     .381  CONC = 111.850
 S.DEV =     .002   RSD =     .5%

   READINGS
   0.382   0.379


SB SAMPLE WP581:97.5
   ABS =     .358  CONC = 106.630
 S.DEV =     .010   RSD =   2.8%

   READINGS
   0.350   0.365
```

CALIFORNIA ANALYTICAL LABS. INC.

AA RUNNING REPORT

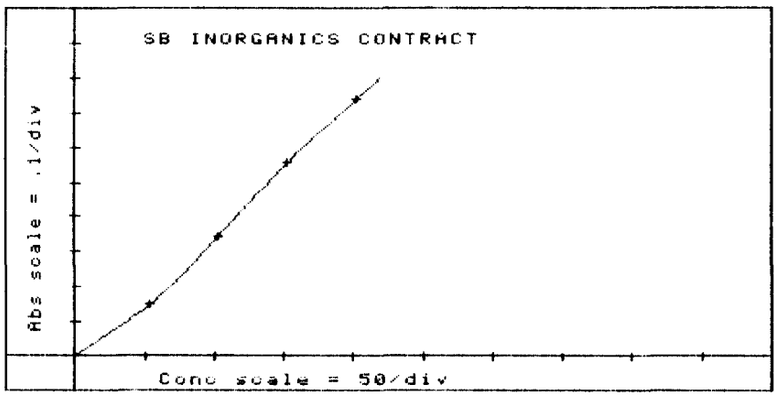
OPERATOR: BEV

DATE: 3/10/84

BATCH: EPA EPA 2459,2389 with 2459

PROGRAM # 5 SB INORGANICS CONTRACT

SOLUTION	CONC PPB	RSD %	MEAN ABS.	ABSORBANCE READINGS		RESLOPE FACTOR
BLANK	0.000	75	.004	.006	.001	1.000
STANDARD 1	50	.8	.133	.134	.132	1.000
STANDARD 2	100	13.7	.329	.296	.361	1.000
STANDARD 3	150	.9	.545	.549	.541	1.000
STANDARD 4	200	.3	.73	.728	.732	1.000



SAMPLE 1	104.1	4.3	.347	.358	.336	1.000
SAMPLE 2	.375	400	.001	-.002	.004	1.000
SAMPLE 3	0.000	100	-.001	-.001	0.000	1.000
SAMPLE 4	.751	100	.002	.003	0.000	1.000
SAMPLE 5	100	4.3	.329	.339	.319	1.000
SAMPLE 6	128.9	1.5	.456	.461	.45	1.000
SAMPLE 7	.751	250	.002	.006	-.002	1.000
SAMPLE 8	8.646	21.7	.023	.026	.019	1.000
SAMPLE 9	1.127	66.7	.003	.005	.001	1.000
SAMPLE 10	112.0	3.1	.382	.373	.391	1.000
SAMPLE 11	138.9	3	.499	.488	.51	1.000
SAMPLE 12	100.6	17.5	.332	.29	.373	1.000
SAMPLE 13	3.383	33.3	.009	.006	.011	1.000
SAMPLE 14	3.759	30	.01	.007	.012	1.000
SAMPLE 15	.375	500	.001	-.003	.004	1.000
SAMPLE 16	2.255	116.	.006	.001	.011	1.000
SAMPLE 17	4.135	18.2	.011	.012	.009	1.000
SAMPLE 18	99.08	5.5	.325	.312	.338	1.000
SAMPLE 19	125.2	3.6	.44	.452	.428	1.000
SAMPLE 20	3.759	90	.01	.003	.016	1.000
SAMPLE 21	111.8	.5	.381	.382	.379	1.000
SAMPLE 22	106.6	2.8	.358	.35	.365	1.000
SAMPLE 23	0.000	0.0	0.000	.35	.365	1.000

SB INORGANICS CONTRACT

Concentration units PPB

SB BLANK
ABS = .004 CONC = 0.000
S.DEV = .003 RSD = 75.0%

READINGS
0.006 0.001

SB STANDARD 1
ABS = .133 CONC = 50.000
S.DEV = .001 RSD = .8%

READINGS
0.134 0.132

SB STANDARD 2

DEV

Cases: 2404 (num), 2451, 2381

3/3/04

With 2404

SAMPLE	2	0.000	0.0	0.000	.004	-.004	1.000
SAMPLE	3	91.94	2.8	.287	.293	.281	1.000
SAMPLE	4	0.000	0.0	0.000	-.001	.001	1.000
SAMPLE	5	3.636	0.0	.012	.012	.012	1.000
SAMPLE	6	.303	100	.001	0.000	.001	1.000
SAMPLE	7	6.363	9.5	.021	.019	.022	1.000
SAMPLE	8	.909	0.0	.003	.003	.003	1.000
SAMPLE	9	2.121	14.3	.007	.006	.008	1.000
SAMPLE	10	159.4	.4	.461	.459	.463	1.000
SAMPLE	11	205.1	.5	.563	.56	.565	1.000
SAMPLE	12	97.69	0.0	.303	.303	.303	1.000
SAMPLE	13	1.818	16.7	.006	.007	.005	1.000
SAMPLE	14	2.424	12.5	.008	.009	.007	1.000
SAMPLE	15	3.636	8.3	.012	.011	.012	1.000
SAMPLE	16	.303	100	.001	.002	0.000	1.000
SAMPLE	17	2.727	33.3	.009	.006	.011	1.000
SAMPLE	18	0.000	0.0	0.000	0.000	0.000	1.000
SAMPLE	19	9.09	0.0	.03	.03	.03	1.000
SAMPLE	20	0.000	100	-.001	0.000	-.001	1.000
SAMPLE	21	6.06	10	.02	.022	.018	1.000
SAMPLE	22	.606	50	.002	.001	.002	1.000
SAMPLE	23	102.7	1.3	.317	.32	.314	1.000
SAMPLE	24	0.000	50	-.002	-.001	-.003	1.000
SAMPLE	25	0.000	300	-.001	.002	-.003	1.000
SAMPLE	26	.909	33.3	.003	.003	.002	1.000
SAMPLE	27	.606	200	.002	-.001	.005	1.000
SAMPLE	28	127.7	1.3	.383	.379	.387	1.000
SAMPLE	29	147.7	.9	.433	.43	.436	1.000
SAMPLE	30	1.212	25	.004	.003	.004	1.000
SAMPLE	31	.303	100	.001	0.000	.001	1.000
SAMPLE	32	0.000	100	-.001	-.002	0.000	1.000
SAMPLE	33	149.3	.2	.437	.436	.437	1.000
SAMPLE	34	100.2	4.2	.31	.319	.3	1.000
SAMPLE	35	187.4	.4	.525	.527	.523	1.000
SAMPLE	36	.606	100	.002	.003	0.000	1.000
SAMPLE	37	208.9	3.5	.571	.585	.556	1.000
SAMPLE	38	117.3	.8	.356	.353	.358	1.000
SAMPLE	39	>239.3	1.1	.645	.65	.639	1.000
SAMPLE	40	>252.4	.1	.676	.675	.677	1.000
SAMPLE	41	35.75	.8	.118	.117	.118	1.000
SAMPLE	42	36.06	.8	.119	.12	.118	1.000
SAMPLE	43	.303	100	.001	0.000	.001	1.000
SAMPLE	44	0.000	0.0	-.001	-.001	-.001	1.000
SAMPLE	45	79.99	1.6	.253	.25	.256	1.000
SAMPLE	46	>246.5	.9	.662	.666	.657	1.000
SAMPLE	47	.909	0.0	.003	.003	.657	1.000
SAMPLE	48	202.7	.2	.558	.557	.559	1.000
SAMPLE	49	116.5	.6	.354	.356	.352	1.000
SAMPLE	50	190.2	1.1	.531	.535	.526	1.000
SAMPLE	51	104.9	4.6	.323	.334	.312	1.000
SAMPLE	52	89.81	3.6	.281	.288	.273	1.000
SAMPLE	53	0.000	0.0	0.000	.288	.273	1.000

SN INORGANICS CONTRACT

Concentration units PPB

SN BLANK
ABS = .003 CONC = 0.000
S.DEV = .004 RSD = 133.3%

READINGS
0.006 0.000

SN STANDARD 1

Concentration units PPB

SN BLANK
ABS = .003 CONC = 0.000
S.DEV = .004 RSD = 133.3%

READINGS
0.006 0.000

SN STANDARD 1
ABS = .132 CONC = 40.000
S.DEV = .006 RSD = 4.5%

READINGS
0.127 0.136

SN STANDARD 2
ABS = .363 CONC = 120.000
S.DEV = .001 RSD = .3%

READINGS
0.363 0.362

SN STANDARD 3
ABS = .552 CONC = 200.000
S.DEV = .007 RSD = 1.3%

READINGS
0.557 0.547

SN SAMPLE VOID
ABS = .284 CONC = 90.877
S.DEV = .004 RSD = 1.4%

READINGS
0.287 0.281

SN SAMPLE P BLK
ABS = 0.000 CONC = 0.000
S.DEV = .005 RSD = 0.0%

READINGS
0.004 -0.004

SN SAMPLE BAKER:100
ABS = .287 CONC = 91.945
S.DEV = .008 RSD = 2.8%

READINGS
0.293 0.281

SN SAMPLE P586
ABS = 0.000 CONC = 0.000
S.DEV = .001 RSD = 0.0%

READINGS
-0.001 0.001

SN SAMPLE P587
ABS = .012 CONC = 3.636
S.DEV = 0.000 RSD = 0.0%

READINGS
0.012 0.012

SN SAMPLE P588
ABS = .001 CONC = .303
S.DEV = .001 RSD = 100.0%

READINGS
0.000 0.001

SN SAMPLE P589
ABS = .021 CONC = 6.363
S.DEV = .002 RSD = 9.5%

READINGS
0.019 0.022

SN SAMPLE P590
ABS = .003 CONC = .909
S.DEV = 0.000 RSD = 0.0%

READINGS
0.003 0.003

SN SAMPLE P590D
[illegible]

0.019 0.022

SN SAMPLE P590
ABS = .003 CONC = .909
S.DEV = 0.000 RSD = 0.0%

READINGS
0.003 0.003

SN SAMPLE P590D
ABS = .007 CONC = 2.121
S.DEV = .001 RSD = 14.3%

READINGS
0.006 0.008

SN SAMPLE [redacted] P590 SP, 200 ppb
ABS = .461 CONC = 159.400
S.DEV = .002 RSD = .4%

READINGS
0.459 0.463

SN SAMPLE [redacted] P590 SP, 200 ppb
ABS = .563 CONC = 205.130
S.DEV = .003 RSD = .5%

READINGS
0.560 0.565

SN SAMPLE SN 100
ABS = .303 CONC = 97.691
S.DEV = 0.000 RSD = 0.0%

READINGS
0.303 0.303

SN SAMPLE P591
ABS = .006 CONC = 1.818
S.DEV = .001 RSD = 16.7%

READINGS
0.007 0.005

SN SAMPLE P592
ABS = .008 CONC = 2.424
S.DEV = .001 RSD = 12.5%

READINGS
0.009 0.007

SN SAMPLE P593
ABS = .012 CONC = 3.636
S.DEV = .001 RSD = 8.3%

READINGS
0.011 0.012

SN SAMPLE P594
ABS = .001 CONC = .303
S.DEV = .001 RSD = 100.0%

READINGS
0.002 0.000

SN SAMPLE P595
ABS = .009 CONC = 2.727
S.DEV = .003 RSD = 33.3%

READINGS
0.006 0.011

SN SAMPLE P596
ABS = 0.000 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
0.000 0.000

SN SAMPLE P597
ABS = .030 CONC = 9.090
S.DEV = 0.000 RSD = 0.0%

READINGS
0.030 0.030

SN SAMPLE P598

```
SN SAMPLE P597
   ABS =     .030  CONC =    9.090
 S.DEV =    0.000   RSD =    0.0%

   READINGS
   0.030    0.030


SN SAMPLE P598
   ABS =    -.001  CONC =    0.000
 S.DEV =     .001   RSD =  100.0%

   READINGS
   0.000   -0.001


SN SAMPLE P599
   ABS =     .020  CONC =    6.060
 S.DEV =     .002   RSD =   10.0%

   READINGS
   0.022    0.018


SN SAMPLE P600
   ABS =     .002  CONC =     .606
 S.DEV =     .001   RSD =   50.0%

   READINGS
   0.001    0.002


SN SAMPLE SN 100
   ABS =     .317  CONC =  102.790
 S.DEV =     .004   RSD =    1.3%

   READINGS
   0.320    0.314


SN SAMPLE P601
   ABS =    -.002  CONC =    0.000
 S.DEV =     .001   RSD =   50.0%

   READINGS
  -0.001   -0.003


SN SAMPLE P602
   ABS =    -.001  CONC =    0.000
 S.DEV =     .003   RSD =  300.0%

   READINGS
   0.002   -0.003


SN SAMPLE P603
   ABS =     .003  CONC =     .909
 S.DEV =     .001   RSD =   33.3%

   READINGS
   0.003    0.002


SN SAMPLE P603D
   ABS =     .002  CONC =     .606
 S.DEV =     .004   RSD =  200.0%

   READINGS
  -0.001    0.005


SN SAMPLE P603SP 20.0 µg
   ABS =     .383  CONC =  127.720
 S.DEV =     .005   RSD =    1.3%

   READINGS
   0.379    0.387


SN SAMPLE P603SP 40.0 µg
   ABS =     .433  CONC =  147.730
 S.DEV =     .004   RSD =     .9%

   READINGS
   0.430    0.436


SN SAMPLE P604
   ABS =     .004  CONC =    1.212
 S.DEV =     .001   RSD =   25.0%

   READINGS
   0.003    0.004


SN SAMPLE P605
   ABS =     .001  CONC =     .303
 S.DEV =     .001   RSD =  100.0%
```

SN SAMPLE P604
ABS = .004 CONC = 1.212
S.DEV = .001 RSD = 25.0%

READINGS
0.003 0.004

SN SAMPLE P605
ABS = .001 CONC = .303
S.DEV = .001 RSD = 100.0%

READINGS
0.000 0.001

SN SAMPLE P605D
ABS = -.001 CONC = 0.000
S.DEV = .001 RSD = 100.0%

READINGS
-0.002 0.000

SN SAMPLE P605P 200 %
ABS = .437 CONC = 149.370
S.DEV = .001 RSD = .2%

READINGS
0.436 0.437

SN SAMPLE SN 100
ABS = .310 CONC = 100.230
S.DEV = .013 RSD = 4.2%

READINGS
0.319 0.300

SN SAMPLE P605SP400 %
ABS = .525 CONC = 187.500
S.DEV = .002 RSD = .4%

READINGS
0.527 0.523

SN SAMPLE P606
ABS = .002 CONC = .606
S.DEV = .002 RSD = 100.0%

READINGS
0.003 0.000

SN SAMPLE P607
ABS = .571 CONC = 208.900
S.DEV = .020 RSD = 3.5%

READINGS
0.585 0.556

SN SAMPLE P607D
ABS = .356 CONC = 117.330
S.DEV = .003 RSD = .8%

READINGS
0.353 0.358

SN SAMPLE VOID
ABS = .645 Overrange
S.DEV = .007 RSD = 1.1%

READINGS
0.650 0.639

SN SAMPLE VOID
ABS = .676 Overrange
S.DEV = .001 RSD = .1%

READINGS
0.675 0.677

SN SAMPLE P608
ABS = .118 CONC = 35.757
S.DEV = .001 RSD = .8%

READINGS
0.117 0.118

SN SAMPLE P609
ABS = .119 CONC = 36.060
S.DEV = .001 RSD = .8%

```
SN SAMPLE P608
   ABS =     .118  CONC =  35.757
 S.DEV =     .001   RSD =    .8%

   READINGS
   0.117   0.118


SN SAMPLE P609
   ABS =     .119  CONC =  36.060
 S.DEV =     .001   RSD =    .8%

   READINGS
   0.120   0.118


SN SAMPLE P585
   ABS =     .001  CONC =    .303
 S.DEV =     .001   RSD = 100.0%

   READINGS
   0.000   0.001


SN SAMPLE P BLK
   ABS =    -.001  CONC =   0.000
 S.DEV =   0.000   RSD =   0.0%

   READINGS
  -0.001  -0.001


SN SAMPLE SN 100
   ABS =     .253  CONC =  79.995
 S.DEV =     .004   RSD =   1.6%

   READINGS
   0.250   0.256


SN SAMPLE VOID
   ABS =     .662   Overrange
 S.DEV =     .006   RSD =    .9%

   READINGS
   0.666   0.657


SN SAMPLE VOID
   ABS =     .003  CONC =    .909
 S.DEV =   0.000   RSD =   0.0%

   READINGS
   0.003


SN SAMPLE P607
   ABS =     .558  CONC = 202.790
 S.DEV =     .001   RSD =    .2%

   READINGS
   0.557   0.559


SN SAMPLE P607DP
   ABS =     .354  CONC = 116.570
 S.DEV =     .002   RSD =    .6%

   READINGS
   0.356   0.352

                   BIV
SN SAMPLE P607SP ~~1/2~~ 400 1/4
   ABS =     .531  CONC = 190.240
 S.DEV =     .006   RSD =   1.1%

   READINGS
   0.535   0.526


SN SAMPLE SN 100
   ABS =     .323  CONC = 104.990
 S.DEV =     .015   RSD =   4.6%

   READINGS
   0.334   0.312


SN SAMPLE BAKER 100
   ABS =     .281  CONC =  89.811
 S.DEV =     .010   RSD =   3.6%

   READINGS
   0.288   0.273
```

CALIFORNIA ANALYTICAL LABS. INC.

AA RUNNING REPORT

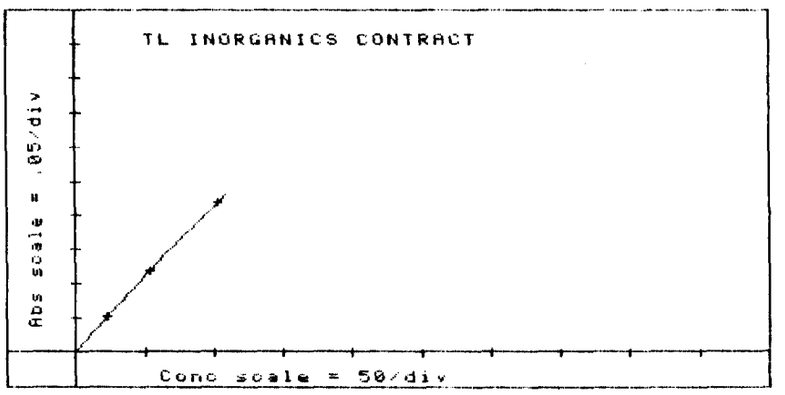
OPERATOR: LSZ

DATE: 3/8/84

BATCH: 2459,2389 With 2489

PROGRAM # 7 TL INORGANICS CONTRACT

SOLUTION	CONC PPB	RSD %	MEAN ABS.	ABSORBANCE READINGS		RESLOPE FACTOR
BLANK	0.000	50	-.002	-.001	-.002	1.000
STANDARD 1	20	2.2	.045	.046	.044	1.000
STANDARD 2	50	.9	.111	.11	.112	1.000
STANDARD 3	100	.9	.213	.214	.211	1.000



SAMPLE 1	78.18	.6	.17	.169	.171	1.000
SAMPLE 2	0.000	10	-.01	-.009	-.01	1.000
SAMPLE 3	0.000	5.9	-.017	-.017	-.016	1.000
SAMPLE 4	0.000	0.0	-.019	-.019	-.019	1.000
SAMPLE 5	0.000	33.3	-.006	-.007	-.004	1.000
SAMPLE 6	46.29	1	.103	.102	.103	1.000
SAMPLE 7	0.000	9.1	-.011	-.01	-.012	1.000
SAMPLE 8	0.000	10	-.01	-.009	-.01	1.000
SAMPLE 9	0.000	10	-.01	-.009	-.011	1.000
SAMPLE 10	3.111	14.3	.007	.006	.007	1.000
SAMPLE 11	48.60	8.3	.108	.101	.115	1.000
SAMPLE 12	75.23	1.2	.164	.162	.166	1.000
SAMPLE 13	.444	100	.001	.001	0.000	1.000
SAMPLE 14	0.000	0.0	0.000	0.000	0.000	1.000
SAMPLE 15	0.000	9.1	-.011	-.011	-.01	1.000
SAMPLE 16	0.000	6.3	-.016	-.015	-.017	1.000
SAMPLE 17	0.000	0.0	-.017	-.017	-.017	1.000
SAMPLE 18	47.21	1	.105	.104	.105	1.000
SAMPLE 19	66.51	0.0	.146	.146	.146	1.000
SAMPLE 20	0.000	4	-.025	-.025	-.024	1.000
SAMPLE 21	46.29	1	.103	.104	.102	1.000
SAMPLE 22	65.07	0.0	.143	.143	.143	1.000
SAMPLE 23	75.72	.6	.165	.164	.165	1.000
SAMPLE 24	42.15	1.1	.094	.094	.093	1.000
SAMPLE 25	58.89	.8	.13	.13	.129	1.000
SAMPLE 26	74.74	.6	.163	.162	.164	1.000

SAMPLE	24	42.15	1.1	.094	.094	.093	1.000
SAMPLE	25	58.89	.8	.13	.13	.129	1.000
SAMPLE	26	74.74	.6	.163	.162	.164	1.000
SAMPLE	27	0.000	0.0	0.000	.162	.164	1.000

TL INORGANICS CONTRACT

Concentration units PPB

TL BLANK
ABS = -.002 CONC = 0.000
S.DEV = .001 RSD = 50.0%

READINGS
-0.001 -0.002

TL STANDARD 1
ABS = .045 CONC = 20.000
S.DEV = .001 RSD = 2.2%

READINGS
0.046 0.044

TL STANDARD 2
ABS = .111 CONC = 50.000
S.DEV = .001 RSD = .9%

READINGS
0.110 0.112

TL STANDARD 3
ABS = .213 CONC = 100.000
S.DEV = .002 RSD = .9%

READINGS
0.214 0.211

TL SAMPLE ALDRICH 80
ABS = .170 CONC = 78.182
S.DEV = .001 RSD = .6%

READINGS
0.169 0.171

TL SAMPLE P BLK
ABS = -.010 CONC = 0.000
S.DEV = .001 RSD = 10.0%

READINGS
-0.009 -0.010

TL SAMPLE P605
ABS = -.017 CONC = 0.000
S.DEV = .001 RSD = 5.9%

READINGS
-0.017 -0.016

TL SAMPLE P605 DUP
ABS = -.019 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
-0.019 -0.019

TL SAMPLE VOID
ABS = -.006 CONC = 0.000
S.DEV = .002 RSD = 33.3%

READINGS
-0.007 -0.004

TL SAMPLE VOID
ABS = .103 CONC = 46.295
S.DEV = .001 RSD = 1.0%

READINGS
0.102 0.103

TL SAMPLE P606
ABS = -.011 CONC = 0.000
S.DEV = .001 RSD = 9.1%

READINGS
-0.010 -0.012

TL SAMPLE P607

TL SAMPLE P606
ABS = -.011 CONC = 0.000
S.DEV = .001 RSD = 9.1%

READINGS
-0.010 -0.012

TL SAMPLE P607
ABS = -.010 CONC = 0.000
S.DEV = .001 RSD = 10.0%

READINGS
-0.009 -0.010

TL SAMPLE P607 DUP
ABS = -.010 CONC = 0.000
S.DEV = .001 RSD = 10.0%

READINGS
-0.009 -0.011

TL SAMPLE VOID
ABS = .007 CONC = 3.111
S.DEV = .001 RSD = 14.3%

READINGS
0.006 0.007

TL SAMPLE VOID
ABS = .108 CONC = 48.608
S.DEV = .009 RSD = 8.3%

READINGS
0.101 0.115

TL SAMPLE ALDRICH 80
ABS = .164 CONC = 75.234
S.DEV = .002 RSD = 1.2%

READINGS
0.162 0.166

TL SAMPLE P608
ABS = .001 CONC = .444
S.DEV = .001 RSD = 100.0%

READINGS
0.001 0.000

TL SAMPLE P609
ABS = 0.000 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
0.000 0.000

TL SAMPLE P BLK
ABS = -.011 CONC = 0.000
S.DEV = .001 RSD = 9.1%

READINGS
-0.011 -0.010

TL SAMPLE P603
ABS = -.016 CONC = 0.000
S.DEV = .001 RSD = 6.3%

READINGS
-0.015 -0.017

TL SAMPLE P603 DUP
ABS = -.017 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
-0.017 -0.017

TL SAMPLE P603 SPIKE , 100 1/2
ABS = .105 CONC = 47.219
S.DEV = .001 RSD = 1.0%

READINGS
0.104 0.105

TL SAMPLE P603 SPIKE , 200 1/3
ABS = .146 CONC = 66.512
S.DEV = 0.000 RSD = 0.0%

TL SAMPLE P BLK
ABS = -.011 CONC = 0.000
S.DEV = .001 RSD = 9.1%

READINGS
-0.011 -0.010

TL SAMPLE P603
ABS = -.016 CONC = 0.000
S.DEV = .001 RSD = 6.3%

READINGS
-0.015 -0.017

TL SAMPLE P603 DUP
ABS = -.017 CONC = 0.000
S.DEV = 0.000 RSD = 0.0%

READINGS
-0.017 -0.017

TL SAMPLE P603 SPIKE, 100, 1/2
ABS = .105 CONC = 47.219
S.DEV = .001 RSD = 1.0%

READINGS
0.104 0.105

TL SAMPLE P603 SPIKE, 200, 1/3
ABS = .146 CONC = 66.512
S.DEV = 0.000 RSD = 0.0%

READINGS
0.146 0.146

TL SAMPLE P604
ABS = -.025 CONC = 0.000
S.DEV = .001 RSD = 4.0%

READINGS
-0.025 -0.024

TL SAMPLE P605 SPIKE, 100, 1/2
ABS = .103 CONC = 46.295
S.DEV = .001 RSD = 1.0%

READINGS
0.104 0.102

TL SAMPLE P605 SPIKE 200, 1/3
ABS = .143 CONC = 65.074
S.DEV = 0.000 RSD = 0.0%

READINGS
0.143 0.143

TL SAMPLE ALDRICH 80
ABS = .165 CONC = 75.724
S.DEV = .001 RSD = .6%

READINGS
0.164 0.165

TL SAMPLE P607 SPIKE, 100, 1/2
ABS = .094 CONC = 42.155
S.DEV = .001 RSD = 1.1%

READINGS
0.094 0.093

TL SAMPLE P607 SPIKE, 200, 1/3
ABS = .130 CONC = 58.896
S.DEV = .001 RSD = .8%

READINGS
0.130 0.129

TL SAMPLE ALDRICH 80
ABS = .163 CONC = 74.745
S.DEV = .001 RSD = .6%

READINGS
0.162 0.164

2/20/84 Sn Analysis AA 875 I
Case 2428

Tl Analysis AA 875 II

3/1/84 Ag Analysis Plasma AA
BBV Cases: 2428, 2459, 2389, 2404

Stds	Abs
200	0.088
100	0.054
70	0.039
50	0.029
30	0.019
10	0.008
WP878: 24PPB	0.017 = 26PPB

Samples	Abs	Ag (PPB)
PBLK	0.000	<10
PBLK	0.000	
PBLK	0.001	
P557	-0.003	
P557D	-0.003	
P558	0.001	

Samples	Abs	Ag (PPB)
P559	-0.006	<10
P560	0.000	
P561	-0.006	
P562	0.006	
Ag70	0.040	72
P563	-0.005	<10
P564	-0.005	
P565	-0.003	
P566	-0.001	
P567	-0.006	
P568	-0.004	
P569	-0.002	
P570	0.001	
P571	0.000	
P572	0.000	
Ag70	0.041	74

3/1/84
BEV

Ag Analysis (cont)

Samples	Abs	Ag (PPB)
P572D	0.000	<10
P573	0.001	
P574	-0.001	
P575	0.002	
P576	0.000	
P577	-0.001	
P578	0.000	
P579	-0.002	
P580	-0.001	
P581	-0.003	
Ag 70	0.042	76
P582	0.003	<10
P583	0.004	
P584	0.001	
P585	0.005	
P586	-0.008	
P587	-0.007	
P588	-0.002	
P589	-0.004	

Last ref std WP378: 24PPB
Abs = 0.016 - 24.5PPB

Samples	Abs	Ag (PPB)
P590	0.001	<10
P590D	-0.001	"
Ag 70	0.040	72
P591	0.003	<10
P592	-0.002	
P593	0.002	
P594	0.000	
P595	0.000	
P596	0.000	
P597	0.003	
P598	0.000	
P599	-0.003	
P600	-0.002	
Ag 70	0.039	70
P601	0.000	
P602	0.001	<10
P603	-0.002	
P603D	0.001	
P604	0.000	
P605	-0.001	
P605D	-0.002	
P606	-0.002	
P607	0.017	26
P607D	0.010	14
Ag 70	0.042	76
P608	0.002	<10
P609	0.001	<10
P572 Sp 100 1/2	0.030	52×2=104
P577 Sp 100 1/2	0.029	50×2=100
P590 Sp 100 1/2	0.031	54×2=108
P603 Sp 100 1/2	0.029	50×2=100
P605 Sp 100 1/2	0.029	50×2=100
P607 Sp 100 1/2	0.035	62×2=124
Ag 70	0.040	72

124-26=98% recovery

3/7/84 BEV — As Analysis AA875 II
Case 2404

3/8/84 BEV — Pb, ~~Cd~~ ~~Se~~ BEV Analysis AA875 I + II
Cases 2459, 2389

3/10/84 BEV — As, Se, Sb Analysis AA875 I + II
Cases 2459, 2389

BEV — Cd Analysis
Case 2404 (590-602)

3/11/84 BEV — Pb, Sn Analysis Furnace AA 875 I + II
Case: 2501

BEV — Hg Analysis : Cases: 2459, 2339, 2501, 2415, 2424, 2414

Std (ppb)	Peak Ht	Samples	Peak Ht	Hg (ppb)	Samples	Peak Ht	Hg (ppb)
BLK	1.5	P BLK	<1.5	<0.1	P603 Sp 2.0 ppb	17.0	1.77
0.2	3.0	P BLK	<1.5	<0.1	1.0 ppb	9.5	0.95
0.5	6.0	P BLK	<1.5	<0.1	P608	<3.0	<0.2
1.0	10.0	P603	<3.0	<0.2	P609	39	4.5
2.0	19.5	P603D	<3.0	"	P610	<3.0	<0.2
3.0	27.5	P603 Sp 2.0 PPB	17.5	1.83	P611	<3.0	"
5.0	43.0	P604	<3.0	<0.2	P612	3.0	0.2
3.0 PPB Rinse Ref	28.0	P605	"	"	P613	<3.0	<0.2
		P605 D	"	"	P614	"	"
on next page	—	P605 Sp 2.0 ppb BEV	—	—	P615	"	"
		P606	<3.0	<0.2	P615 D	"	"
		P607	"	"	P615 Sp 2.0 ppb	17.0	1.77
		P607 D	"	"	1.0 ppb	9.5	0.95

3/11/84 Hg Analysis (cont)

Samples	Peak Ht	Hg (PPB)	Samples	Peak Ht	Hg (PPB)	Samples	Peak Ht	Hg (PPB)
P616	<3.0	<0.2	P642	<3.0	<0.2	P653	<3.0	<0.2
P617	5.0	0.38	P643	"	"	P653D	"	"
P618	<3.0	<0.2	P644	"	"	P653 sp 2.0 ppb	16.5	1.71
P619	"	"	P645	"	"	P635	4.0	0.25
P620	"	"	1.0 ppb	9.0	0.90	P636	<3.0	<0.2
P621	"	"	P646	<3.0	<0.2	P631	<3.0	"
P622	"	"	P647	"	"	P632	"	"
P623	"	"	P648	"	"	P633	"	"
P624	"	"	P649	"	"	P633D	"	"
P625	"	"	P650	"	"	P633 sp 2.0 ppb	17.5	1.83
1.0 ppb	9.5	0.95	P650D	"	"	1.0 ppb	10.0	1.00
P626	<3.0	~~0.95~~ BDL <0.2	P650 sp 2.0 ppb	17.5	1.83	P634	<3.0	<0.2
P627	"	<0.2	P651	<3.0	<0.2	P637	5.0	0.38
P628	"	"	P652	"	"	P638	<3.0	<0.2
P629	"	"	P652D	"	"	P639	<3.0	"
P630	"	"	P652 sp 2.0 ppb	17.0	1.77	P640	12.0	1.2
P630 sp 2.0 ppb	17.0	1.77	1.0 ppb	8.5	0.85	P640D	8.0	0.75
						P640 sp 2.0 ppb	41.0	4.7
						P641	3.0	0.2
						1.0 ppb	12.0	1.20

3/11/83 Total Digestion

Cases: 2501, 2415, 2424, 2414

Trans
4-25-84

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 4/24/84

SUBJECT: Review of Region V CLP Data
Received for Review on 4/13/84

FROM: Curtis Ross, Director
Central Regional Laboratory
Chuck Eldy

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME Laclede Steel Company SMO Case No. 2459

EPA Data Set No. SF247 No. of Samples 5 D.U./Activity Numbers 4905 1C48506

CRL No. 84MC04531 to 84MC04534

SMO Traffic No. E7165 to E7074

Contract Laboratory: U.S. Testing Hours Required for Review: _____

Following are our findings.

Unreviewed Data

( ) Data are acceptable for use.
( ) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Robert Pritchard, CLP/SMO

EPA FORM 1320-6 (REV 3-76)

P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
E 7074

84MC04534

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Lab Sample ID No: 77056-4
Sample Matrix: Soil
Data Release Authorized By: jl

Case No: 2459
QC Report No: 56
Contract No.: 68-01-6726
Date Sample Received: 2/23/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/26/84
DATE ANALYZED: 2/26
PERCENT MOISTURE: 59.85
CONC./DILUTION FACTOR: —

Multiply det. limits by 2.5

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
(4V)	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride	38C ~~5 U~~
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 K
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	5 U
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U
	1330-20-7	total xylenes	5 U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/5 + 3/13
PERCENT MOISTURE: 59.85
CONC./DILUTION FACTOR: —

Multiply det. limits by 468

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	.005 U
(90P)	60-57-1	dieldrin	.005 U
(91P)	57-74-9	chlordane	.005 U
(92P)	50-29-3	4,4'-DDT	.010 U
(93P)	72-55-9	4,4'-DDE	.005 U
(94P)	72-54-8	4,4'-DDD	.010 U
(95P)	115-29-7	α-endosulfan	.005 U
(96P)	115-29-7	β-endosulfan	.005 U
(97P)	1031-07-8	endosulfan sulfate	.010 U
(98P)	72-20-8	endrin	.005 U
(99P)	7421-93-4	endrin aldehyde	.010 U
(100P)	76-44-8	heptachlor	.005 U
(101P)	1024-57-3	heptachlor epoxide	.005 U
(102P)	319-84-6	α-BHC	.005 U
(103P)	319-85-7	β-BHC	.005 U
(104P)	319-86-8	δ-BHC	.005 U
(105P)	58-89-9	γ-BHC (lindane)	.005 U
(106P)	53469-21-9	PCB-1242	.050 U
(107P)	11097-69-1	PCB-1254	.100 U
(108P)	11104-28-2	PCB-1221	.100 U
(109P)	11141-16-5	PCB-1232	.100 U
(110P)	12672-29-6	PCB-1248	338 ~~.100 U~~
(111P)	11096-82-5	PCB-1260	.200 U
(112P)	12674-11-2	PCB-1016	.050 U
(113P)	8001-35-2	toxaphene	.050 U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/16
PERCENT MOISTURE: 59.85
CONC./DILUTION FACTOR: —

Multiply det. limit by 468

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	.005 U

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Sample Number
E 7074

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Case No: 2459
Lab Sample ID No: 77056-4
QC Report No: 56
Sample Matrix: Soil
Contract No.: 68-01-6726
Data Release Authorized By: jf
Date Sample Received: 2/23/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/5
PERCENT MOISTURE: 59.85
CONC./DILUTION FACTOR: 10
Multiply det. limits by 475

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 U
(53B)	77-47-4	hexachlorocyclopentadiene	10 U
(54B)	78-59-1	isophorone	10 U
(55B)	91-20-3	naphthalene	10 U
(56B)	98-95-3	nitrobenzene	10 U
(61B)	62-75-9	N-nitrosodimethylamine	10 U
(62B)	86-30-6	N-nitrosodiphenylamine	10 U
(63B)	621-64-7	N-nitrosodipropylamine	10 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10 U
(69B)	117-84-0	di-n-octyl phthalate	10 U
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10 U
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number: E7074

Laboratory Name: U S TESTING Case No: 2459

QC Report No: 56

B. Tentatively Identified Compounds

	CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routine: (Specify: FIT)	Estimated Concentration (ug/L or ug/kg)
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Sample Number
E7073

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Case No: 2459 911C04533
Lab Sample ID No: 77056-3
QC Report No: 56
Sample Matrix: Soil
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/26/84
DATE ANALYZED: 2/26
PERCENT MOISTURE: 43.50
CONC./DILUTION FACTOR: —

Multiply det. limits by 1.8

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
(4V)	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride ND B	~~5 U~~
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 U
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	5 U
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone 13	~~5 U~~
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U
	1330-20-7	total xylenes	5 U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/5 + 3/13
PERCENT MOISTURE: 43.50
CONC./DILUTION FACTOR: —

Multiply det. limits by 304

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	.005 U
(90P)	60-57-1	dieldrin	.005 U
(91P)	57-74-9	chlordane	.005 U
(92P)	50-29-3	4,4'-DDT	.010 U
(93P)	72-55-9	4,4'-DDE	.005 U
(94P)	72-54-8	4,4'-DDD	.010 U
(95P)	115-29-7	α-endosulfan	.005 U
(96P)	115-29-7	β-endosulfan	.005 U
(97P)	1031-07-8	endosulfan sulfate	.010 U
(98P)	72-20-8	endrin	.005 U
(99P)	7421-93-4	endrin aldehyde	.010 U
(100P)	76-44-8	heptachlor	.005 U
(101P)	1024-57-3	heptachlor epoxide	.005 U
(102P)	319-84-6	α-BHC	.005 U
(103P)	319-85-7	β-BHC	.005 U
(104P)	319-86-8	δ-BHC	.005 U
(105P)	58-89-9	γ-BHC (lindane)	.005 U
(106P)	53469-21-9	PCB-1242	.050 U
(107P)	11097-69-1	PCB-1254	.100 U
(108P)	11104-28-2	PCB-1221	.100 U
(109P)	11141-16-5	PCB-1232	.100 U
(110P)	12672-29-6	PCB-1248 234	~~.100 U~~
(111P)	11096-82-5	PCB-1260	.200 U
(112P)	12674-11-2	PCB-1016	.050 U
(113P)	8001-35-2	toxaphene	.050 U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27
DATE ANALYZED: 3/16
PERCENT MOISTURE: 43.50
CONC./DILUTION FACTOR: —

Multiply det limit by 304

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	.005 U

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Sample Number
E 7073

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Case No: 2459
Lab Sample ID No: 77056-3
QC Report No: 56
Sample Matrix: Soil
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27
DATE ANALYZED: 3/5
PERCENT MOISTURE: 43.50
CONC./DILUTION FACTOR: 10

PP #	CAS #		ug/l or (ug/kg) (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or (ug/kg) (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 U
(53B)	77-47-4	hexachlorocyclopentadiene	10 U
(54B)	78-59-1	isophorone	10 U
(55B)	91-20-3	naphthalene	10 U
(56B)	98-95-3	nitrobenzene	10 U
(61B)	62-75-9	N-nitrosodimethylamine	10 U
(62B)	86-30-6	N-nitrosodiphenylamine	10 U
(63B)	621-64-7	N-nitrosodipropylamine	10 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10 U
(69B)	117-84-0	di-n-octyl phthalate	10 U
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10 U
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
E7073

Laboratory Name: U S TESTING Case No: 2459
QC Report No: 56

B. Tentatively Identified Compounds

CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routine: (Specify: FIT)	Estimated Concentration (ug/L or ug/kg)
1.	2 Propanone	VOA	275	885	
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Sample Number
E 7072

ORGANICS ANALYSIS DATA SHEET

8MC04532

Laboratory Name: U S TESTING
Case No: 2459
Lab Sample ID No: 77056-2
QC Report No: 56
Sample Matrix: Soil
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/26/84
DATE ANALYZED: 2/26
PERCENT MOISTURE: 21.16
CONC./DILUTION FACTOR: —

Multiply det. limits by 1.3

PP #	CAS #		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
(4V)	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride ND B	~~5 U~~
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 U
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	5 U
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone ID	~~5 U~~
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U
	1330-20-7	total xylenes	5 U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/5 & 3/13
PERCENT MOISTURE: 21.16
CONC./DILUTION FACTOR: —

Multiply det limits by 260

PP #	CAS #		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	.005 U
(90P)	60-57-1	dieldrin	.005 U
(91P)	57-74-9	chlordane	.005 U
(92P)	50-29-3	4,4'-DDT	.010 U
(93P)	72-55-9	4,4'-DDE	.005 U
(94P)	72-54-8	4,4'-DDD	.010 U
(95P)	115-29-7	α-endosulfan	.005 U
(96P)	115-29-7	β-endosulfan	.005 U
(97P)	1031-07-8	endosulfan sulfate	.010 U
(98P)	72-20-8	endrin	.005 U
(99P)	7421-93-4	endrin aldehyde	.010 U
(100P)	76-44-8	heptachlor	.005 U
(101P)	1024-57-3	heptachlor epoxide	.005 U
(102P)	319-84-6	α-BHC	.005 U
(103P)	319-85-7	β-BHC	.005 U
(104P)	319-86-8	δ-BHC	~~.005 U~~
(105P)	58-89-9	γ-BHC (lindane)	.005 U
(106P)	53469-21-9	PCB-1242	.050 U
(107P)	11097-69-1	PCB-1254	.100 U
(108P)	11104-28-2	PCB-1221	.100 U
(109P)	11141-16-5	PCB-1232	.100 U
(110P)	12672-29-6	PCB-1248	~~.100 U~~
(111P)	11096-82-5	PCB-1260	.200 U
(112P)	12674-11-2	PCB-1016	.050 U
(113P)	8001-35-2	toxaphene	.050 U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/16
PERCENT MOISTURE: 21.16
CONC./DILUTION FACTOR: —

Multiply det. limit by 260

PP #	CAS #		ug/l or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	.005 U

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P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
E 7072

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Case No: 2459
Lab Sample ID No: 77056-2
QC Report No: 56
Sample Matrix: Soil
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/6
PERCENT MOISTURE: 21.16
CONC./DILUTION FACTOR: 10

PP #	CAS #		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 U
(53B)	77-47-4	hexachlorocyclopentadiene	10 U
(54B)	78-59-1	isophorone	10 U
(55B)	91-20-3	naphthalene	10 U
(56B)	98-95-3	nitrobenzene	10 U
(61B)	62-75-9	N-nitrosodimethylamine	10 U
(62B)	86-30-6	N-nitrosodiphenylamine	10 U
(63B)	621-64-7	N-nitrosodipropylamine	10 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10 U
(69B)	117-84-0	di-n-octyl phthalate	10 U
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10 U
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
E7072

Laboratory Name: U S TESTING Case No: 2459

QC Report No: 56

B. Tentatively Identified Compounds

	CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routine: (Specify: FIT)	Estimated Concentration (ug/L or ug/kg)
1.		Unknow	~~ABN~~	257	–	
2.		4methyl 4Hydroxy 2Pentanone	ABN	410	979	
3.						
4.		2 Propanone	VOA	275	972	
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P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
E 7165

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Case No: 2459 84MC04S31
Lab Sample ID No: 77056-1
QC Report No: 56
Sample Matrix: water
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/26/84
DATE ANALYZED: 2/26
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

PP #	CAS #		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
(4V)	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 K
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride ND B	~~5 B~~
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	10 U
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 K
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	5 U
	78-93-3	2-butanone 134	~~5 U~~
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone 13	~~5 U~~
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 2/29 + 3/13
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

Multiply det. limits by 2

PP #	CAS #		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	.005 U
(90P)	60-57-1	dieldrin	.005 U
(91P)	57-74-9	chlordane	.005 U
(92P)	50-29-3	4,4'-DDT	.010 U
(93P)	72-55-9	4,4'-DDE	.005 U
(94P)	72-54-8	4,4'-DDD	.010 U
(95P)	115-29-7	α-endosulfan	.005 U
(96P)	115-29-7	β-endosulfan	.005 U
(97P)	1031-07-8	endosulfan sulfate	.010 U
(98P)	72-20-8	endrin	.005 U
(99P)	7421-93-4	endrin aldehyde	.010 U
(100P)	76-44-8	heptachlor	.005 U
(101P)	1024-57-3	heptachlor epoxide	.005 U
(102P)	319-84-6	α-BHC	.005 U
(103P)	319-85-7	β-BHC	.005 U
(104P)	319-86-8	δ-BHC 0.120	~~.005 U~~
(105P)	58-89-9	γ-BHC (lindane)	.005 U
(106P)	53469-21-9	PCB-1242	.050 U
(107P)	11097-69-1	PCB-1254	.100 U
(108P)	11104-28-2	PCB-1221	.100 U
(109P)	11141-16-5	PCB-1232	.100 U
(110P)	12672-29-6	PCB-1248	.100 U
(111P)	11096-82-5	PCB-1260	.200 U
(112P)	12674-11-2	PCB-1016	.050 U
(113P)	8001-35-2	toxaphene	.050 U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/16
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

Multiply det. limit by 2

PP #	CAS #		(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	.005 U

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Sample Number
E7165

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: US TESTING
Case No: 2459
Lab Sample ID No: 77056-1
QC Report No: 52
Sample Matrix: water
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/8/84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

PP #	CAS #		(ug/l) or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		(ug/l) or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 U
(53B)	77-47-4	hexachlorocyclopentadiene	10 U
(54B)	78-59-1	isophorone	10 U
(55B)	91-20-3	naphthalene	10 U
(56B)	98-95-3	nitrobenzene	10 U
(61B)	62-75-9	N-nitrosodimethylamine	10 U
(62B)	86-30-6	N-nitrosodiphenylamine	10 U
(63B)	621-64-7	N-nitrosodipropylamine	10 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10 U
(69B)	117-84-0	di-n-octyl phthalate	10 U
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10 U
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
E 7165

Laboratory Name: U S TESTING Case No: 2459
QC Report No: 56

B. Tentatively Identified Compounds

CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routine: (Specify: FIT)	Estimated Concentration (ug/l or ug/kg)
1.	2propanone	VOA	273	984	
2.	Unknown	VOA	237		
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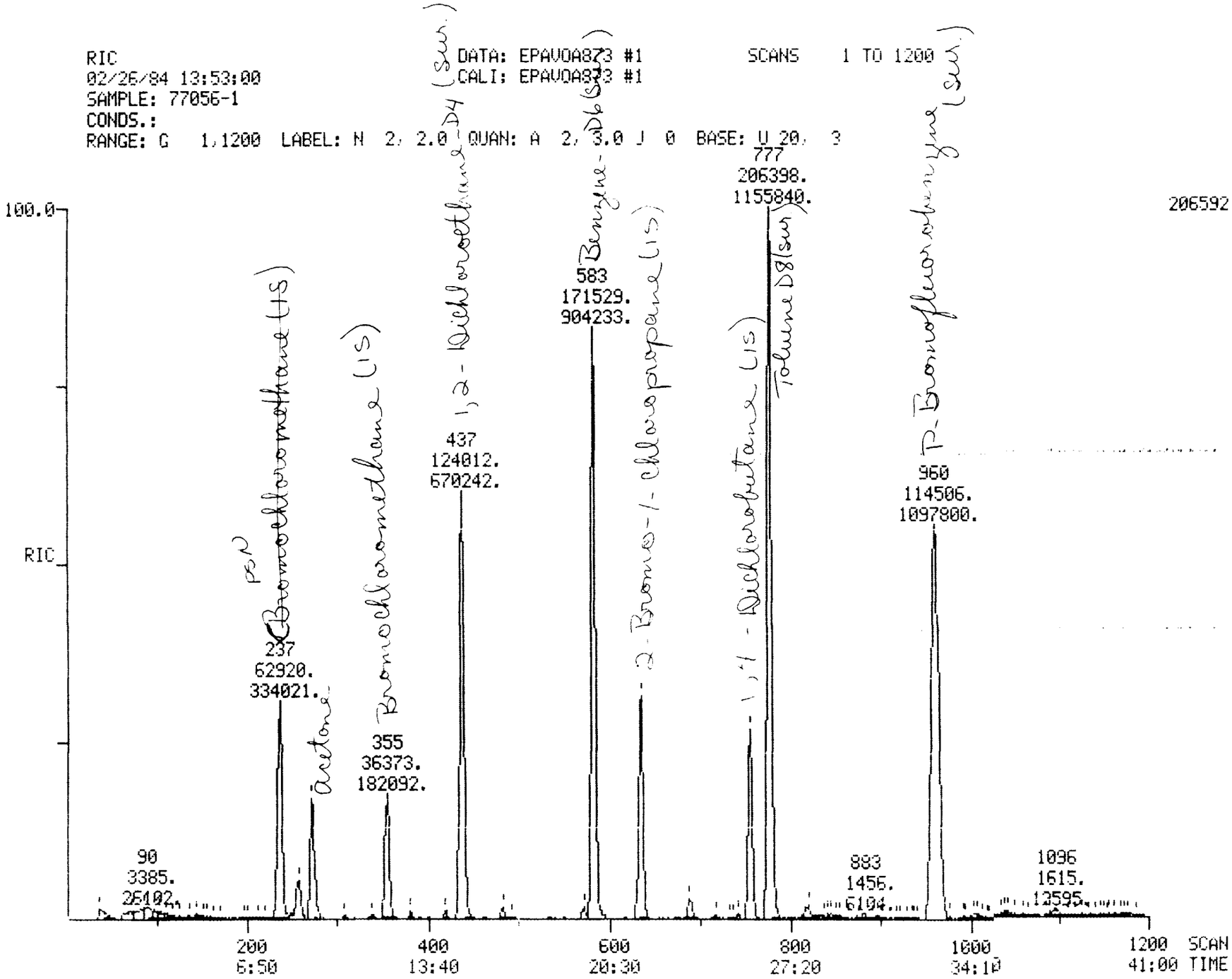
4/82

RIC
02/26/84 13:53:00
SAMPLE: 77056-1
CONDS.:
RANGE: G 1,1200 LABEL: N 2, 2.0 QUAN: A 2, 3.0 J 0 BASE: U 20, 3

DATA: EPAVOA873 #1 SCANS 1 TO 1200
CALI: EPAVOA873 #1



QUANTITATION REPORT FILE: EPAV0A873

DATA: EPAV0A873.TI
02/26/84 13:53:00
SAMPLE: 77056-1
SUBMITTED BY: EPA ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1, 1, 2, 2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	355	12:08	1	1.000	A BB	35393.	50.000 UG/L	4.58
2	77	635	21:42	2	1.000	A BB	117311.	50.000 UG/L	4.58
3	55	755	25:48	3	1.000	A BB	113683.	50.000 UG/L	4.58
~~4~~	~~50~~	~~70~~	~~2:23~~	~~1~~	~~0.197~~	~~A BB~~	~~482.~~	~~0.454 UG/L~~	~~0.04~~
~~5~~	~~94~~	~~118~~	~~4:02~~	~~1~~	~~0.332~~	~~A BB~~	~~508.~~	~~0.278 UG/L~~	~~0.03~~
~~6~~	~~62~~	~~147~~	~~5:01~~	~~1~~	~~0.414~~	~~A BB~~	~~866.~~	~~0.462 UG/L~~	~~0.04~~
~~7~~	~~64~~	~~186~~	~~6:21~~	~~1~~	~~0.524~~	~~A BB~~	~~224.~~	~~0.252 UG/L~~	~~0.02~~
8	84	258	8:49	1	0.727	A BB	13118.	5.611 UG/L	0.51
9	NOT FOUND								
10	NOT FOUND								
~~11~~	~~61~~	~~340~~	~~11:37~~	~~1~~	~~0.958~~	~~A BB~~	~~2476.~~	~~0.923 UG/L~~	~~0.08~~
~~12~~	~~63~~	~~381~~	~~13:01~~	~~1~~	~~1.073~~	~~A BB~~	~~1121.~~	~~0.358 UG/L~~	~~0.03~~
13	NOT FOUND								
~~14~~	~~83~~	~~419~~	~~14:19~~	~~1~~	~~1.180~~	~~A BB~~	~~4006.~~	~~0.988 UG/L~~	~~0.09~~
~~15~~	~~62~~	~~440~~	~~15:02~~	~~1~~	~~1.239~~	~~A BB~~	~~5080.~~	~~1.730 UG/L~~	~~0.16~~
~~16~~	~~97~~	~~483~~	~~16:30~~	~~1~~	~~1.361~~	~~A BB~~	~~2586.~~	~~0.754 UG/L~~	~~0.07~~
~~17~~	~~58~~	~~273~~	~~9:30~~	~~1~~	~~0.769~~	~~A BB~~	~~35810.~~	~~377.051 UG/L~~	~~34.56~~
~~18~~	~~76~~	~~306~~	~~10:27~~	~~1~~	~~0.862~~	~~A BB~~	~~954.~~	~~0.293 UG/L~~	~~0.03~~
19	NOT FOUND								
~~20~~	~~83~~	~~507~~	~~17:19~~	~~2~~	~~0.798~~	~~A BB~~	~~404.~~	~~0.136 UG/L~~	~~0.01~~
~~21~~	~~63~~	~~551~~	~~18:50~~	~~2~~	~~0.868~~	~~A BB~~	~~232.~~	~~0.143 UG/L~~	~~0.01~~
22	NOT FOUND								
~~23~~	~~95~~	~~572~~	~~19:22~~	~~2~~	~~0.901~~	~~A BB~~	~~4243.~~	~~1.678 UG/L~~	~~0.15~~
~~24~~	~~78~~	~~587~~	~~20:03~~	~~2~~	~~0.924~~	~~A BB~~	~~8799.~~	~~2.139 UG/L~~	~~0.20~~
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	72	436	14:54	2	0.687	A BB	14992.	134.447 UG/L	12.32
31	NOT FOUND								
32	43	688	23:30	2	1.083	A BB	11826.	12.534 UG/L	1.15

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB [redacted] DATE [redacted]/84 DUE DATE 3/23/84

NUMBER Y905 RELEASE NUMBER 247 STUDY Laclede Steel Company LLF PRIORITY N CONTRACTOR U.S. Testing

LOG NUMBER	SAMPLE DESCRIPTION	ACID-BASE NEUTRAL CPDS. PRIORITY POLLUTANTS UG/L 2 TOX9561	ACID-BASE NEUTRAL CPDS. ORGANIC SCAN UG/L TOX9571	ACID-BASE NEUTRAL CPDS. PRIORITY POLLUTANTS 3 MG/KG TOX95631	ACID-BASE NEUTRAL CPDS. ORGANIC SCAN MG/KG TOX95731
84MC04531	E 7165	✓			
84MC04805	E 7071	✓			
84MC04532	E 7072			✓	
84MC04533	E 7073			✓	
84MC04534	E 7074			✓	

Case 2459
C48500

1

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB LOGIN DATE 3/9/84 DUE DATE 3/23/84

NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.E. PRIORITY N CONTRACTOR U.S. Testing

(2)

LOG NUMBER	SAMPLE DESCRIPTION	VOLATILE ORGANIC ANALYSES PRIORITY POLLUTANTS UG/L 2 TOX10561	VOLATILE ORGANIC ANALYSES ORGANIC SCAN UG/L TOX10571	VOLATILE ORGANIC ANALYSES PRIORITY POLLUTANTS MG/KG 3 TOX105631	VOLATILE ORGANIC ANALYSES ORGANIC SCAN MG/KG TOX105731
84MC04531	E 7165	✓			
84MC04805	E 7071	✓			
84MC04532	E 7072			✓	
84MC04533	E 7073			✓	
84MC04534	E 7074			✓	

Case 2459
4 C48500

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES & PCB'S

DIVISION/BRANCH SUPERFUND FIT SAMPLING DATE 2/22/84 LAB [redacted] DATE [redacted]/84 DUE DATE 3/23/84

DU NUMBER Y905 DATASET NUMBER 247 STUDY Laclede Steel Company L.I.F. PRIORITY N CONTRACTOR U.S. Testing

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER 2 POLYCHLORINATED BIPHENYS UG/L PES71971	WATER CHLORINATED PESTICIDES UG/L PES71881	WATER HERBICIDES UG/L PES71981	WATER BROMINATED BIPHENYLS UG/L PES71991
84MC04531	E 7165	✓	✓	✓	✓
84MC04805	E 7071	✓	✓	✓	✓

①

Case 2459
C48500
4

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES & PCB'S

DIVISION/BRANCH SUPER FUND FIT SAMPLING DATE 2/22/84 LAB [redacted] DATE [redacted]/84 DUE DATE 3/23/84

DU NUMBER Y905 DATASET NUMBER 247 STUDY Lacede Steel Company L.F. PRIORITY N CONTRACTOR U.S. Testing

CRL LOG NUMBER	SAMPLE DESCRIPTION	SEDIMENTS POLYCHLORINATED BIPHENYLS UG/G PES3418748	SEDIMENTS CHLORINATED PESTICIDES UG/G PES3418848	SEDIMENTS HERBICIDES UG/G PES3419848	SEDIMENTS BROMINATED BIPHENYLS UG/G PES3419948
84MC04532	E 7072	✓	✓	✓	✓
84MC04533	E 7073	✓	✓	✓	✓
84MC04534	E 7074	✓	✓	✓	✓

3 ✓ ✓ ✓ ✓

②

8 Case 2459
C48500

United States Testing Company, Inc.
Metals and Environmental Chemistry Division

1415 PARK AVENUE
HOBOKEN, NEW JERSEY 07030 (201) 792-2400 (212) 943-0488

instrumental chemistry
trace analysis
analytical chemistry
methods development
chemical specialties
quality control
failure analysis

SF247

RECEIVED
APR 13 1984
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

April 9, 1984

Dear Eileen,

Enclosed please find case #'s 2459 (U.S.T.C # 77056), 2477 (USTC 77058), and 2502 (U.STC # 77057).

Please note that for cases 2459 and 2477, a 10X dilution was necessary for ABN soil analysis. Due to this, surrogate and spike compound recoveries could not be calculated

If you have any questions please feel free to call.

Sincerely,
Jane Landsberg
PSB

Region V - 2459 only
jl

OUR REPORTS AND LETTERS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED, AND THEY AND THE NAME OF THE UNITED STATES TESTING COMPANY, INC. OR ITS SEALS OR INSIGNIA, ARE NOT TO BE USED UNDER ANY CIRCUMSTANCES IN ADVERTISING TO THE GENERAL PUBLIC AND MAY NOT BE USED IN ANY OTHER MANNER WITHOUT OUR PRIOR WRITTEN APPROVAL. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS.

United States Testing Company, Inc.
Chemical Division

1415 PARK AVENUE
HOBOKEN, NEW JERSEY 07030 (201) 792-2400 (212) 943-0488

instrumental chem
trace analysis
analytical chemist
methods develop
chemical specialti
quality control
failure analysis

CASE #: 2459 REGION: 5

ASSIGNED LAB #	SMO SAMPLE #
77056-1	E 7165
77056-2	E 7072
77056-3	E 7073
77056-4	E 7074
77056-5	E 7071

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CASE NO. 2459
LOW LEVEL X
WATER X
QC REPORT NO. 56

CONTRACTOR US TESTING
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6726
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/Kg ug/l

FRACTION	CAS NUMBER	COMPOUND	CONCENTRATION	CONTRACT DETECTION LIMITS	COMMENTS
VOLATILES:	75-09-2	Methylene chloride	7	5	
File I.D. EPAVOA879					
Instrument I.D. VOA					
SEMI-VOLATILES:		None detected			
File I.D. EPABN706					
Instrument I.D. ABN					
PESTICIDES:	7421-93-4	Endrin aldehyde	0.03	0.005	
File I.D. 7056-Blk(H_2O)					
Instrument I.D.					

FORM IV

CASE NO. 2459
LOW LEVEL X
WATER
QC REPORT NO. 52

CONTRACTOR US TESTING
MED. LEVEL
SOIL/SED. X

CONTRACT NO. 68-01-6726
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) mg/kg ug/l

FRACTION	CAS NUMBER	COMPOUND	CONCENTRATION	CONTRACT DETECTION LIMITS	COMMENTS
VOLATILES:	75-09-2	Methylene chloride	15	5	
File I.D. EPA10A889					
Instrument I.D. VOA					
SEMI-VOLATILES:		None detected			
File I.D. EPABN7					
Instrument I.D. ABN					
PESTICIDES:		None detected			
File I.D. 77052-Blk Soil					
Instrument I.D.					

FORM IV

SOIL SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2459
LOW LEVEL x
WATER
QC REPORT NO: 56

CONTRACTOR USTESTING
MED. LEVEL

CONTRACT NO. 68-01-6726
HIGH LEVEL
OTHER (Specify)

[------- Volatile --------][---------- Semi-Volatile ----------][Pesticide][Dioxi

	SMO Traffic No.	D_8 Toluene (81-120)	BFB (57-137)**	D_4-1,2 Dichloro Ethane (50-150)**	D_5 Nitro Benzene (19-115)	2-Fluoro Biphenyl (17-125)	D_{14} p-ter Phenyl (34-126)**		D_5 Phenol (10-104)	2-Fluoro Phenol (26-116)	2,4,6-Tribromo Phenol (32-124)**	Dibutyl Chlor-endate (41-121)**	1,2,3,4 TCDD (18-128)
	BLANK	107	105	108	60	62	114		42	62	28*		85
2	E7072	84	88	111	①	①	①		①	①	①		91
3	E7073	90	79	111	①	①	①		①	①	①		87
4	E7074	83	70	112	①	①	①		①	①	①		87
MS	E7074	90	83	103	—	—	—		—	—	—	—	—
DMS	E7074	96	94	104	—	—	—		—	—	—	—	—
MS	E7072				①	①	①		①	①	①		
DMS	E7072				①	①	①		①	①	①		

*Asterisked values are outside of QC limits.
**Advisory Limits.

Comments: ① Sample required 10x dilution. There was no recovery of surrogates.

Volatiles: ___ out of ___; outside of QC limits
Semi-Volatiles: ___ out of ___; outside of QC limits
Pesticides: ___ out of ___; outside of QC limits
Dioxin: ___ out of ___; outside of QC limits

Date Limit Set 12/82
Revision Due 6/83

CASE NO. 2459 CONTRACTOR U S TESTING CONTRACT NO. 68-01-6726

LOW LEVEL X MED. LEVEL HIGH LEVEL

WATER X SOIL/SED. X OTHER (Specify)

DFTPP and BFB Performance Results:

X The DFTPP performance results were reviewed and found to be within the specified criteria.

X The BFB performance results were reviewed and found to be within the specified criteria.

DFTPP Mass	DFTPP Ion Abundance Criteria	BFB Mass	BFB Ion Abundance Criteria
51	30 - 60 percent of mass 198	50	15 - 40 percent of mass 95
68	less than 2 percent of mass 69	75	30 - 60 percent of mass 95
70	less than 2 percent of mass 69	95	base peak, 100 percent
127	40 - 60 percent of mass 198	96	5 - 9 percent of mass 95
197	less than 1 percent of mass 198	173	less than 2 percent of mass 174
198	base peak, 100 percent	174	greater than 50 percent of mass 95
199	5 - 9 percent of mass 198	175	5 - 9 percent of mass 95
275	10 - 30 percent of mass 198	176	greater than 95 percent, but less than 101 percent of 174
365	greater than 1 percent of mass 198	177	5 - 9 percent of mass 176
441	present but less mass than 443		
442	greater than 40 percent of mass 198		
443	17 - 23 percent of mass 442		

Deviations:

Date/Time/Instrument	File Number	Compound	m/z	Required Abundance	Observed Abundance

Comments:

FORM VII

Revision Date 1/83

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 2459
LOW LEVEL X
WATER
QC REPORT NO. 56

CONTRACTOR U S TESTING
MED. LEVEL
SOIL/SED. X

CONTRACT NO. 68-01-6726
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/Kg ug/l

FRACTION	COMPOUND	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA SMO # E7074	1,1-Dichloroethylene	100	105	105	126	126	18*	<15%	51-151	
	Trichloroethylene		92	92	103	103	1	<15%	74-128	
	Chlorobenzene		85	85	104	104	20*	<15%	67-131	
	Toluene		89	89	101	101	13	<15%	58-132	
	Benzene		105	105	116	116	10	<15%	56-132	
B/N SMO # E7072	1,2,4-Trichlorobenzene	50						<50%	38-108	Sample required 10x dilution. There was no recovery of spike compounds
	Acenaphthene							<50%	57-115	
	2,4-Dinitrotoluene							<50%	43-113	
	Di-N-Butylphthalate							<50%	13-113	
	Pyrene							<50%	25-137	
	N-Nitrosodi-N-Propylamine							<50%	34-114	
	1,4-Dichlorobenzene							<50%	33-103	
ACID SMO # E7072	Pentachlorophenol	50						<40%	19-123	
	Phenol							<40%	23- 81	
	2-Chlorophenol							<40%	33-107	
	P-Chloro-M-Cresol							<40%	32-108	
	4-Nitrophenol							<40%	15- 93	
PEST SMO # E7074	Lindane	5	5.5	110*	5.4	108*	2	<40%	87-107	
	Heptachlor		5.5	110	5.4	108	2	<40%	43-125	
	Aldrin		5.0	100	4.9	98	2	<40%	45-109	
	Dieldrin		5.3	106	5.3	106	0	<40%	56-122	
	Endrin		5.5	110*	5.7	114*	4	<40%	89-101	
	p,p-DDT		5.9	118*	5.9	118*	0	<40%	82-102	

*Asterisked values are outside QC limits.

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

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST 6 out of 12; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

CASE NO. 2459
LOW LEVEL X
WATER X
QC REPORT NO. 56

CONTRACTOR USTESTING
MED. LEVEL

CONTRACT NO. 68-01-6726
HIGH LEVEL
OTHER (Specify)

[------- Volatile --------][---------- Semi-Volatile ----------][Pesticide][Diox

	SMO Traffic No.	D_8 Toluene (84-114)	BFB (63-127)**	D_4-1,2 Dichloro Ethane (90-130)**	D_5 Nitro Benzene (42-131)	2-Fluoro Biphenyl (50-154)	D_{14} p-Ter Phenyl (54-118)**		D_5 Phenol (15-90)	2-Fluoro Phenol (25-115)	2,4,6-Tribromo Phenol (47-123)**	Dibutyl Chlor-endate (67-114)**	1,2,3, TCD (26-10
	BLANK	96	102	106	54	76	116		48	76	46	27 *	77
1	E7165	92	96	105	58	62	134 *		16	36	28 *	29 *	101
5	E7071	86	92	109	50	50	96		16	37	37 *	30 *	98
MS	E7165	95	99	101	112	108	122 *		36	48	60		
DMS	E7165	89	94	103	100	94	164 *		32	44	52		

FORM III

*Asterisked values are outside of QC limits.
**Advisory Limits.

Comments:

Volatiles: ___ out of ___; outside of QC limits
Semi-Volatiles: ___ out of ___; outside of QC limits
Pesticides: ___ out of ___; outside of QC limits
Dioxin: ___ out of ___; outside of QC limits

Date Limit Set 12/82
Revision Due 6/83

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 2459
LOW LEVEL x
WATER x
QC REPORT NO. 56

CONTRACTOR U S TESTING
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6726
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/Kg (ug/l)

FRACTION	COMPOUND	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA SMO # E7165	1,1-Dichloroethylene	100	74	74	74	74	0	<15%	51-151	
	Trichloroethylene		74	74	72	72	3	<15%	74-128	
	Chlorobenzene		94	94	91	91	3	<15%	67-131	
	Toluene		91	91	88	88	3	<15%	58-132	
	Benzene		92	92	91	91	1	<15%	56-132	
B/N SMO # E7165	1,2,4-Trichlorobenzene	50	46	92	36	72	24	<50%	38-108	
	Acenaphthene		45	90	50	100	11	<50%	57-115	
	2,4-Dinitrotoluene		29	58	30	60	3	<50%	43-113	
	Di-N-Butylphthalate		51	102	53	103	1	<50%	13-113	
	Pyrene		31	62	44	88	35	<50%	25-137	
	N-Nitrosodi-N-Propylamine		47	94	37	74	24	<50%	34-114	
	1,4-Dichlorobenzene		36	72	36	72	0	<50%	33-103	
ACID SMO # E7165	Pentachlorophenol	50	36	72	34	68	6	<40%	19-123	
	Phenol		36	72	31	62	15	<40%	23- 81	
	2-Chlorophenol		36	72	33	66	9	<40%	33-107	
	P-Chloro-M-Cresol		17	34	18	36	6	<40%	32-108	
	4-Nitrophenol		0	0*	0	0*	0	<40%	15- 93	
PEST SMO # E7165	Lindane	5	4.8	96	4.8	96	0	<40%	87-107	
	Heptachlor		4.8	96	4.8	96	0	<40%	43-125	
	Aldrin		4.4	88	4.4	88	0	<40%	45-109	
	Dieldrin		4.4	88	4.4	88	0	<40%	56-122	
	Endrin		5.5	110*	5.5	110*	0	<40%	89-101	
	p,p-DDT		4.7	94	4.7	94	0	<40%	82-102	

*Asterisked values are outside QC limits.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 7; outside QC limits
ACID 0 out of 5; outside QC limits
PEST 0 out of 6; outside QC limits

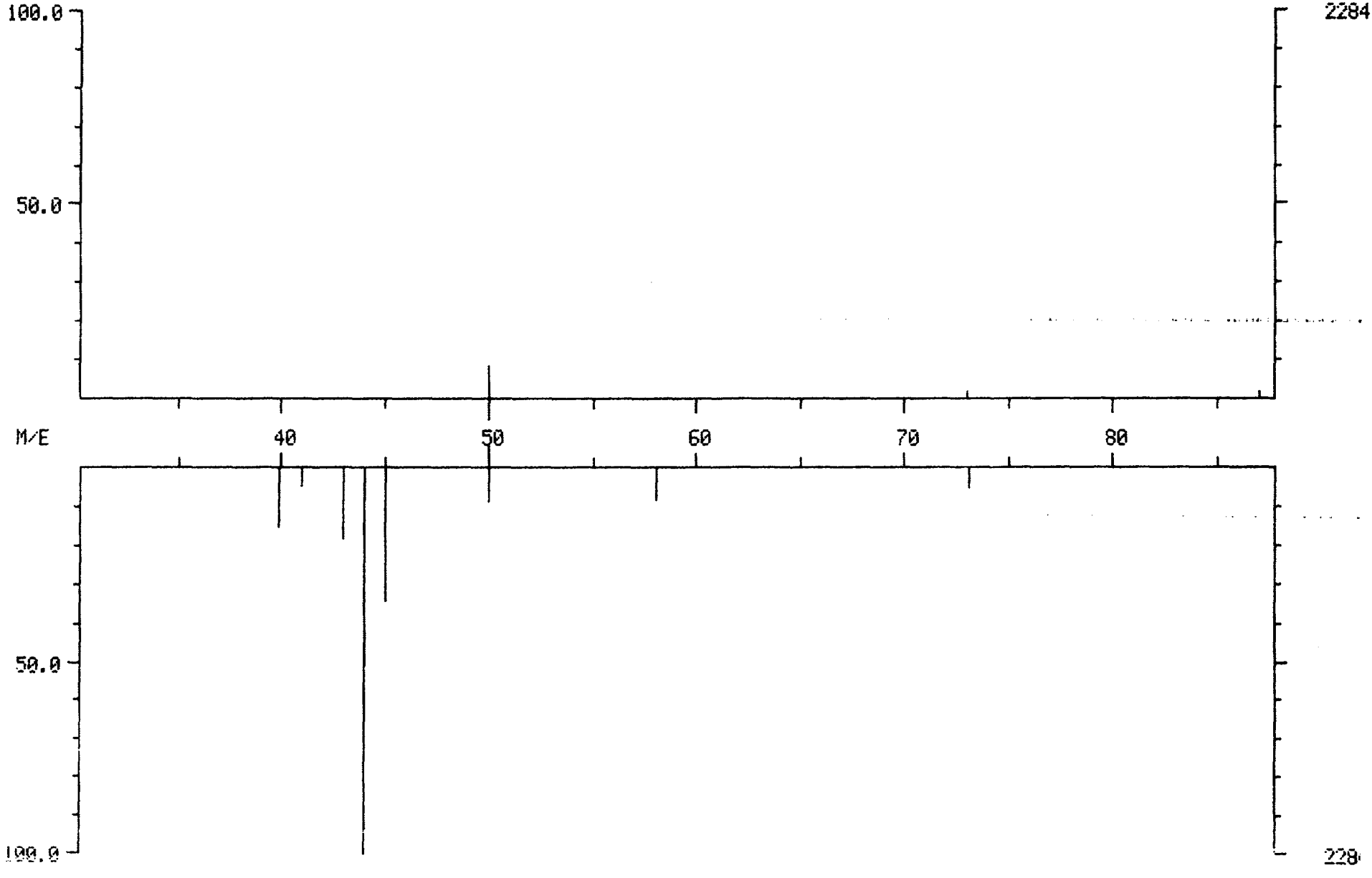
RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 0 out of 14; outside QC limits
ACID 2 out of 10; outside QC limits
PEST 2 out of 12; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
33	65	438	14:58	2	0.690	A BB	248057.	105.201 UG/L	9.64
34	84	583	19:55	2	0.918	A BB	428751.	97.835 UG/L	8.97
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
~~38~~	~~166~~	~~743~~	~~25:23~~	~~3~~	~~0.784~~	~~A BB~~	~~864.~~	~~0.457 UG/L~~	~~0.04~~
39	NOT FOUND								
40	91	783	26:45	3	1.037	A BB	15512.	3.140 UG/L	0.29
41	112	819	27:59	3	1.085	A BB	6531.	1.787 UG/L	0.16
~~42~~	~~91~~	~~881~~	~~30:06~~	~~3~~	~~1.167~~	~~A BB~~	~~6688.~~	~~1.128 UG/L~~	~~0.10~~
~~43~~	~~43~~	~~734~~	~~25:05~~	~~3~~	~~0.972~~	~~A BB~~	~~804.~~	~~1.302 UG/L~~	~~0.12~~
~~44~~	~~104~~	~~1004~~	~~34:18~~	~~3~~	~~1.330~~	~~A BB~~	~~4069.~~	~~1.366 UG/L~~	~~0.13~~
~~45~~	~~106~~	~~1040~~	~~35:32~~	~~3~~	~~1.377~~	~~A BB~~	~~1447.~~	~~0.771 UG/L~~	~~0.07~~
46	98	777	26:33	3	1.029	A BV	416965.	92.060 UG/L	8.44
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	95	960	32:48	3	1.272	A BB	264809.	95.866 UG/L	8.79

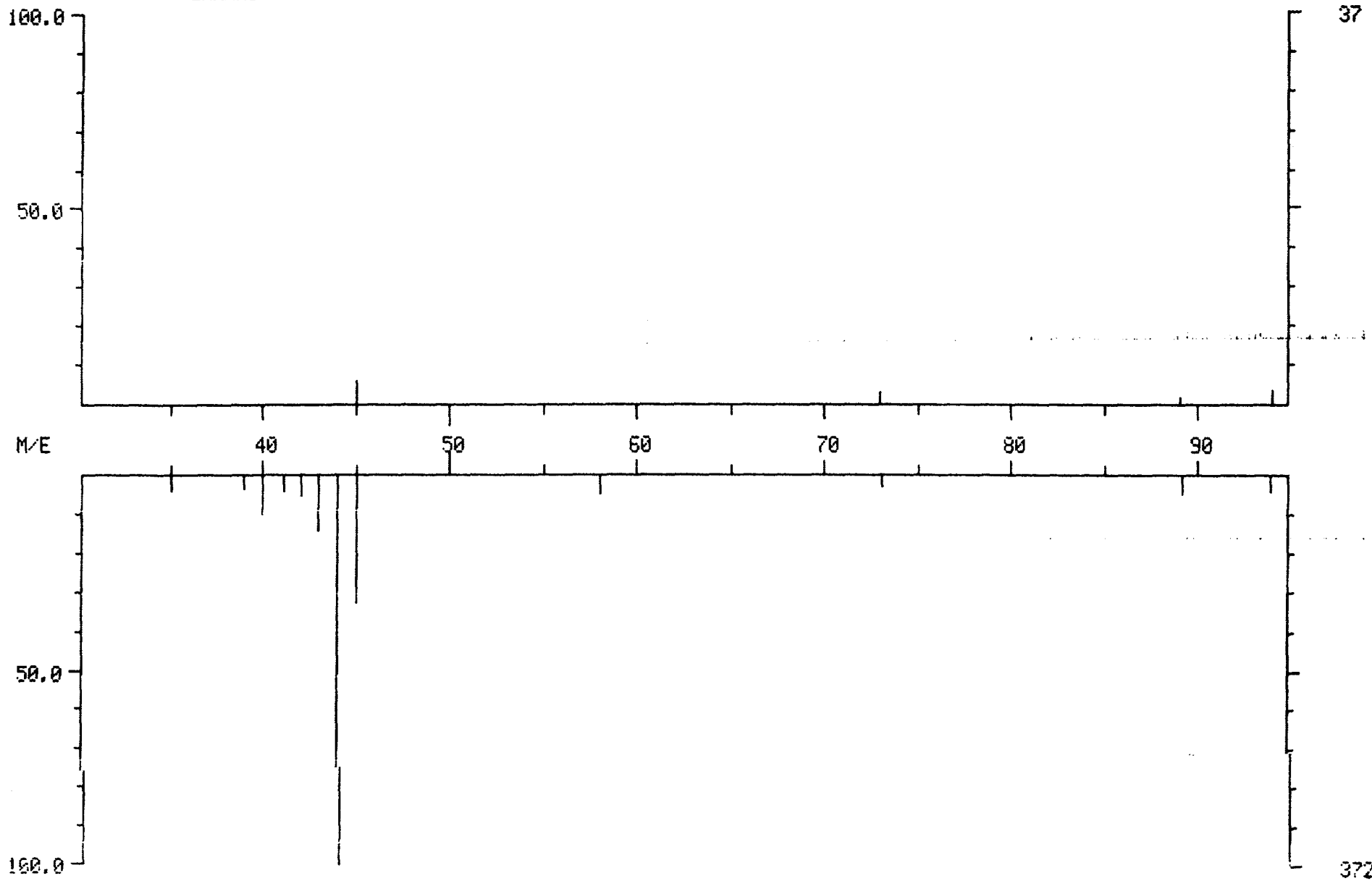
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 2:23
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #70 BASE M/E: 50/ 44
CALI: EPAVOA873 #1 RIC: 270./ 4463.



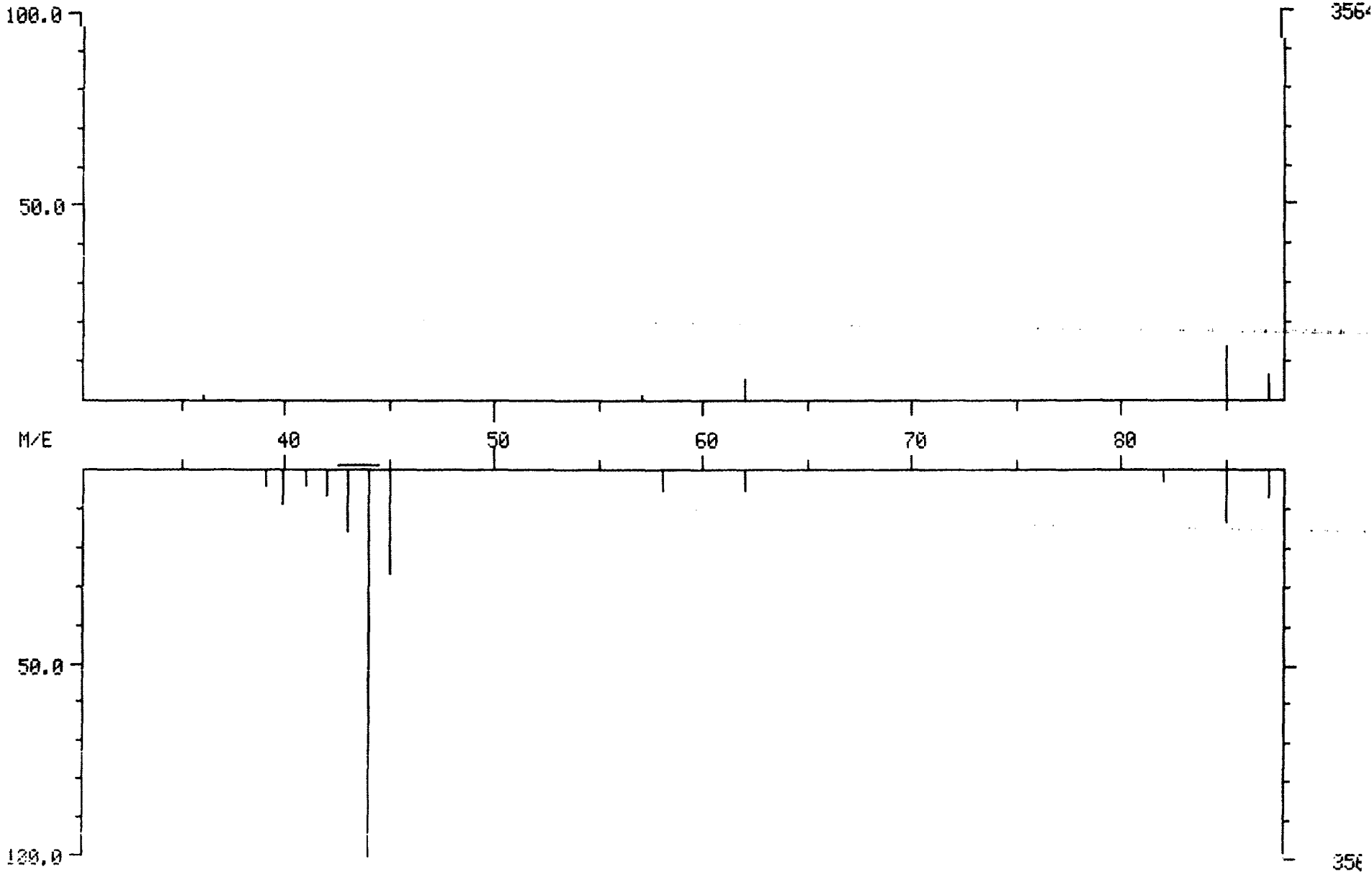
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 4:02
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #118 BASE M/E: 45/ 44
CALI: EPAVOA873 #1 RIC: 544./ 7063.



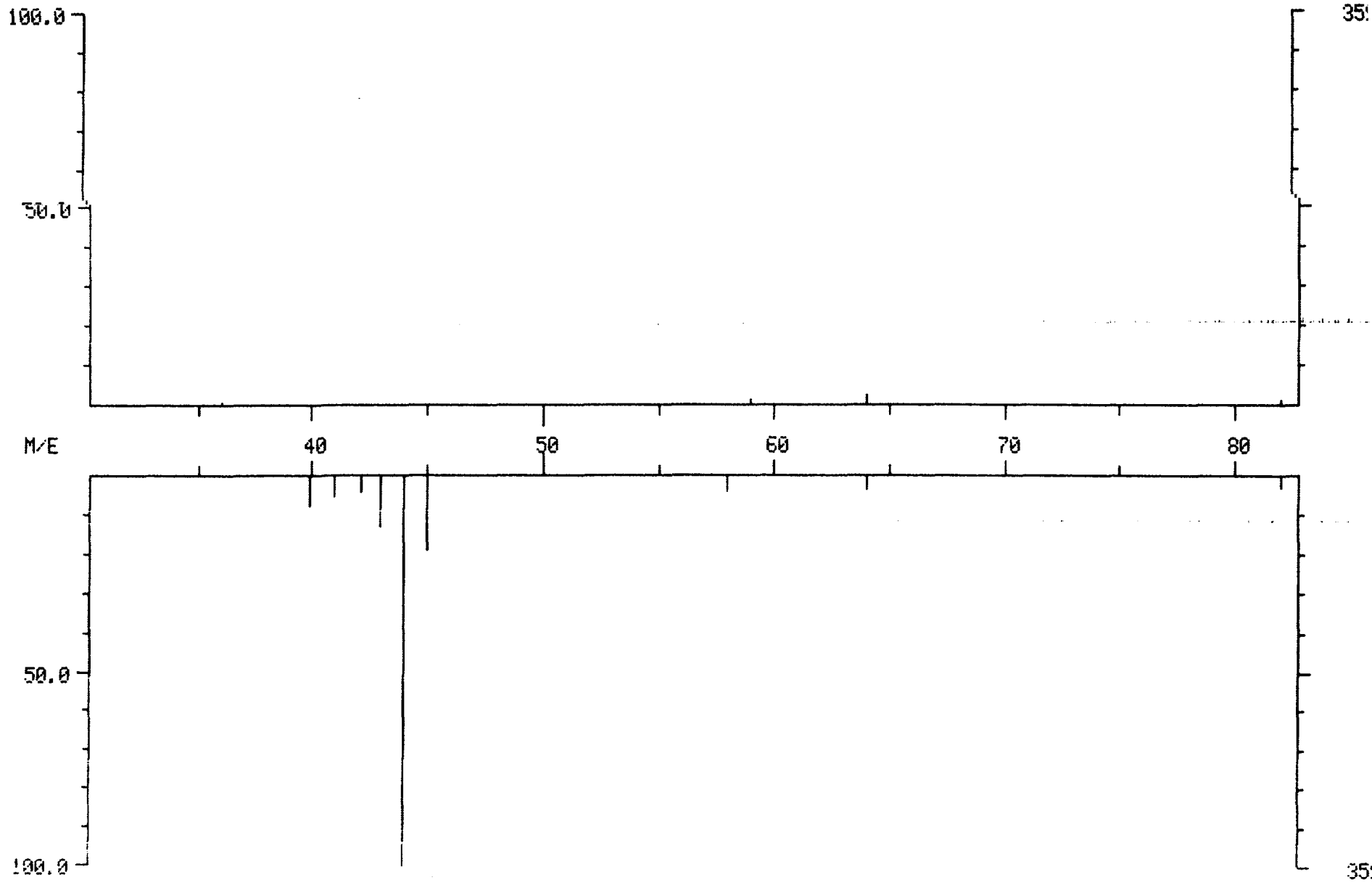
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 5:01
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #147 BASE M/E: 85/ 44
CALI: EPAVOA873 #1 RIC: 974./ 7151.



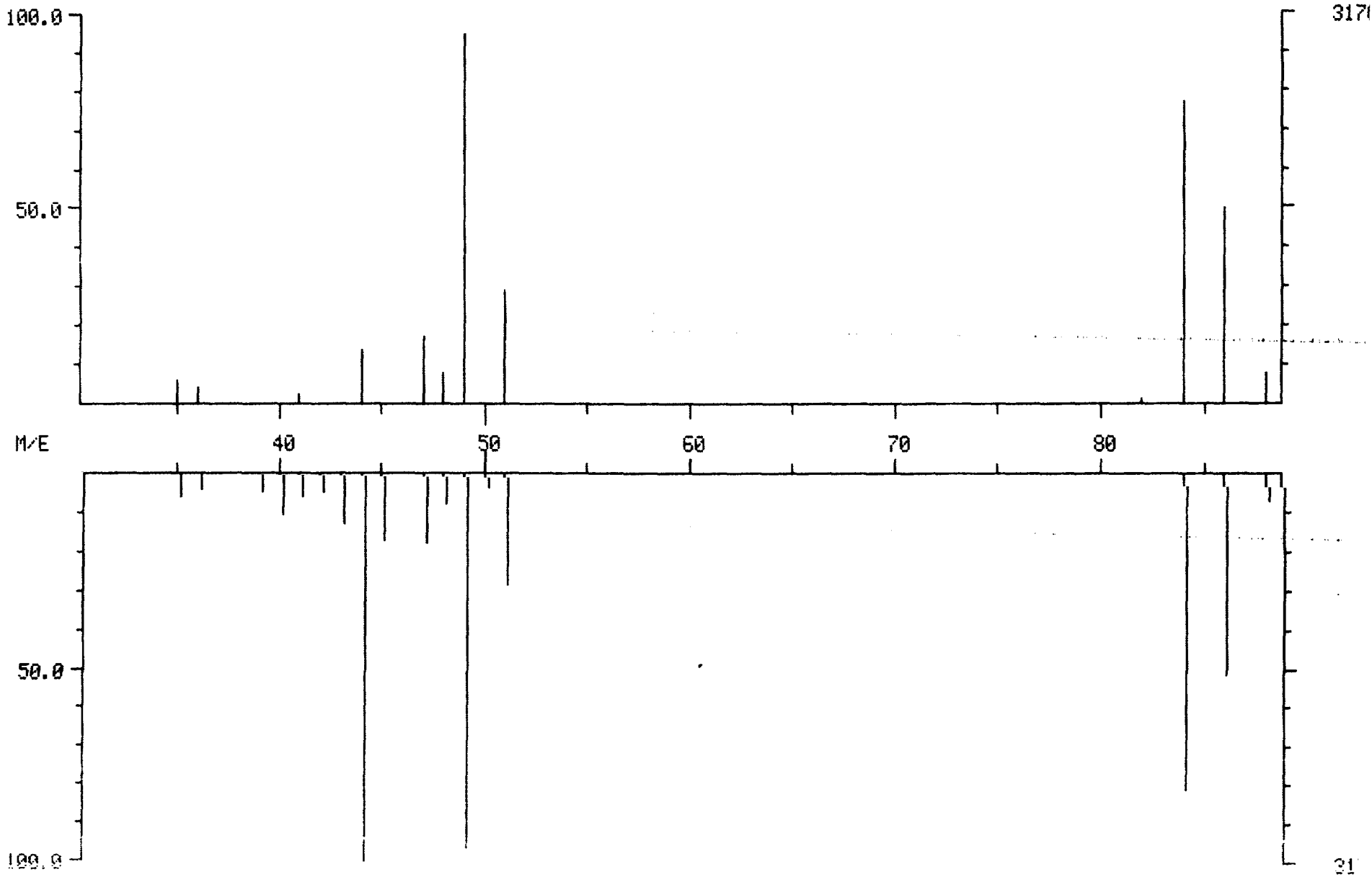
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 6:21
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #186 BASE M/E: 64/ 44
CALI: EPAVOA873 #1 RIC: 192./ 5751.



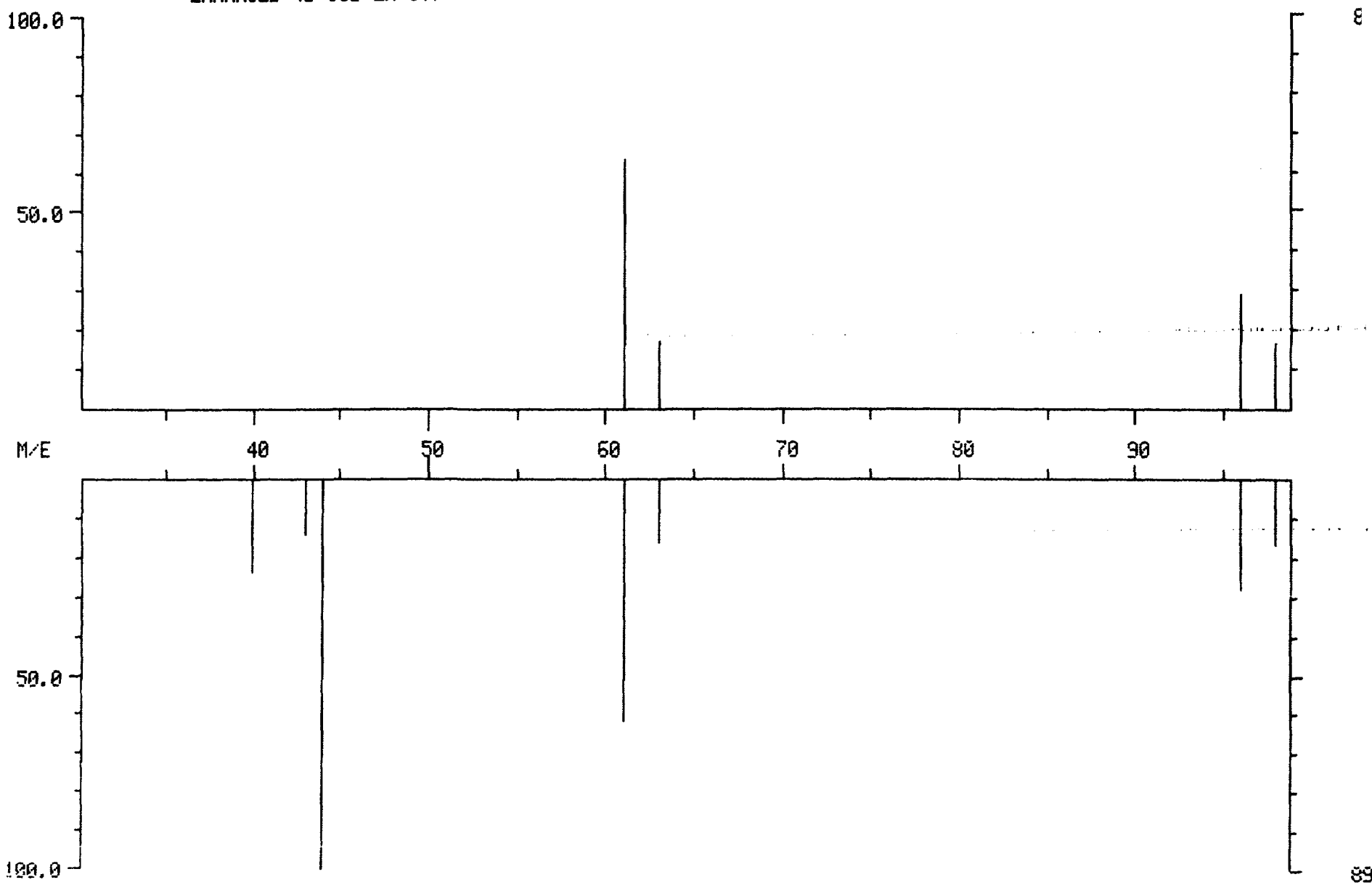
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 8:49
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #258 BASE M/E: 49/ 44
CALI: EPAVOA873 #1 RIC: 9871./ 14655.



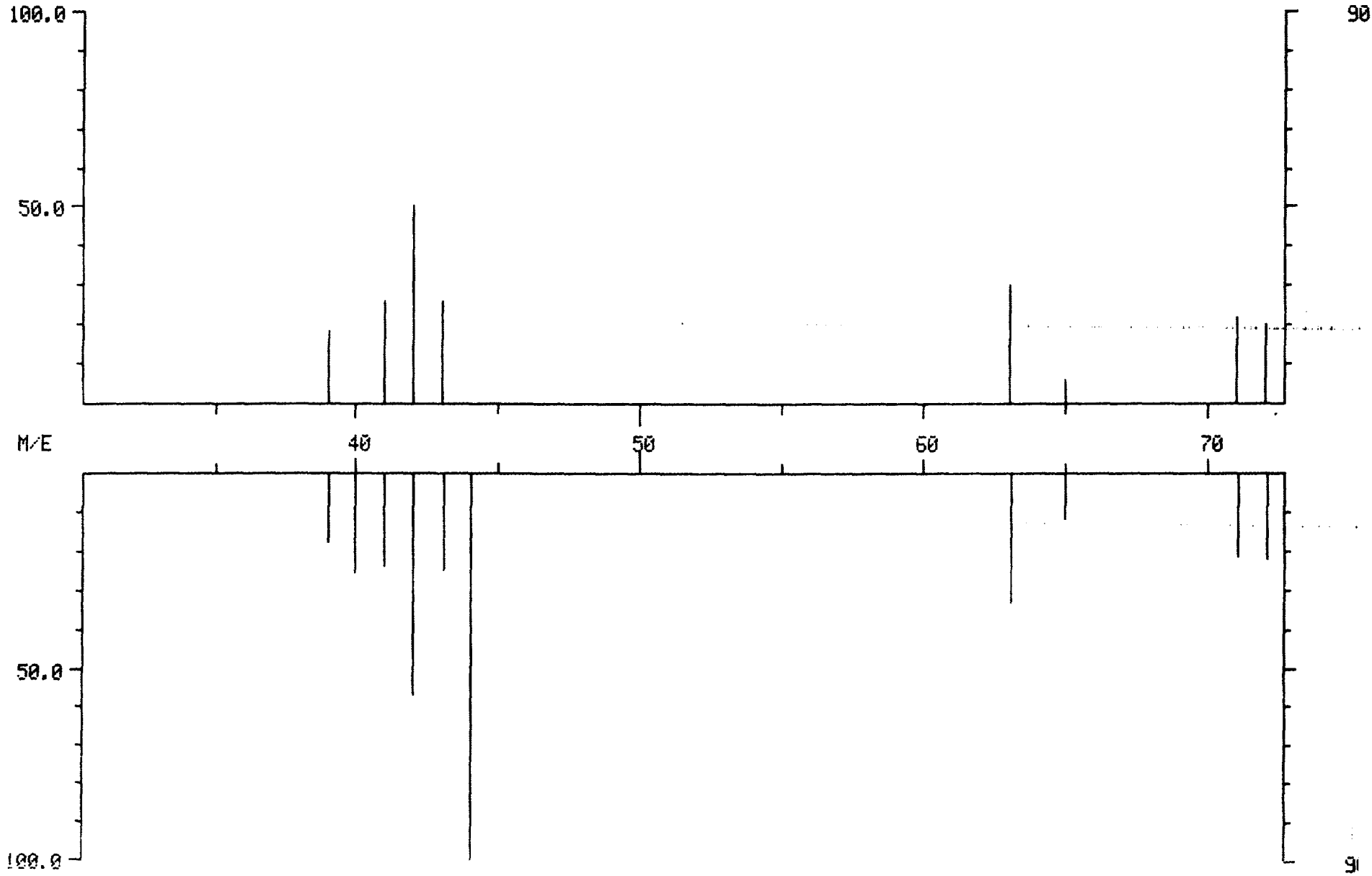
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 11:37
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #340 BASE M/E: 61/ 44
CALI: EPAVOA873 #1 RIC: 1125./ 2323.



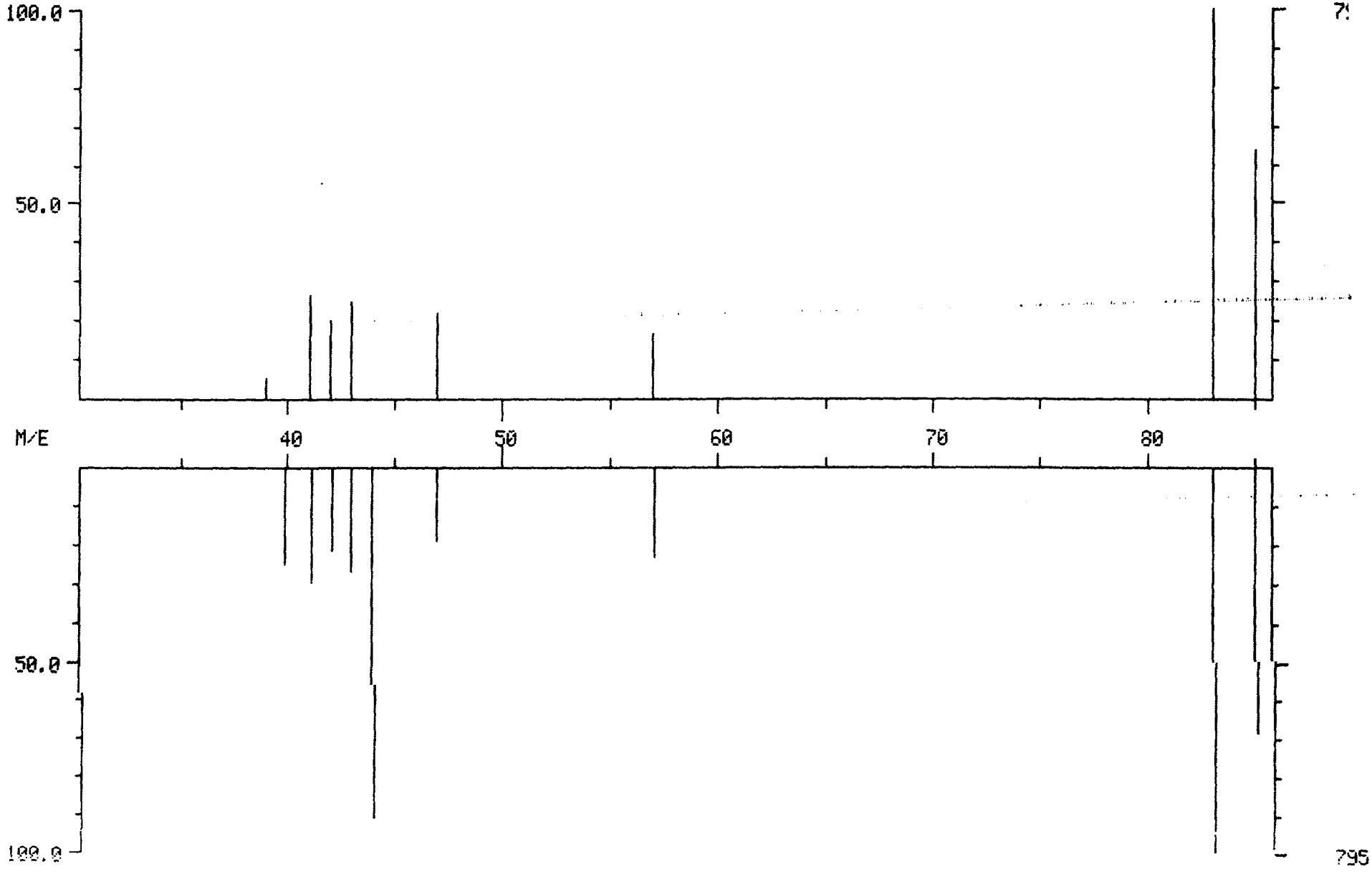
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 13:01
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #381 BASE M/E: 42/ 44
CALI: EPAVOA873 #1 RIC: 1789./ 3035.



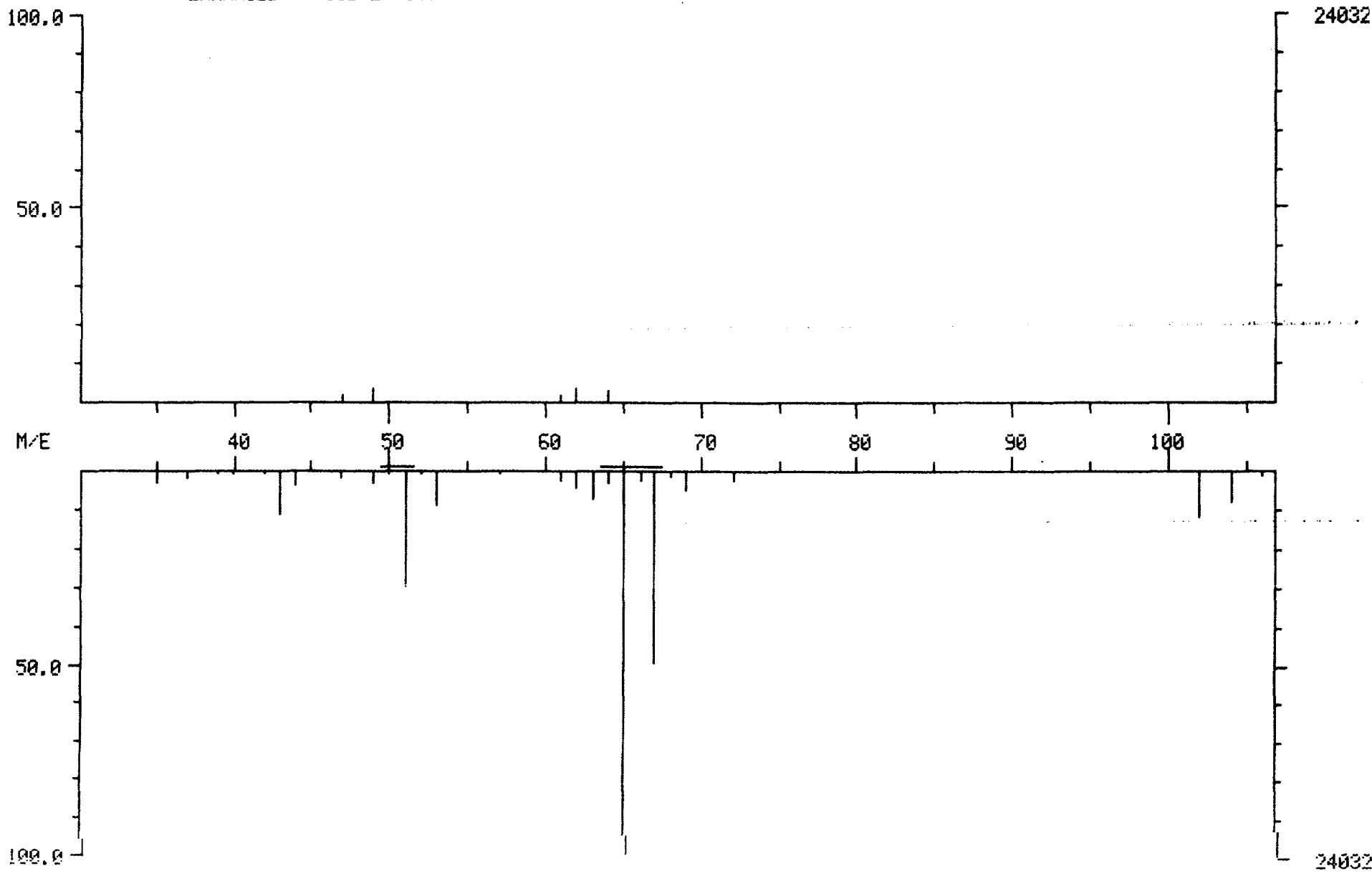
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 14:19
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #419 BASE M/E: 83/ 83
CALI: EPAVOA873 #1 RIC: 2219./ 3203.



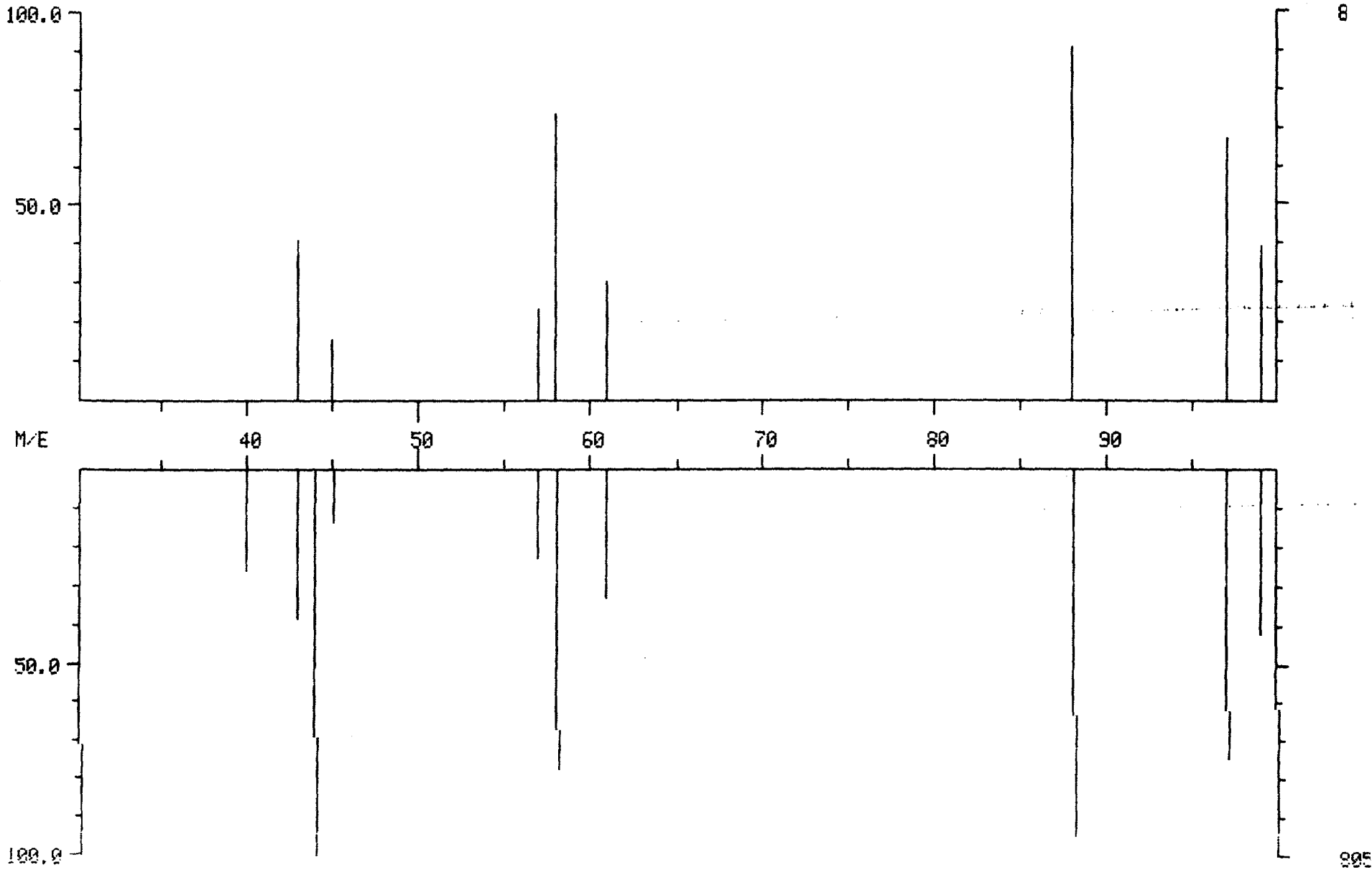
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 15:02
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #440 BASE M/E: 62/ 65
CALI: EPAVOA873 #1 RIC: 3267./ 63231.



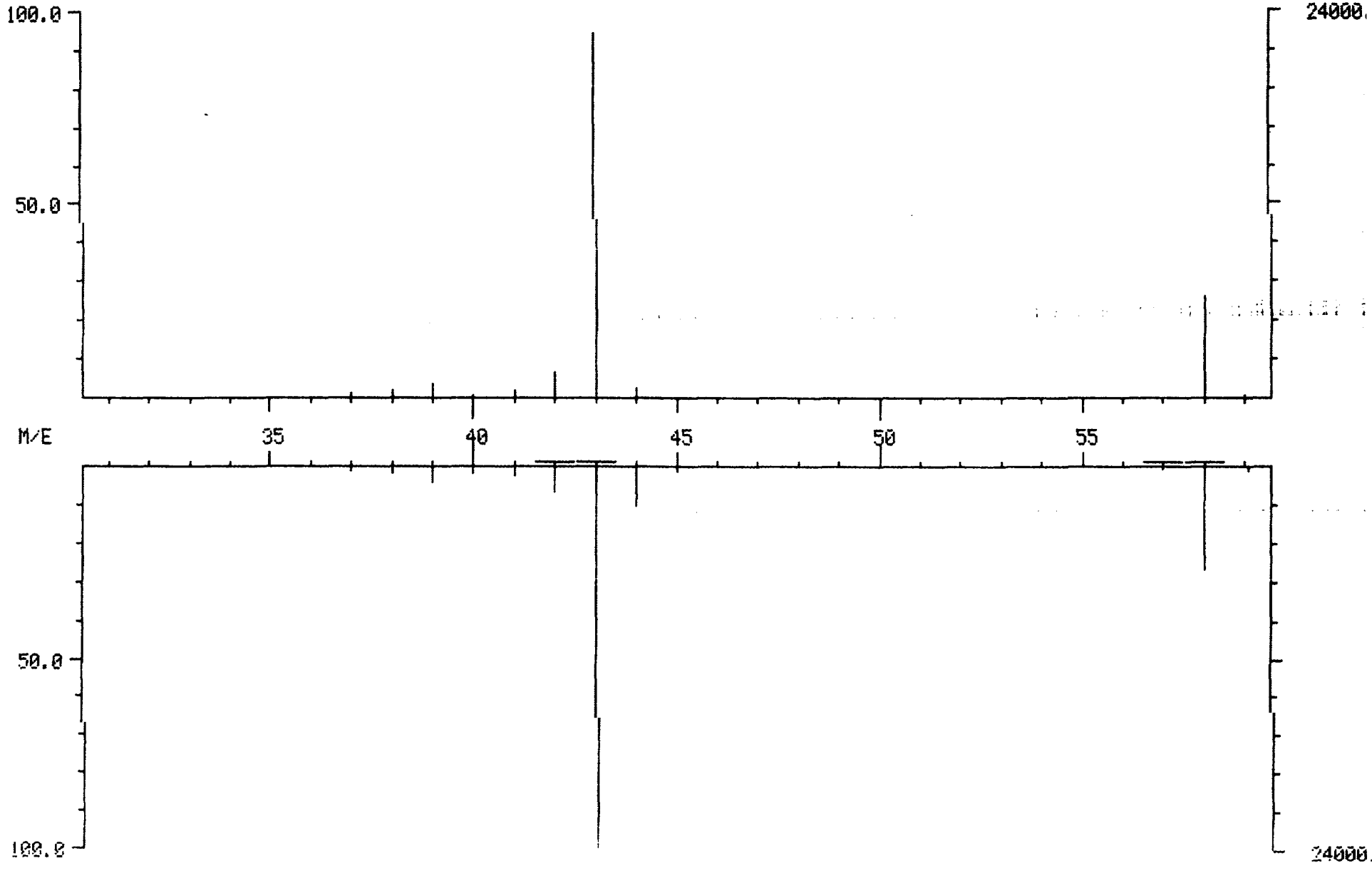
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 16:30
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #483 BASE M/E: 88/ 44
CALI: EPAVOA873 #1 RIC: 3047./ 4223.



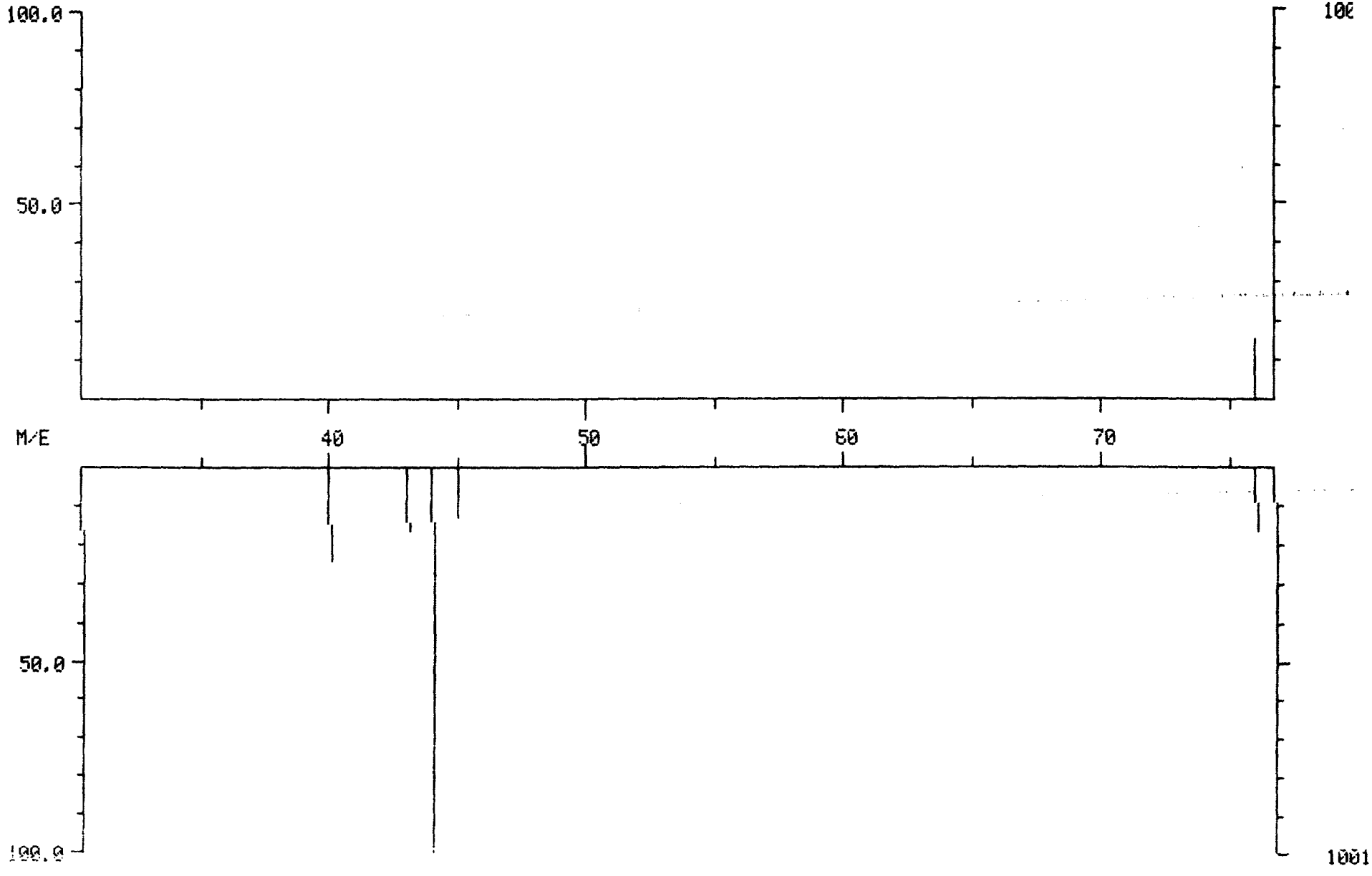
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 9:20
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #273 BASE M/E: 43/ 43
CALI: EPAVOA873 #1 RIC: 33471./ 37695.



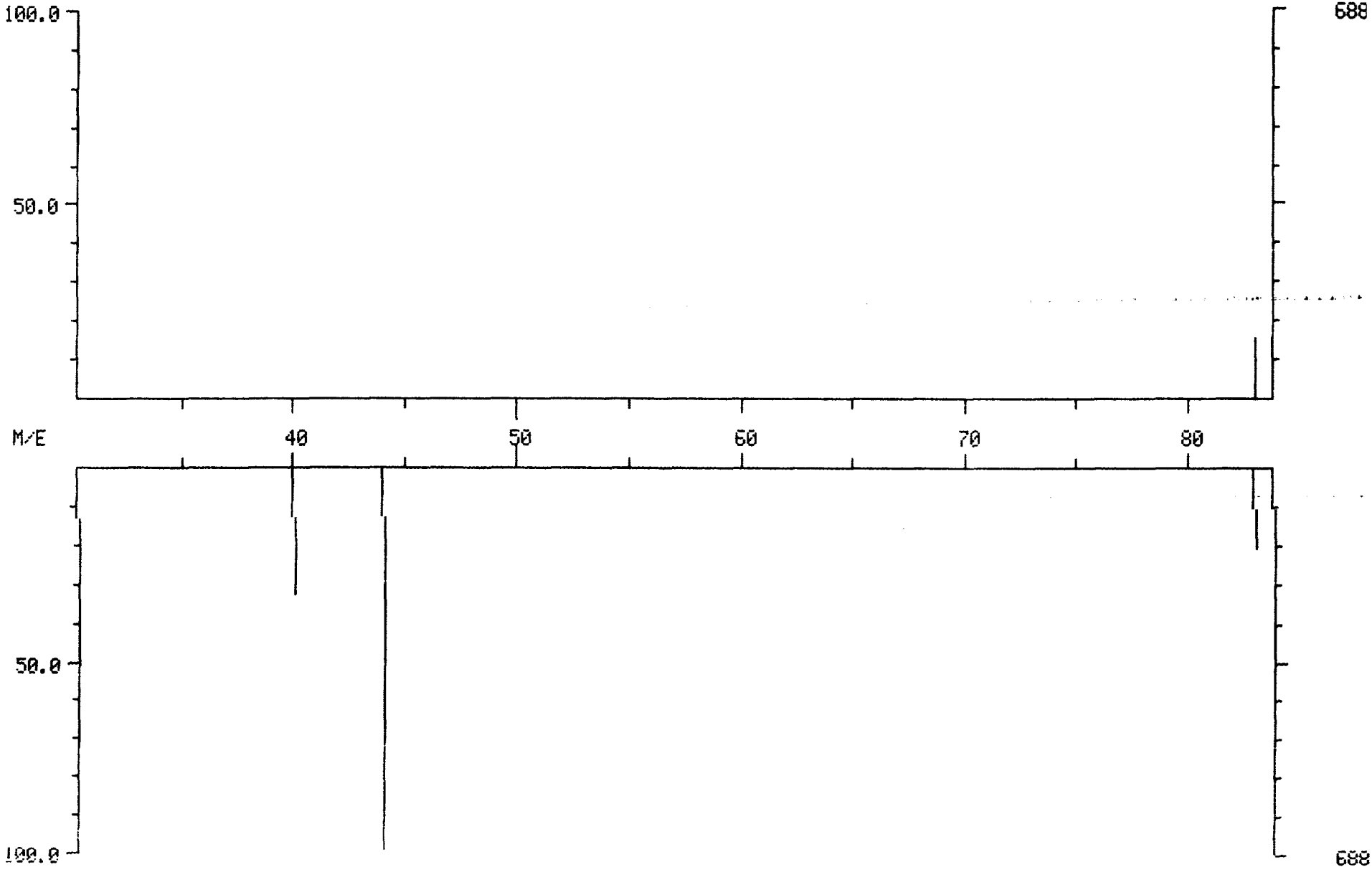
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 10:27
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #306 BASE M/E: 76/ 44
CALI: EPAVOA873 #1 RIC: 153./ 1701.



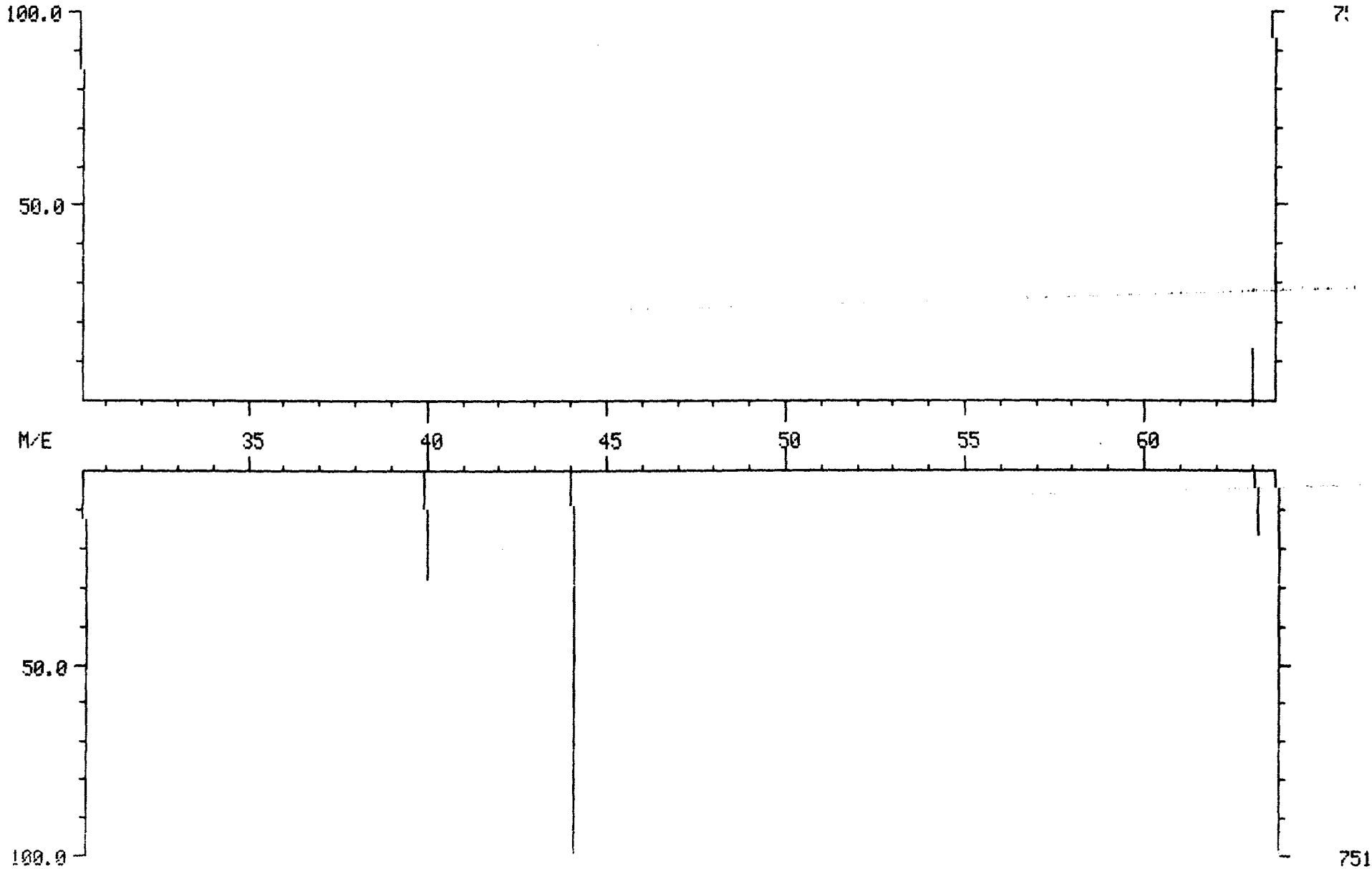
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 17:19
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #507 BASE M/E: 83/ 44
CALI: EPAVOA873 #1 RIC: 103./ 1055.



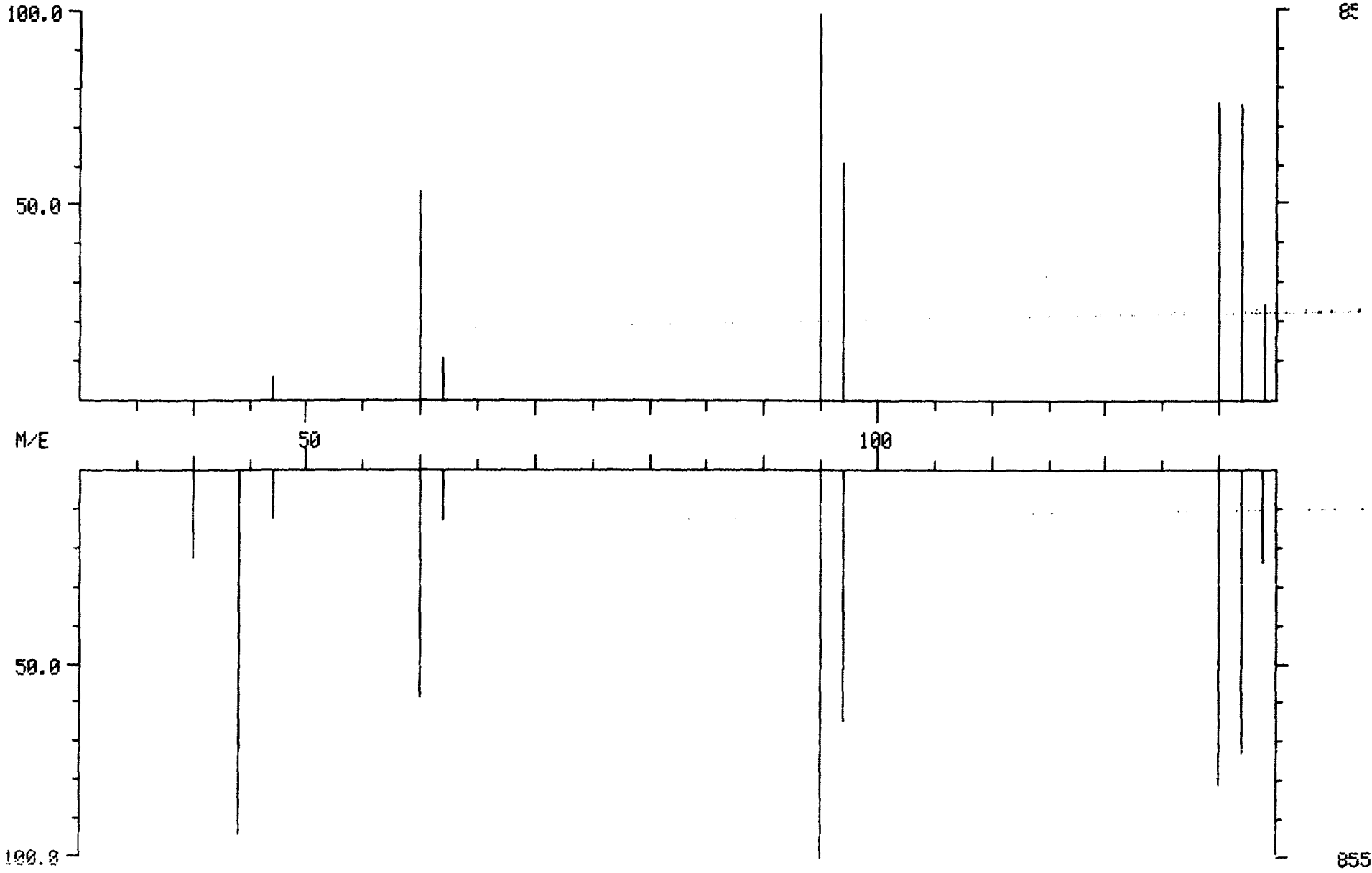
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 18:50
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #551 BASE M/E: 63/ 44
CALI: EPAVOA873 #1 RIC: 37./ 1085.



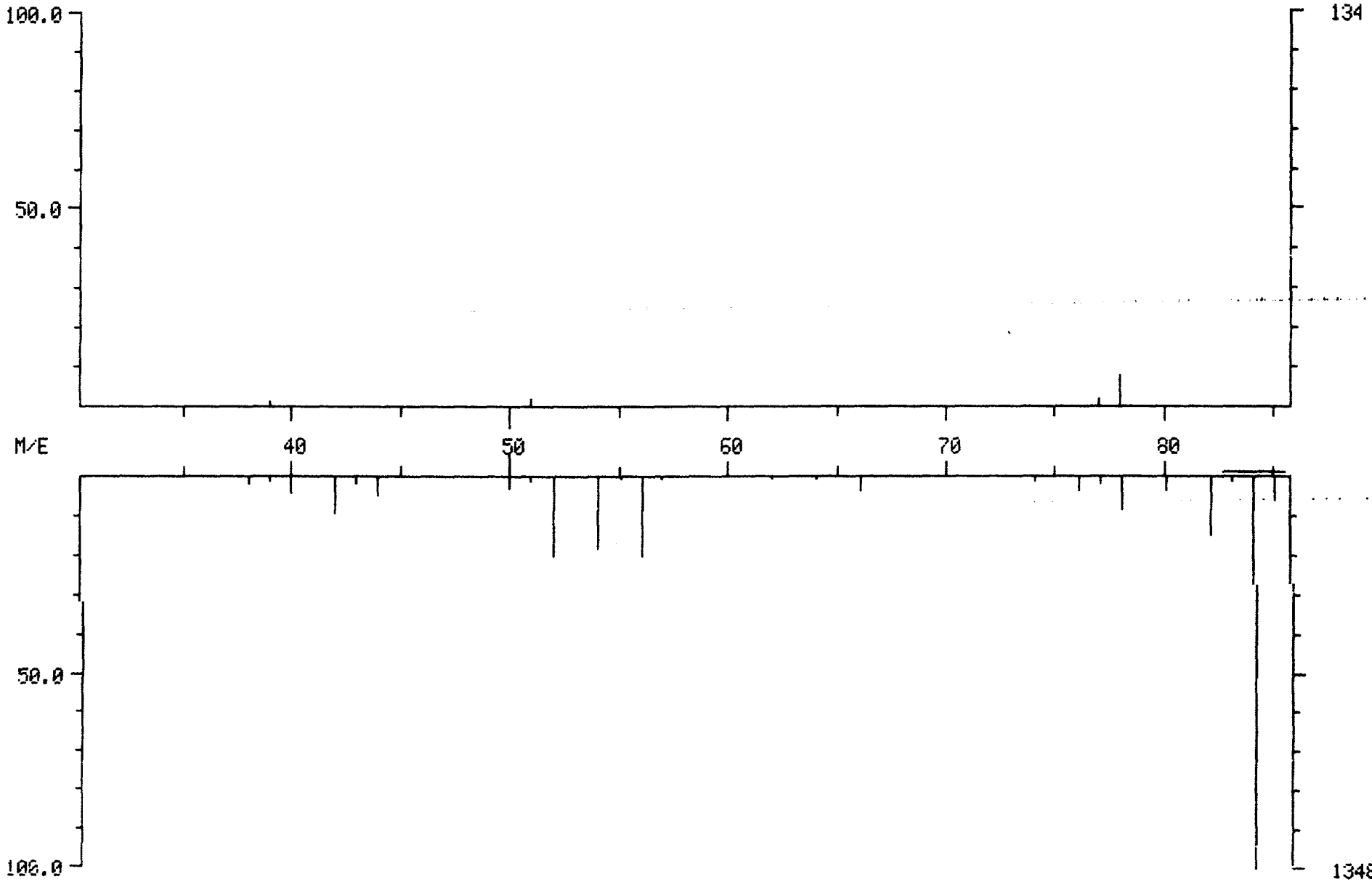
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 19:33
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #572 BASE M/E: 95/ 95
CALI: EPAVOA873 #1 RIC: 3459./ 4639.



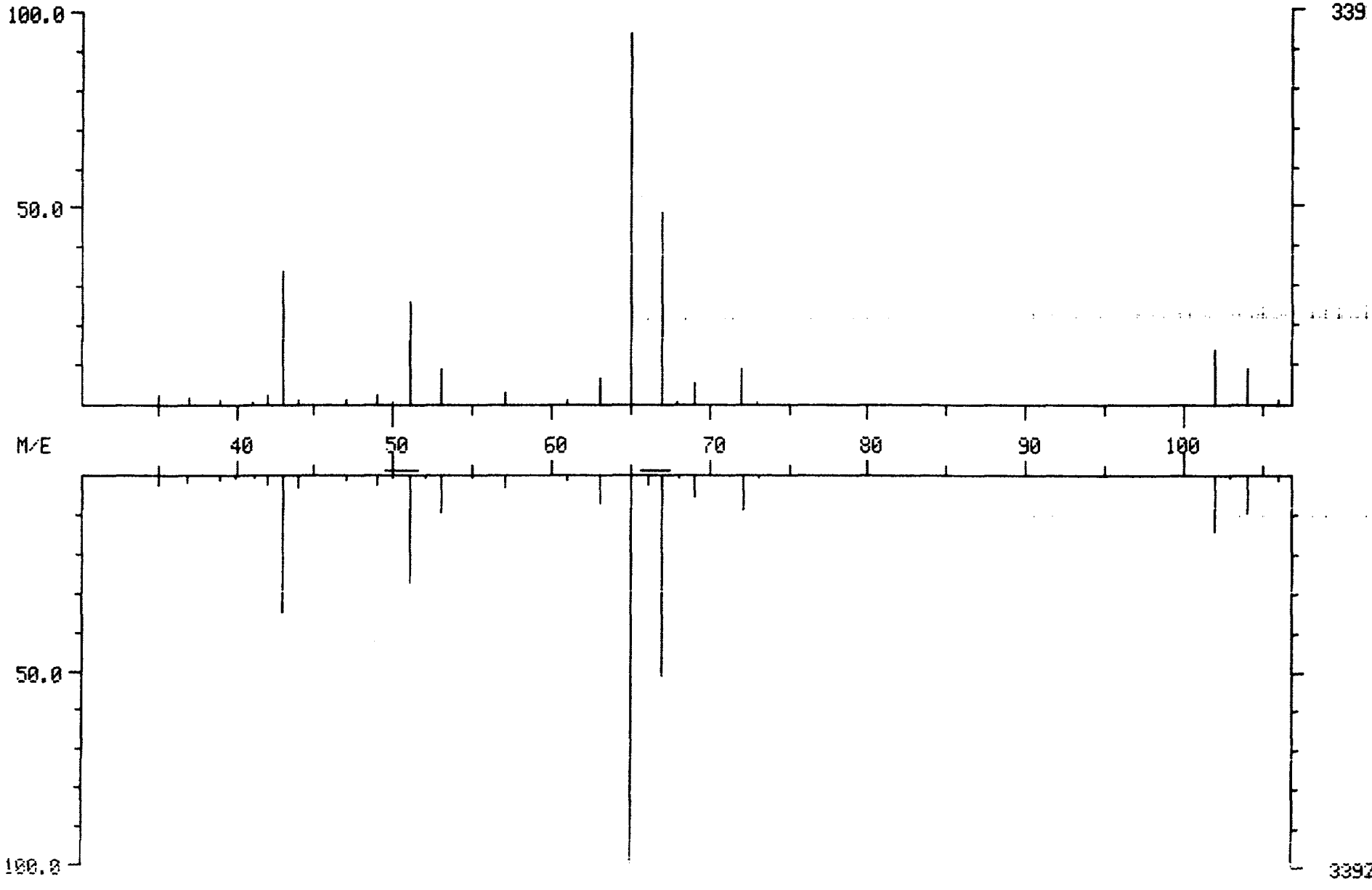
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 20:03
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #587 BASE M/E: 78/ 84
CALI: EPAVOA873 #1 RIC: 1563./ 31487.



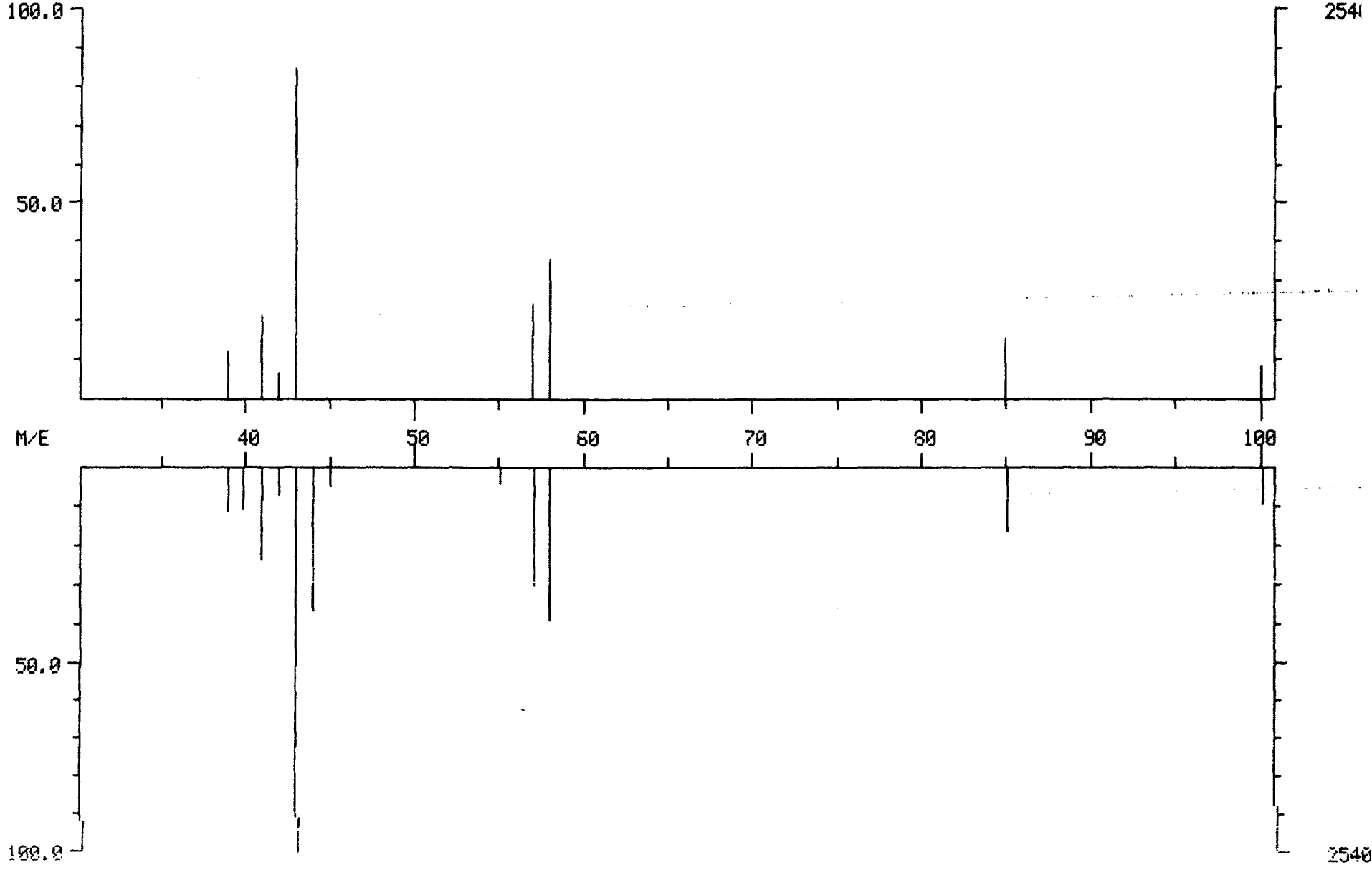
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 14:54
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #436 BASE M/E: 65/ 65
CALI: EPAVOA873 #1 RIC: 33183./ 99839.



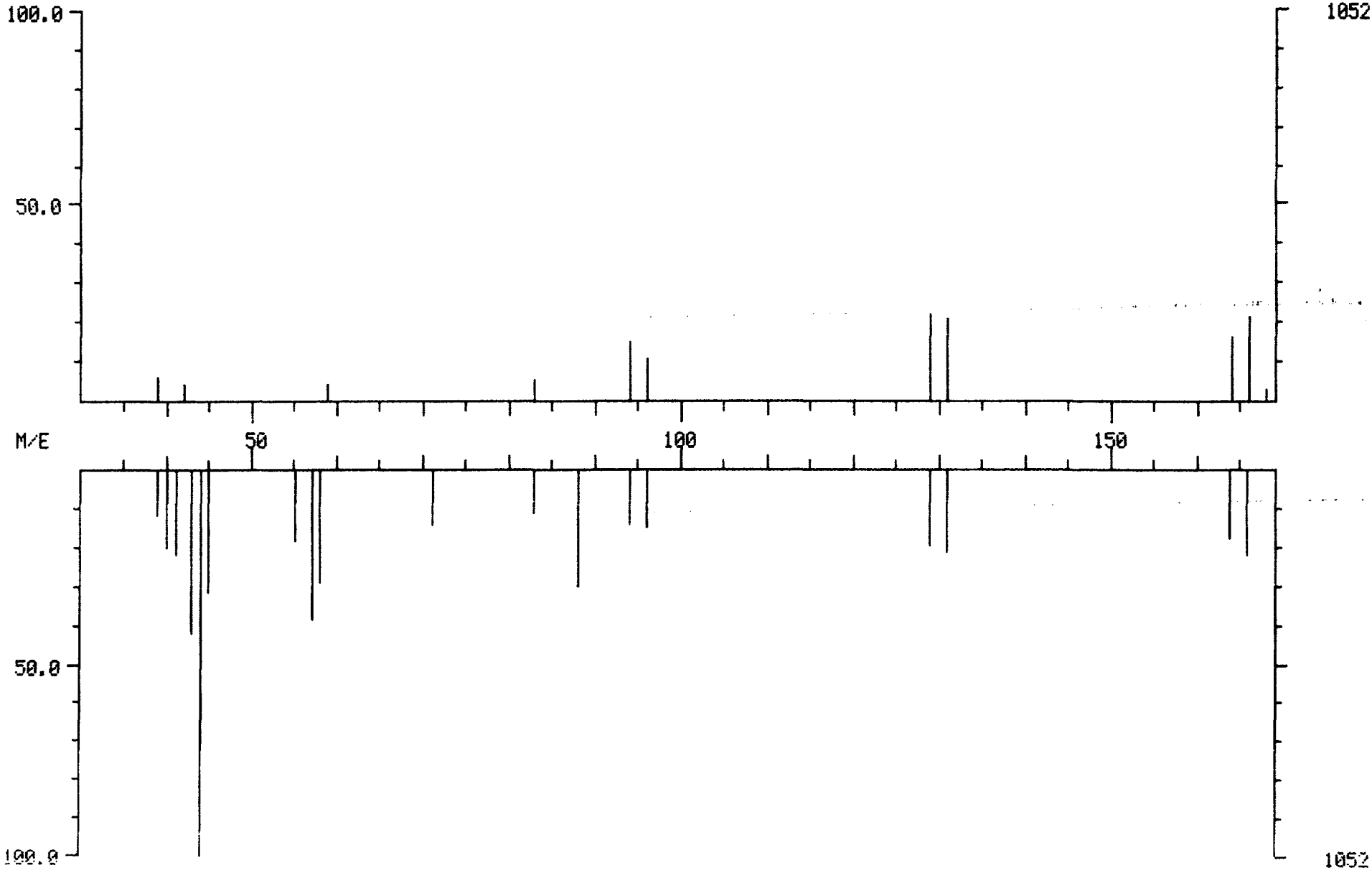
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 23:30
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #688 BASE M/E: 43/ 43
CALI: EPAVOA873 #1 RIC: 5279./ 7471.



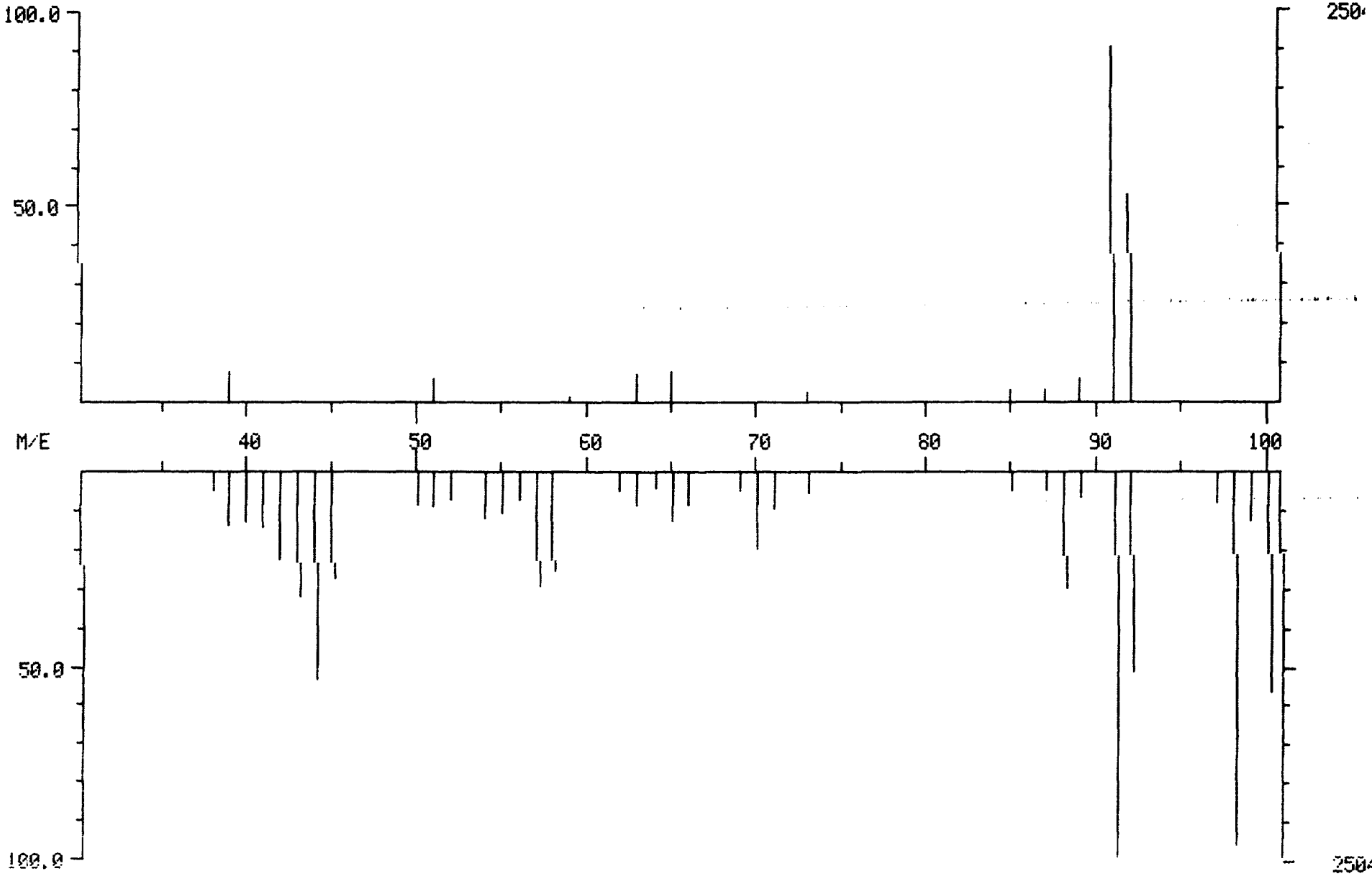
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 25:23
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #743 BASE M/E: 129/ 44
CALI: EPAVOA873 #1 RIC: 1353./ 5055.



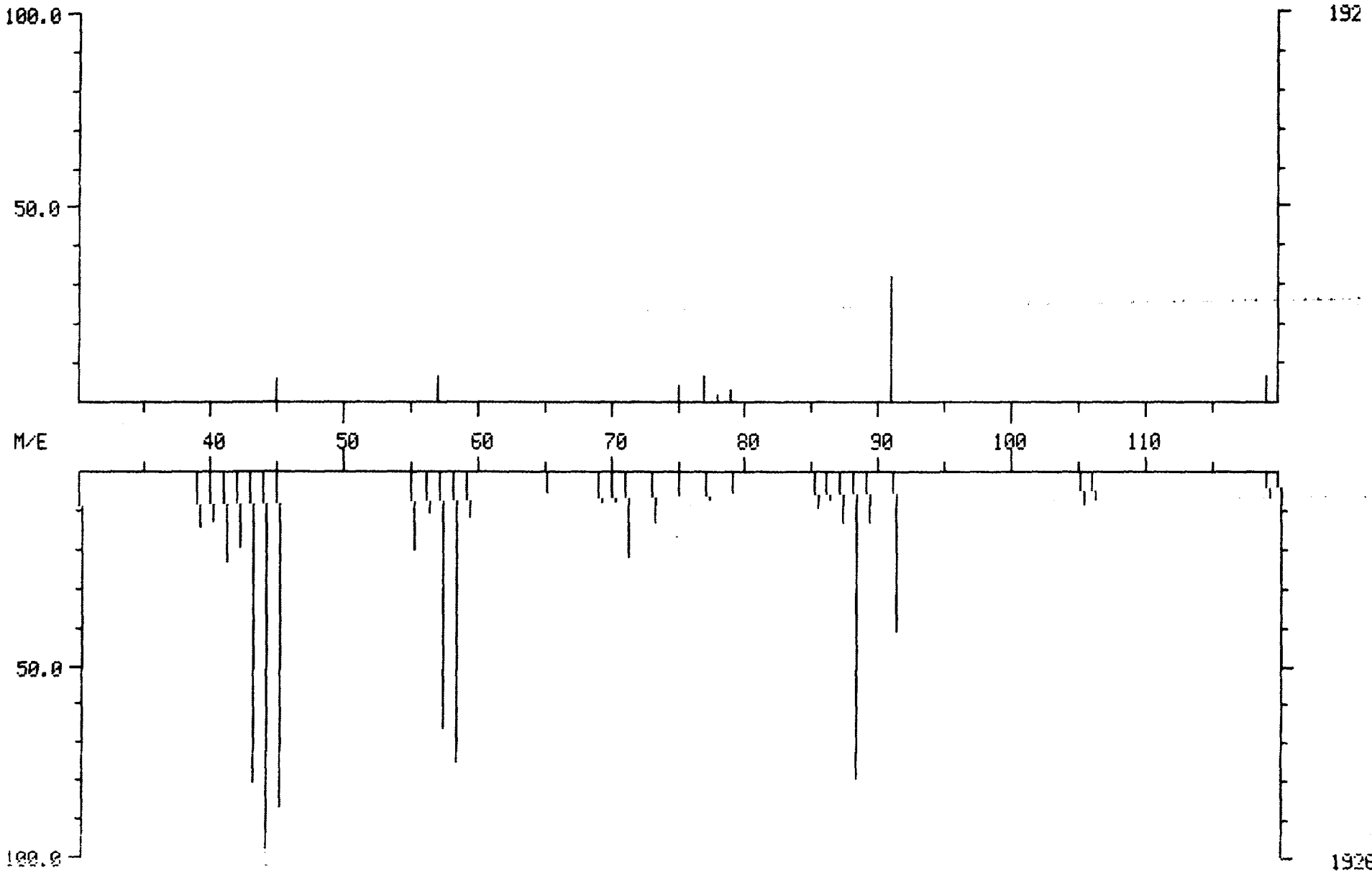
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 26:45
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #783 BASE M/E: 91/ 91
CALI: EPAVOA873 #1 RIC: 4695./ 18431.



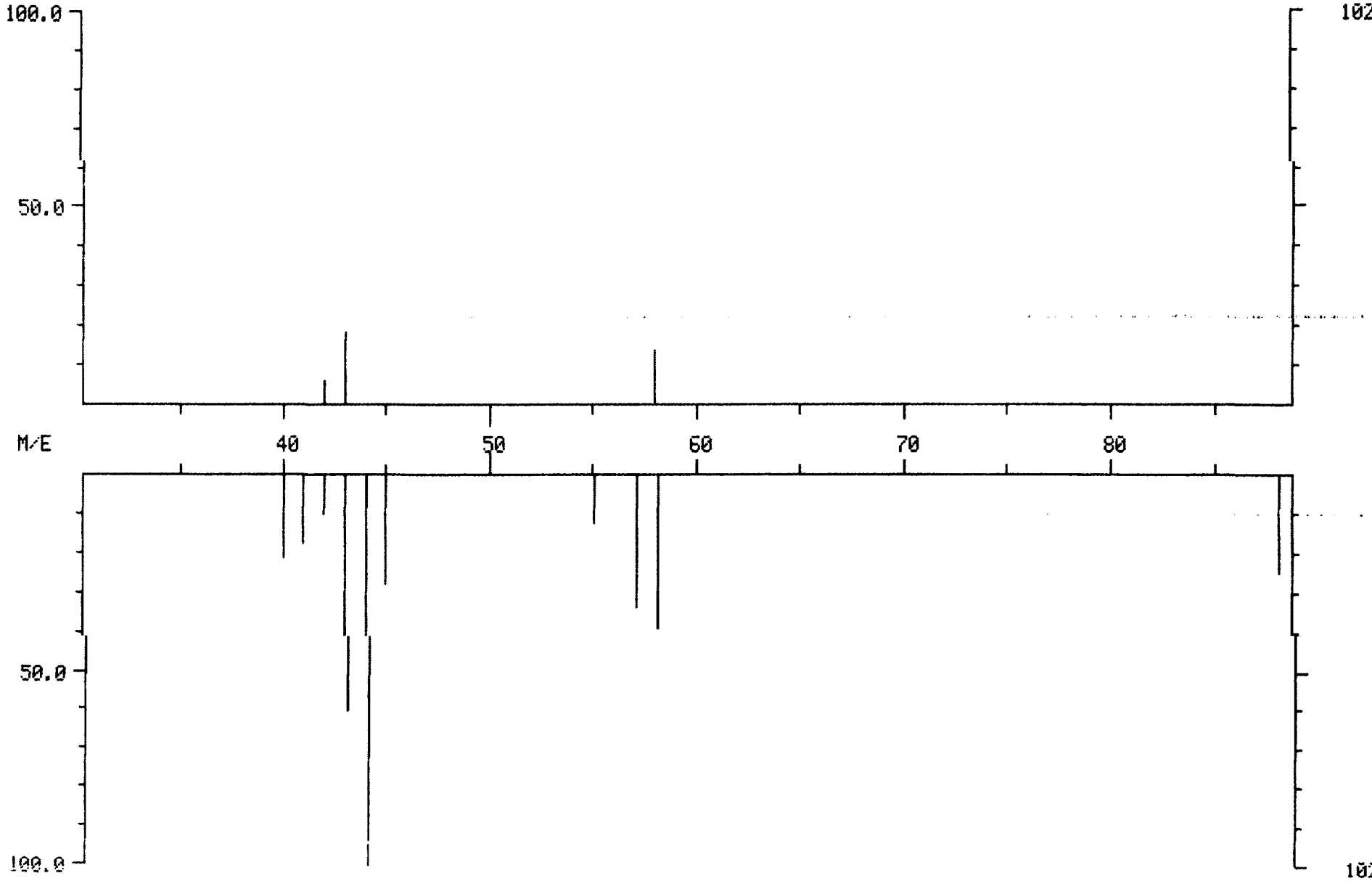
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 30:06
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #881 BASE M/E: 91/ 44
CALI: EPAVOA873 #1 RIC: 1279./ 15023.



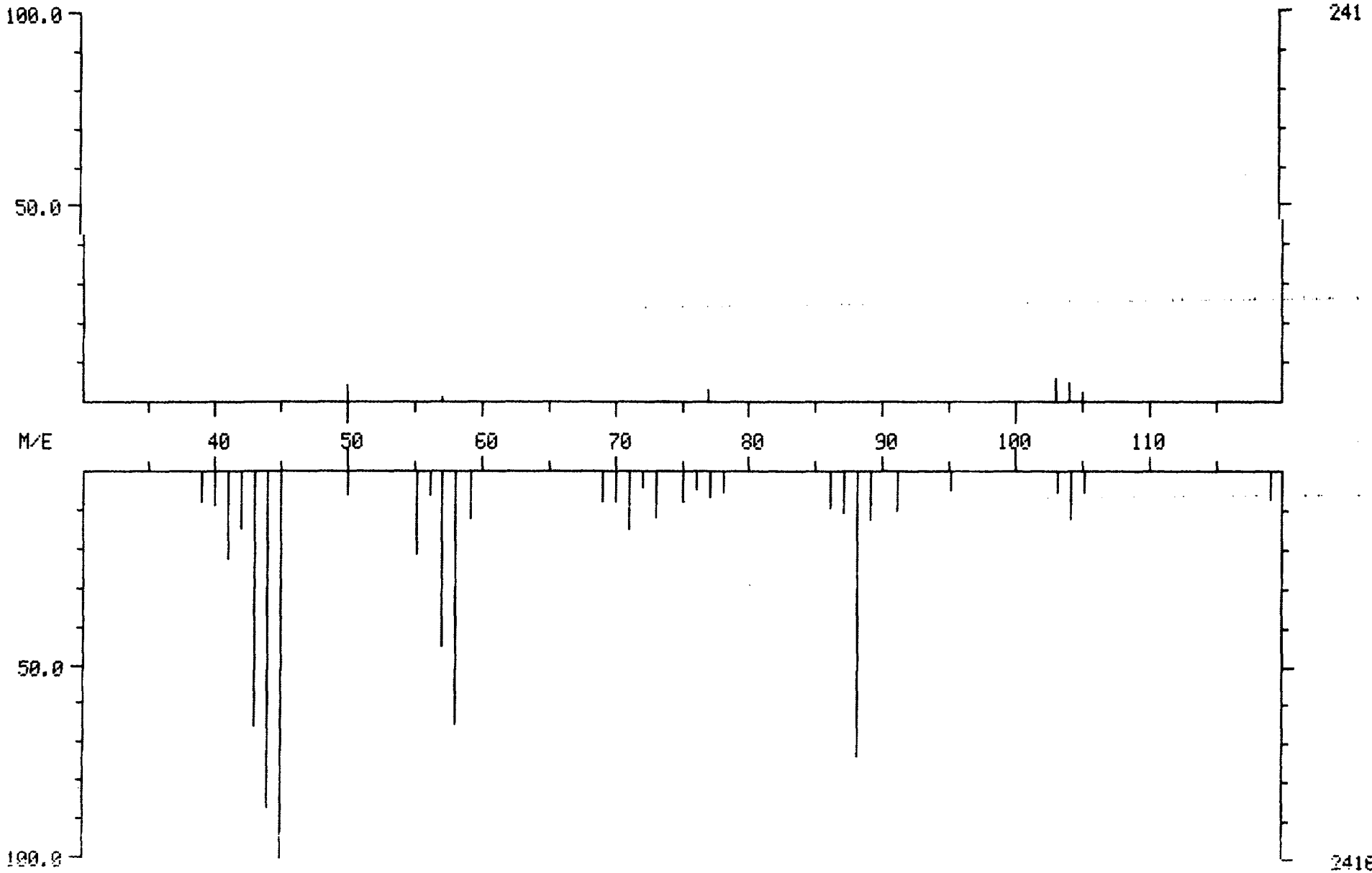
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 25:05
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #734 BASE M/E: 43/ 44
CALI: EPAVOA873 #1 RIC: 391./ 3547.



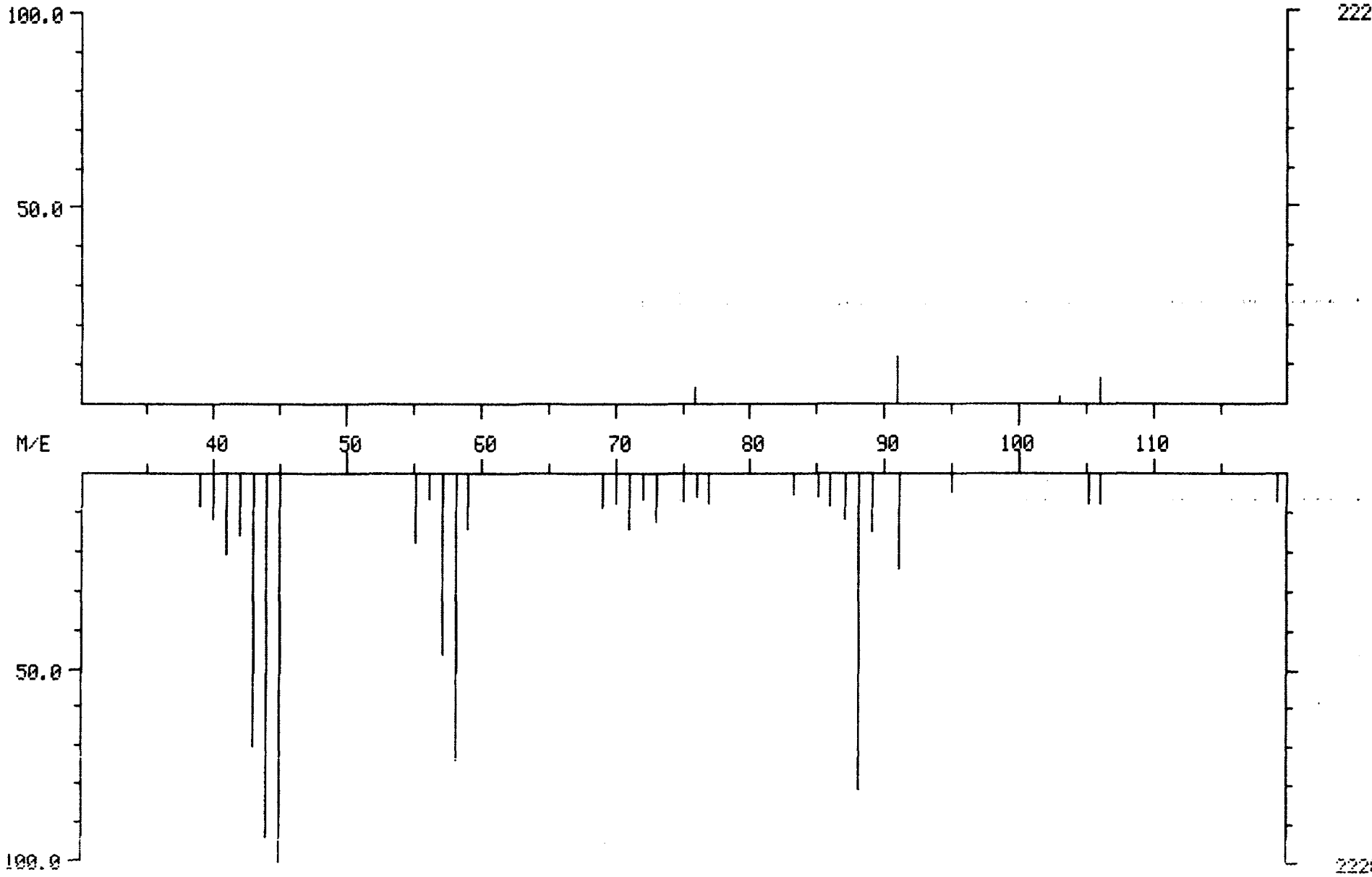
DUAL MASS SPECTRUM
02/26/84 13:53:00 + 34:18
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 #1004 BASE M/E: 103/ 45
CALI: EPAVOA873 #1 RIC: 509./ 16575.



DUAL MASS SPECTRUM
02/26/84 13:53:00 + 35:32
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

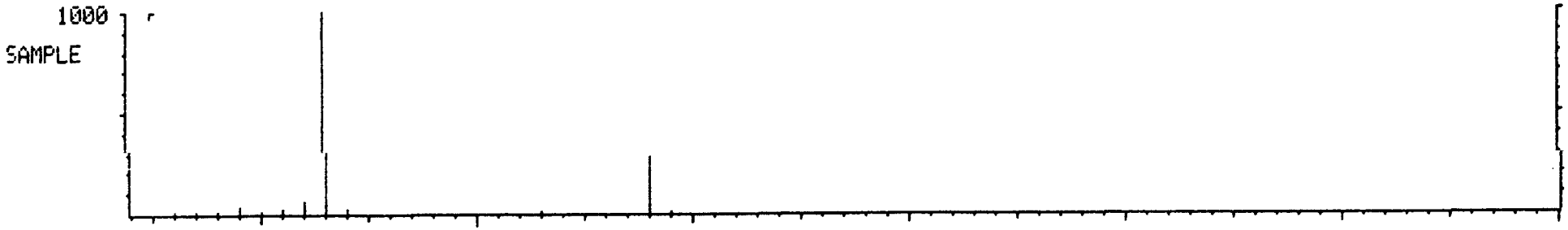
DATA: EPAVOA873 #1040 BASE M/E: 91/ 45
CALI: EPAVOA873 #1 RIC: 530./ 16239.



LIBRARY SEARCH
02/26/84 13:53:00 + 9:20
SAMPLE: 77056-1
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 # 273

BASE M/E: 43
RIC: 33471.

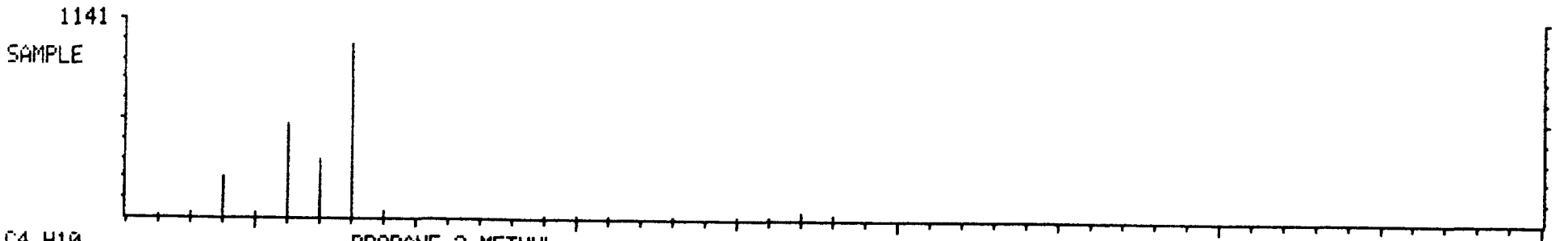


C3.H6.O 2-PROPANONE

LIBRARY SEARCH
02/26/84 13:53:00 + 8:06
SAMPLE: 77056-1
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA873 # 237

BASE M/E: 43
RIC: 60799.

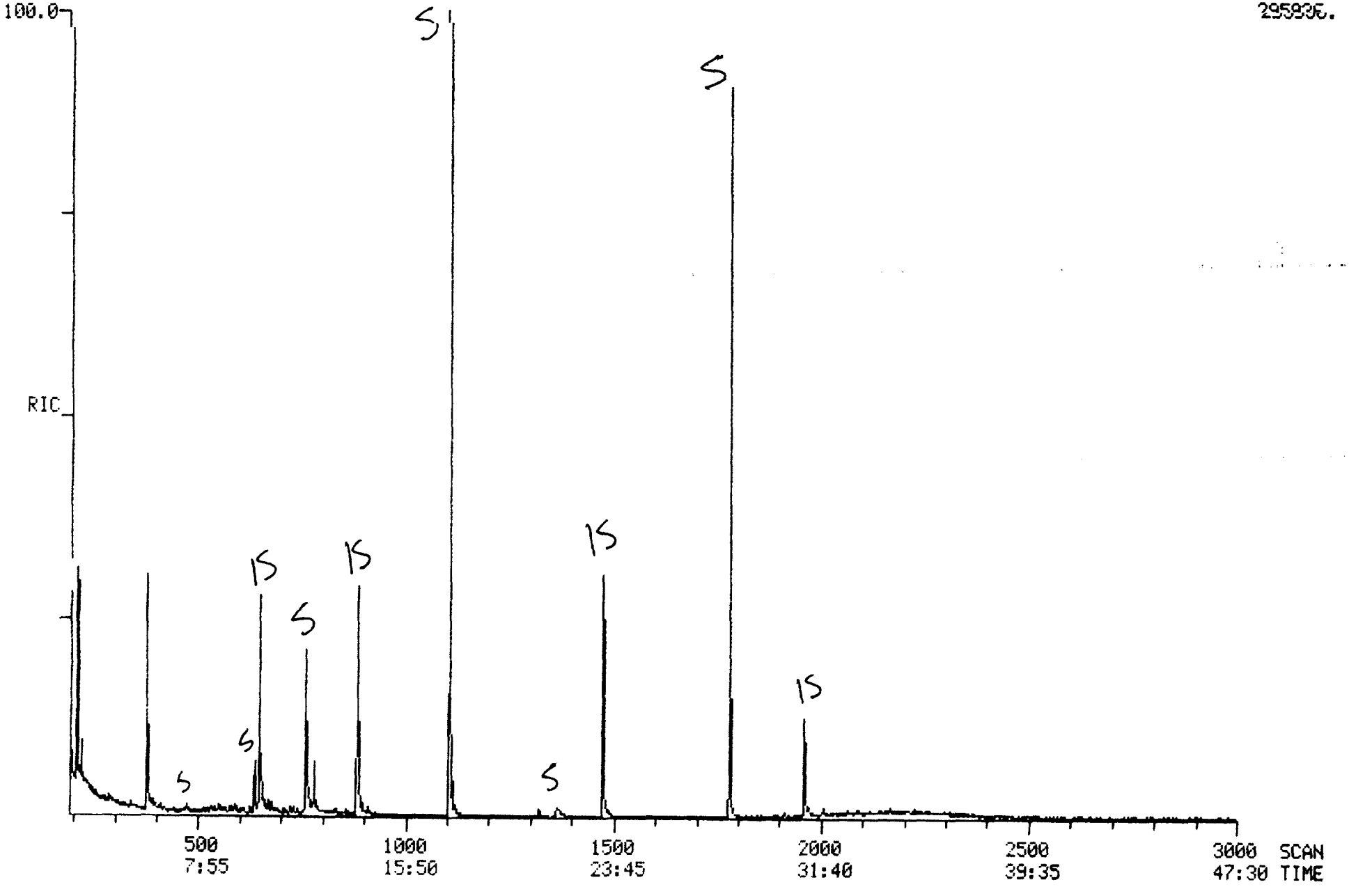


C4.H10 PROPANE,2-METHYL-

RIC
03/08/84 11:59:00
SAMPLE: 77056-1
CONDS.:
RANGE: G 1,3000 LABEL: N 2, 3.0 QUAN: A 2, 2.0 J 0 BASE: U 20, 3

DATA: EPABN719 #1
CALI: EPABN719 #1

SCANS 190 TO 3000



QUANTITATION REPORT FILE: EPABN719

DATA: EPABN719.TI
03/08/84 11:59:00
SAMPLE: 77056-1
SUBMITTED BY: EPA ANALYST: SCP

AMOUNT CALCULATED FROM LINEAR FIT TO AREA/REF AREA
VS. CONC. USING THE 5 CLOSEST DATA POINTS IN .RL

NO	NAME	
1	*	D-4 1,4-DICHLOROBENZENE
2	*	D-8 NAPHTHALENE
3	*	D-10 PHENANTHRENE
4	*	D-12 CHRYSENE
5		N-NITROSODIMETHYLAMINE
6		2-CHLOROPHENOL
7		PHENOL
8		BIS (2-CHLOROETHYL) ETHER
9		1,3-DICHLOROBENZENE
10		1,4-DICHLOROBENZENE
11		1,2-DICHLOROBENZENE
12	HSL	ANILINE
13	HSL	BENZYL ALCOHOL
14		2-FLUOROPHENOL (SURROGATE)
15		D-5 PHENOL (SURROGATE)
16		BIS(2-CHLOROISOPROPYL)ETHER
17		HEXACHLOROETHANE
18		N-NITROSODIPROPYLAMINE
19		NITROBENZENE
20		ISOPHORONE
21		2-NITROPHENOL
22		2,4-DIMETHYLPHENOL
23		BIS(2-CHLOROETHOXY)METHANE
24		2,4-DICHLOROPHENOL
25		1,2,4-TRICHLOROBENZENE
26		NAPHTHALENE
27		HEXACHLOROBUTADIENE
28		P-CHLORO-M-CRESOL
29		HEXACHLOROCYCLOPENTADIENE
30		2,4,6-TRICHLOROPHENOL
31	HSL	2-METHYLPHENOL
32	HSL	4-METHYLPHENOL
33	HSL	BENZOIC ACID
34	HSL	4-CHLOROANILINE
35	HSL	2-METHYLNAPHTHALENE
36		D-5 NITROBENZENE (SURROGATE)
37		2-FLUOROBIPHENYL (SURROGATE)
38		2-CHLORONAPHTHALENE
39		DIMETHYL PHTHALATE
40		ACENAPHTHYLENE
41		2,6-DINITROTOLUENE
42		ACENAPHTHENE
43		2,4-DINITROPHENOL
44		4-NITROPHENOL
45		2,4-DINITROTOLUENE
46		FLUORENE

NO	NAME	
47		4-CHLOROPHENYL PHENYL ETHER
48		DIETHYL PHTHALATE
49		4,6-DINITRO-2-METHYLPHENOL
50		N-NITROSODIPHENYLAMINE
51		1,2-DIPHENYLHYDRAZINE
52		4-BROMOPHENYL PHENYL ETHER
53		HEXACHLOROBENZENE
54		PENTACHLOROPHENOL
55		PHENANTHRENE
56		ANTHRACENE
57		DI N-BUTYL PHTHALATE
58		FLUORANTHENE
59	HSL	2,4,5-TRICHLOROPHENOL
60	HSL	2-NITROANILINE
61	HSL	3-NITROANILINE
62	HSL	DIBENZOFURAN
63	HSL	4 NITROANILINE
64		2,4,6-TRIBROMOPHENOL (SURROGATE)
65		BENZIDINE
66		PYRENE
67		BENZYL BUTYL PHTHALATE
68		BENZO(A)ANTHRACENE
69		3,3'-DICHLOROBENZIDINE
70		CHRYSENE
71		BIS(2-ETHYLHEXYL) PHTHALATE
72		D-14 TERPHENYL (SURROGATE)
73	*	D-12 BENZO(A)PYRENE
74		DI-N-OCTYL PHTHALATE
75		BENZO(B)FLUORANTHENE
76		BENZO(K)FLUORANTHENE
77		BENZO(A)PYRENE
78		INDENO(1,2,3-CD)PYRENE
79		DIBENZO(A,H)ANTHRACENE
80		BENZO(GHI)PERYLENE

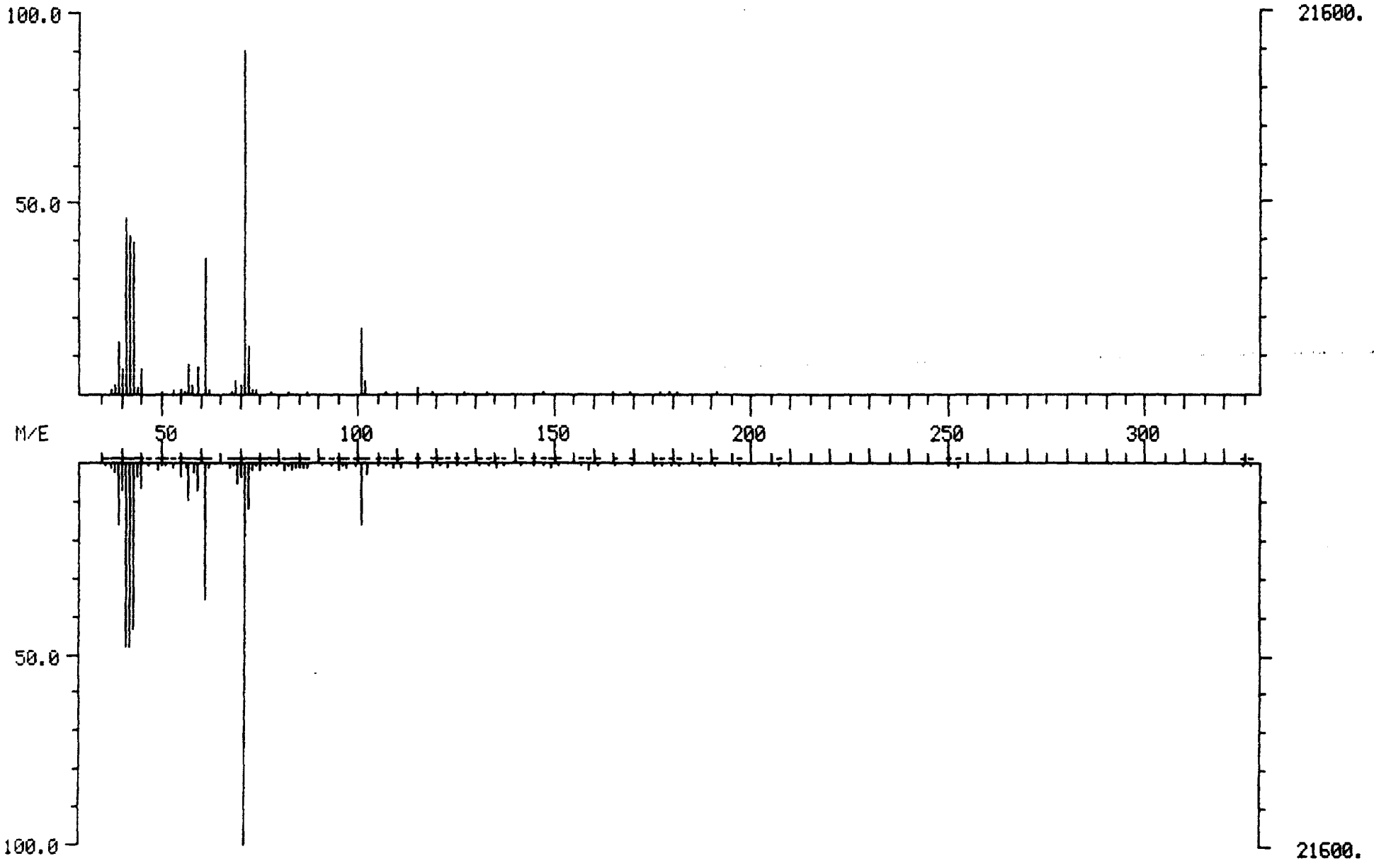
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	152	647	10:15	1	1.000	A BB	58674.	20.000 UG/ML	8.25
2	136	883	13:59	2	1.000	A BV	173745.	20.000 UG/ML	8.25
3	188	1474	23:20	3	1.000	A BV	112491.	20.000 UG/ML	8.25
4	240	1959	31:01	4	1.000	A BV	56790.	20.000 UG/ML	8 25
~~5~~	~~74~~	~~207~~	~~3:17~~	~~1~~	~~0.320~~	~~A BB~~	~~494.~~	~~9.077 UG/ML~~	~~3.75~~
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	112	478	7:34	1	0.739	M II	5055.	17.531 UG/ML	7.23
15	99	637	10:05	1	0.985	M II	8887.	7.769 UG/ML	3.21
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
~~26~~	~~128~~	~~887~~	~~14:03~~	~~2~~	~~1.005~~	~~A*BB~~	~~910.~~	~~19.454 UG/ML~~	~~-8.02~~
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	NOT FOUND								
36	82	759	12:01	2	0.860	A BB	95286.	29.484 UG/ML	12.17
37	172	1106	17:31	2	1.253	A BV	213467.	31.081 UG/ML	12.83
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
~~57~~	~~149~~	~~1620~~	~~25:39~~	~~3~~	~~1.099~~	~~A BB~~	~~1364.~~	~~7.218 UG/ML~~	~~2.97~~
58	NOT	FOUND							
59	NOT	FOUND							
60	NOT	FOUND							
61	NOT	FOUND							
62	NOT	FOUND							
63	NOT	FOUND							
64	330	1364	21:36	3	0.925	M II	6102.	13.926 UG/ML	5.75
65	NOT	FOUND							
66	NOT	FOUND							
67	149	1889	29:55	4	0.964	A BB	610.	7.176 UG/ML	2.96
68	NOT	FOUND							
69	NOT	FOUND							
70	NOT	FOUND							
71	149	2008	31:48	4	1.025	A BB	2176.	4.536 UG/ML	1.87
72	244	1781	28:12	4	0.909	A BB	240434.	67.336 UG/ML	27.79
73	NOT	FOUND							
~~74~~	~~149~~	~~2117~~	~~33:31~~	~~4~~	~~1.081~~	~~A BB~~	~~828.~~	~~1.230 UG/ML~~	~~0.51~~
75	NOT	FOUND							
76	NOT	FOUND							
77	NOT	FOUND							
78	NOT	FOUND							
79	NOT	FOUND							
80	NOT	FOUND							

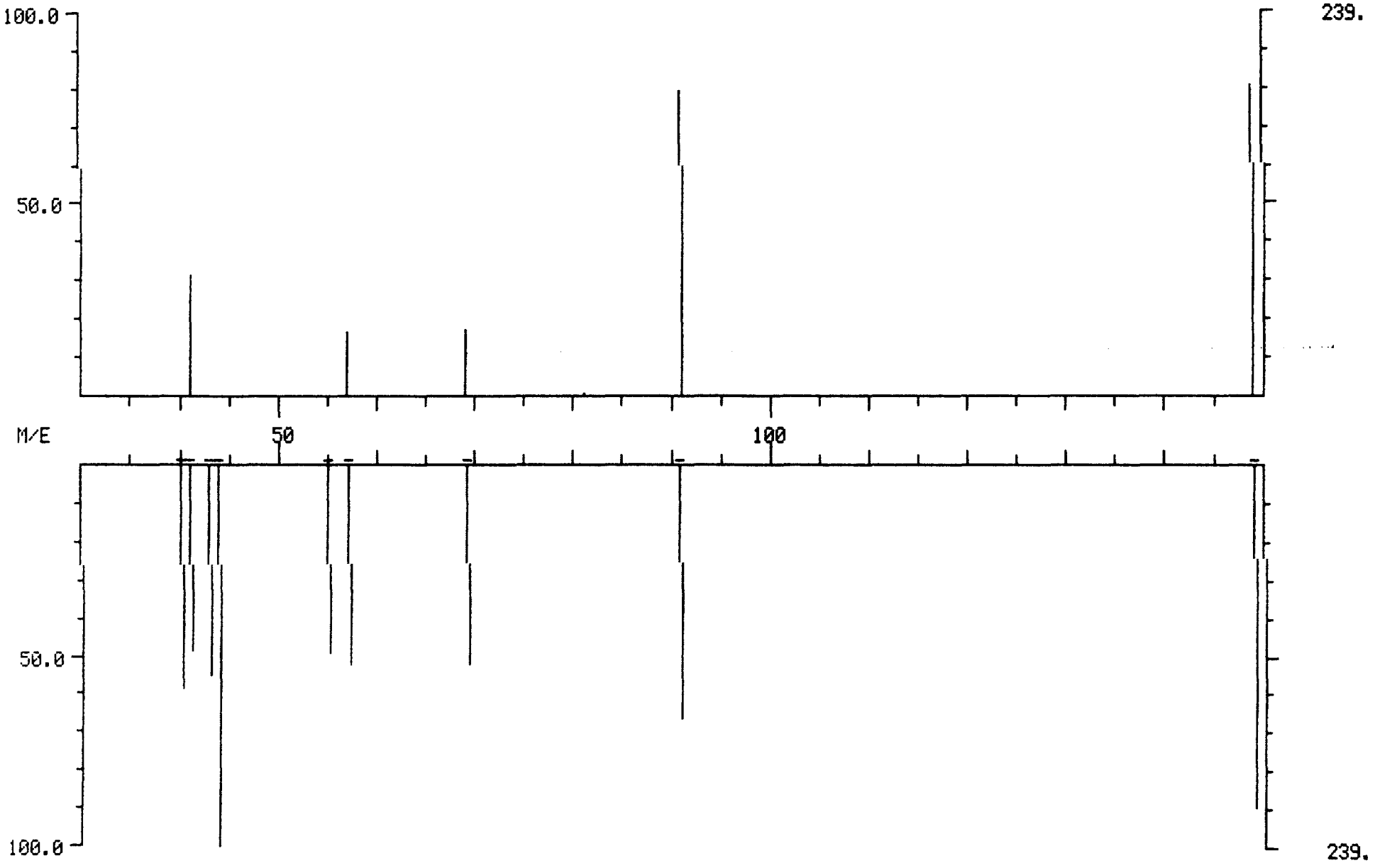
DUAL MASS SPECTRUM
03/08/84 11:59:00 + 3:17
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN719 #207 BASE M/E: 71/ 71
CALI: EPABN719 #1 RIC: 77183./ 93055.



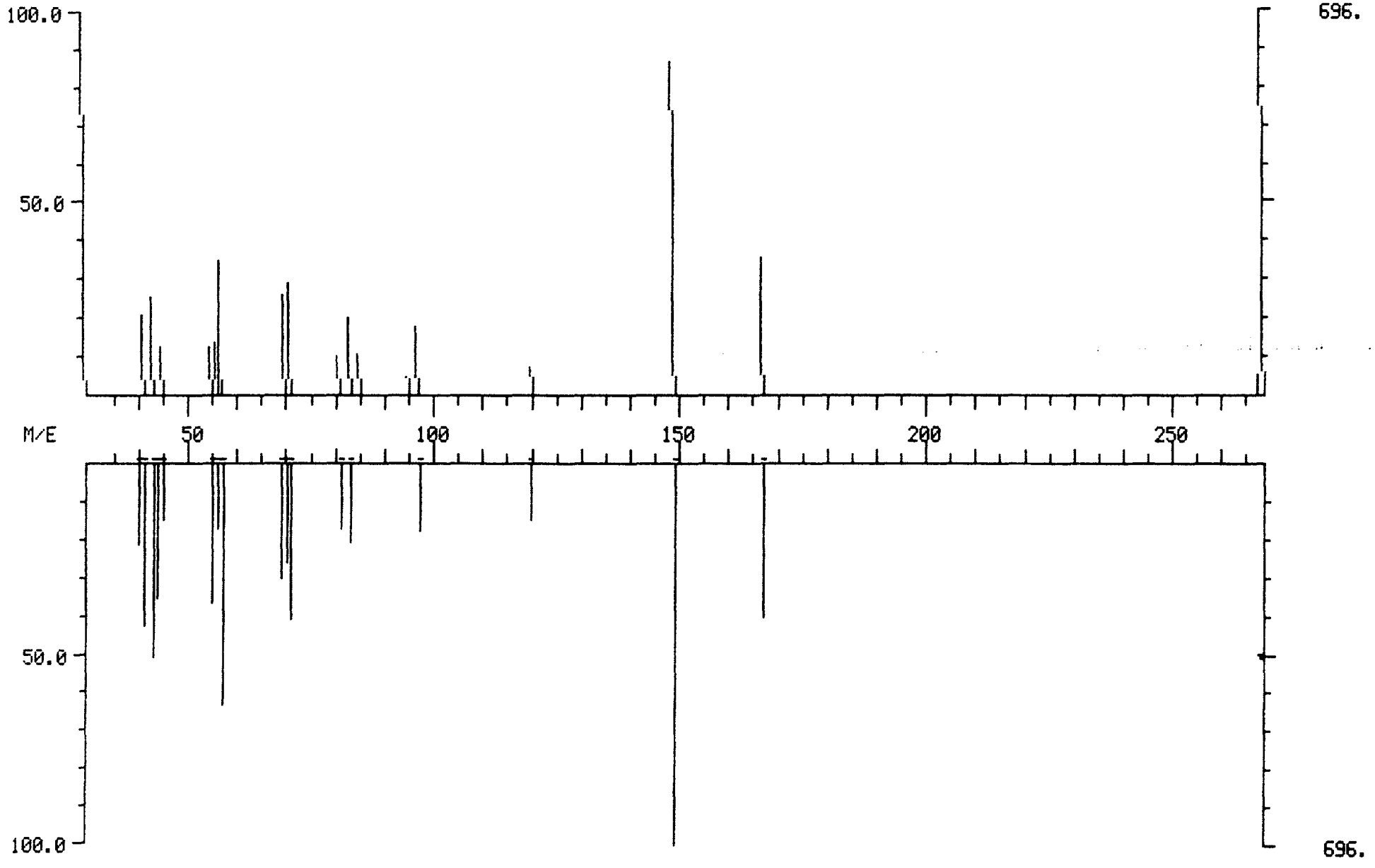
DUAL MASS SPECTRUM
03/08/84 11:59:00 + 29:55
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN719 #1889 BASE M/E: 149/ 44
CALI: EPABN719 #1 RIC: 537./ 1365.



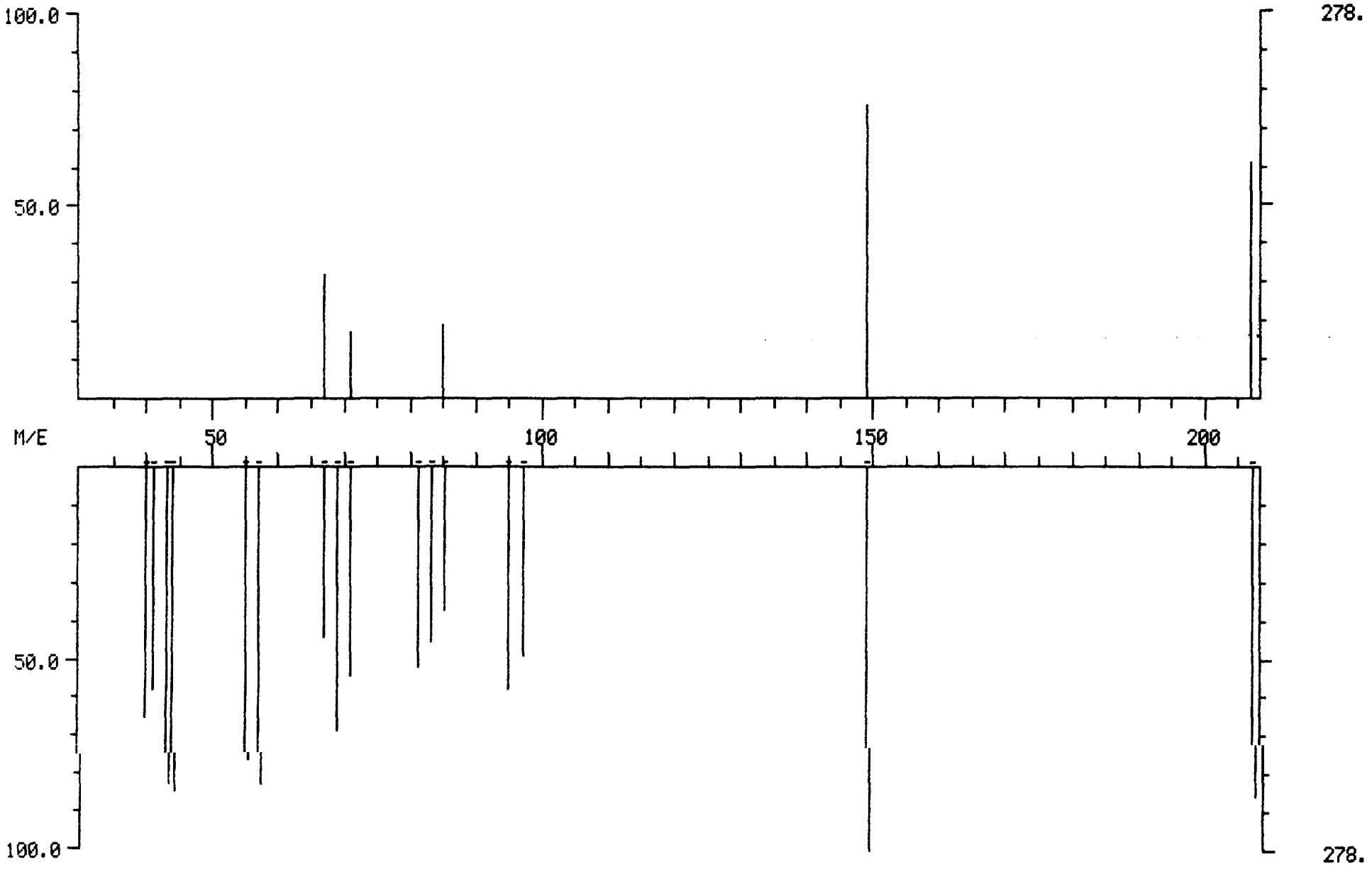
DUAL MASS SPECTRUM
03/08/84 11:59:00 + 31:48
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

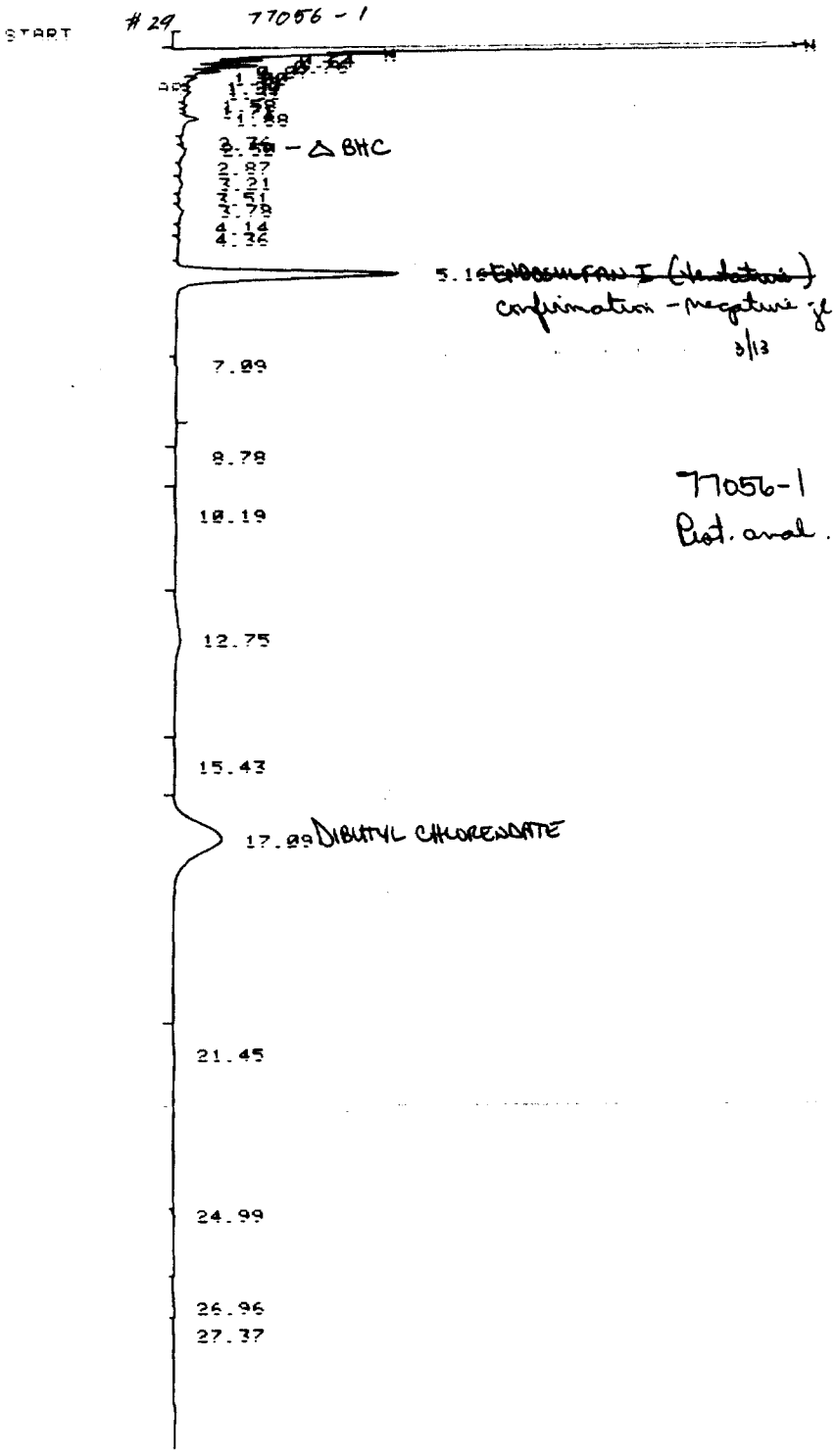
DATA: EPABN719 #2008 BASE M/E: 149/ 149
CALI: EPABN719 #1 RIC: 2603./ 4111.



DUAL MASS SPECTRUM
03/08/84 11:59:00 + 33:31
SAMPLE: 77056-1
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN719 #2117 BASE M/E: 149/ 149
CALI: EPABN719 #1 RIC: 568./ 2911.





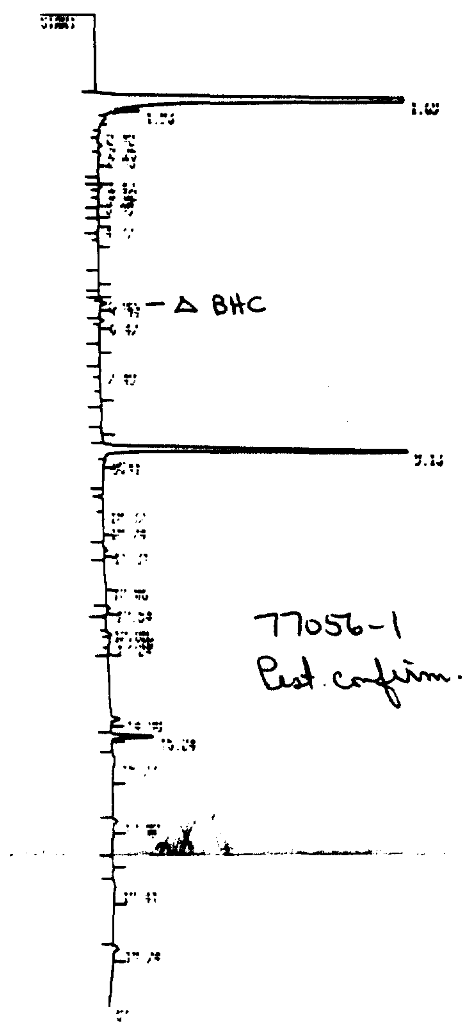
HP RUN # 318
BOTTLE 29
AREA %

RT	AREA	AREA %
1.20	5388	1.505
1.31	10010	2.796
1.59	4310	1.204
1.71	3596	1.004
1.88	17900	4.999
2.36	4673	1.305
2.50	11030	3.080
2.87	5974	1.668
3.21	8404	2.347
3.51	3680	1.028
3.78	8626	2.409
4.14	3757	1.049
4.36	5484	1.532
5.16	138600	38.709
7.09	2815	0.786
8.78	180	0.050
10.19	1627	0.454
12.75	11470	3.203
15.43	2008	0.561
17.09	104300	29.129
21.45	2544	0.710
27.37	1695	0.471

DIL FACTOR: 1.0000 E+ 0

079

77056-1



RUN # 1055 MAR/13/84 14:21:15

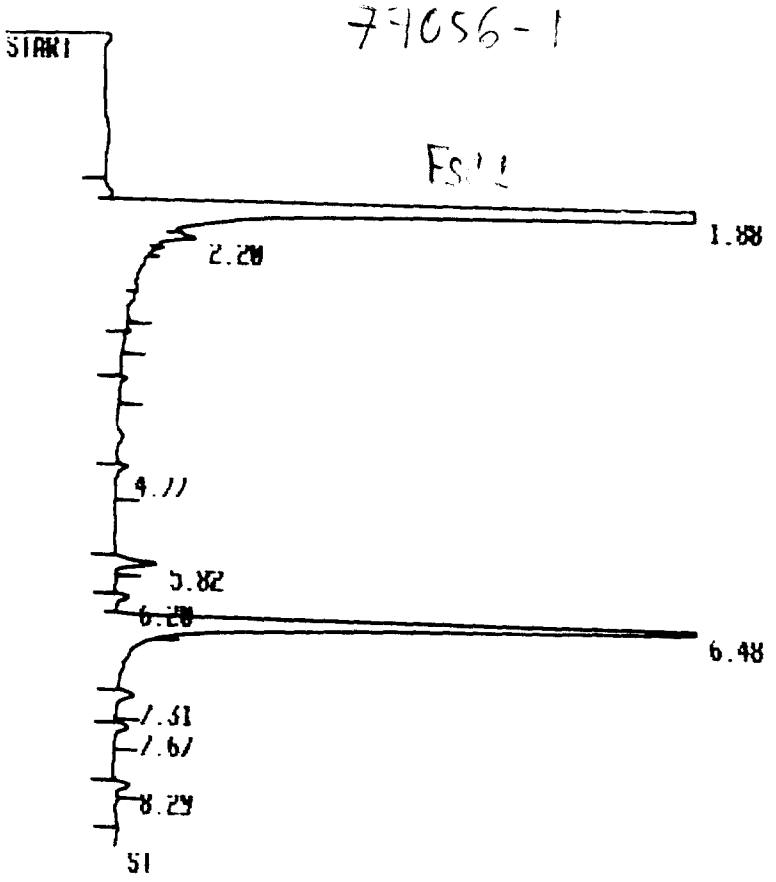
HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
1.00	6571256	BB	0.001	76.307
1.75	66675	BB	0.022	0.775
2.42	3436	BP	0.134	0.040
2.75	12150	PV	0.008	0.141
2.93	7363	VB	0.023	0.083
3.27	4233	PB	0.023	0.049
3.62	11452	BP	0.050	0.134
3.74	2822	PV	0.023	0.030
3.83	2867	VB	0.054	0.033
4.37	2231	PB	0.020	0.027
6.02	7423	BV	0.031	0.086
6.11	20976	VB	0.021	0.244
6.47	12400	BV	0.040	0.145
7.49	5191	BP	0.180	0.060
9.13	1551816	BB	0.021	18.304
9.41	4391	BB	0.023	0.051
10.37	9376	PV	0.224	0.109
10.79	4466	VB	0.483	0.052
11.31	8683	PB	0.049	0.101
12.[illegible]	2163	BB	0.154	0.025
12.54	10118	PB	0.049	0.118
12.89	12845	PV	0.033	0.149
13.18	28861	VV	0.029	0.333
13.79	14117	VV	0.163	0.165
14.88	26314	PB	0.067	0.313
15.79	124715	PB	0.022	1.458
15.73	8578	BB	0.227	0.096
17.57	13882	P[illegible]	0.870	0.162
18.41	6579	BB	0.152	0.076
19.79	14040	BB	0.186	0.163

TOTAL AREA= 8582588
MUL FACTOR= 1.0000E+00

TCLP Screen

79056-1



RUN # 1/25 MAR/01/84 21:00:41

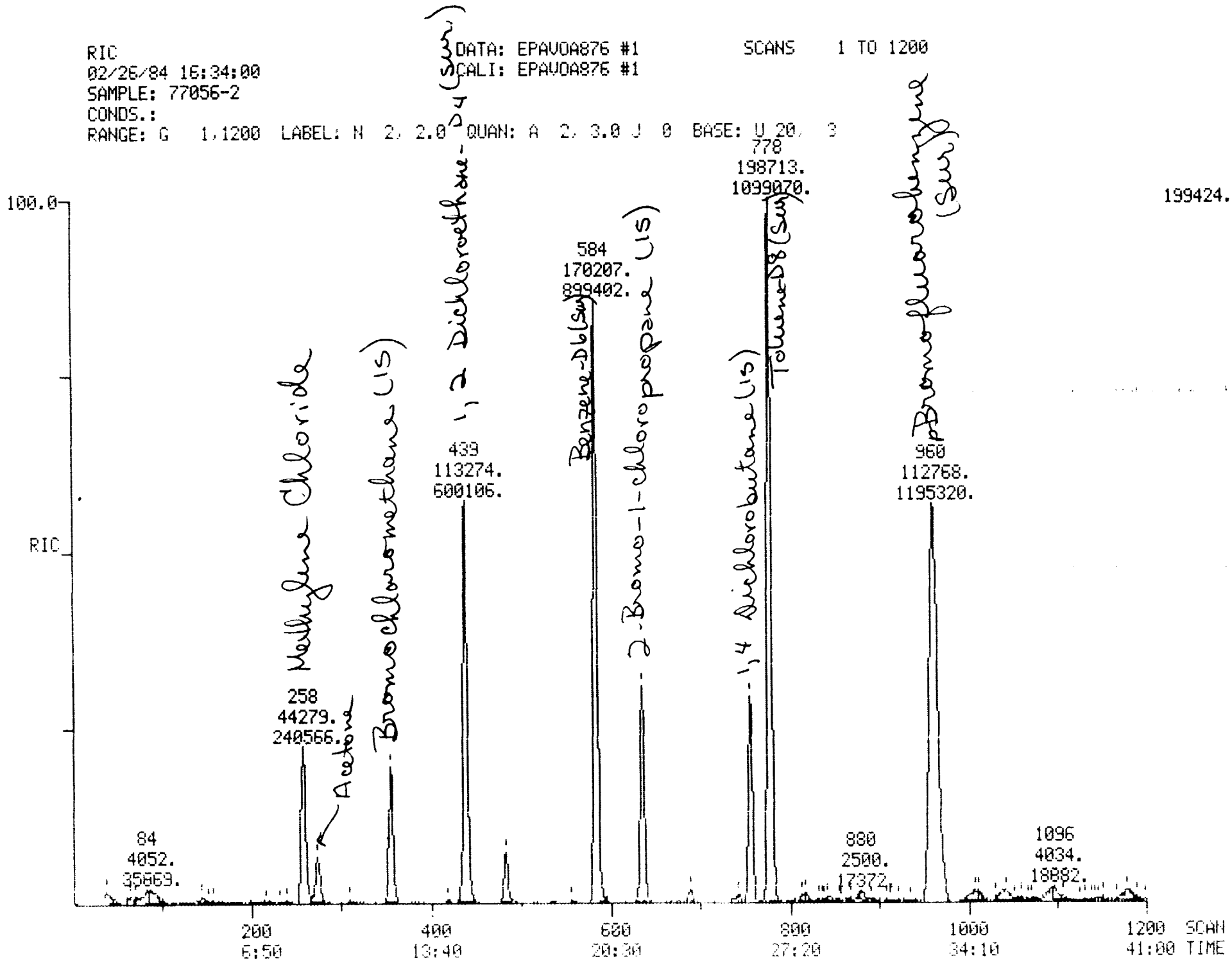
HEIGHTS

RT	HEIGHT	TYPE	AR/HT	HEIGHTS
1.88	78098/6	SHB	0.079	97.488
2.20	5544	TBP	0.060	0.069
4.77	2433	BB	0.078	0.030
5.82	8229	PB	0.073	0.103
6.20	3049	BP	0.082	0.038
6.48	1/2865	PB	0.091	2.138
7.31	3449	BB	0.087	0.043
7.67	2713	BB	0.093	0.034
8.29	2956	PB	0.084	0.037

TOTAL HEIGHT= 8011100
MUL FACTOR= 1.00000E+00

RIC
02/26/84 16:34:00
SAMPLE: 77056-2
CONDS.:
RANGE: G 1,1200 LABEL: N 2, 2.0 QUAN: A 2, 3.0 J 0 BASE: U 20, 3

DATA: EPAVOA876 #1 SCANS 1 TO 1200
CALI: EPAVOA876 #1



QUANTITATION REPORT FILE: EPAV0A876

DATA: EPAV0A876.TI
02/26/84 16:34:00
SAMPLE: 77056-2
SUBMITTED BY: EPA ANALYST:

AMOUNT=AREA * REF.AMNT/(REF.AREA)* RESP.FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1,1,2,2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	356	12:10	1	1.000	A BB	37067.	50.000 UG/L	6.82
2	77	636	21:44	2	1.000	A BB	113573.	50.000 UG/L	6.82
3	55	756	25:50	3	1.000	A VB	120086.	50.000 UG/L	6.82
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	258	8:49	1	0.725	A BB	59976.	24.497 UG/L	3.34
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
~~14~~	~~83~~	~~420~~	~~14:21~~	~~1~~	~~1.180~~	~~A BB~~	~~2565.~~	~~0.604 UG/L~~	~~0.08~~
~~15~~	~~62~~	~~442~~	~~15:06~~	~~1~~	~~1.242~~	~~A BB~~	~~8689.~~	~~2.826 UG/L~~	~~0.39~~
16	97	484	16:32	1	1.360	A BB	271	0.075 UG/L	0.01
17	58	275	9:24	1	0.772	A VB	14262.	143.386 UG/L	19.56
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								

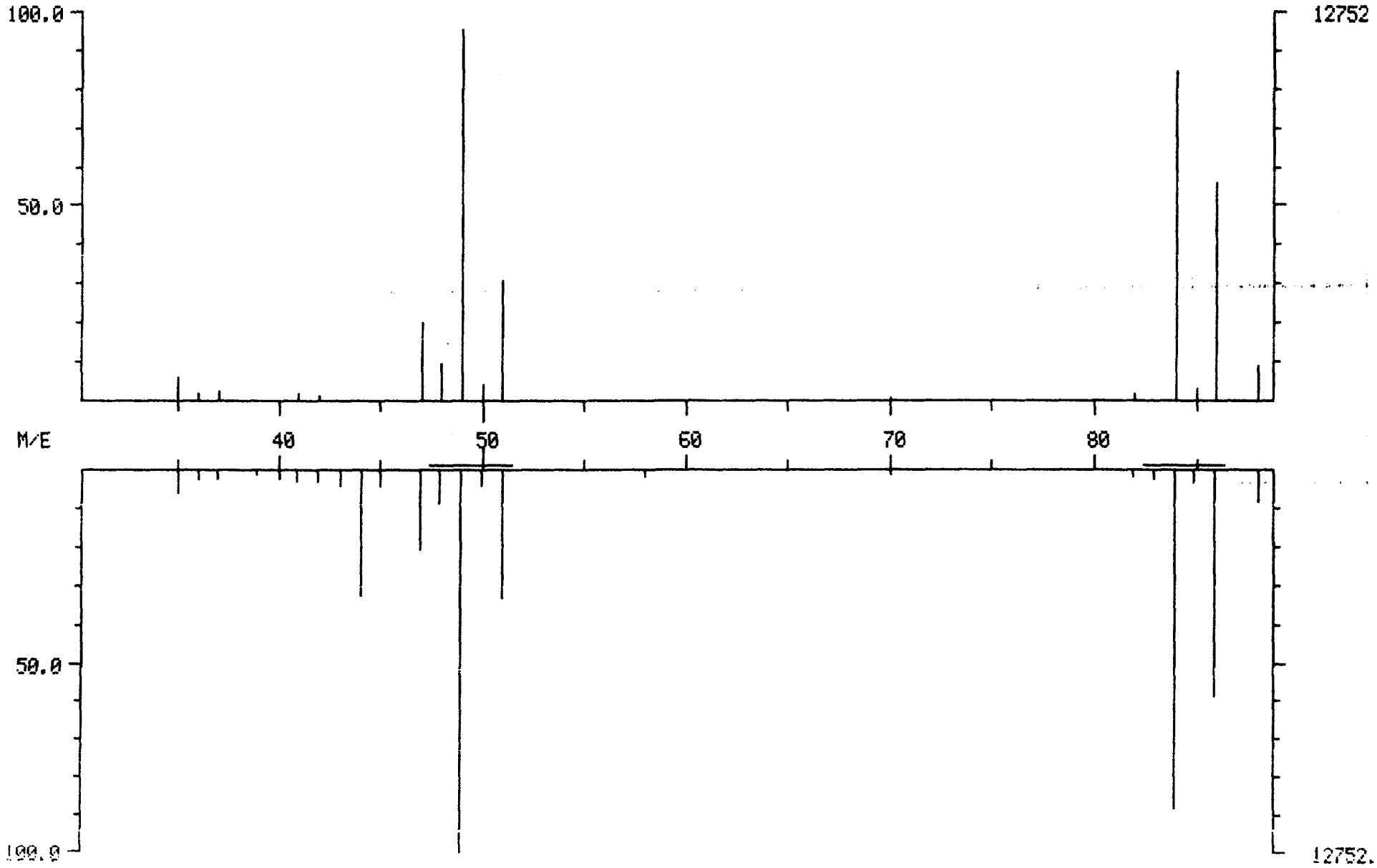
jl

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
24	78	584	19:57	2	0.918	A BB	5433.	1.364 UG/L	0.19
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	72	437	14:56	2	0.687	A BB	654.	6.058 UG/L	0.83
31	NOT FOUND								
32	43	689	23:32	2	1.083	A BB	7661.	8.387 UG/L	1.14
33	65	439	15:00	2	0.690	A BB	253155.	110.896 UG/L	15.13
34	84	584	19:57	2	0.918	A BB	434173.	102.333 UG/L	13.96
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	166	743	25:23	3	0.983	A BB	1234.	0.618 UG/L	0.08
39	83	743	25:23	3	0.983	A BB	251.	0.210 UG/L	0.03
40	91	783	26:45	3	1.036	A BB	12776.	2.448 UG/L	0.33
41	112	814	27:49	3	1.077	A BB	6017.	1.558 UG/L	0.21
42	91	881	30:06	3	1.165	A BB	9350.	1.492 UG/L	0.20
43	NOT FOUND								
44	104	1000	34:10	3	1.323	A BB	6253.	1.987 UG/L	0.27
45	106	1039	35:30	3	1.374	A BB	4817.	2.430 UG/L	0.33
46	98	778	26:35	3	1.029	A VB	399526.	83.506 UG/L	11.39
47	NOT FOUND								
48	NOT FOUND								
49	83	743	25:23	3	0.983	A BB	251.	0.210 UG/L	0.03
50	95	960	32:48	3	1.270	A BB	257373.	88.206 UG/L	12.03

jl

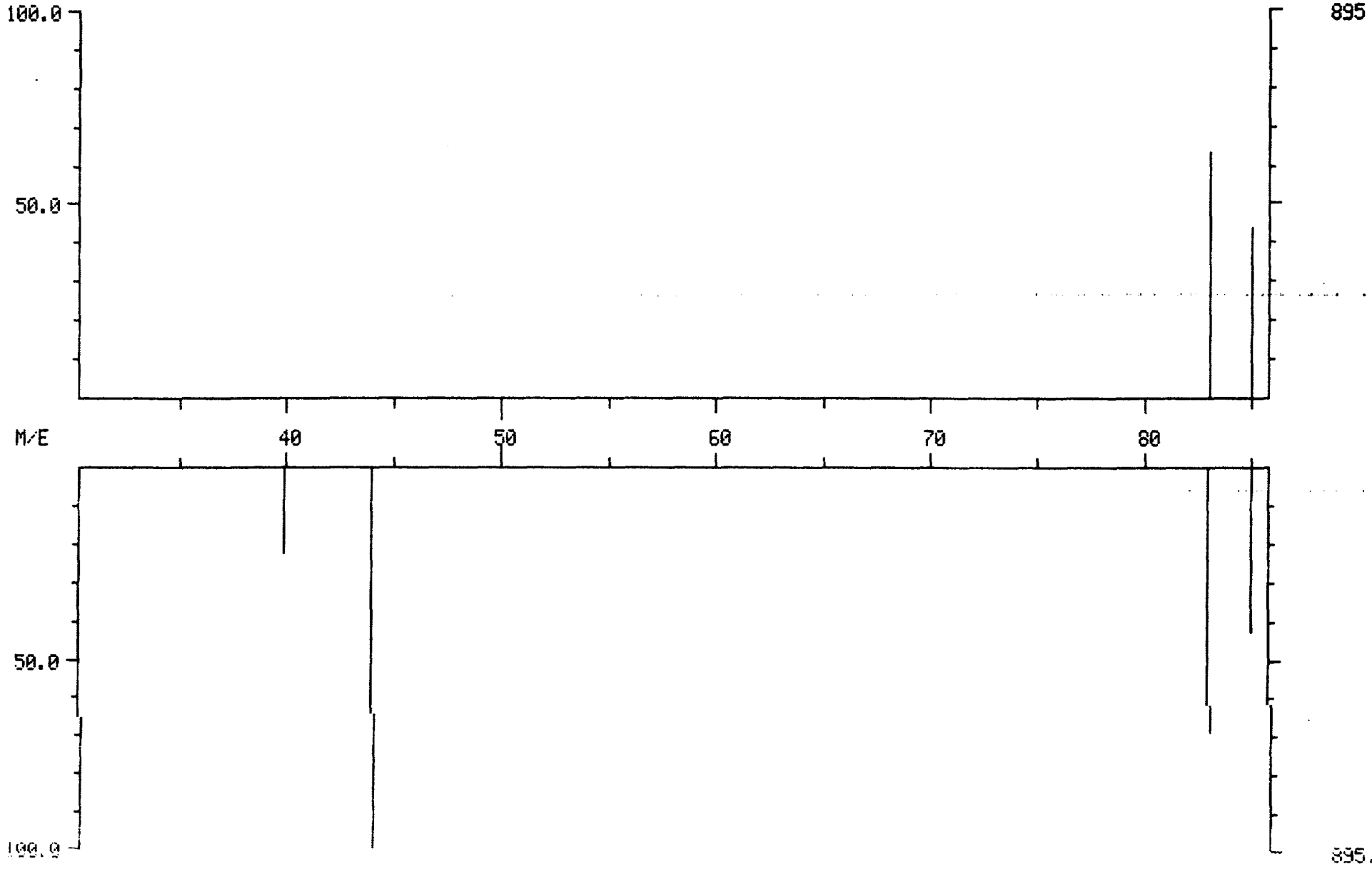
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 8:49
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #258 BASE M/E: 49/ 49
CALI: EPAVOA876 #1 RIC: 41663./ 50175.



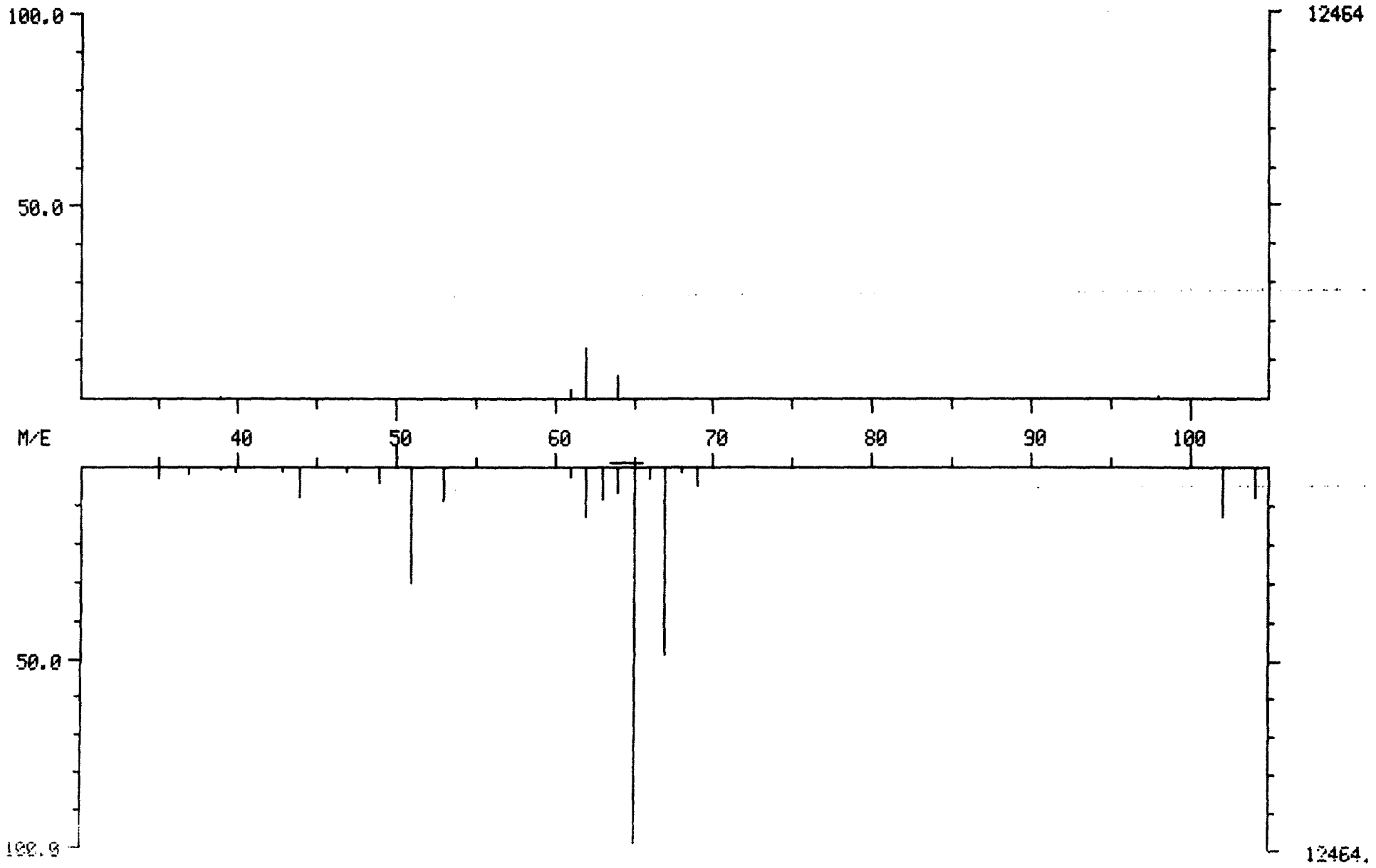
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 14:21
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #420 BASE M/E: 83/ 44
CALI: EPAVOA876 #1 RIC: 958./ 2095.



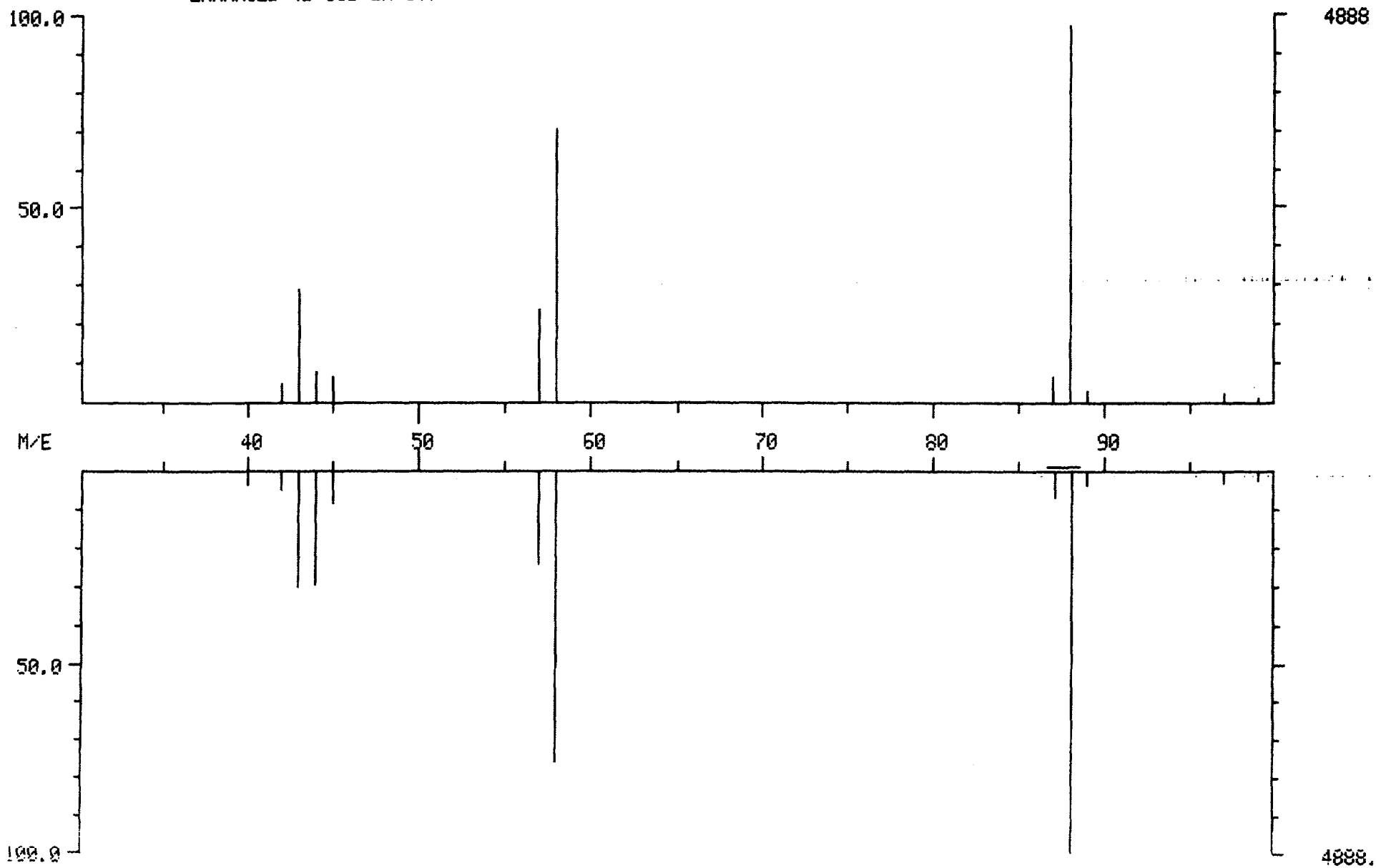
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 15:06
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #442 BASE M/E: 62/ 65
CALI: EPAVOA876 #1 RIC: 2751./ 33471.



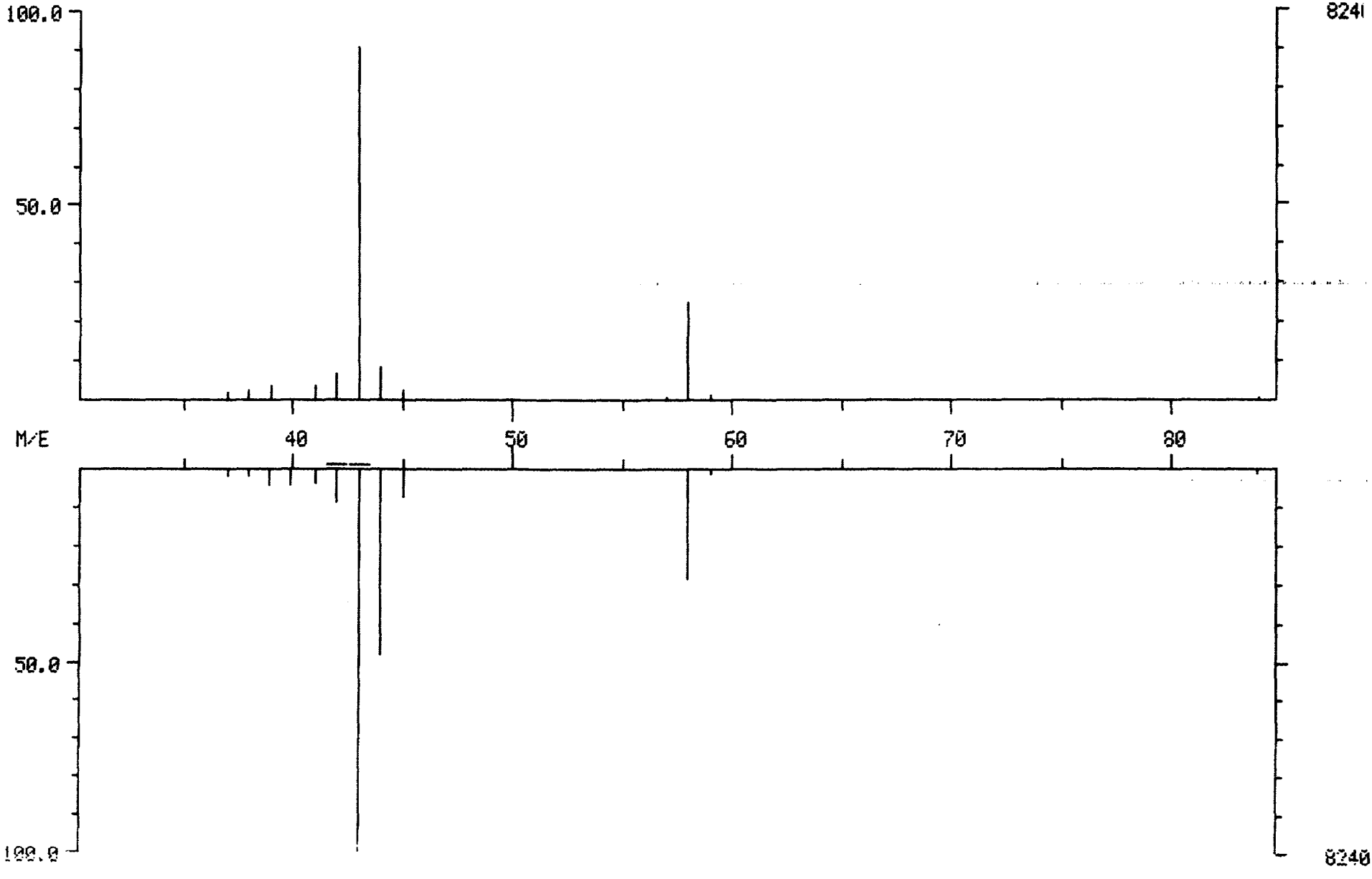
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 16:32
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #484 BASE M/E: 88/ 88
CALI: EPAVOA876 #1 RIC: 12367./ 14303.



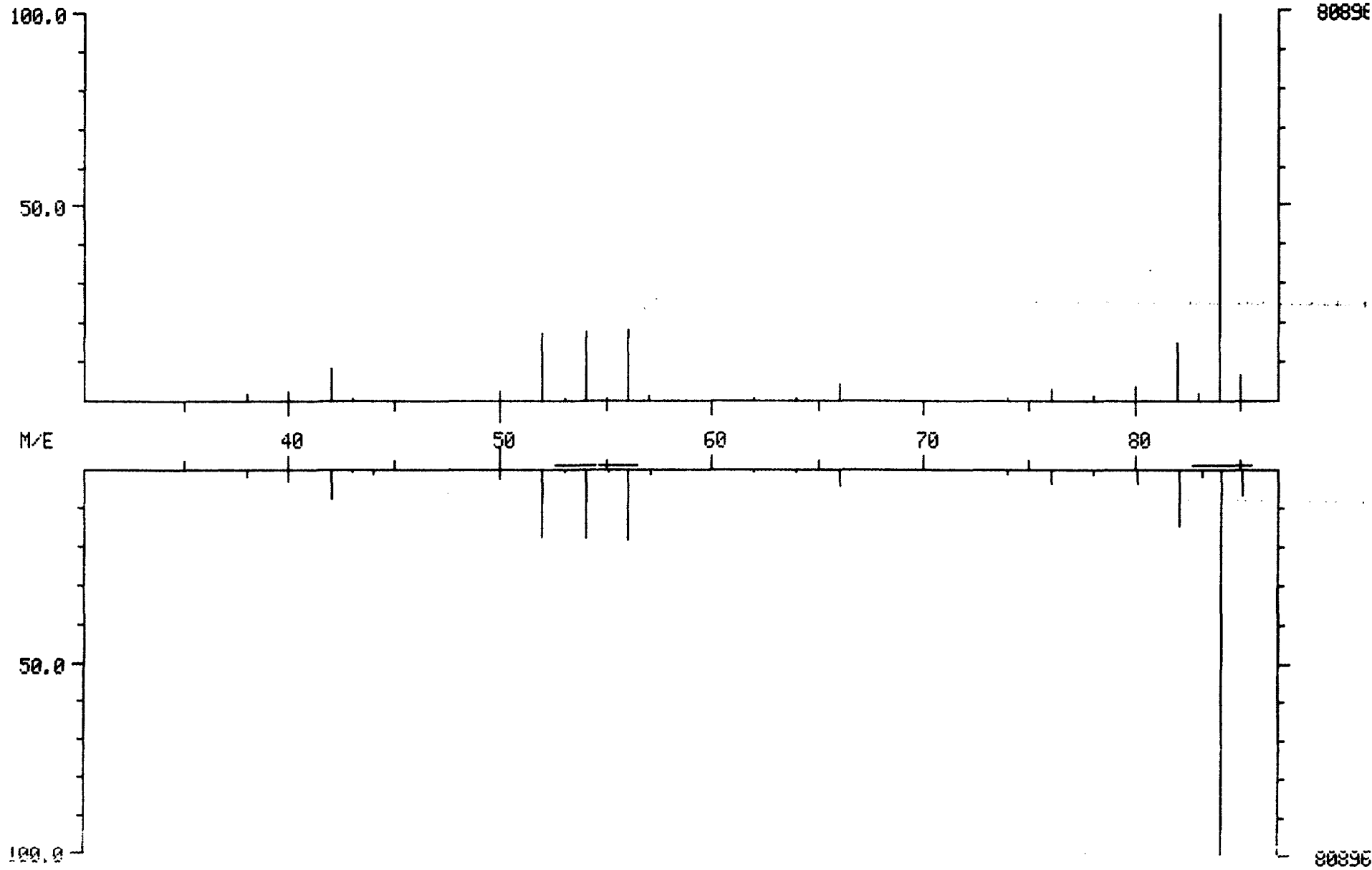
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 9:24
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #275 BASE M/E: 43/ 43
CALI: EPAVOA876 #1 RIC: 11967./ 17375.



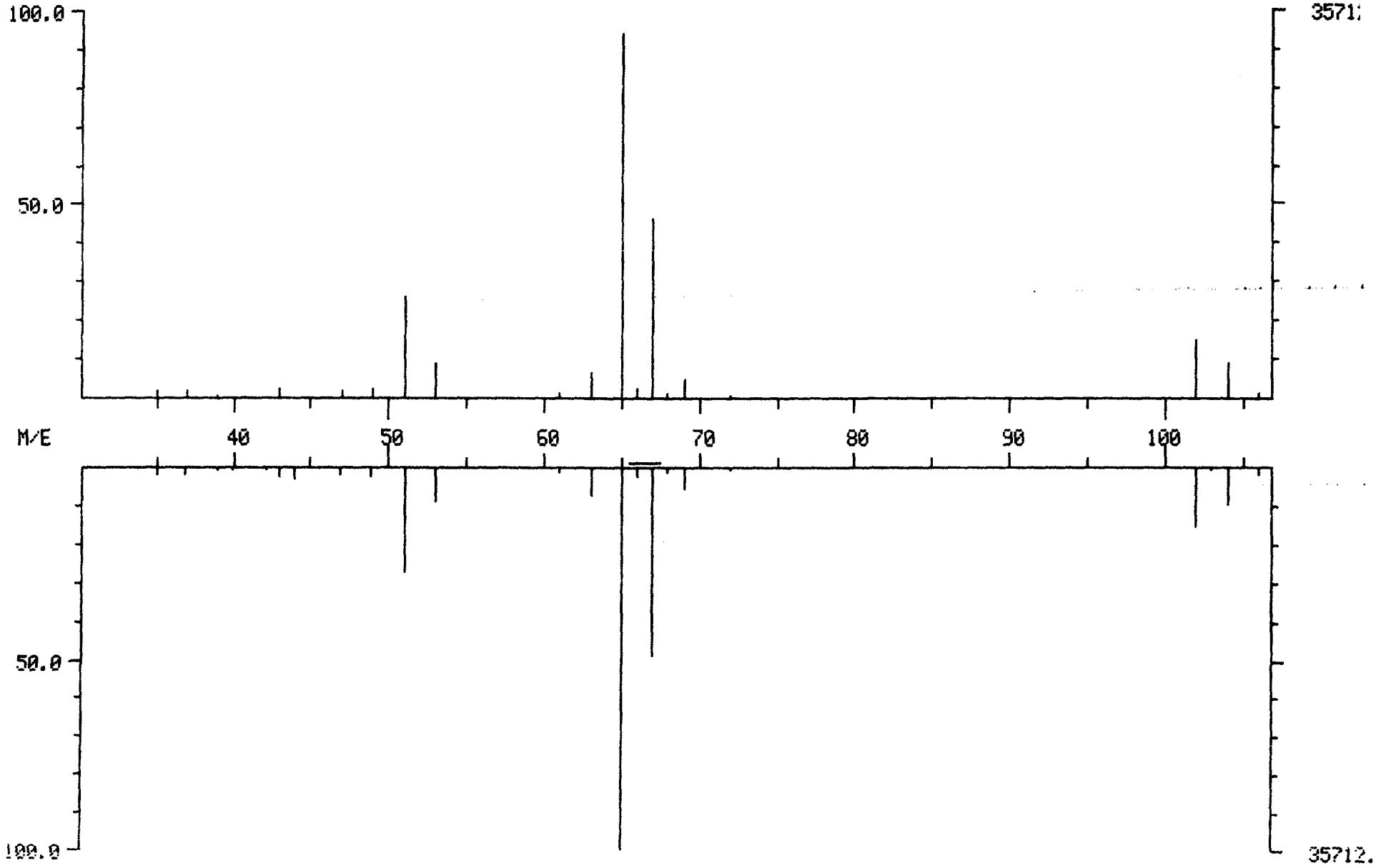
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 19:57
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #584 BASE M/E: 84/ 84
CALI: EPAVOA876 #1 RIC: 168191./ 172031.



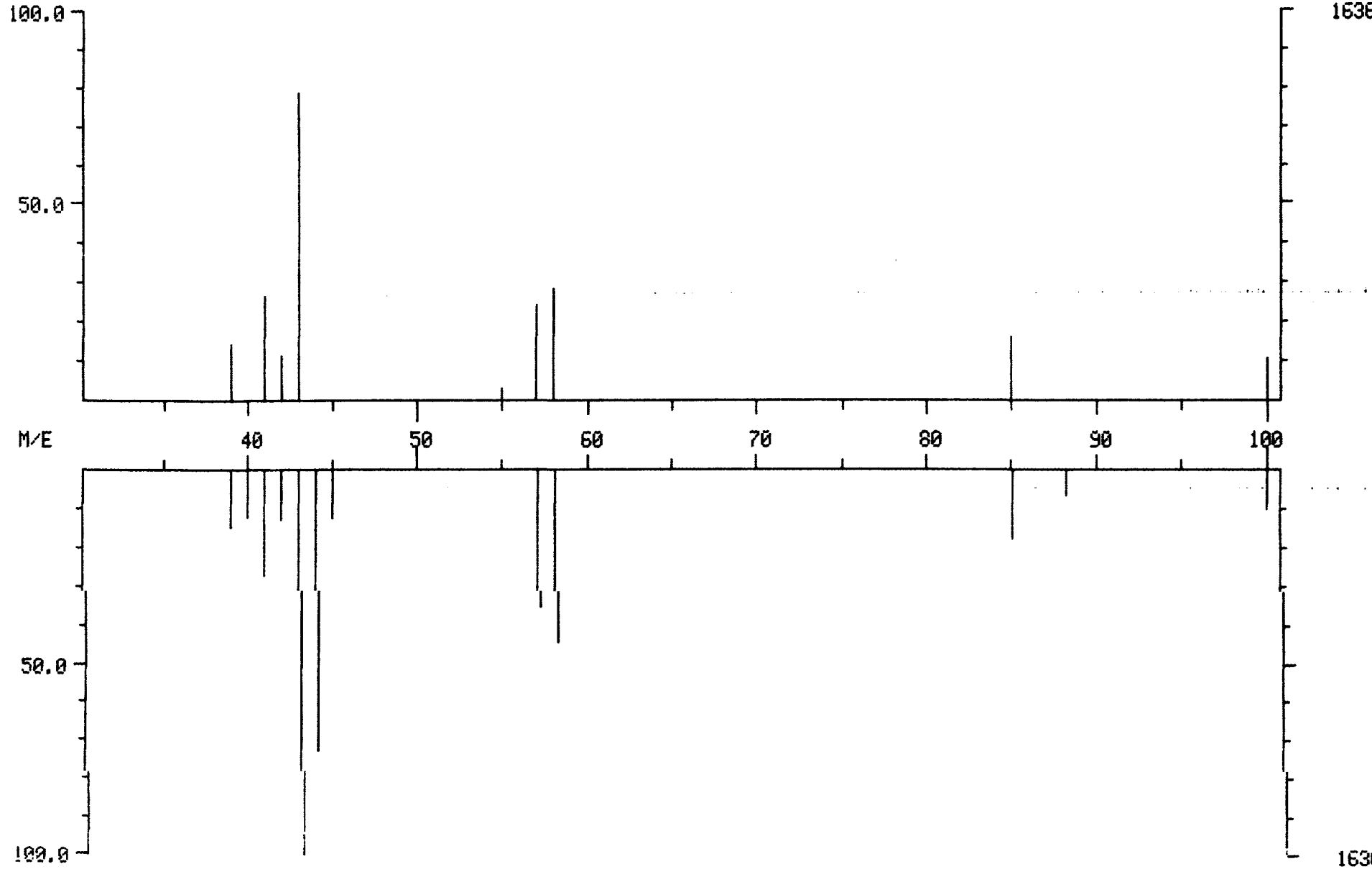
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 14:56
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #437 BASE M/E: 65/ 65
CALI: EPAVOA876 #1 RIC: 81023./ 86783.



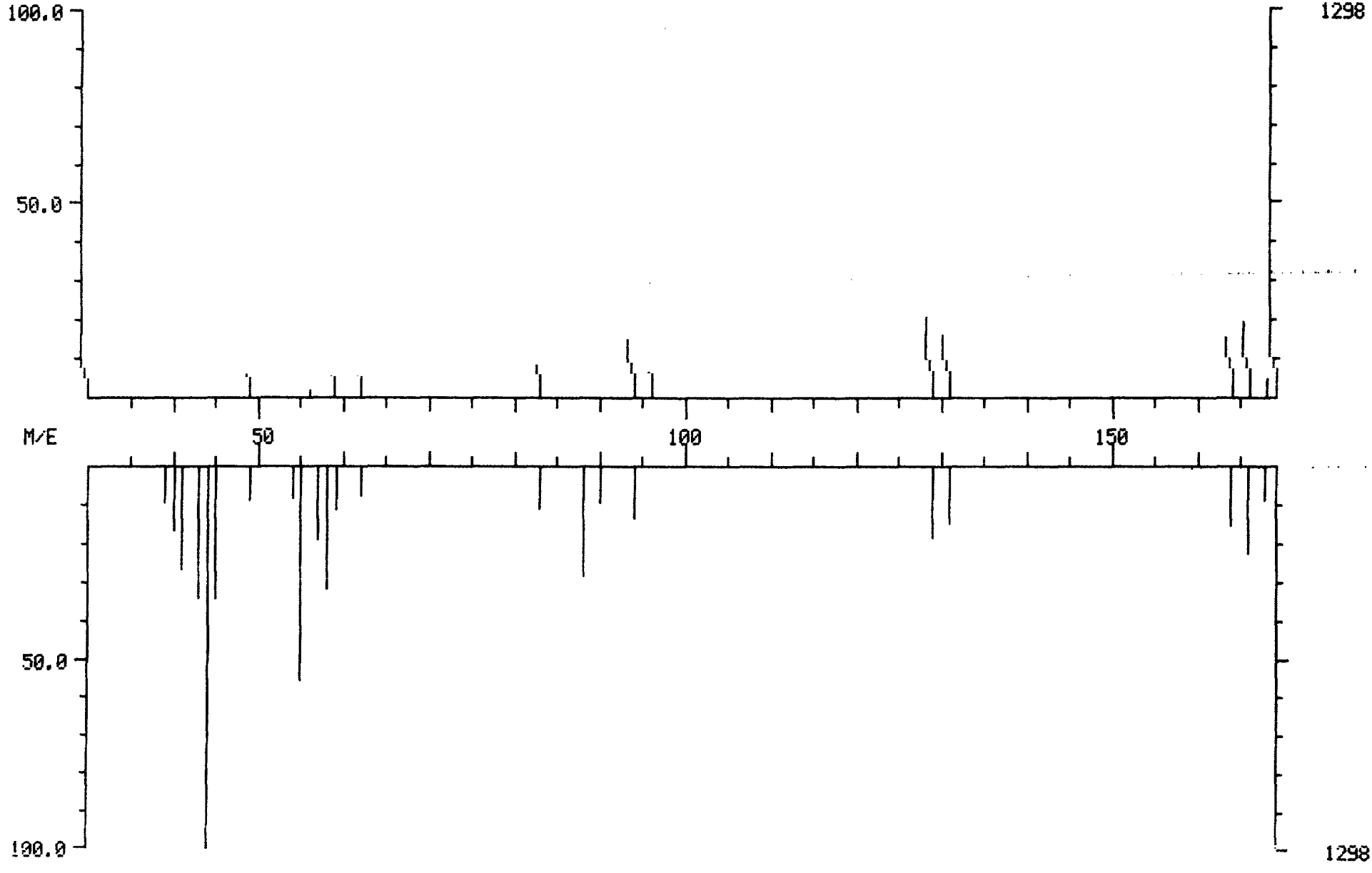
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 23:32
SAMPLE: 77056-2
CONDS.:
ENHANCED (5 15B 2N 0T)

DATA: EPAVOA876 #689 BASE M/E: 43/ 43
CALI: EPAVOA876 #1 RIC: 3491./ 5999.



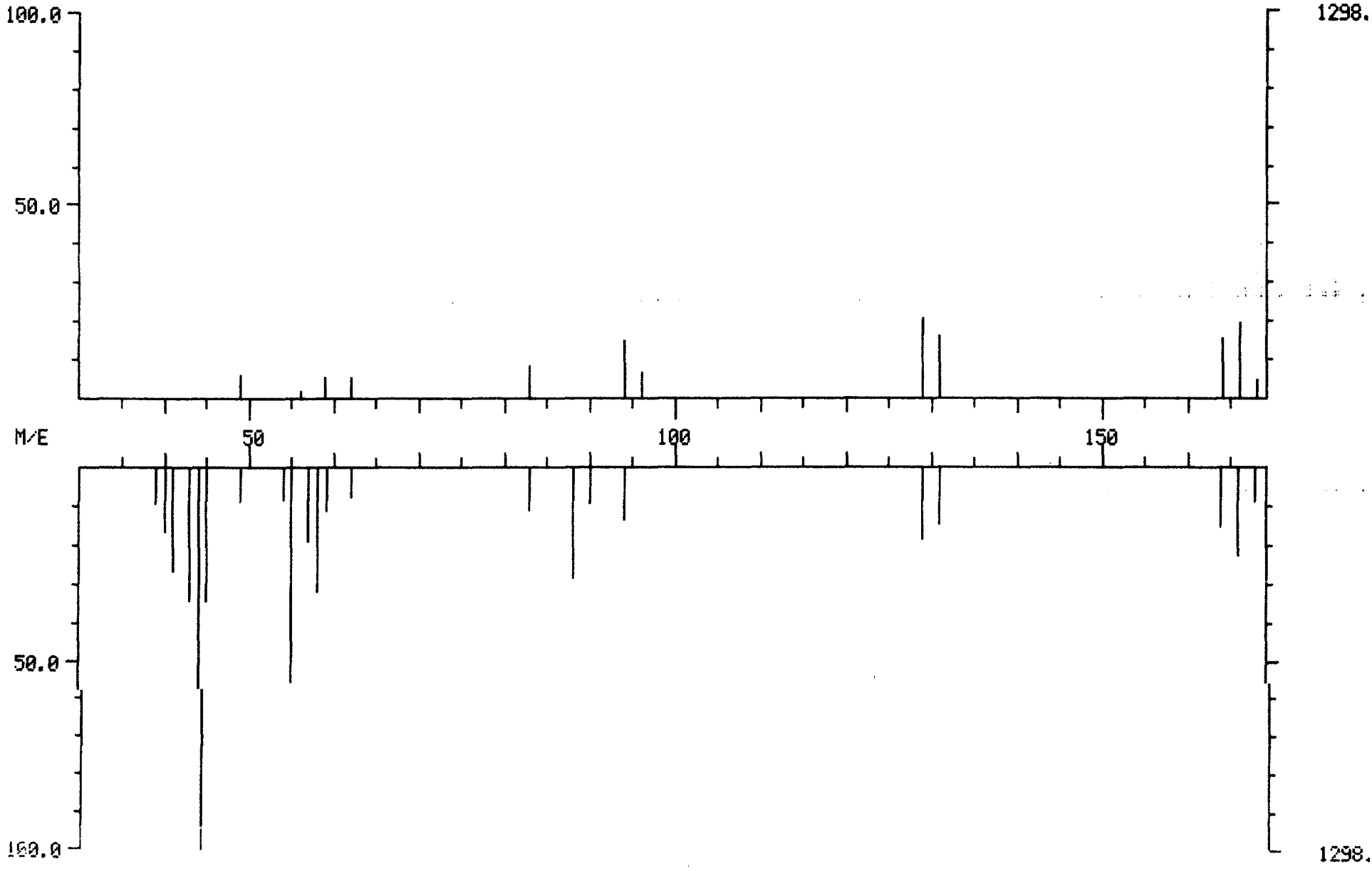
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 25:23
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #743 BASE M/E: 129/ 44
CALI: EPAVOA876 #1 RIC: 1607./ 6567.



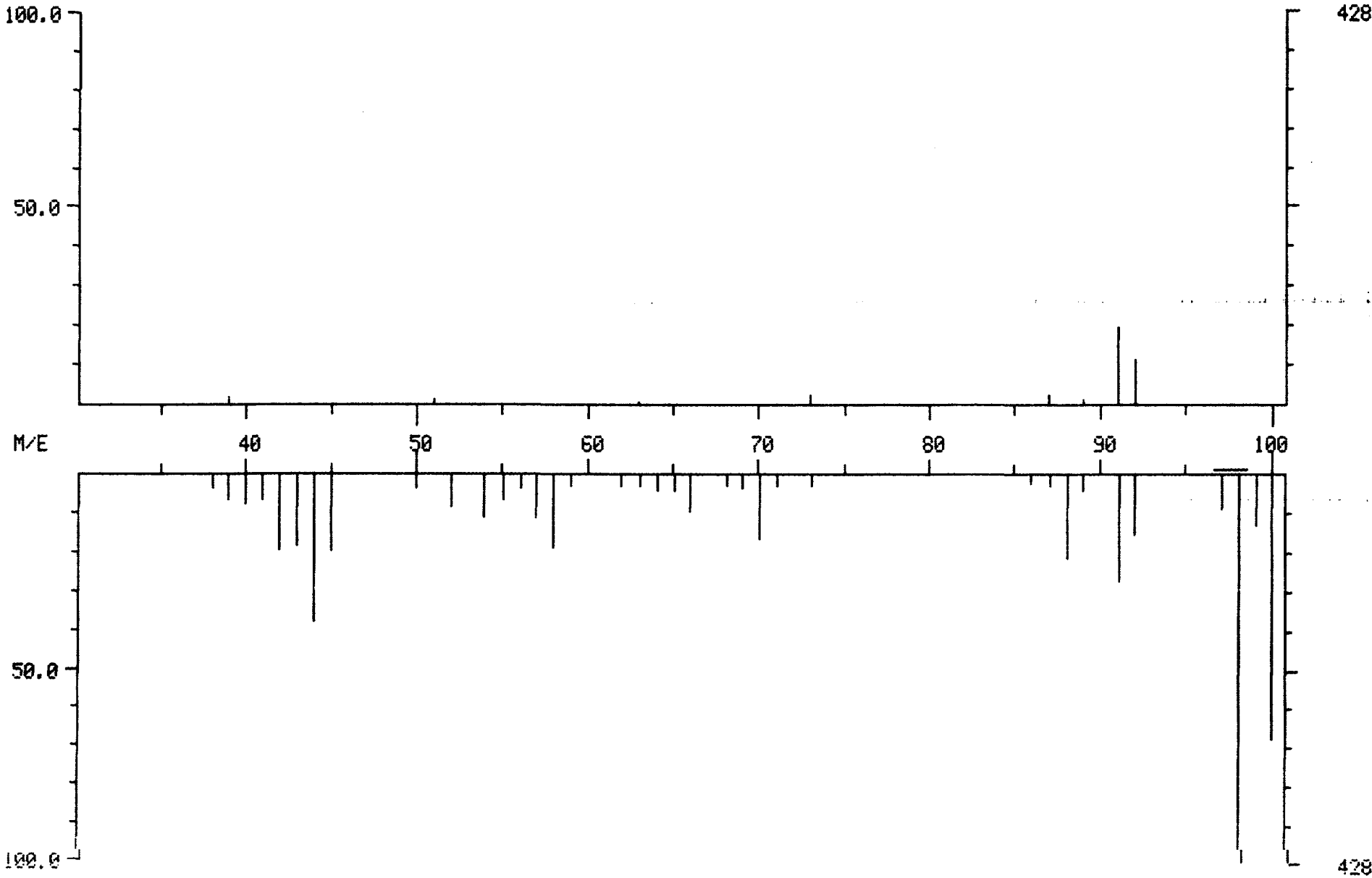
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 25:23
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #743 BASE M/E: 129/ 44
CALI: EPAVOA876 #1 RIC: 1607./ 6567.



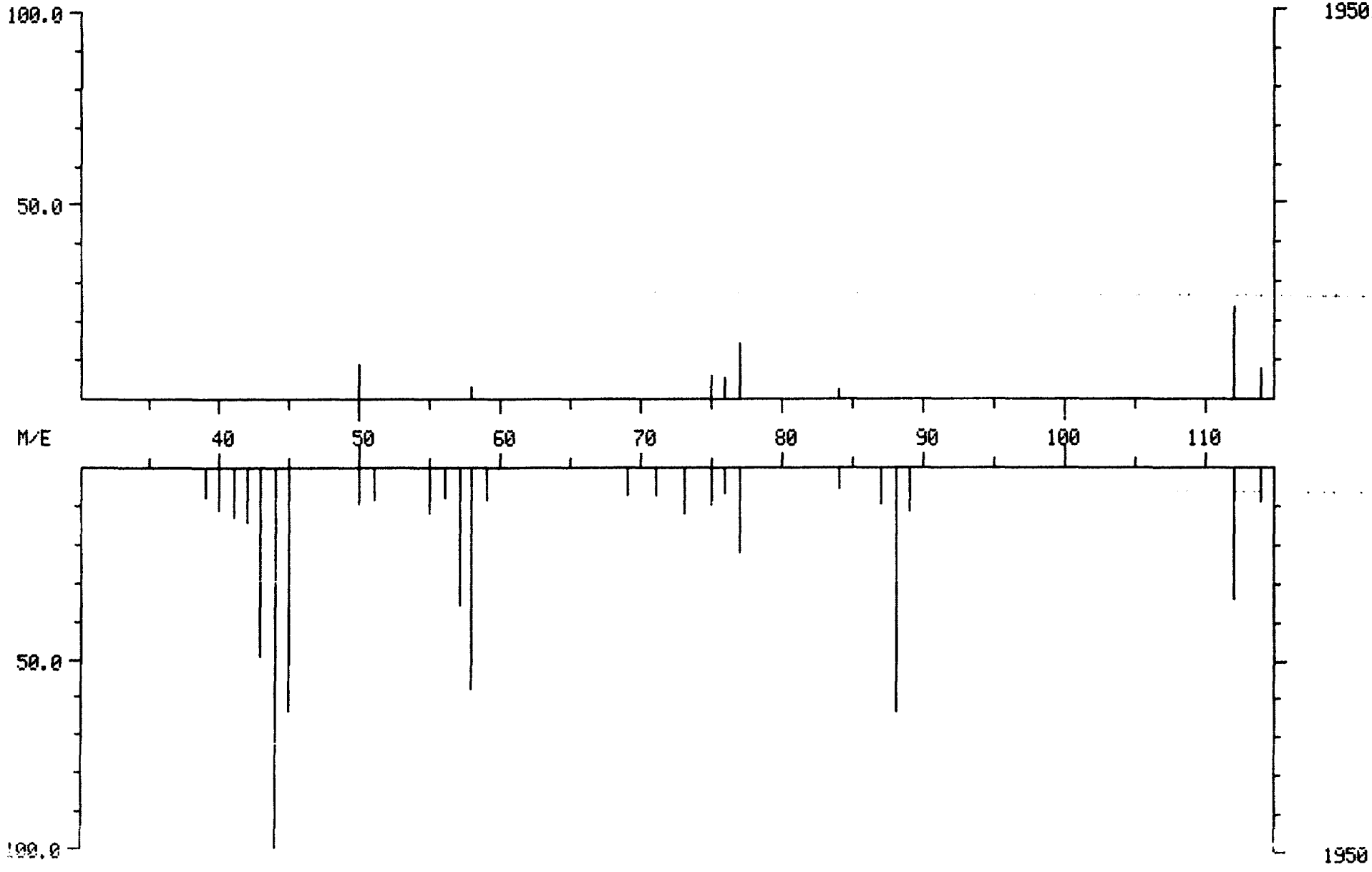
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 26:45
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #783 BASE M/E: 91/ 98
CALI: EPAVOA876 #1 RIC: 1747./ 21503.



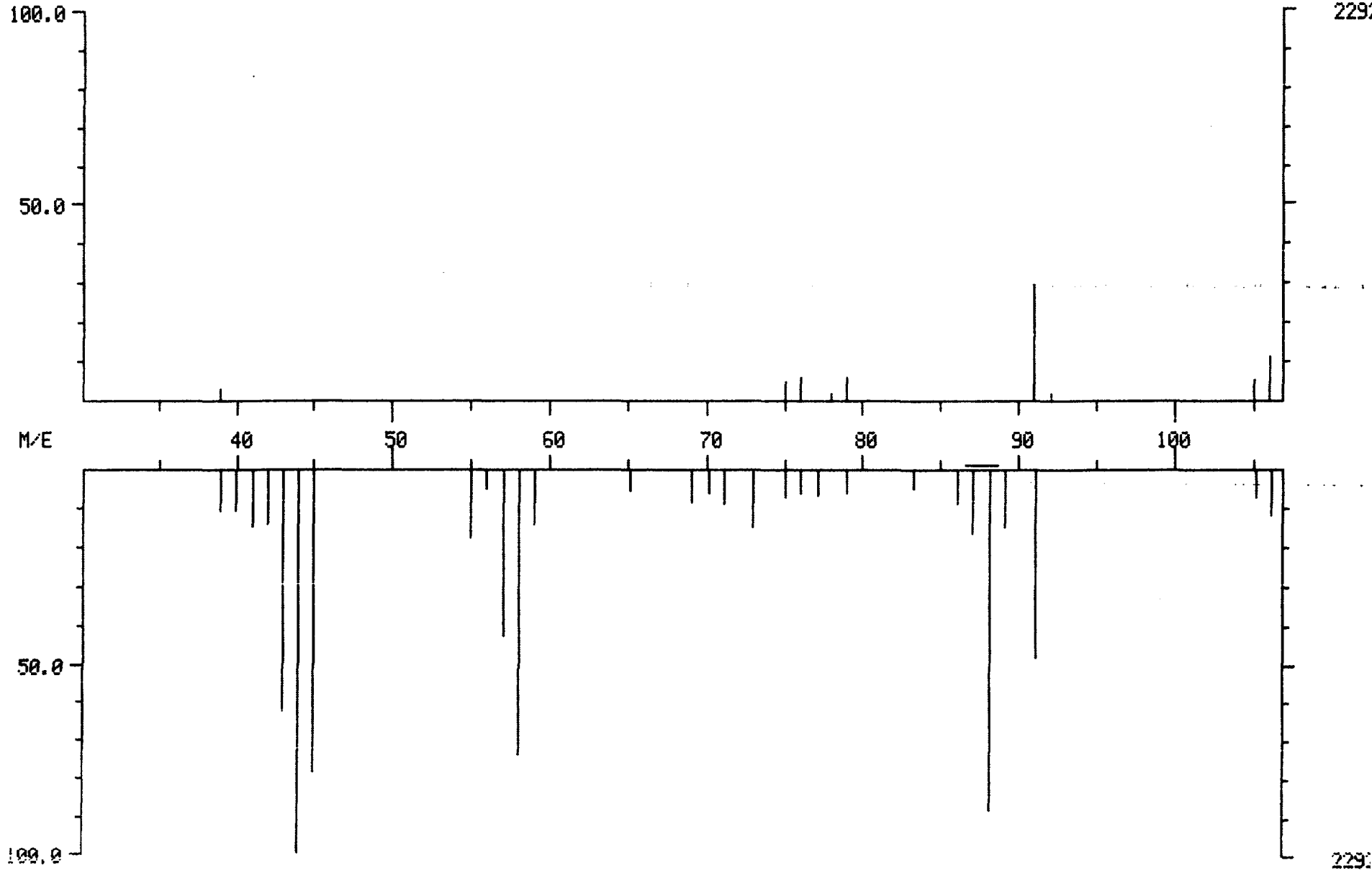
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 27:49
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #814 BASE M/E: 112/ 44
CALI: EPAVOA876 #1 RIC: 1387./ 11551.



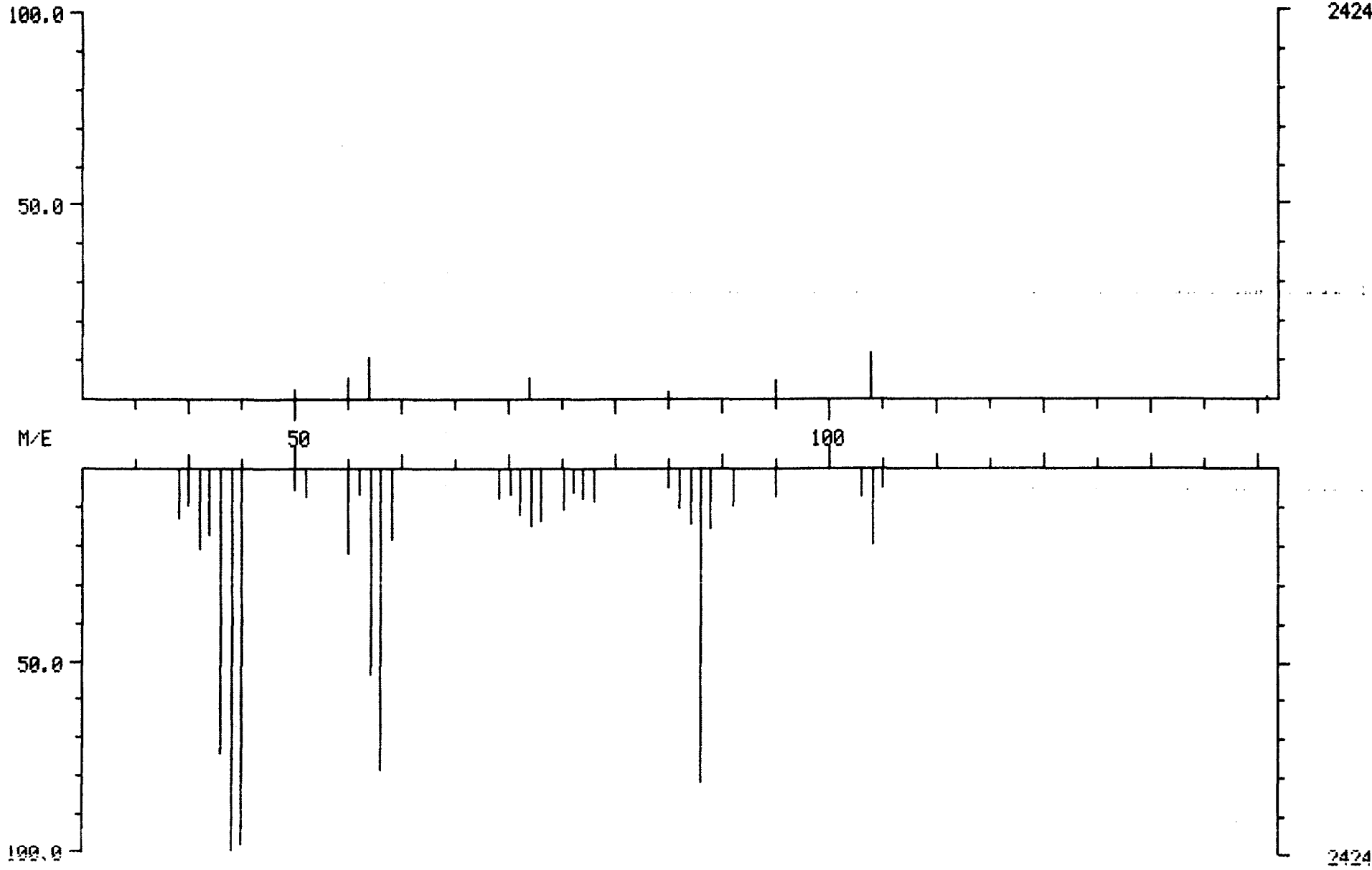
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 30:06
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #881 BASE M/E: 91/ 44
CALI: EPAVOA876 #1 RIC: 1575./ 16239.



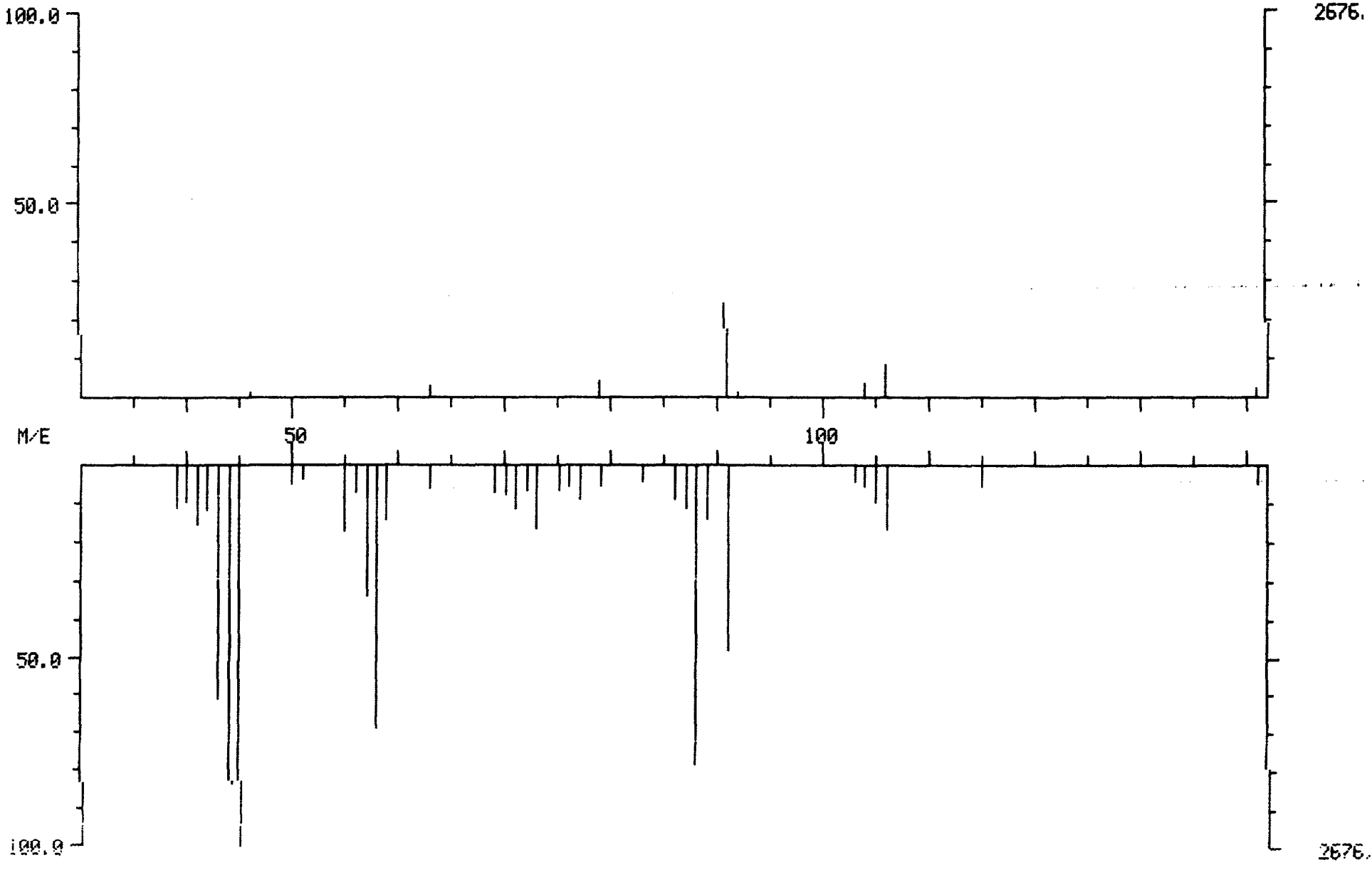
DUAL MASS SPECTRUM
02/25/84 16:34:00 + 34:10
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #1000 BASE M/E: 104/ 44
CALI: EPAVOA876 #1 RIC: 1027./ 19007.



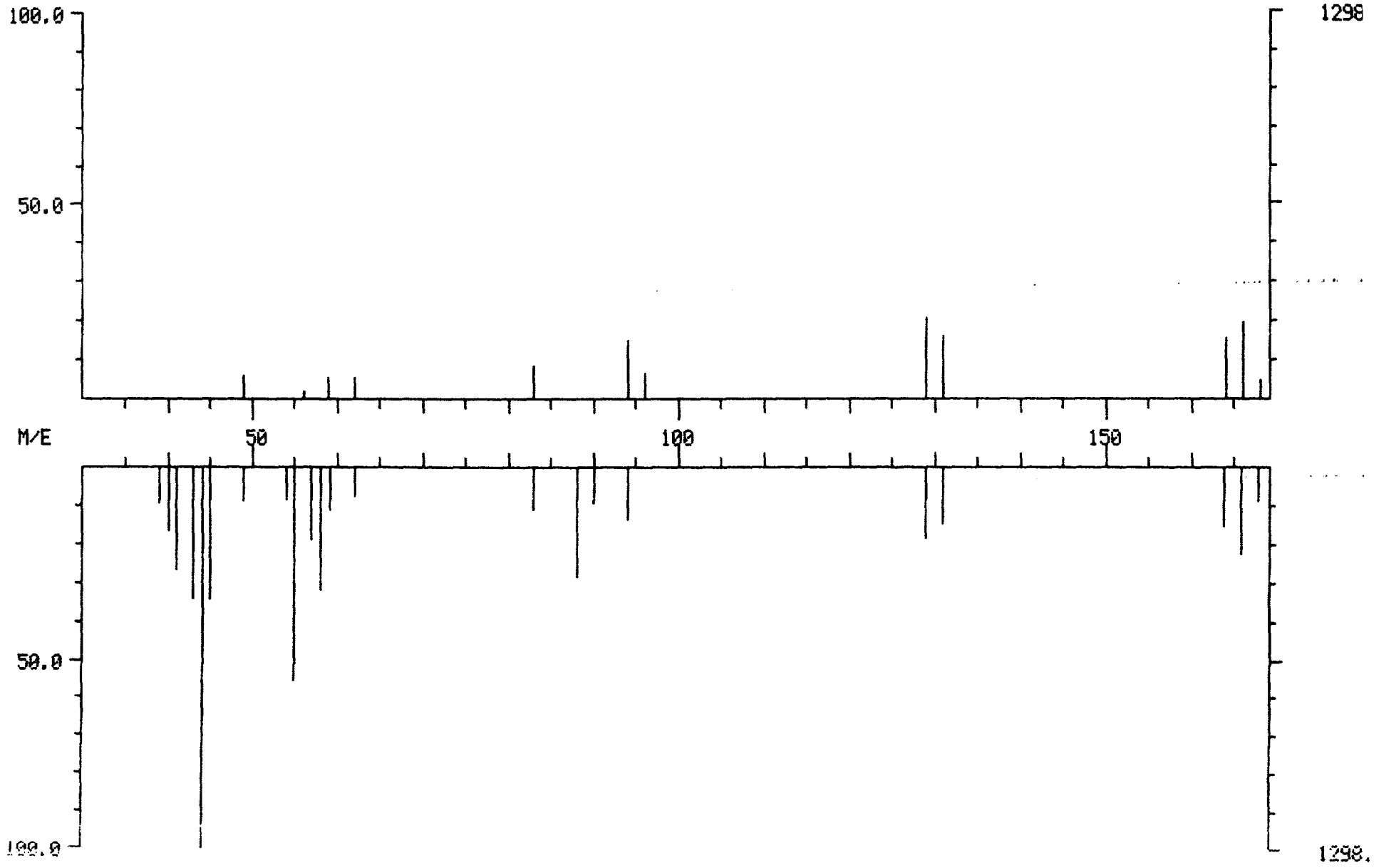
DUAL MASS SPECTRUM
02/26/84 16:34:00 + 35:30
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 #1039 BASE M/E: 91/ 45
CALI: EPAVOA876 #1 RIC: 1281./ 19615.



DUAL MASS SPECTRUM
02/26/84 16:34:00 + 25:23
SAMPLE: 77056-2
CONDS.:
ENHANCED (S 15B 2N 0T)

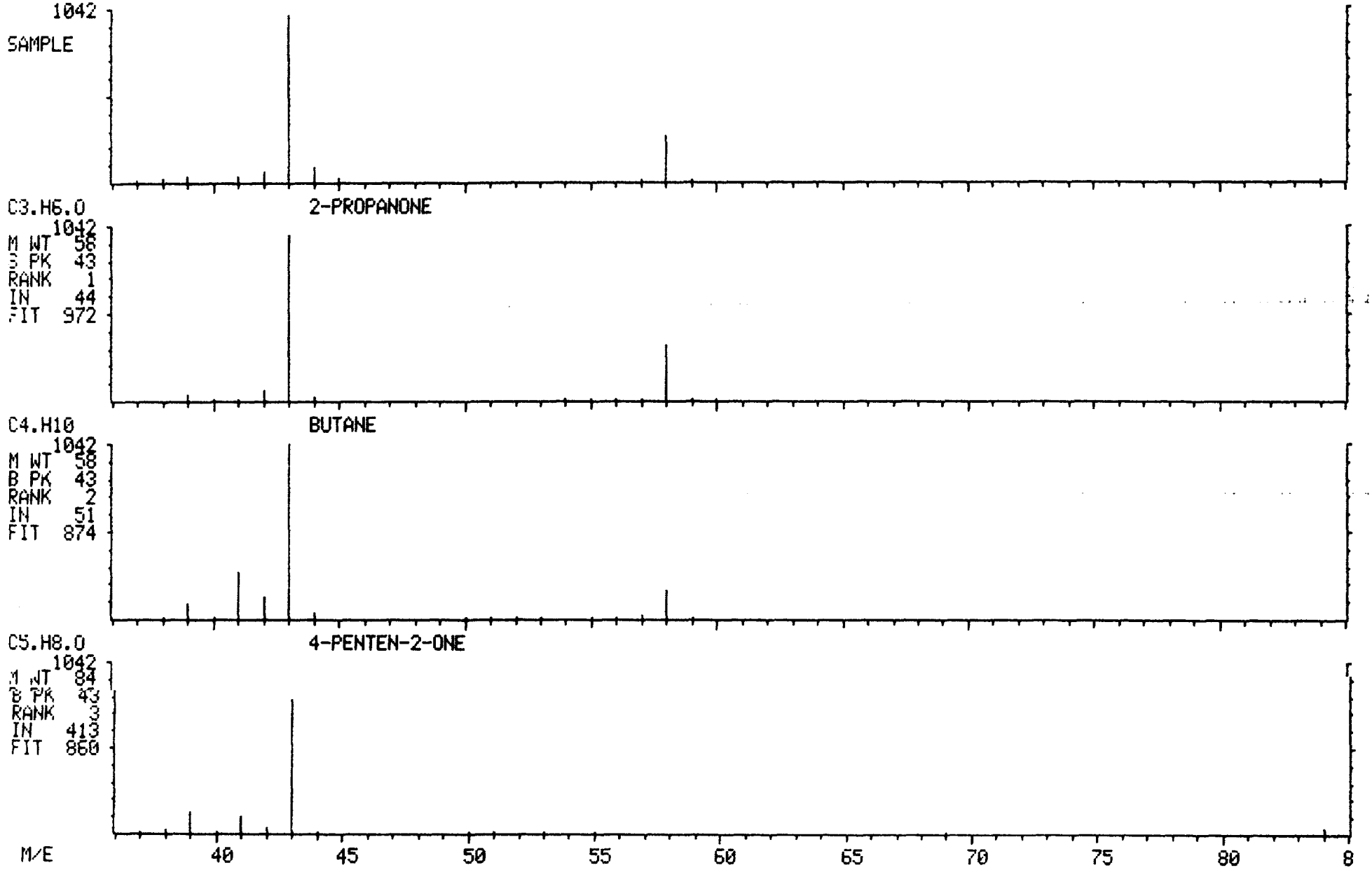
DATA: EPAVOA876 #743 BASE M/E: 129/ 44
CALI: EPAVOA876 #1 RIC: 1607./ 6567.



LIBRARY SEARCH
02/26/84 16:34:00 + 9:24
SAMPLE: 77056-2
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA876 # 275

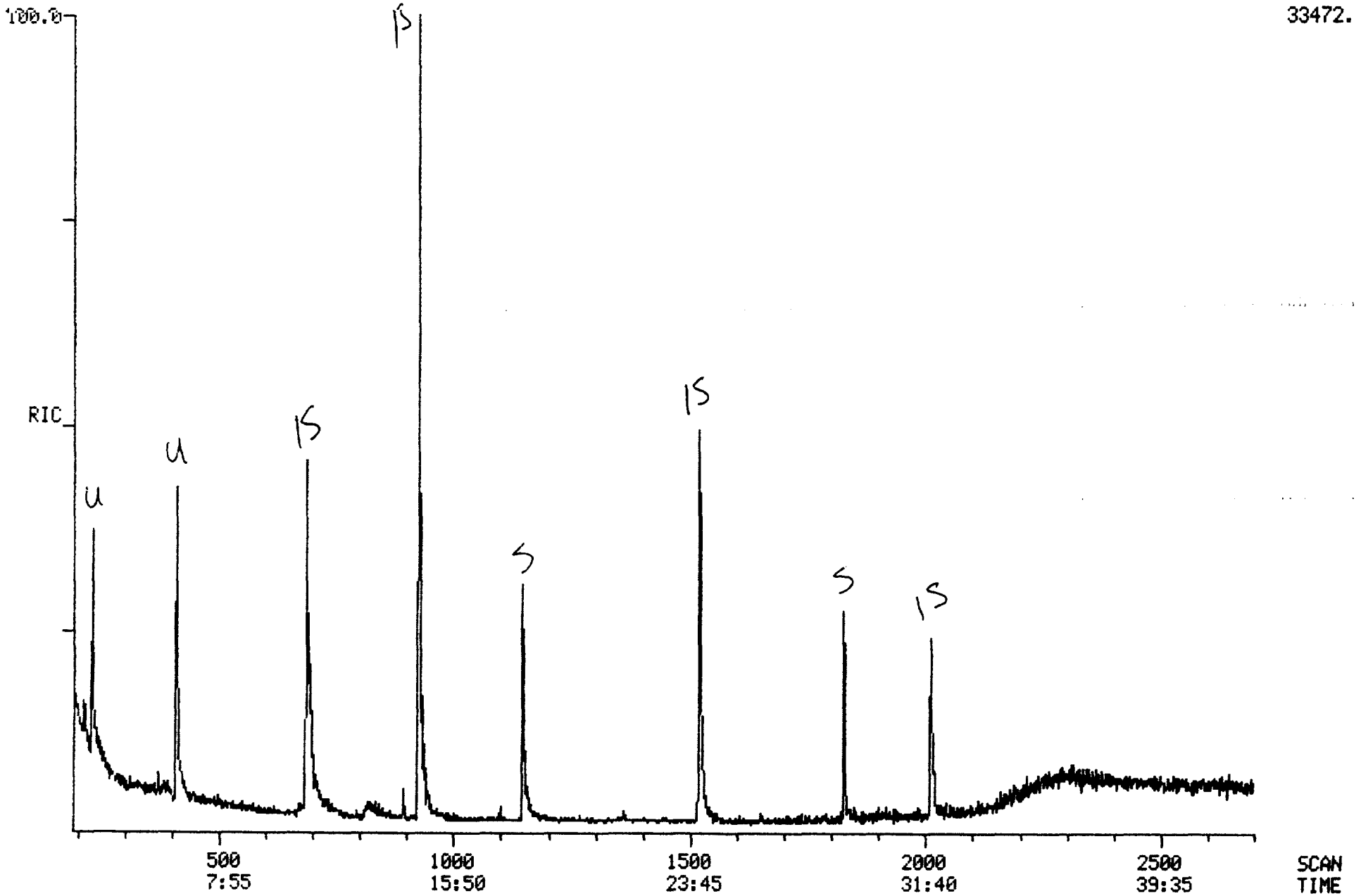
BASE M/E: 43
RIC: 11967.



RIC
03/06/84 16:02:00
SAMPLE: 77056-2 1/10DIL
CONDS.:
RANGE: G 1,2700 LABEL: N 2, 3.0 QUAN: A 2, 2.0 J 0 BASE: U 20, 3

DATA: EPABN709 #1
CALI: EPABN709 #1

SCANS 190 TO 2700



QUANTITATION REPORT FILE: EPABN709

DATA: EPABN709.TI
03/06/84 16:02:00
SAMPLE: 77056-2 1/10DIL
SUBMITTED BY: EPA ANALYST: SCP

AMOUNT CALCULATED FROM LINEAR FIT TO AREA/REF AREA
VS. CONC. USING THE 3 CLOSEST DATA POINTS IN .RL

NO	NAME	
1	*	D-4 1,4-DICHLOROBENZENE
2	*	D-8 NAPHTHALENE
3	*	D-10 PHENANTHRENE
4	*	D-12 CHRYSENE
5		N-NITROSODIMETHYLAMINE
6		2-CHLOROPHENOL
7		PHENOL
8		BIS (2-CHLOROETHYL) ETHER
9		1,3-DICHLOROBENZENE
10		1,4-DICHLOROBENZENE
11		1,2-DICHLOROBENZENE
12	HSL	ANILINE
13	HSL	BENZYL ALCOHOL
14		2-FLUOROPHENOL (SURROGATE)
15		D-5 PHENOL (SURROGATE)
16		BIS(2-CHLOROISOPROPYL)ETHER
17		HEXACHLOROETHANE
18		N-NITROSODIPROPYLAMINE
19		NITROBENZENE
20		ISOPHORONE
21		2-NITROPHENOL
22		2,4-DIMETHYLPHENOL
23		BIS(2-CHLOROETHOXY)METHANE
24		2,4-DICHLOROPHENOL
25		1,2,4-TRICHLOROBENZENE
26		NAPHTHALENE
27		HEXACHLOROBUTADIENE
28		P-CHLORO-M-CRESOL
29		HEXACHLOROCYCLOPENTADIENE
30		2,4,6-TRICHLOROPHENOL
31	HSL	2-METHYLPHENOL
32	HSL	4-METHYLPHENOL
33	HSL	BENZOIC ACID
34	HSL	4-CHLOROANILINE
35	HSL	2-METHYLNAPHTHALENE
36		D-5 NITROBENZENE (SURROGATE)
37		2-FLUOROBIPHENYL (SURROGATE)
38		2-CHLORONAPHTHALENE
39		DIMETHYL PHTHALATE
40		ACENAPHTHYLENE
41		2,6-DINITROTOLUENE
42		ACENAPHTHENE
43		2,4-DINITROPHENOL
44		4-NITROPHENOL
45		2,4-DINITROTOLUENE
46		FLUORENE

NO	NAME	
47		4-CHLOROPHENYL PHENYL ETHER
48		DIETHYL PHTHALATE
49		4,6-DINITRO-2-METHYLPHENOL
50		N-NITROSODIPHENYLAMINE
51		1,2-DIPHENYLHYDRAZINE
52		4-BROMOPHENYL PHENYL ETHER
53		HEXACHLOROBENZENE
54		PENTACHLOROPHENOL
55		PHENANTHRENE
56		ANTHRACENE
57		DI N-BUTYL PHTHALATE
58		FLUORANTHENE
59	HSL	2,4,5-TRICHLOROPHENOL
60	HSL	2-NITROANILINE
61	HSL	3-NITROANILINE
62	HSL	DIBENZOFURAN
63	HSL	4-NITROANILINE
64		2,4,6-TRIBROMOPHENOL (SURROGATE)
65		BENZIDINE
66		PYRENE
67		BENZYL BUTYL PHTHALATE
68		BENZO(A)ANTHRACENE
69		3,3'-DICHLOROBENZIDINE
70		CHRYSENE
71		BIS(2-ETHYLHEXYL) PHTHALATE
72		D-14 TERPHENYL (SURROGATE)
73	*	D-12 BENZO(A)PYRENE
74		DI-N-OCTYL PHTHALATE
75		BENZO(B)FLUORANTHENE
76		BENZO(K)FLUORANTHENE
77		BENZO(A)PYRENE
78		INDENO(1,2,3-CD)PYRENE
79		DIBENZO(A,H)ANTHRACENE
80		BENZO(GHI)PERYLENE

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT

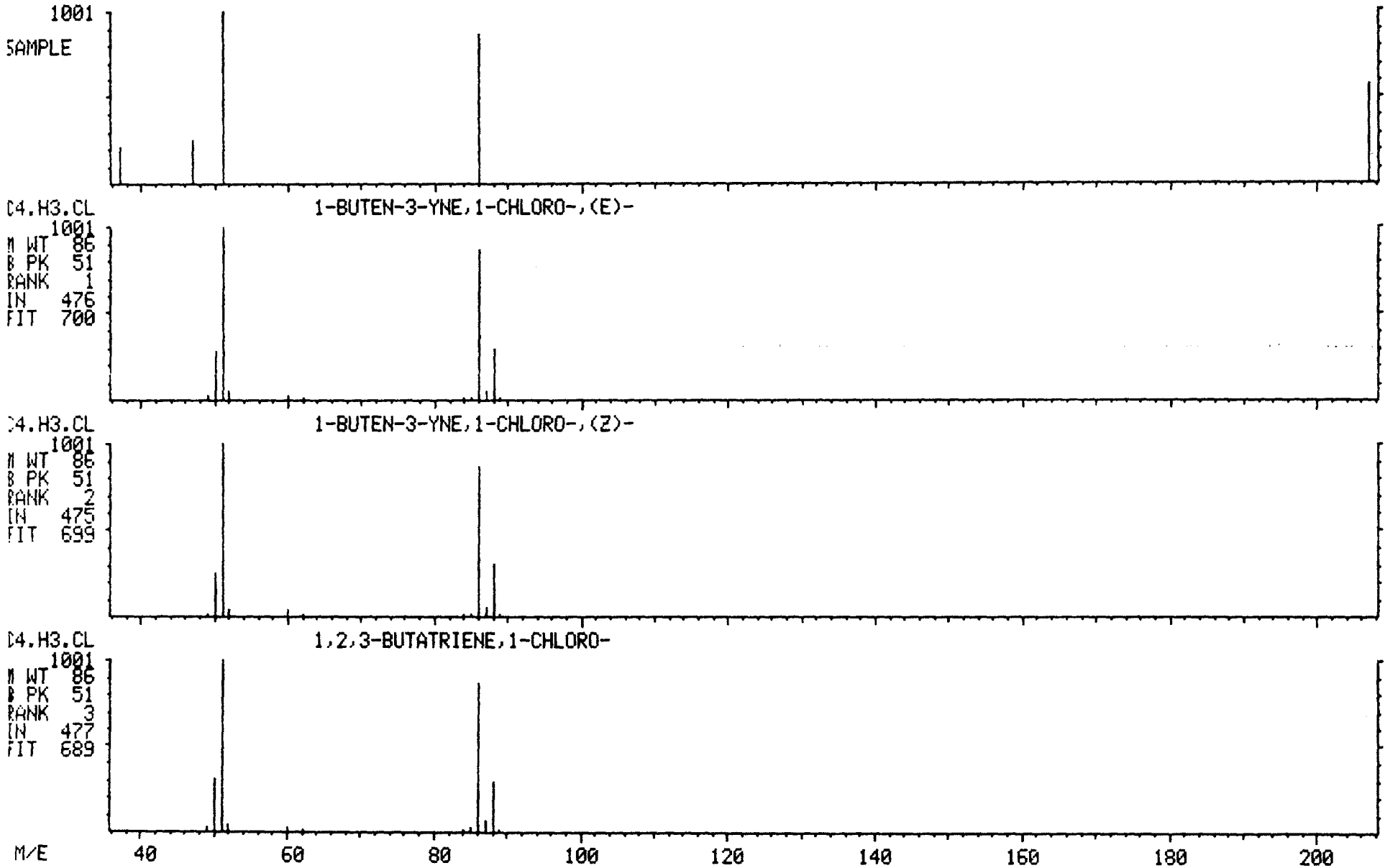
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	152	686	10:52	1	1.000	A BB	18047.	20.000 UG/ML	22.67
2	136	925	14:39	2	1.000	A BB	62073.	20.000 UG/ML	22.67
3	188	1519	24:03	3	1.000	A BV	36202.	20.000 UG/ML	22.67
4	240	2012	31:51	4	1.000	A BB	15664.	20.000 UG/ML	22.67
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
~~20~~	~~82~~	~~855~~	~~13:32~~	~~2~~	~~0.924~~	~~A BB~~	~~263.~~	~~-8.943 UG/ML~~	~~*-10.~~
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	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	172	1146	18:09	2	1.239	A BV	14832.	2.709 UG/ML	3.07
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
57	NOT FOUND								
58	NOT FOUND								
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	NOT FOUND								
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
~~66~~	~~202~~	~~1786~~	~~28:17~~	~~4~~	~~0.888~~	~~A BB~~	~~332.~~	~~-2.170 UG/ML~~	~~-2.45~~
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	NOT FOUND								
71	NOT FOUND								
72	244	1827	28:56	4	0.908	A BB	14421.	17.185 UG/ML	19.48
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								
79	NOT FOUND								
80	NOT FOUND								

LIBRARY SEARCH
03/06/84 16:02:00 + 4:04
SAMPLE: 77056-2 1/10DIL
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN709 # 257
CALI: EPABN709 # 1

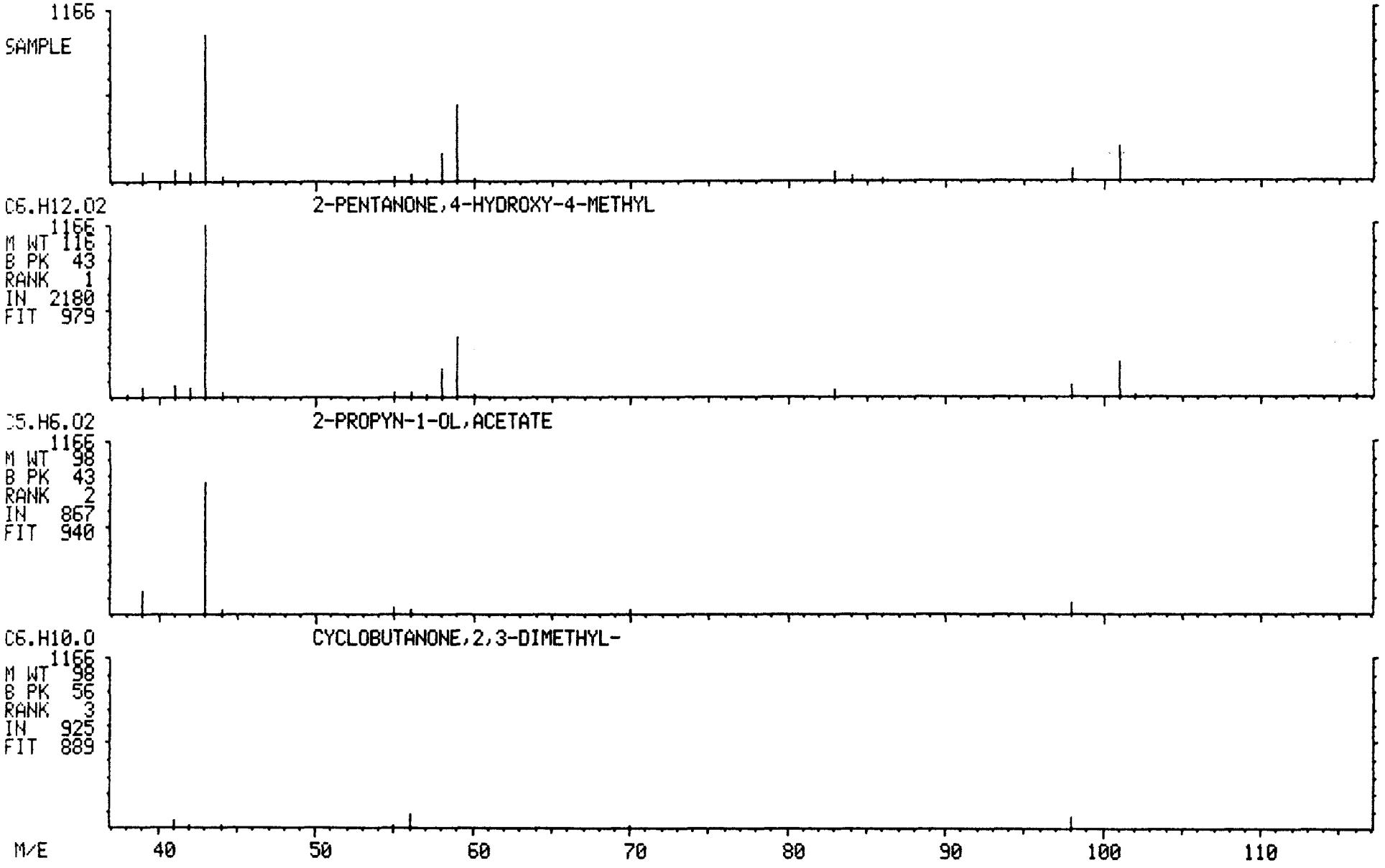
BASE M/E: 51
RIC: 298.



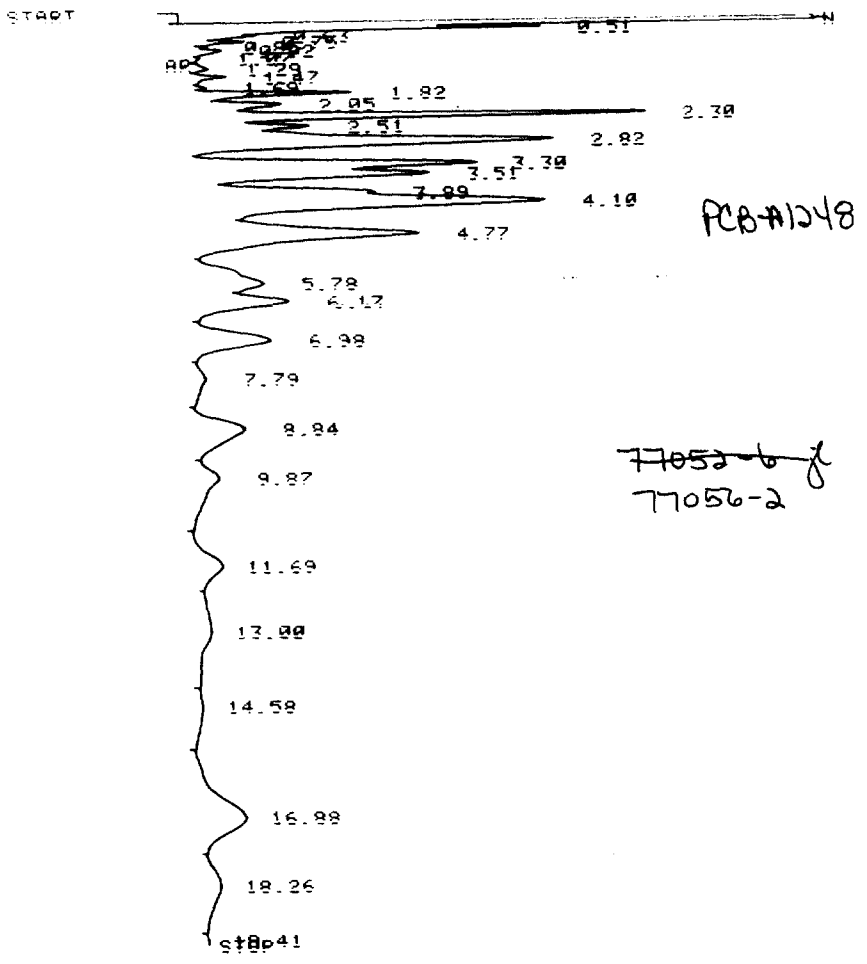
LIBRARY SEARCH
03/06/84 16:02:00 + 6:29
SAMPLE: 77056-2 1/10DIL
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN709 # 410
CALI: EPABN709 # 1

BASE M/E: 43
RIC: 8639.



77056-2



PCB-A1248

~~77052-6~~ 77056-2

HP RUN # 511
ID:0
AREA %

RT	AREA	AREA %
1.29	27040	0.588
1.47	36460	0.793
1.69	13500	0.294
1.82	105200	2.289
2.05	84400	1.837
2.30	314800	6.851
2.51	92620	2.016
2.82	481100	10.470
2.70	272800	5.937
3.51	253600	5.519
3.89	149000	3.243
4.10	589200	12.822
4.77	473000	10.294
5.78	226200	4.923
6.17	201800	4.392
6.98	202200	4.400
7.79	75380	1.640
8.84	200800	4.370
9.87	156500	3.406
11.69	141700	3.084
13.00	161600	3.517
14.58	42660	0.928
16.88	216000	4.701
18.26	76700	1.669
19.41	806	0.018

DIL FACTOR: 1.0000 E+ 0

ATTN 2↑ 9
A 60.0 59.9
TEMP1 400 210 210

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3.61	[illegible]	[illegible]	[illegible]	[illegible]
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3.85	[illegible]	[illegible]	[illegible]	[illegible]
4.00	[illegible]	[illegible]	[illegible]	[illegible]
4.11	[illegible]	[illegible]	[illegible]	[illegible]
4.2?	[illegible]	[illegible]	[illegible]	[illegible]
4.36	[illegible]	[illegible]	[illegible]	[illegible]
4.54	[illegible]	[illegible]	[illegible]	[illegible]
4.73	[illegible]	[illegible]	[illegible]	[illegible]
4.90	[illegible]	[illegible]	[illegible]	[illegible]
5.01	[illegible]	[illegible]	[illegible]	[illegible]
5.09	[illegible]	[illegible]	[illegible]	[illegible]
5.18	[illegible]	[illegible]	[illegible]	[illegible]
5.26	[illegible]	[illegible]	[illegible]	[illegible]
5.38	[illegible]	[illegible]	[illegible]	[illegible]
5.51	[illegible]	[illegible]	[illegible]	[illegible]
5.71	[illegible]	[illegible]	[illegible]	[illegible]
5.90	[illegible]	[illegible]	[illegible]	[illegible]
6.12	[illegible]	[illegible]	[illegible]	[illegible]
6.19	[illegible]	[illegible]	[illegible]	[illegible]
6.28	[illegible]	[illegible]	[illegible]	[illegible]
6.41	[illegible]	[illegible]	[illegible]	[illegible]
6.77	[illegible]	[illegible]	[illegible]	[illegible]
6.93	[illegible]	[illegible]	[illegible]	[illegible]
7.15	[illegible]	[illegible]	[illegible]	[illegible]
7.3?	[illegible]	[illegible]	[illegible]	[illegible]
7.40	[illegible]	[illegible]	[illegible]	[illegible]
7.60	[illegible]	[illegible]	[illegible]	[illegible]
7.78	[illegible]	[illegible]	[illegible]	[illegible]
7.90	[illegible]	[illegible]	[illegible]	[illegible]
8.06	[illegible]	[illegible]	[illegible]	[illegible]
8.17	[illegible]	[illegible]	[illegible]	[illegible]
8.28	[illegible]	[illegible]	[illegible]	[illegible]
8.49	[illegible]	[illegible]	[illegible]	[illegible]
8.54	[illegible]	[illegible]	[illegible]	[illegible]
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8.74	[illegible]	[illegible]	[illegible]	[illegible]
8.94	[illegible]	[illegible]	[illegible]	[illegible]
9.16	[illegible]	[illegible]	[illegible]	[illegible]
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10.66	[illegible]	[illegible]	[illegible]	[illegible]
10.94	[illegible]	[illegible]	[illegible]	[illegible]
11.09	[illegible]	[illegible]	[illegible]	[illegible]
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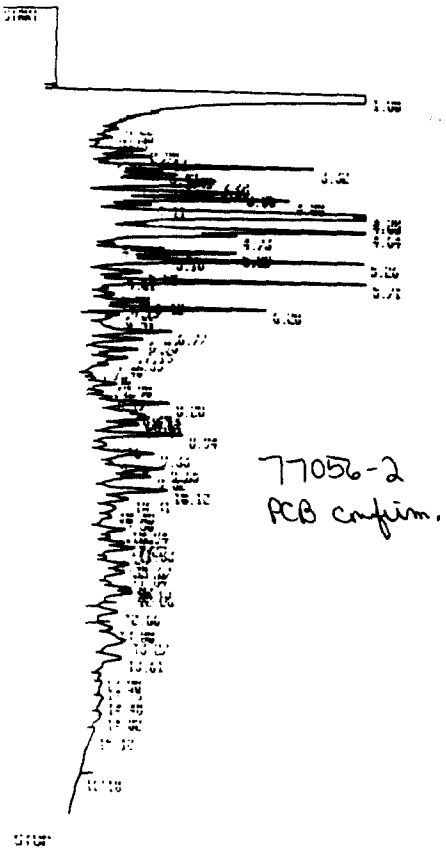
11.94	[illegible]	[illegible]	[illegible]	[illegible]
12.07	[illegible]	[illegible]	[illegible]	[illegible]
12.17	[illegible]	[illegible]	[illegible]	[illegible]
12.26	[illegible]	[illegible]	[illegible]	[illegible]
12.56	[illegible]	[illegible]	[illegible]	[illegible]
13.00	[illegible]	[illegible]	[illegible]	[illegible]
13.27	[illegible]	[illegible]	[illegible]	[illegible]
13.61	[illegible]	[illegible]	[illegible]	[illegible]
13.90	[illegible]	[illegible]	[illegible]	[illegible]
14.15	[illegible]	[illegible]	[illegible]	[illegible]
14.49	[illegible]	[illegible]	[illegible]	[illegible]
14.82	[illegible]	[illegible]	[illegible]	[illegible]
15.17	[illegible]	[illegible]	[illegible]	[illegible]

TOTAL AREA= [illegible]
MUL FACTOR= [illegible]

77056-2
fsec
confirmation



77056-2
PCB confirm.

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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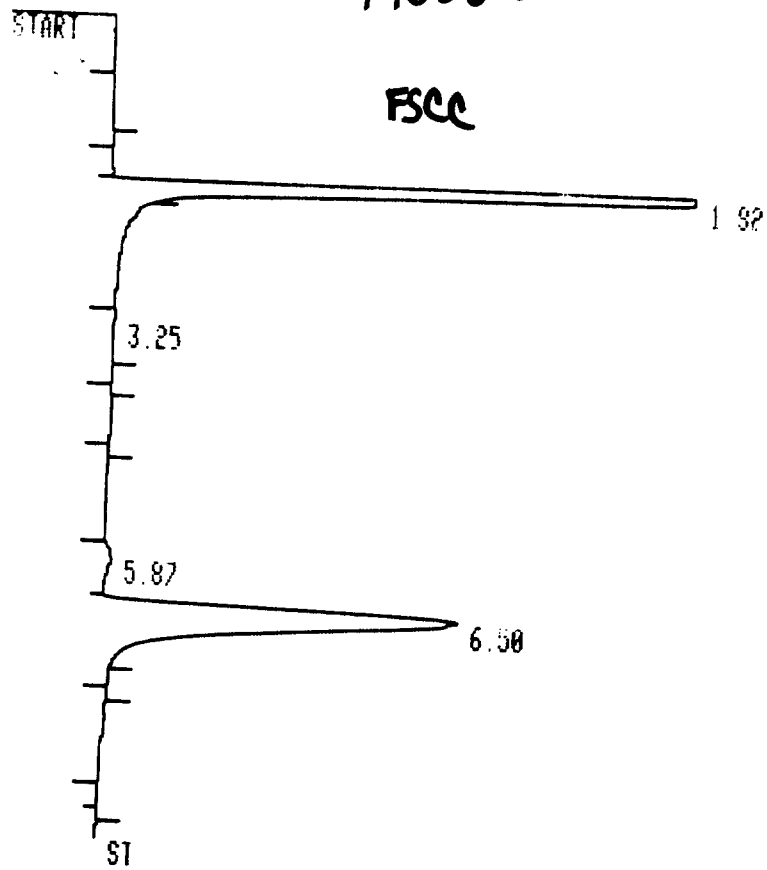
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TCDD Screen

77056-2

FSCC



RUN # 62 MAR/16/84 10:59:41

HEIGHT%

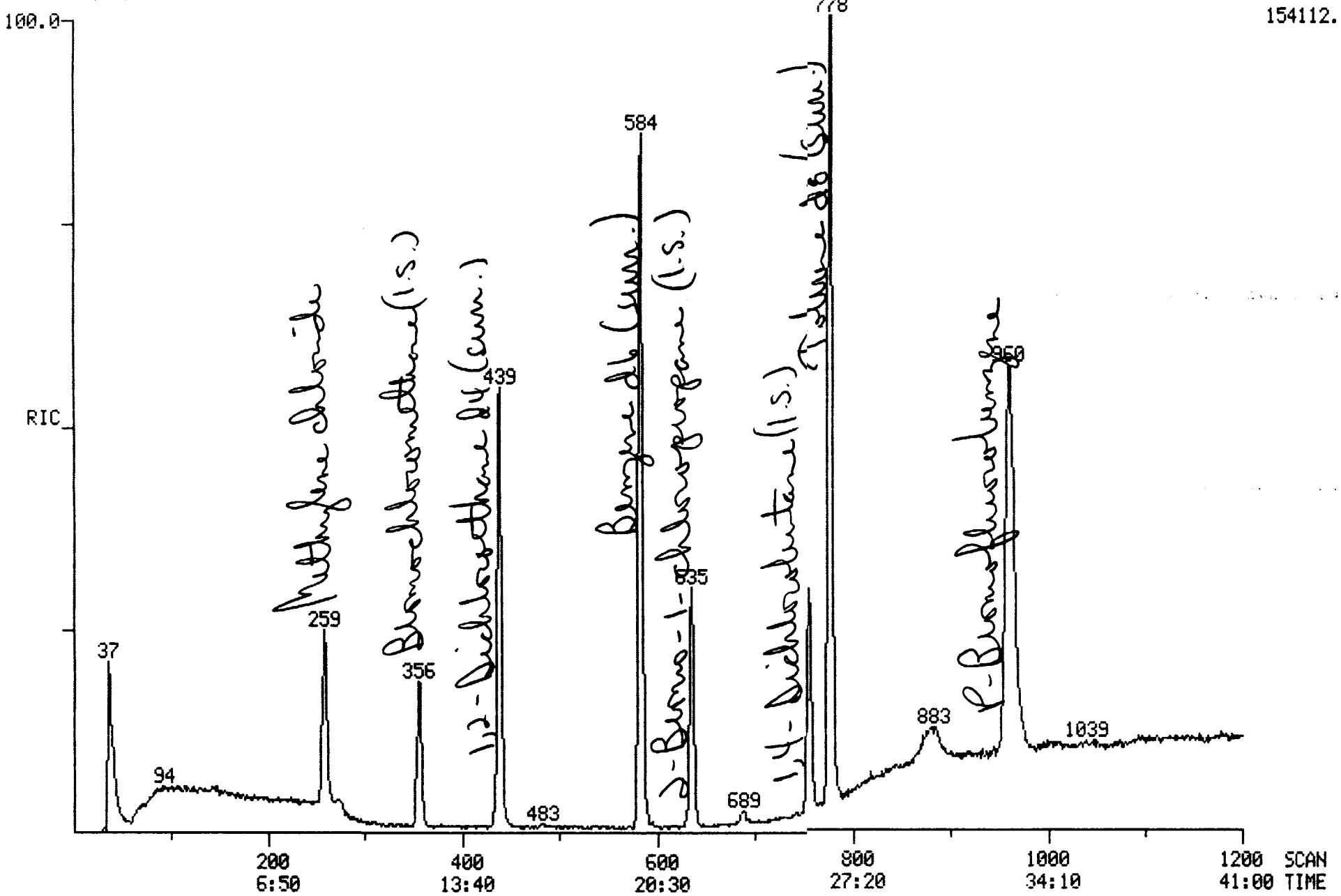
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
1.82	459812	PB	0.097	76.124
3.25	1160	BB	0.082	0.192
5.87	2811	BP	0.273	0.465
6.50	140245	PB	0.274	23.218

TOTAL HGHT= 604030
MUL FACTOR= 1.0000E+00

RIC
02/26/84 17:25:00
SAMPLE: 77056-3
CONDS.:
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: EPAVOA877 #1
CALI: EPAVOA877 #1

SCANS 1 TO 1200



QUANTITATION REPORT FILE: EPAVOA877

DATA: EPAVOA877.TI
02/26/84 17:25:00
SAMPLE: 77056-3
SUBMITTED BY: EPA ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1,1,2,2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

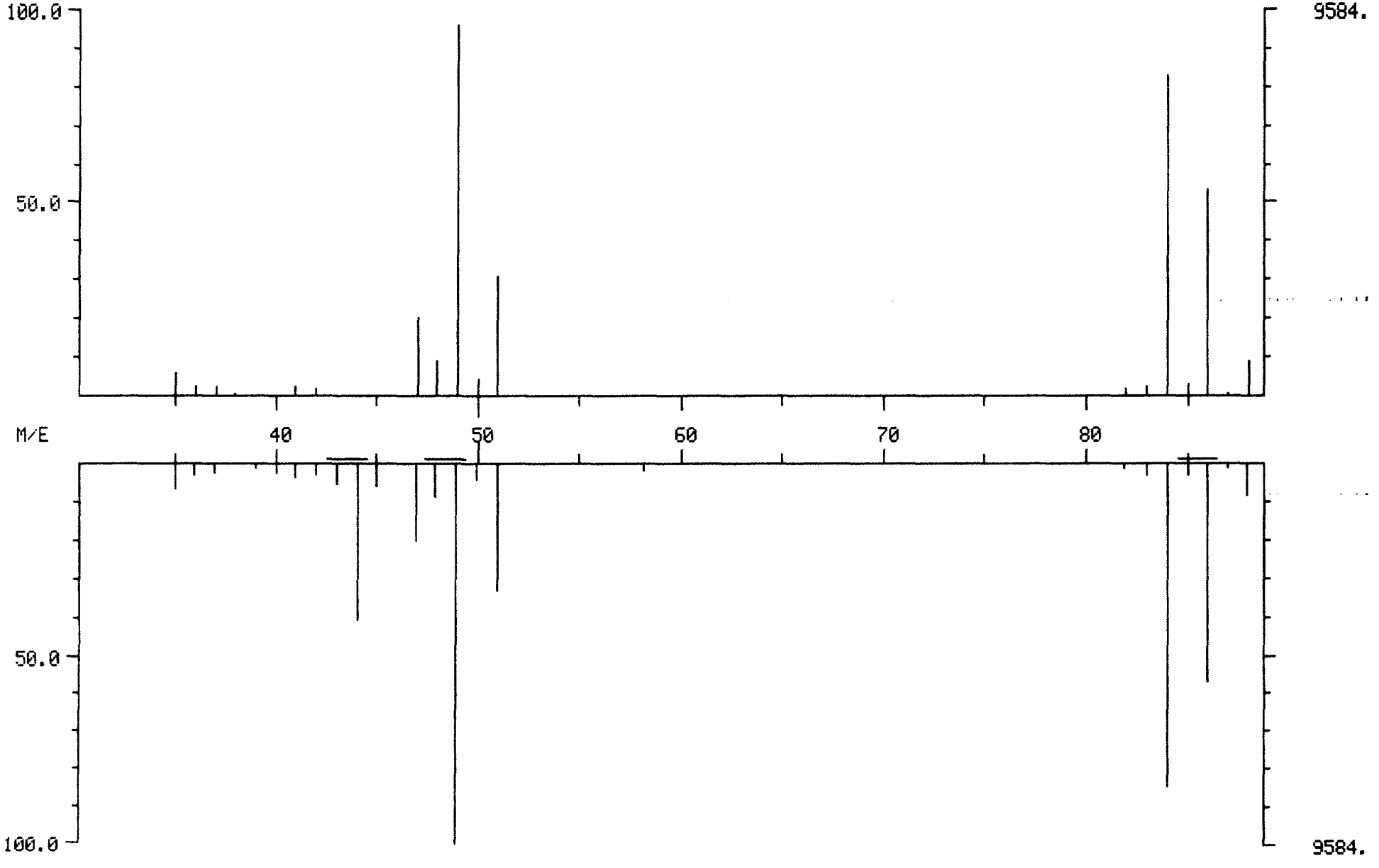
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	356	12:10	1	1.000	A BB	26983.	50.000 UG/L	8.00
2	77	635	21:42	2	1.000	A BB	84572.	50.000 UG/L	8.00
3	55	756	25:50	3	1.000	A BB	85844.	50.000 UG/L	8.00
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	259	8:51	1	0.728	A BB	43142.	24.207 UG/L	3.87
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	~~83~~	~~420~~	~~14:21~~	~~1~~	~~1.180~~	~~A BB~~	~~531.~~	~~0.172 UG/L~~	~~0.03~~
15	~~62~~	~~442~~	~~15:06~~	~~1~~	~~1.242~~	~~A BB~~	~~654.~~	~~0.292 UG/L~~	~~0.05~~
16	NOT FOUND								
17	~~58~~	~~275~~	~~9:24~~	~~1~~	~~0.772~~	~~A BB~~	~~3865.~~	~~53.379 UG/L~~	~~8.54~~
18	NOT FOUND								

JL

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	~~78~~	~~584~~	~~19:57~~	~~2~~	~~0.920~~	~~A BB~~	~~3793.~~	~~1.279 UG/L~~	~~0.~~ 20
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	43	688	23:30	2	1.083	A BB	4961.	7.293 UG/L	1.17
33	65	439	15:00	2	0.691	A BB	188821.	111.078 UG/L	17.77
34	84	584	19:57	2	0.920	A BB	333262.	105.485 UG/L	16.87
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	~~146~~	~~743~~	~~25:23~~	~~3~~	~~0.983~~	~~A BB~~	~~589.~~	~~0.413 UG/L~~	~~0.07~~
39	NOT FOUND								
40	~~91~~	~~782~~	~~26:43~~	~~3~~	~~1.034~~	~~A BB~~	~~4894.~~	~~1.312 UG/L~~	~~0.21~~
41	~~112~~	~~819~~	~~27:59~~	~~3~~	~~1.083~~	~~A BB~~	~~615.~~	~~0.223 UG/L~~	~~0.04~~
42	~~91~~	~~882~~	~~30:08~~	~~3~~	~~1.167~~	~~A VB~~	~~3582.~~	~~0.800 UG/L~~	~~0.13~~
43	NOT FOUND								
44	~~104~~	~~1000~~	~~34:10~~	~~3~~	~~1.323~~	~~A*BV~~	~~1637.~~	~~0.728 UG/L~~	~~0.12~~
45	NOT FOUND								
46	98	777	26:33	3	1.028	A BB	307593.	89.936 UG/L	14.38
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	95	961	32:50	3	1.271	A BB	164426.	78.829 UG/L	12.61

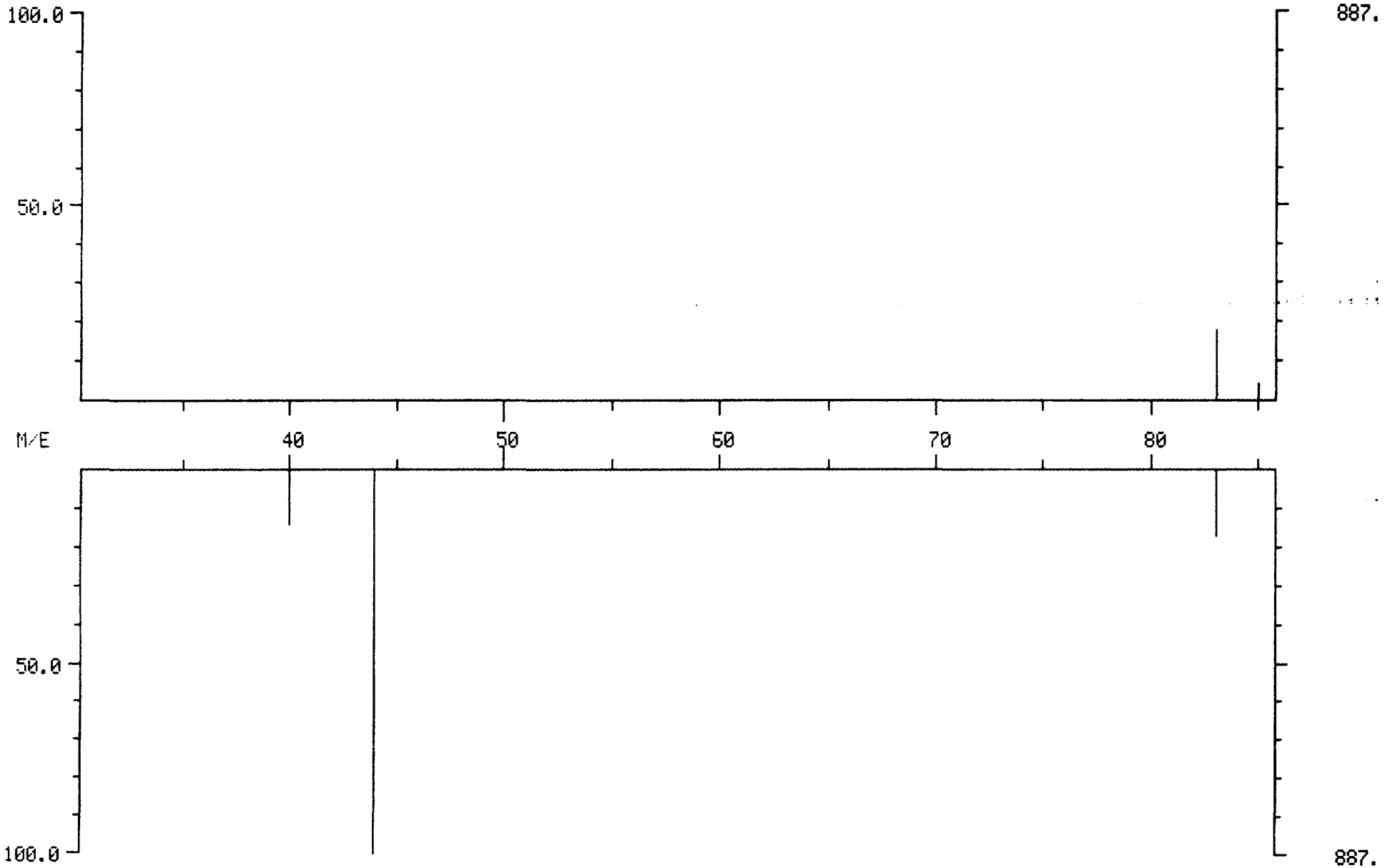
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 8:51
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #259 BASE M/E: 49/ 49
CALI: EPAVOA877 #1 RIC: 31327./ 38527.



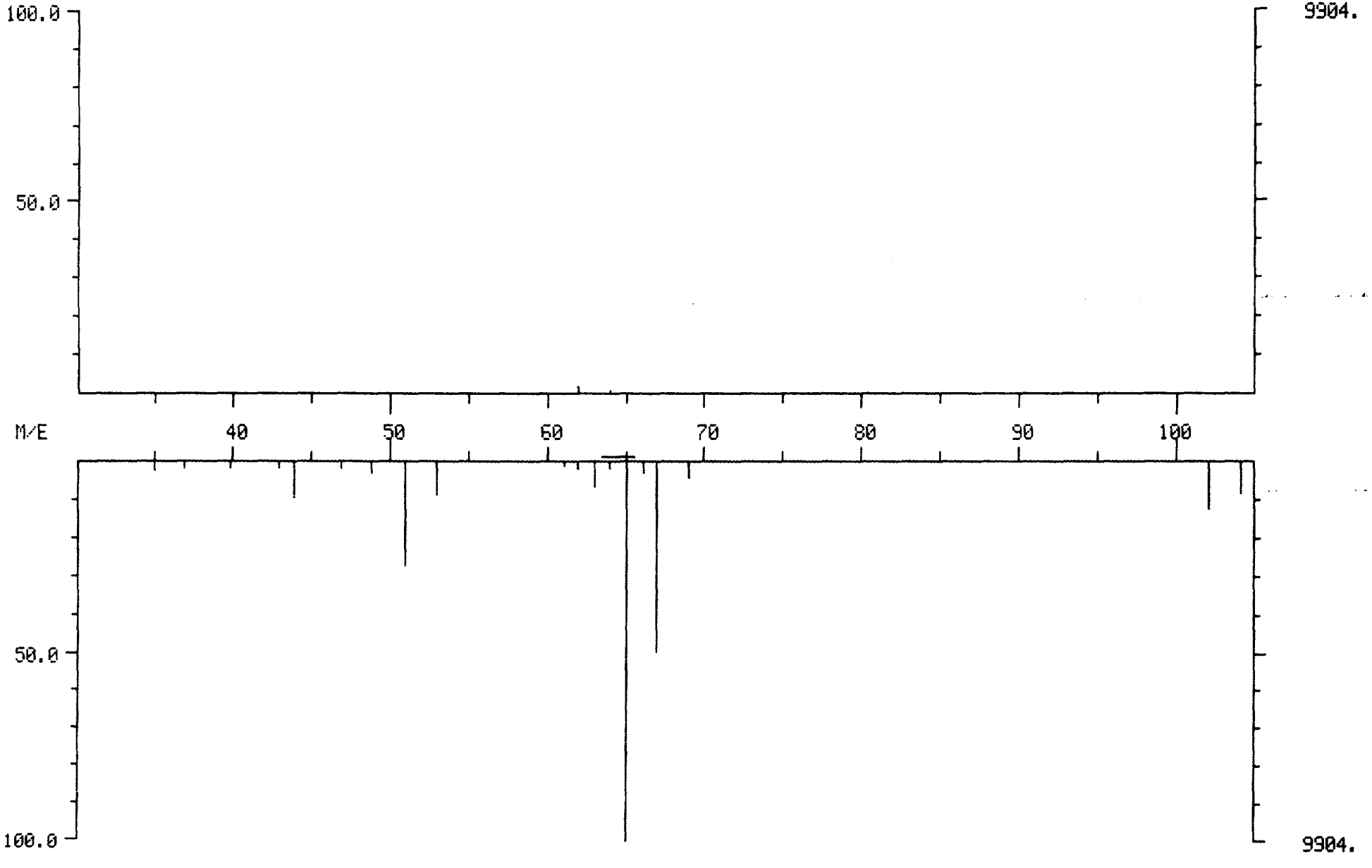
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 14:21
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #420 BASE M/E: 83/ 44
CALI: EPAVOA877 #1 RIC: 190./ 1163.



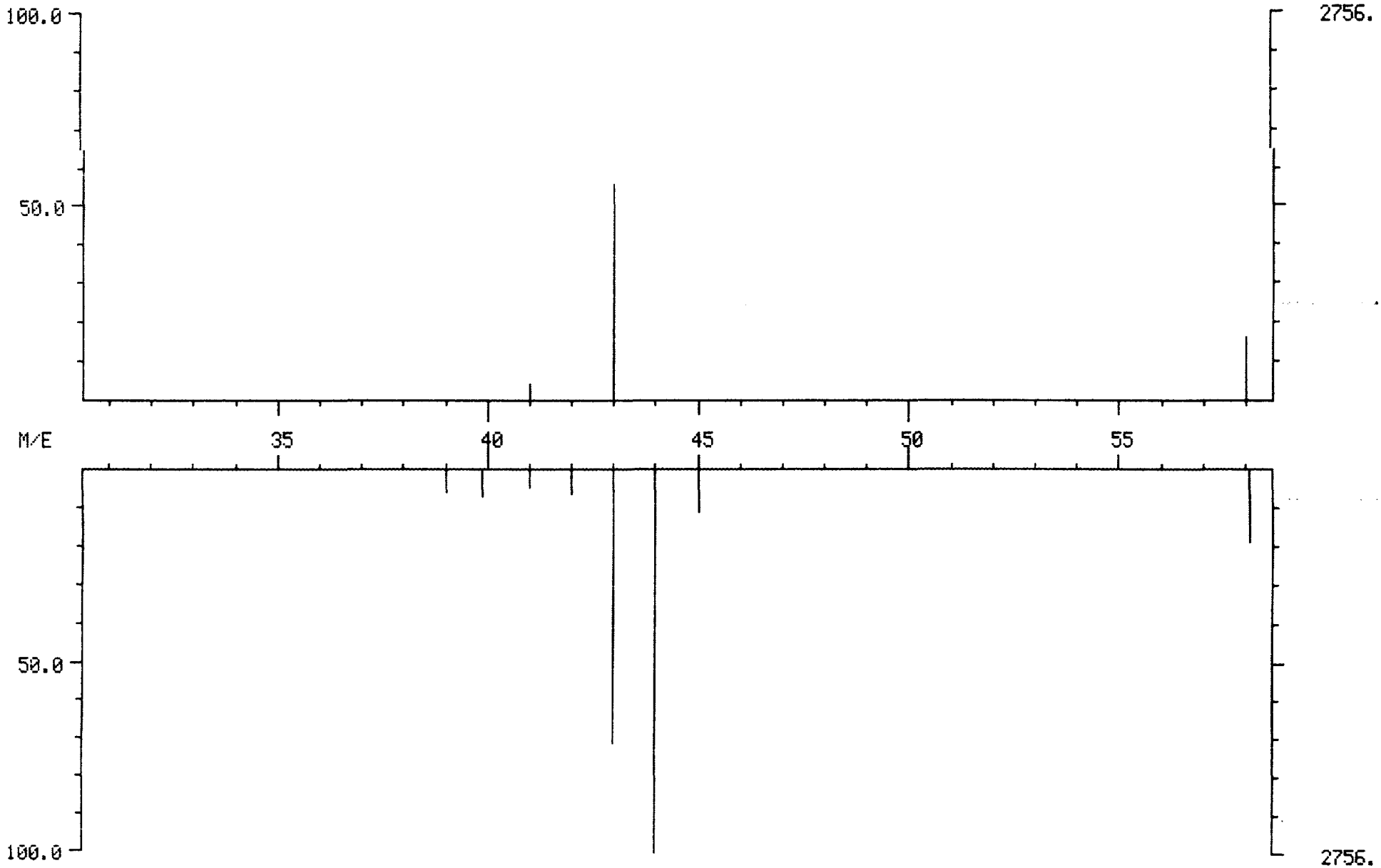
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 15:06
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #442 BASE M/E: 62/ 65
CALI: EPAVOA877 #1 RIC: 275./ 24255.



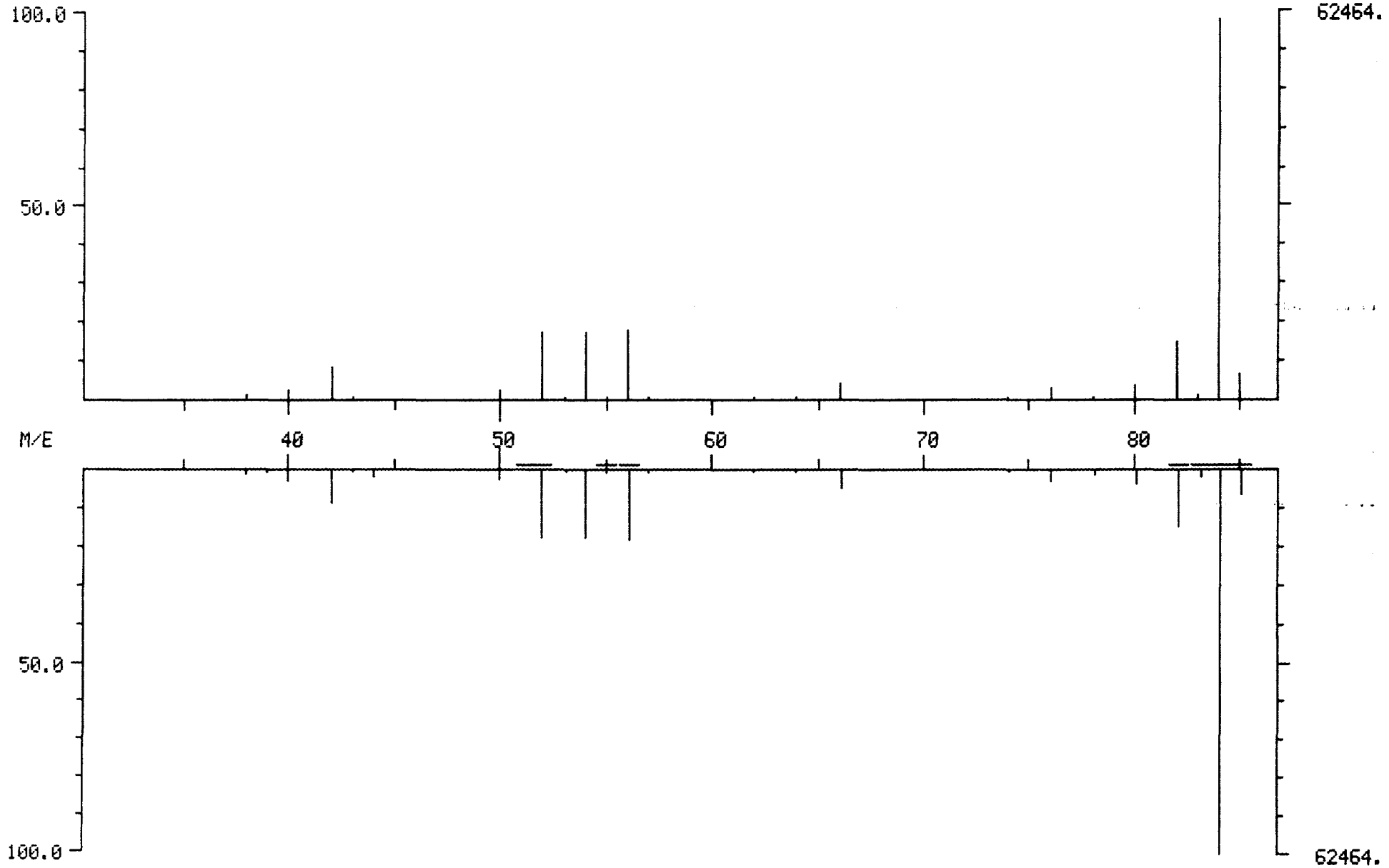
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 9:24
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #275 BASE M/E: 43/ 44
CALI: EPAVOA877 #1 RIC: 2083./ 6223.



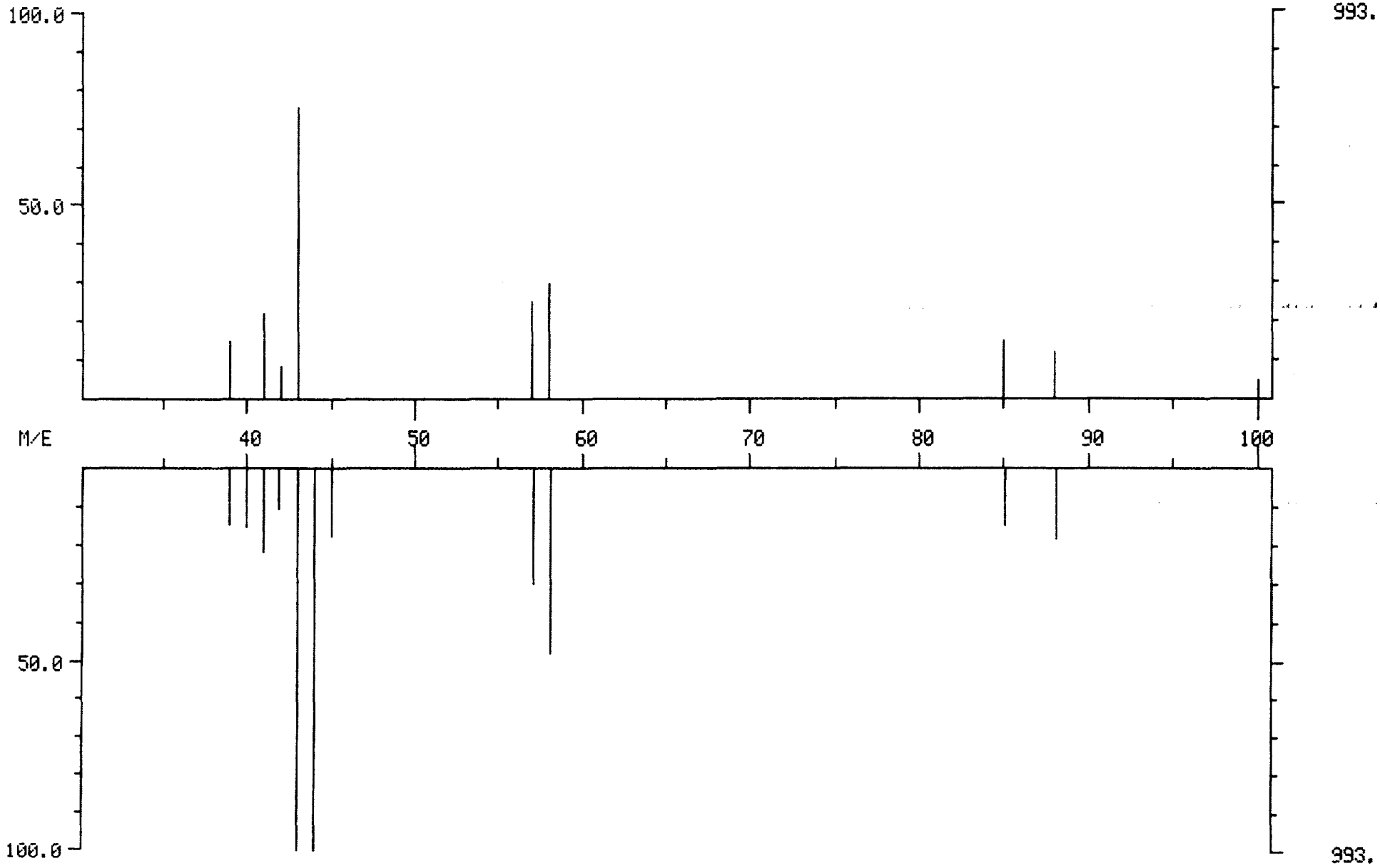
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 19:57
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #584 BASE M/E: 84/ 84
CALI: EPAVOA877 #1 RIC: 128511./ 132351.



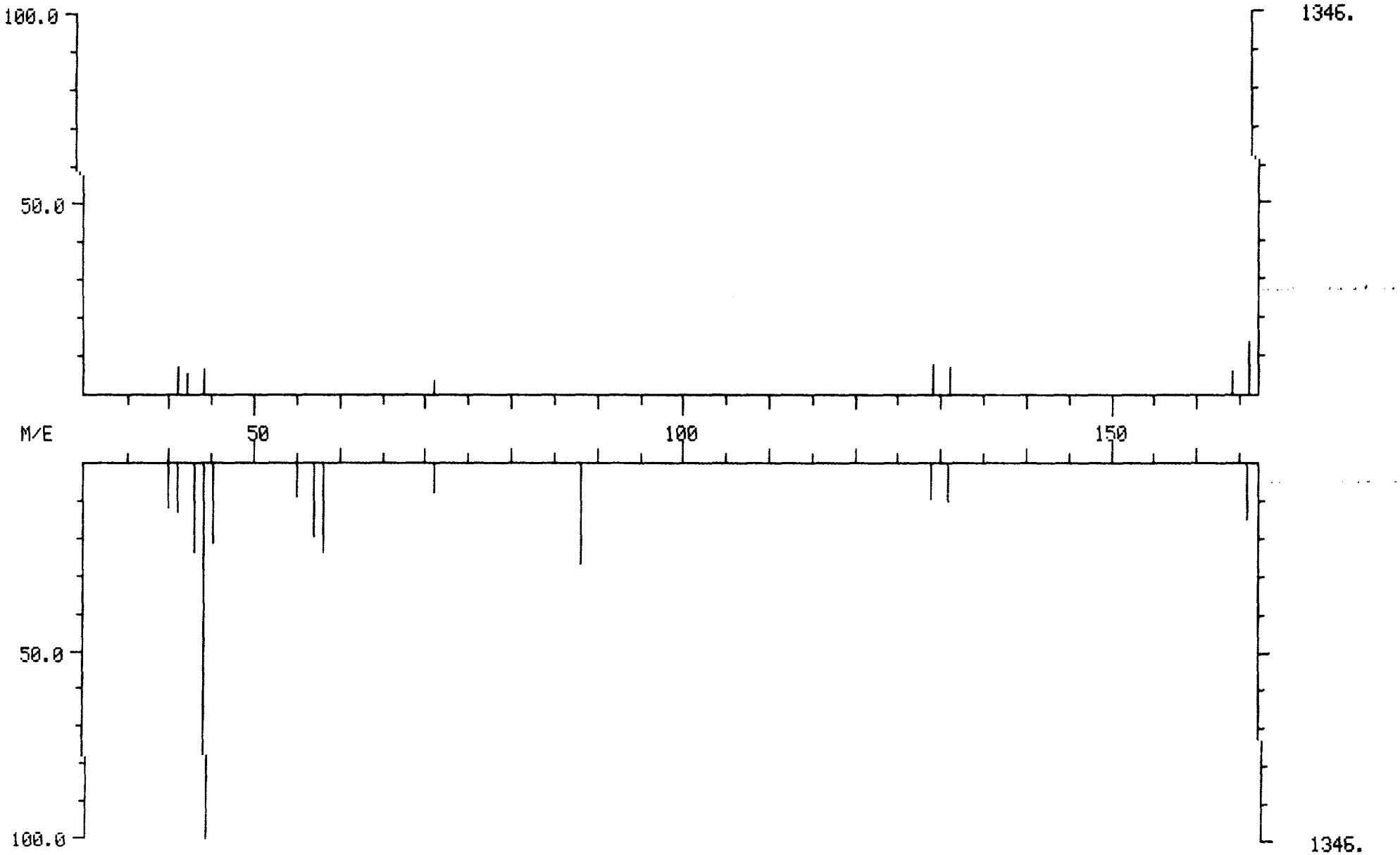
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 23:30
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #688 BASE M/E: 43/ 43
CALI: EPAVOA877 #1 RIC: 2051./ 3887.



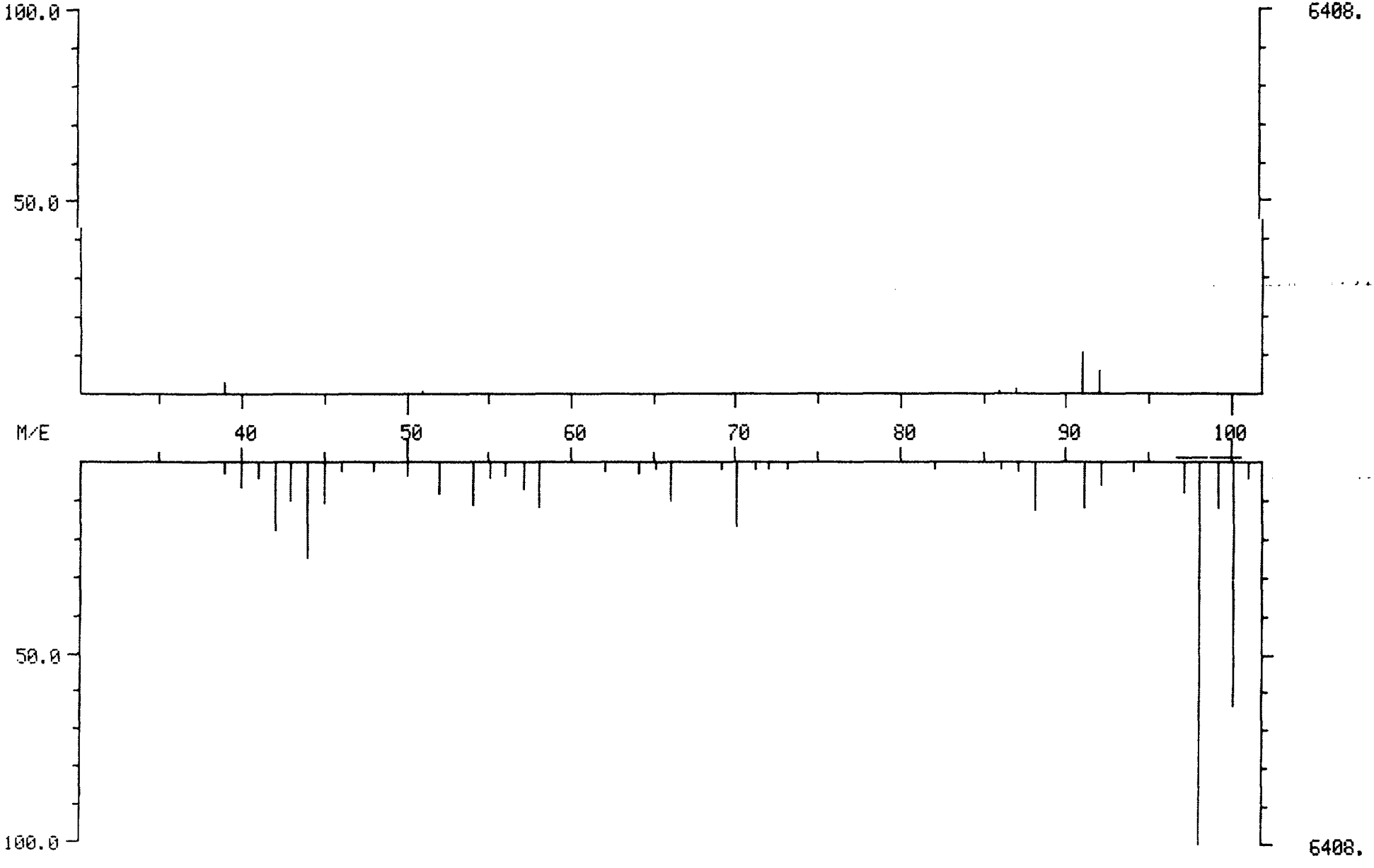
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 25:23
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #743 BASE M/E: 166/ 44
CALI: EPAVOA877 #1 RIC: 766./ 3923.



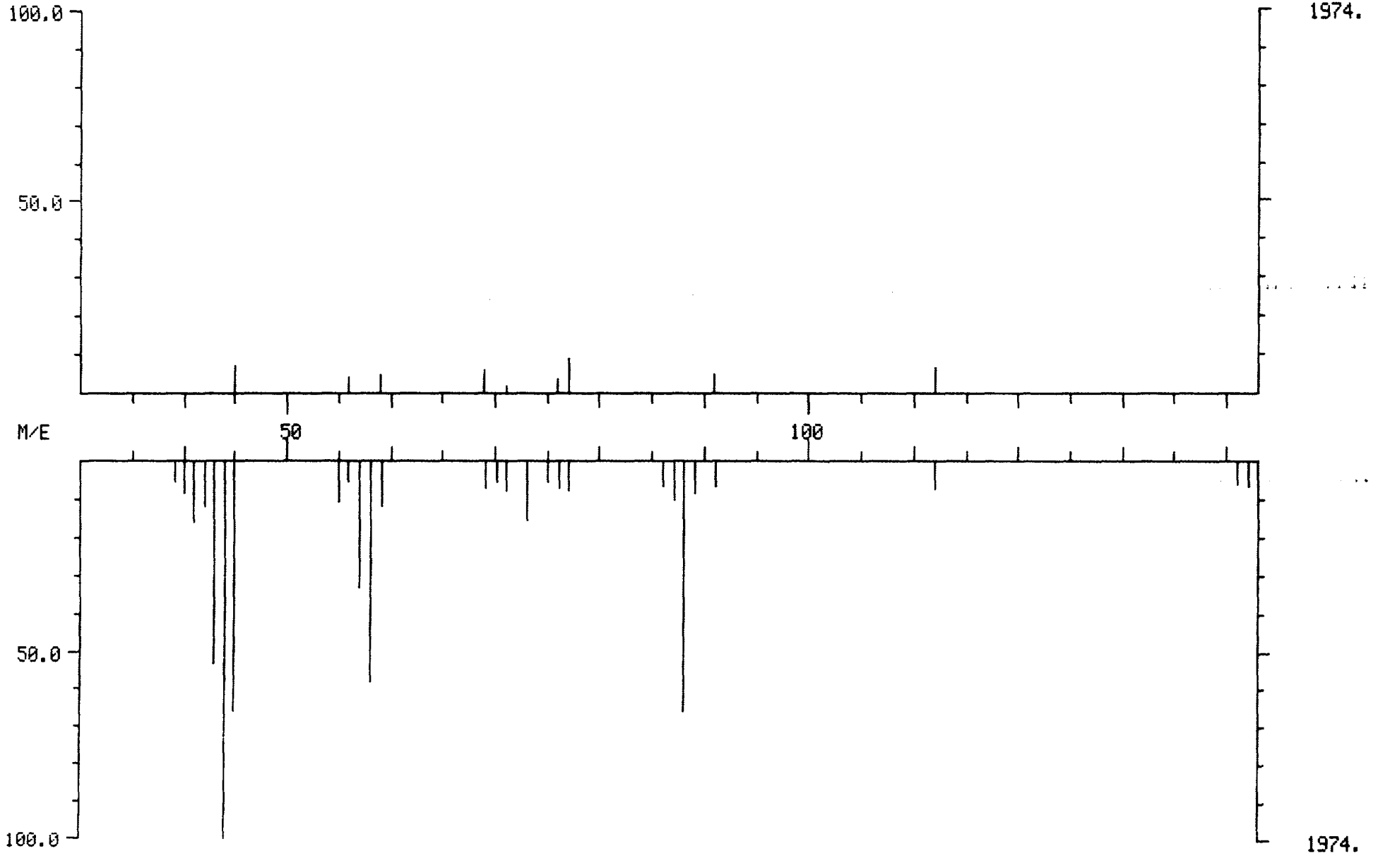
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 26:43
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #782 BASE M/E: 91/ 98
CALI: EPAVOA877 #1 RIC: 1375./ 25567.



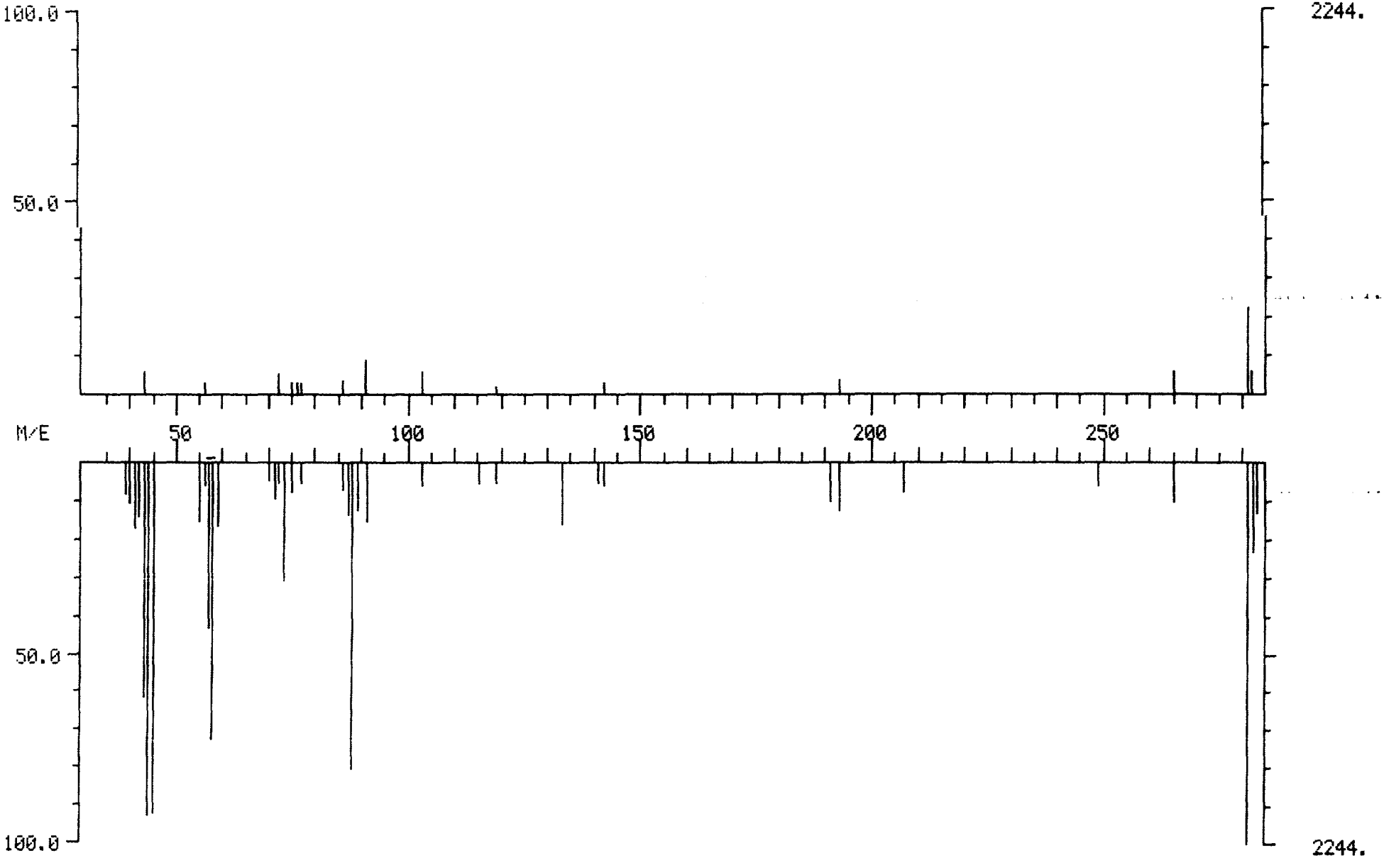
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 27:59
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #819 BASE M/E: 77/ 44
CALI: EPAVOA877 #1 RIC: 932./ 10911.



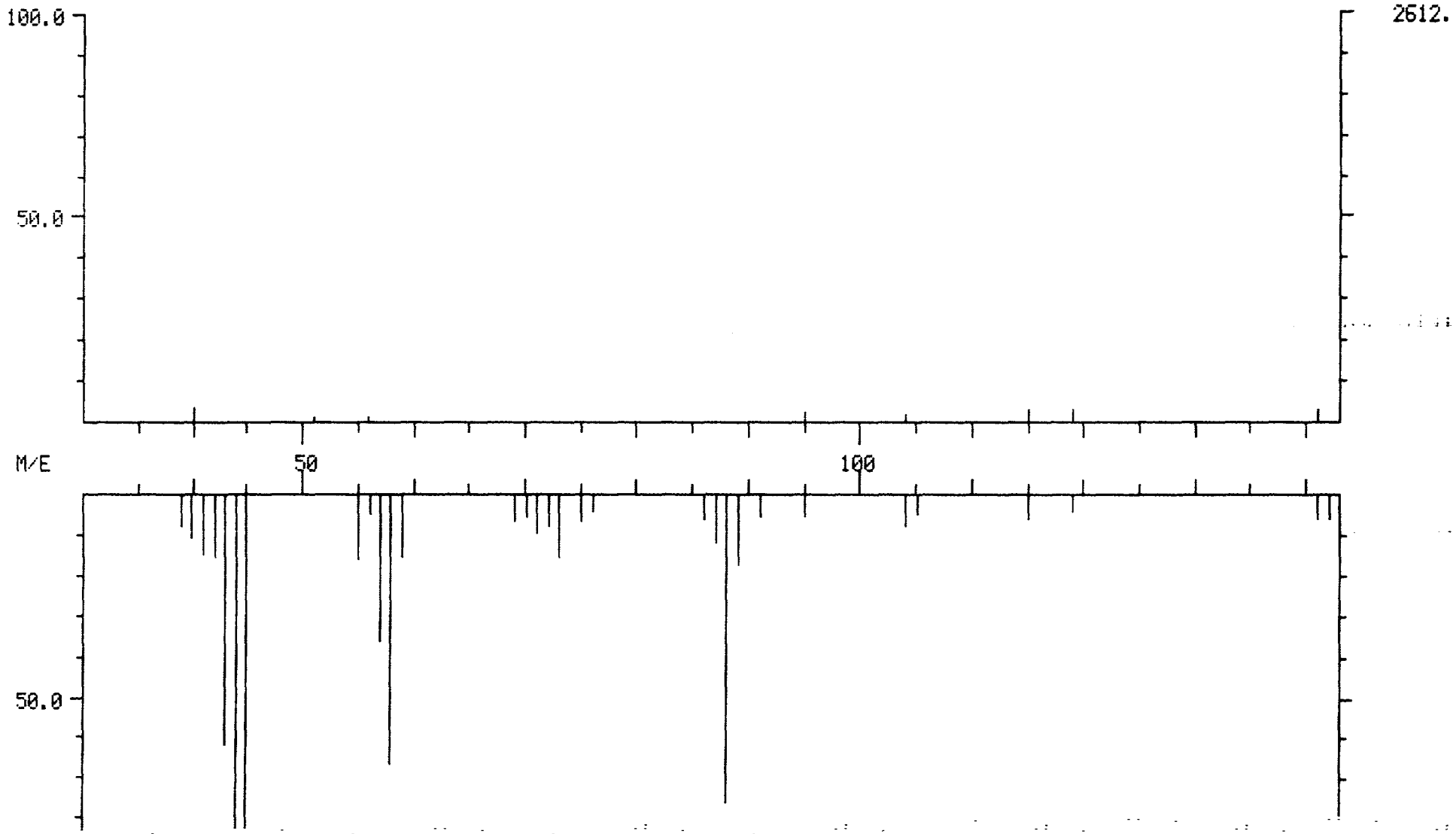
DUAL MASS SPECTRUM
02/26/84 17:25:00 + 30:08
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 #882 BASE M/E: 281/ 281
CALI: EPAVOA877 #1 RIC: 1881./ 19519.



DUAL MASS SPECTRUM
02/26/84 17:25:00 + 34:10
SAMPLE: 77056-3
CONDS.:
ENHANCED (S 15B 2N 0T)

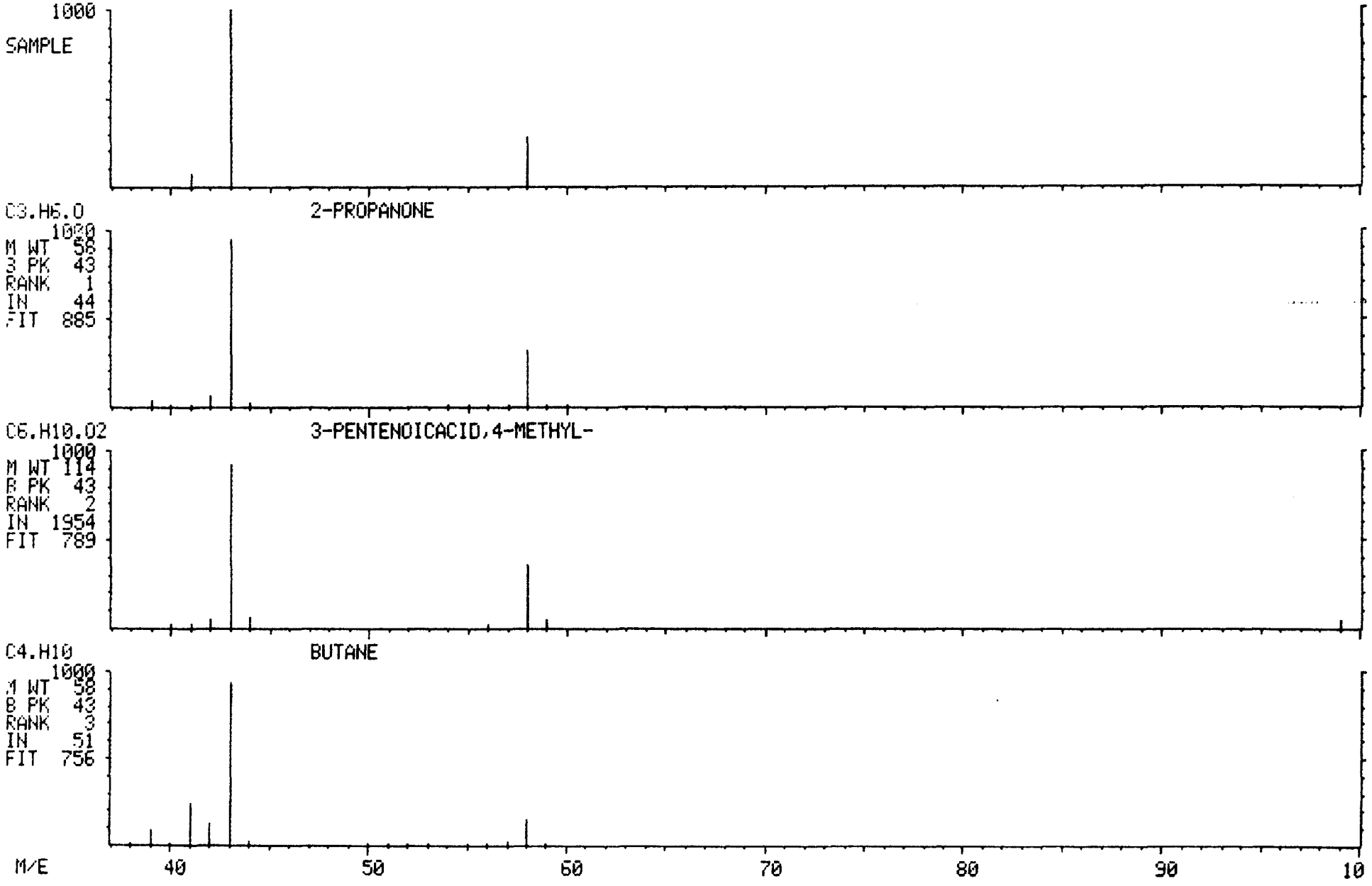
DATA: EPAVOA877 #1000 BASE M/E: 40/ 44
CALI: EPAVOA877 #1 RIC: 484./ 16831.



LIBRARY SEARCH
02/26/84 17:25:00 + 9:24
SAMPLE: 77056-3
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA877 # 275

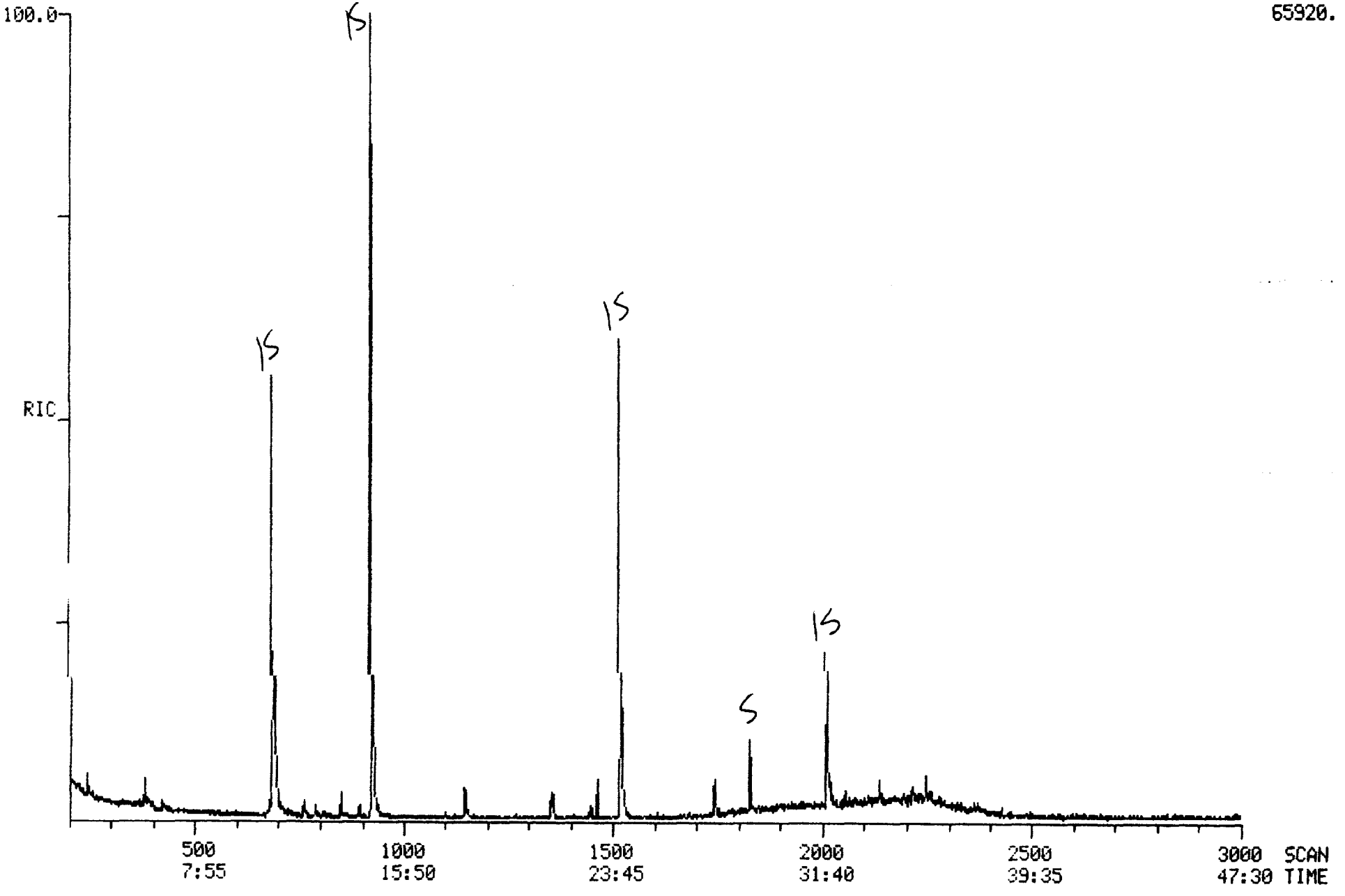
BASE M/E: 43
RIC: 2083.



RIC
03/05/84 18:32:00
SAMPLE: 77056-3 ,1/10DIL
CONDS.:
RANGE: G 1,3000 LABEL: N 2, 3.0 QUAN: A 2, 2.0 J 0 BASE: U 20, 3

DATA: EPABN701 #1
CALI: EPABN701 #1

SCANS 200 TO 3000



QUANTITATION REPORT FILE: EPABN701

DATA: EPABN701.TI
03/05/84 18:32:00
SAMPLE: 77056-3 ,1/10DIL
SUBMITTED BY: EPA ANALYST: SCP

AMOUNT CALCULATED FROM LINEAR FIT TO AREA/REF AREA
VS. CONC. USING THE 3 CLOSEST DATA POINTS IN .RL

NO	NAME	
1	*	D-4 1,4-DICHLOROBENZENE
2	*	D-8 NAPHTHALENE
3	*	D-10 PHENANTHRENE
4	*	D-12 CHRYSENE
5		N-NITROSODIMETHYLAMINE
6		2-CHLOROPHENOL
7		PHENOL
8		BIS (2-CHLOROETHYL) ETHER
9		1,3-DICHLOROBENZENE
10		1,4-DICHLOROBENZENE
11		1,2-DICHLOROBENZENE
12	HSL	ANILINE
13	HSL	BENZYL ALCOHOL
14		2-FLUOROPHENOL (SURROGATE)
15		D-5 PHENOL (SURROGATE)
16		BIS(2-CHLOROISOPROPYL)ETHER
17		HEXACHLOROETHANE
18		N-NITROSODIPROPYLAMINE
19		NITROBENZENE
20		ISOPHORONE
21		2-NITROPHENOL
22		2,4-DIMETHYLPHENOL
23		BIS(2-CHLOROETHOXY)METHANE
24		2,4-DICHLOROPHENOL
25		1,2,4-TRICHLOROBENZENE
26		NAPHTHALENE
27		HEXACHLOROBUTADIENE
28		P-CHLORO-M-CRESOL
29		HEXACHLOROCYCLOPENTADIENE
30		2,4,6-TRICHLOROPHENOL
31	HSL	2-METHYLPHENOL
32	HSL	4-METHYLPHENOL
33	HSL	BENZOIC ACID
34	HSL	4-CHLOROANILINE
35	HSL	2-METHYLNAPHTHALENE
36		D-5 NITROBENZENE (SURROGATE)
37		2-FLUOROBIPHENYL (SURROGATE)
38		2-CHLORONAPHTHALENE
39		DIMETHYL PHTHALATE
40		ACENAPHTHYLENE
41		2,6-DINITROTOLUENE
42		ACENAPHTHENE
43		2,4-DINITROPHENOL
44		4-NITROPHENOL
45		2,4-DINITROTOLUENE
46		FLUORENE

NO	NAME	
47		4-CHLOROPHENYL PHENYL ETHER
48		DIETHYL PHTHALATE
49		4,6-DINITRO-2-METHYLPHENOL
50		N-NITROSODIPHENYLAMINE
51		1,2-DIPHENYLHYDRAZINE
52		4-BROMOPHENYL PHENYL ETHER
53		HEXACHLOROBENZENE
54		PENTACHLOROPHENOL
55		PHENANTHRENE
56		ANTHRACENE
57		DI-N-BUTYL PHTHALATE
58		FLUORANTHENE
59	HSL	2,4,5-TRICHLOROPHENOL
60	HSL	2-NITROANILINE
61	HSL	3-NITROANILINE
62	HSL	DIBENZOFURAN
63	HSL	4-NITROANILINE
64		2,4,6-TRIBROMOPHENOL (SURROGATE)
65		BENZIDINE
66		PYRENE
67		BENZYL BUTYL PHTHALATE
68		BENZO(A)ANTHRACENE
69		3,3'-DICHLOROBENZIDINE
70		CHRYSENE
71		BIS(2-ETHYLHEXYL) PHTHALATE
72		D-14 TERPHENYL (SURROGATE)
73	*	D-12 BENZO(A)PYRENE
74		DI-N-OCTYL PHTHALATE
75		BENZO(B)FLUORANTHENE
76		BENZO(K)FLUORANTHENE
77		BENZO(A)PYRENE
78		INDENO(1,2,3-CD)PYRENE
79		DIBENZO(A,H)ANTHRACENE
80		BENZO(GHI)PERYLENE

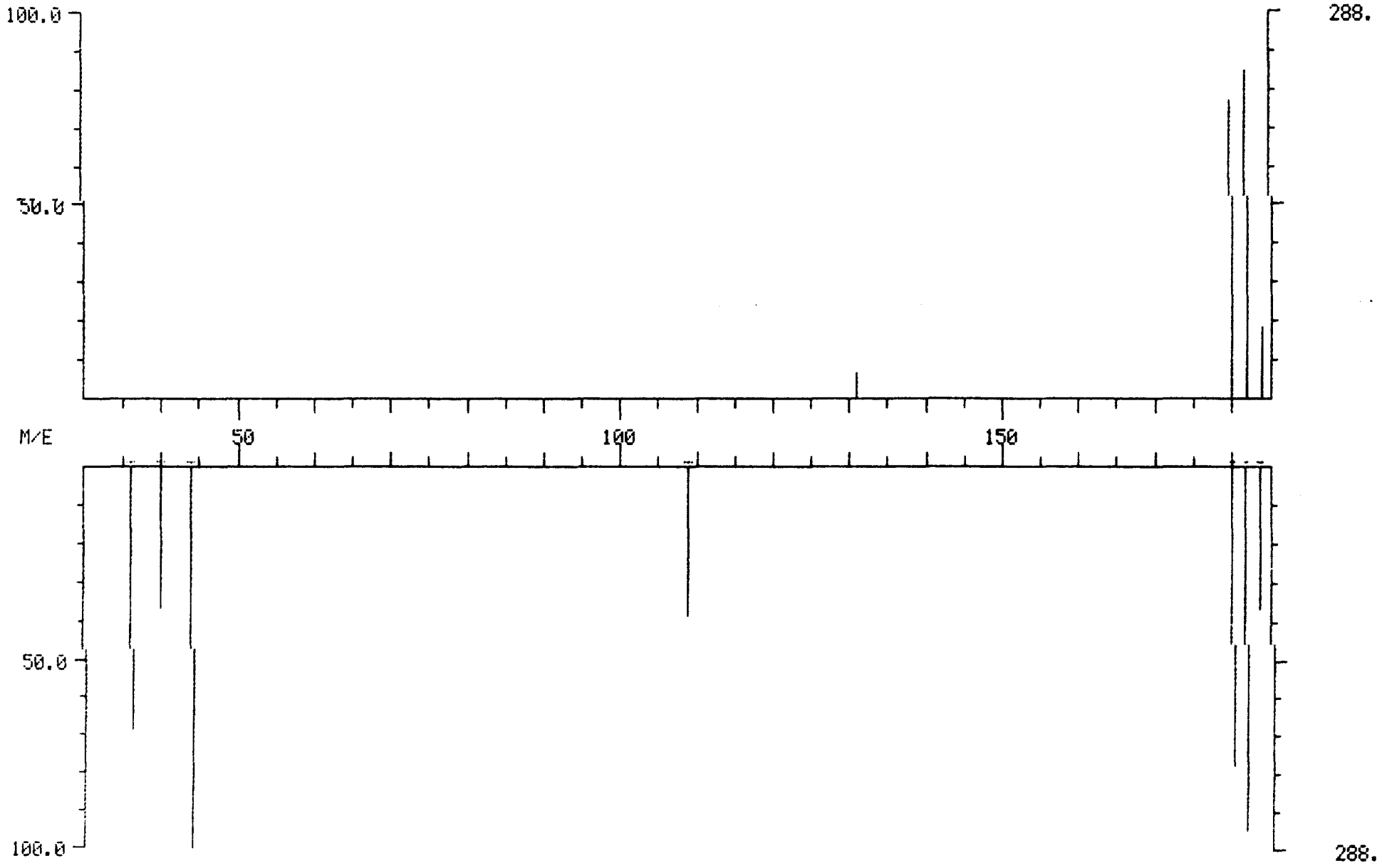
NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	152	686	10:52	1	1.000	A BB	32118.	20.000 UG/ML	48.43
2	136	924	14:38	2	1.000	A BV	81743.	20.000 UG/ML	48.43
3	188	1517	24:01	3	1.000	A BB	45889.	20.000 UG/ML	48.43
4	240	2010	31:49	4	1.000	A BB	20449.	20.000 UG/ML	48.43
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	146	679	10:45	1	0.990	A*BB	1240.	-1.924 UG/ML	-4.65
10	NOT FOUND								
11	146	723	11:27	1	1.054	A BB	287.	-0.668 UG/ML	-1.61
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	121	761	12:03	2	0.824	A BB	329.	-5.255 UG/ML	*-12.
17	NOT FOUND								
18	70	788	12:29	2	0.853	A BB	1119.	-9.366 UG/ML	*-22.
19	NOT FOUND								
20	82	850	13:27	2	0.920	A BB	5112.	-7.140 UG/ML	*-17.
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	180	921	14:35	2	0.997	A BB	824.	0.307 UG/ML	0.74
26	128	928	14:42	2	1.004	A BB	2667.	-18.853 UG/ML	*-45.
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	NOT FOUND								
36	NOT FOUND								
37	172	1145	18:08	2	1.239	A BB	8798.	-1.054 UG/ML	-2.54
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	166	1352	21:24	3	0.891	A BB	2945.	-2.574 UG/ML	-6.22
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								
51	NOT FOUND								
52	248	1447	22:55	3	0.954	A BB	521	-0.508 UG/ML	-1.22
53	284	1463	23:10	3	0.964	A BB	1342	-4.602 UG/ML	*-11.
54	NOT FOUND								
55	178	1522	24:06	3	1.003	A BB	6230.	-0.037 UG/ML	-0.08
56	NOT FOUND								

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
57	NOT FOUND								
58	202	1743	27:36	3	1.149	A BB	6641.	4.038 UG/ML	9.78
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	NOT FOUND								
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
~~66~~	~~202~~	~~1783~~	~~28:14~~	~~4~~	~~0.887~~	~~A BB~~	~~497.~~	~~-2.140 UG/ML~~	~~-5.17~~
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	NOT FOUND								
~~71~~	~~149~~	~~2053~~	~~32:30~~	~~4~~	~~1.021~~	~~A BB~~	~~583.~~	~~4.384 UG/ML~~	~~10.62~~
72	244	1826	28:55	4	0.908	A BV	5228.	7.119 UG/ML	17.24
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								
79	NOT FOUND								
80	NOT FOUND								

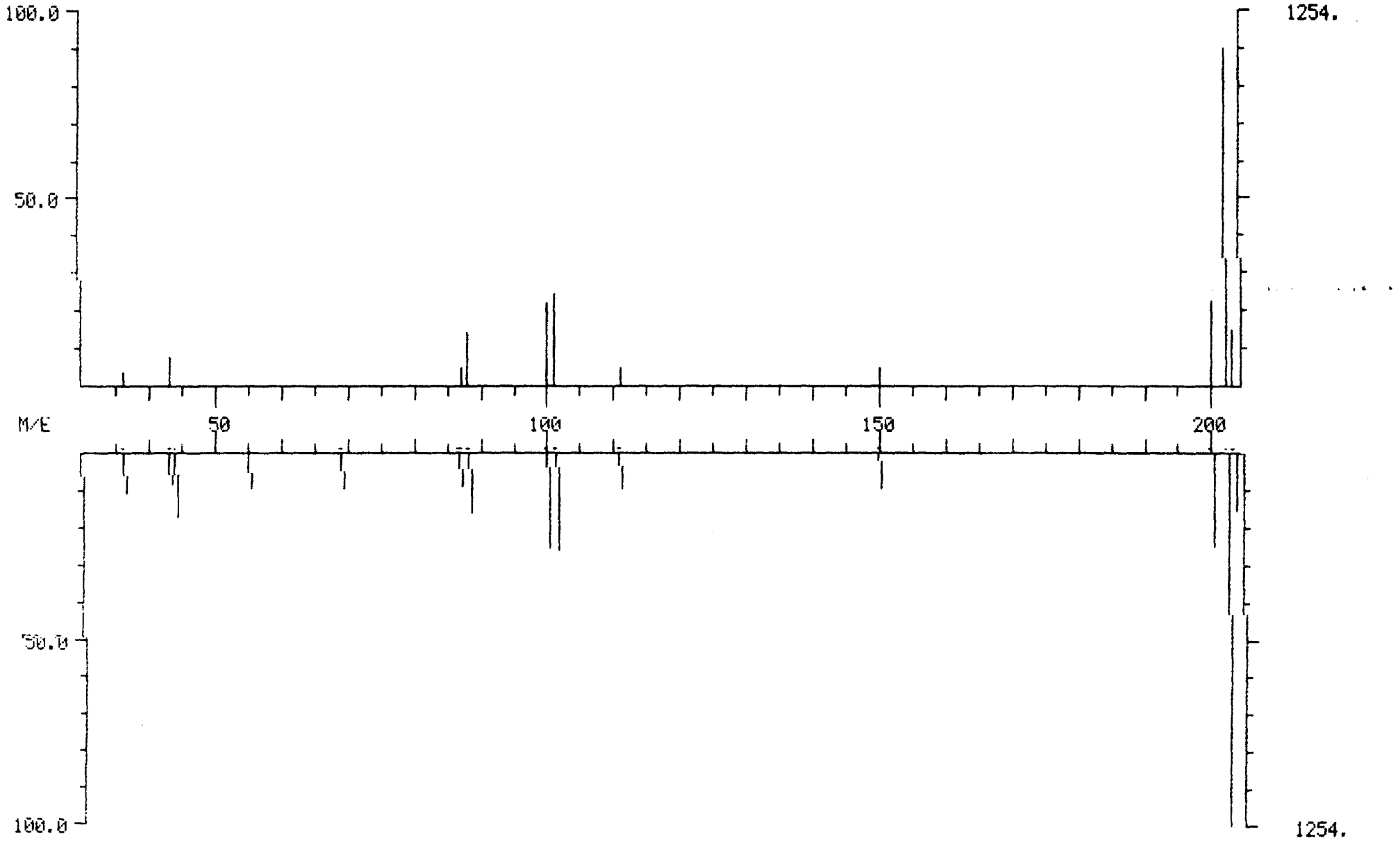
DUAL MASS SPECTRUM
03/05/84 18:32:00 + 14:35
SAMPLE: 77056-3 ,1/10DIL
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN701 #921 BASE M/E: 182/ 44
CALI: EPABN701 #1 RIC: 535./ 1305.



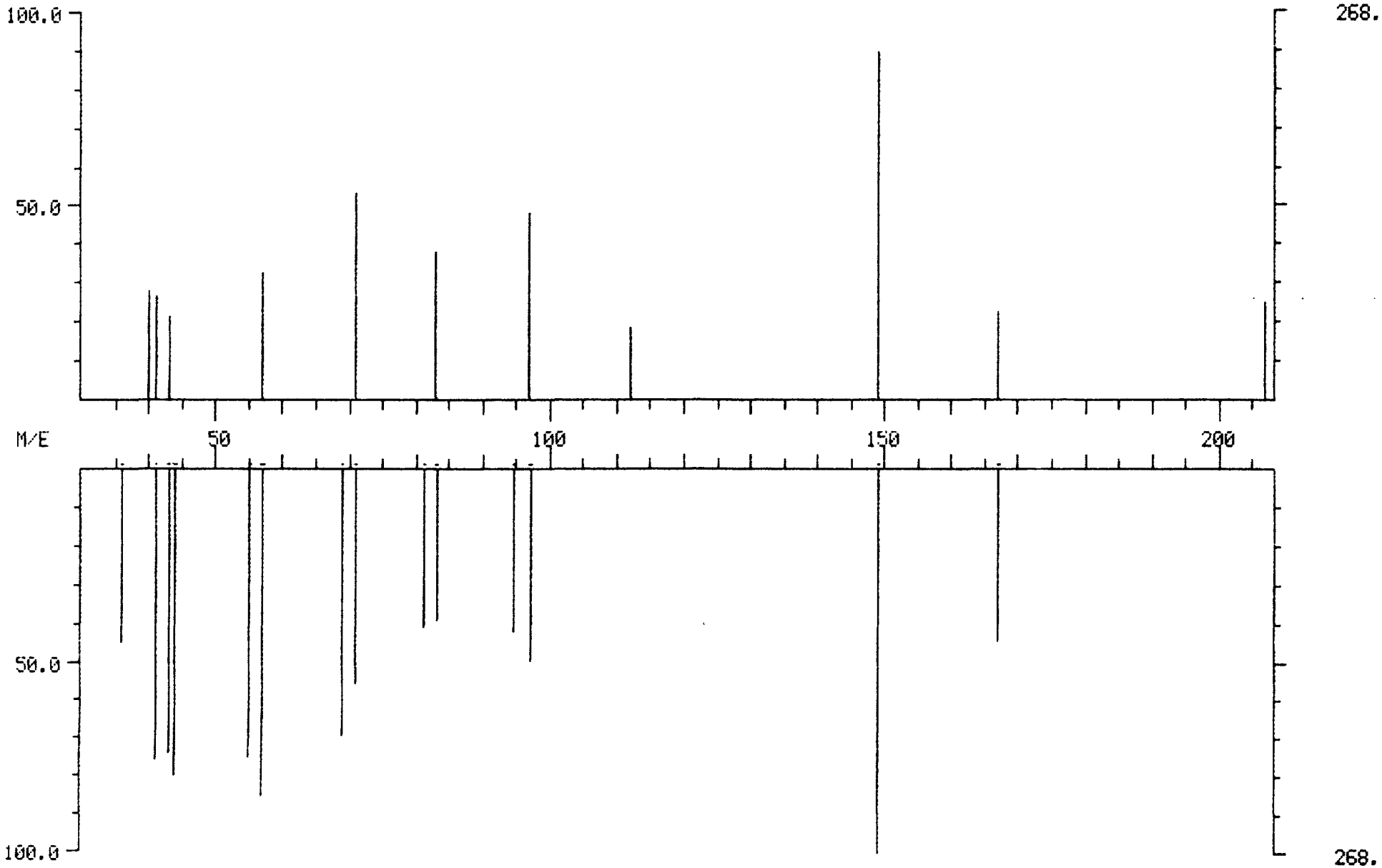
DUAL MASS SPECTRUM
03/05/84 18:32:00 + 27:36
SAMPLE: 77056-3 ,1/10DIL
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN701 #1743 BASE M/E: 202/ 202
CALI: EPABN701 #1 RIC: 2671./ 3647.

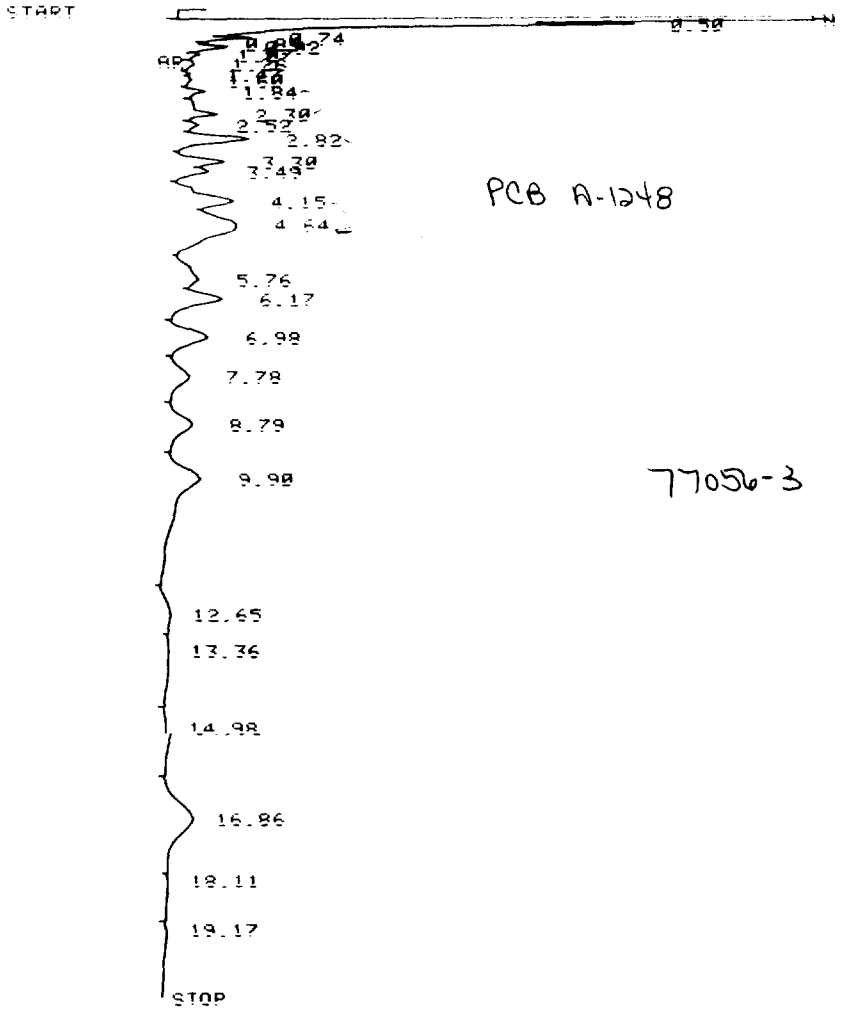


DUAL MASS SPECTRUM
03/05/84 18:32:00 + 32:30
SAMPLE: 77056-3 ,1/10DIL
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN701 #2053 BASE M/E: 149/ 149
CALI: EPABN701 #1 RIC: 1079./ 2351.



77056-3



PCB A-1248

77056-3

155

HP RUN # 512
ID:0
AREA %

RT	AREA	AREA %
1.26	16390	1.228
1.47	6007	0.450
1.60	13870	1.039
1.84	24210	1.813
2.30	52750	3.951
2.52	20950	1.569
2.82	75840	5.681
3.30	45460	3.405
3.49	29620	2.219
4.15	102200	7.655
4.64	189200	14.172
5.76	62360	4.671
6.17	80160	6.004
6.98	70720	5.297
7.78	47820	3.582
8.79	65740	4.924
9.90	154100	11.543
12.65	33020	2.473
13.36	56550	4.236
14.98	30720	2.301
16.86	128000	9.588
18.11	18710	1.401
19.17	10630	0.796

DIL FACTOR: 1.0000 E+ 0

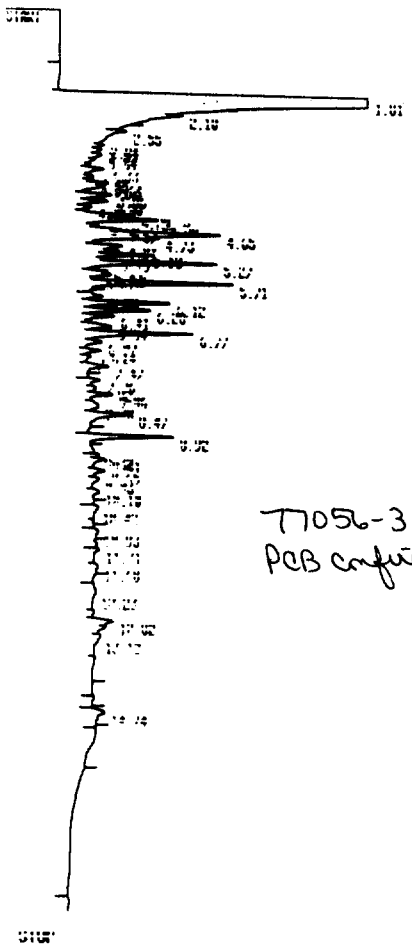
156

ATTN 2↑ 9
A 60.0 59.8
TEMP1 400 210 210

[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1.01	175,754	[illegible]	0.117	57.033
2.10	7201	[illegible]	0.027	0.033
2.55	7556	[illegible]	0.043	0.157
2.[illegible]	3484	[illegible]	0.043	0.117
3.33	4850	[illegible]	0.040	0.134
3.[illegible]	6340	[illegible]	0.075	0.087
3.34	15073	[illegible]	0.066	0.410
3.[illegible]	6150	[illegible]	0.050	0.083
3.54	6326	[illegible]	0.049	0.133
3.[illegible]	10130	[illegible]	0.058	0.088
3.67	15515	[illegible]	0.082	0.518
3.[illegible]	21750	[illegible]	0.072	0.717
4.08	10356	[illegible]	0.063	0.325
4.11	7334	[illegible]	0.040	0.249
4.[illegible]	32780	[illegible]	0.067	1.013
4.[illegible]	57810	[illegible]	0.064	1.876
4.58	13333	[illegible]	0.062	0.466
4.57	15519	[illegible]	0.061	0.527
4.[illegible]	37534	[illegible]	0.081	1.275
4.[illegible]	54240	[illegible]	0.050	1.752
4.91	15685	[illegible]	0.086	0.542
5.01	13358	[illegible]	0.055	0.730
5.18	43016	[illegible]	0.061	1.441
5.19	13882	[illegible]	0.050	0.661
5.[illegible]	76575	[illegible]	0.067	3.170
5.[illegible]	14301	[illegible]	0.052	0.475
5.53	13374	[illegible]	0.060	0.533
5.61	6442	[illegible]	0.043	0.215
5.71	186650	[illegible]	0.067	3.583
5.[illegible]	18071	[illegible]	0.065	0.550
6.12	62245	[illegible]	0.061	2.040
6.[illegible]	47530	[illegible]	0.064	1.564
6.41	13540	[illegible]	0.061	0.675
6.54	13816	[illegible]	0.063	0.635
6.72	186430	[illegible]	0.076	2.653
6.[illegible]	11384	[illegible]	0.060	0.370
7.14	11632	[illegible]	0.067	0.383
7.[illegible]	3334	[illegible]	0.057	0.131
7.47	16460	[illegible]	0.077	0.542
7.76	5635	[illegible]	0.066	0.185
7.92	5635	[illegible]	0.057	0.185
8.66	17273	[illegible]	0.065	0.568
8.[illegible]	6484	[illegible]	0.133	0.155
8.97	31275	[illegible]	0.065	1.027
9.32	54713	[illegible]	0.065	1.836
9.[illegible]	3543	[illegible]	0.072	0.104
9.41	18339	[illegible]	0.065	0.603
9.75	3516	[illegible]	0.063	0.113
9.83	6636	[illegible]	0.181	0.177
10.19	5383	[illegible]	0.067	0.176
10.[illegible]	4403	[illegible]	0.114	0.146
10.73	5311	[illegible]	0.072	0.187
11.31	13377	[illegible]	0.063	0.436
11.93	12346	[illegible]	0.067	0.403
12.23	3115	[illegible]	0.136	0.100
12.72	15091	[illegible]	0.077	0.501
13.12	7138	[illegible]	0.125	0.235
14.74	3833	[illegible]	0.133	0.127

TOTAL [illegible]= [illegible]
[illegible] [illegible]= 1.[illegible]

Confirmation
77056-3
PCB

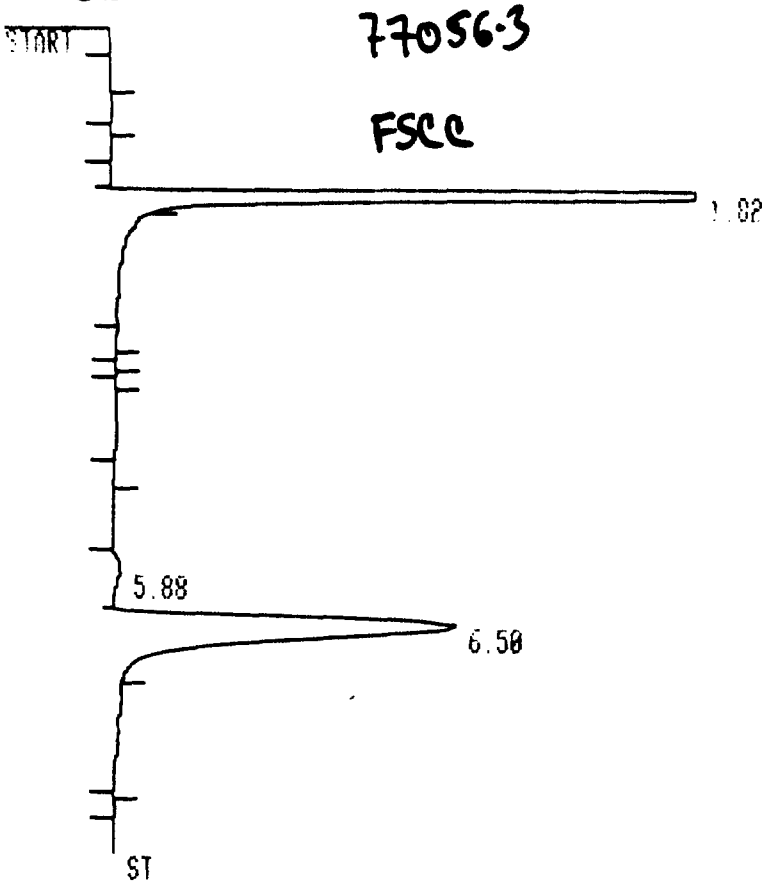


77056-3
PCB confirm.

TEDD Screen

77056-3

FSCC



RUN # 63 MAR/16/84 11:09:59

HEIGHT%

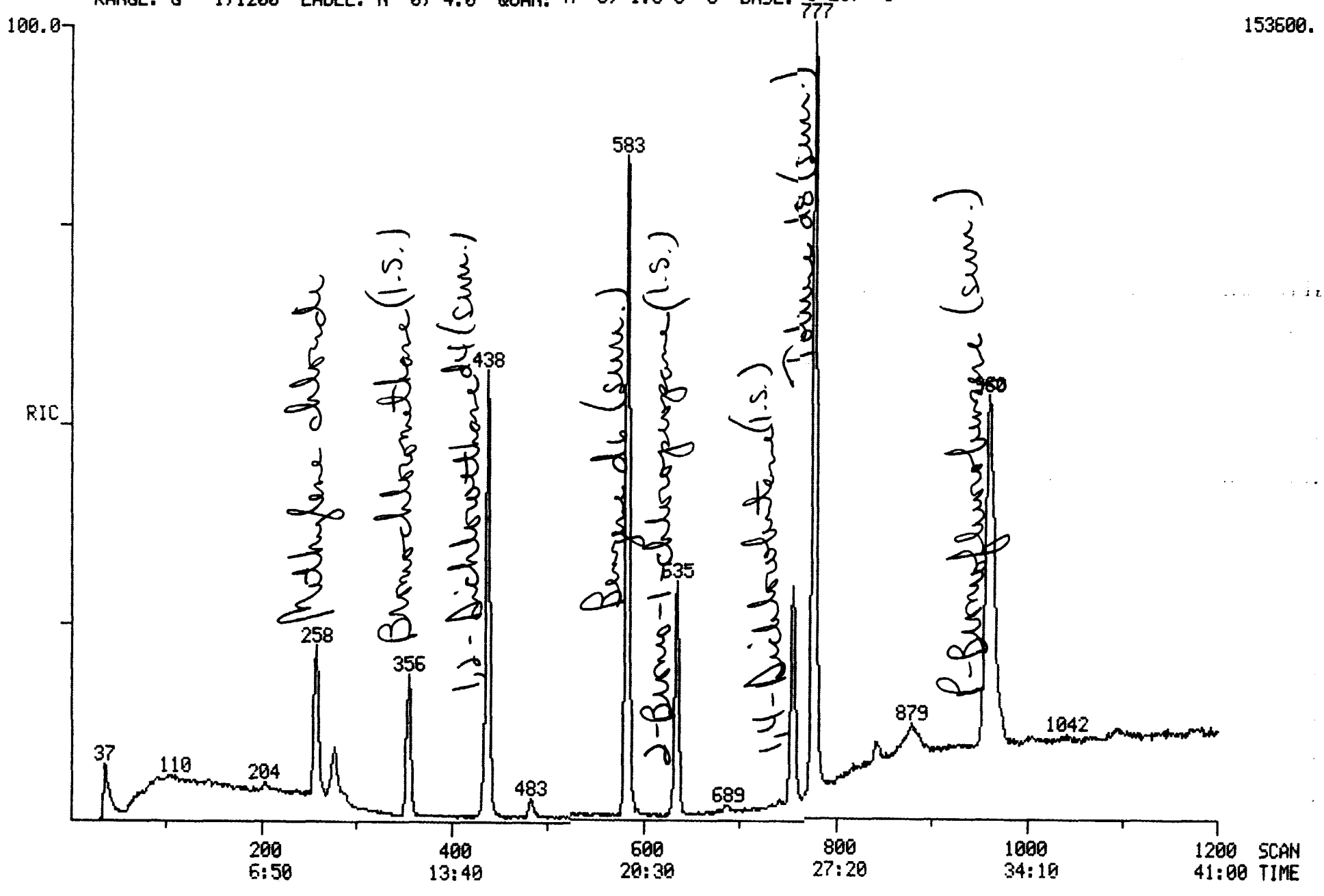
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
1.82	451241	PB	0.096	76.594
5.88	2856	PP	0.287	0.485
6.50	135035	PB	0.276	22.921

TOTAL HGHT= 589130
MUL FACTOR= 1.0000E+00

RIC
02/26/84 18:02:00
SAMPLE: 77056-4
CONDS.:
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: EPAVOA878 #1
CALI: EPAVOA878 #1

SCANS 1 TO 1200



QUANTITATION REPORT FILE: EPAVOA878

DATA: EPAVOA878.TI
02/26/84 18:02:00
SAMPLE: 77056-4
SUBMITTED BY: ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

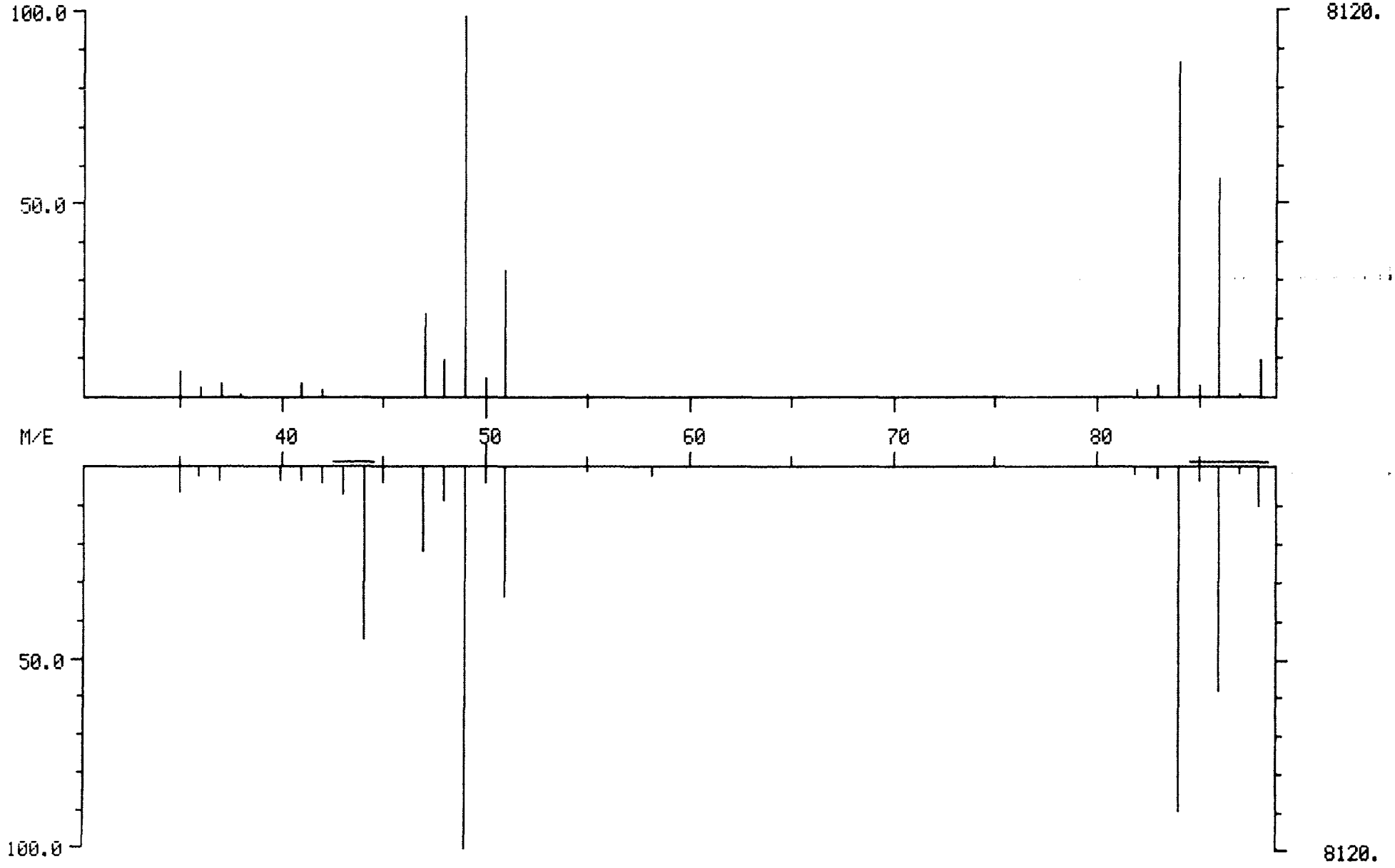
NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1,1,2,2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	355	12:08	1	1.000	A BB	26333.	50.000 UG/L	7.80
2	77	635	21:42	2	1.000	A BB	82807.	50.000 UG/L	7.80
3	55	755	25:48	3	1.000	A BB	89718.	50.000 UG/L	7.80
4	NOT FOUND								
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	84	258	8:49	1	0.727	A BB	38689.	22.244 UG/L	3.47
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
~~17~~	~~58~~	~~274~~	~~9:22~~	~~1~~	~~0.772~~	~~A BV~~	~~5267.~~	~~74.538 UG/L~~	~~11.62~~
18	NOT FOUND								

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
19	NOT	FOUND							
20	NOT	FOUND							
21	NOT	FOUND							
22	NOT	FOUND							
23	NOT	FOUND							
~~24~~	~~78~~	~~584~~	~~19:57~~	~~2~~	~~0.920~~	~~A BB~~	~~4177.~~	~~1.438 UG/L~~	~~0.22~~
25	NOT	FOUND							
26	NOT	FOUND							
27	NOT	FOUND							
28	NOT	FOUND							
29	NOT	FOUND							
~~30~~	~~72~~	~~437~~	~~14:56~~	~~2~~	~~0.688~~	~~A BB~~	~~612.~~	~~7.788 UG/L~~	~~1.21~~
31	NOT	FOUND							
~~32~~	~~43~~	~~689~~	~~23:32~~	~~2~~	~~1.085~~	~~A BB~~	~~5308.~~	~~7.969 UG/L~~	~~1.24~~
33	65	438	14:58	2	0.690	A BB	187030.	112.370 UG/L	17.52
34	84	583	19:55	2	0.918	A BB	329362.	106.472 UG/L	16.60
35	NOT	FOUND							
36	NOT	FOUND							
37	NOT	FOUND							
~~38~~	~~166~~	~~741~~	~~25:19~~	~~3~~	~~0.981~~	~~A BB~~	~~320~~	~~0.215 UG/L~~	~~0.03~~
39	NOT	FOUND							
40	91	783	26:45	3	1.037	A BB	9856.	2.528 UG/L	0.39
~~41~~	~~112~~	~~818~~	~~27:57~~	~~3~~	~~1.083~~	~~A BB~~	~~1005.~~	~~0.348 UG/L~~	~~0.05~~
~~42~~	~~91~~	~~880~~	~~30:04~~	~~3~~	~~1.166~~	~~A BB~~	~~4452.~~	~~0.951 UG/L~~	~~0.15~~
43	NOT	FOUND							
~~44~~	~~104~~	~~1001~~	~~34:12~~	~~3~~	~~1.326~~	~~A*BB~~	~~1890.~~	~~0.804 UG/L~~	~~0.13~~
~~45~~	~~106~~	~~1040~~	~~35:32~~	~~3~~	~~1.377~~	~~A BB~~	~~236.~~	~~0.159 UG/L~~	~~0.02~~
46	98	777	26:33	3	1.029	A BB	297127.	83.124 UG/L	12.96
47	NOT	FOUND							
48	NOT	FOUND							
49	NOT	FOUND							
50	95	959	32:46	3	1.270	A BB	153577.	70.449 UG/L	10.99

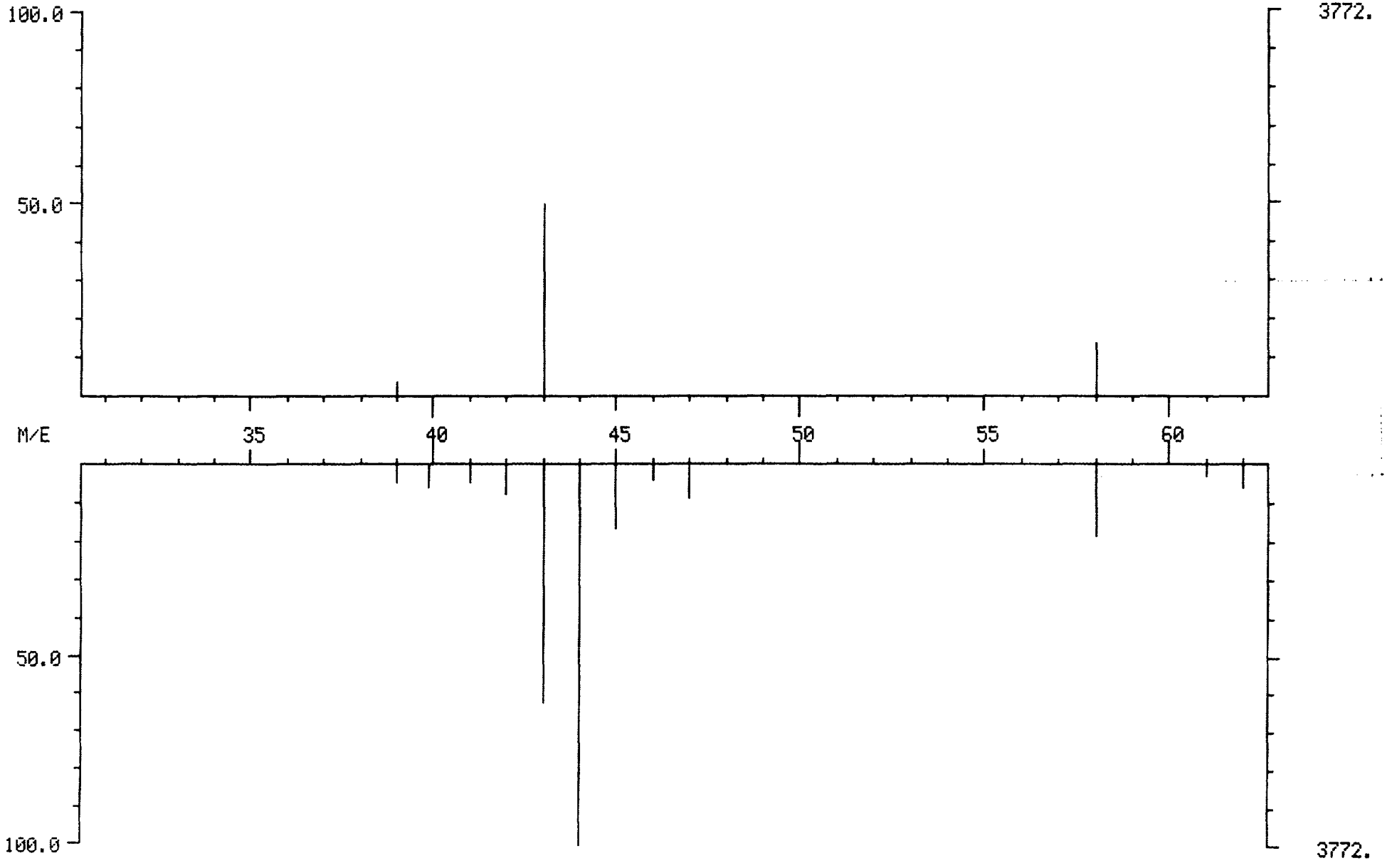
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 8:49
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #258 BASE M/E: 49/ 49
CALI: EPAVOA878 #1 RIC: 28031./ 34175.



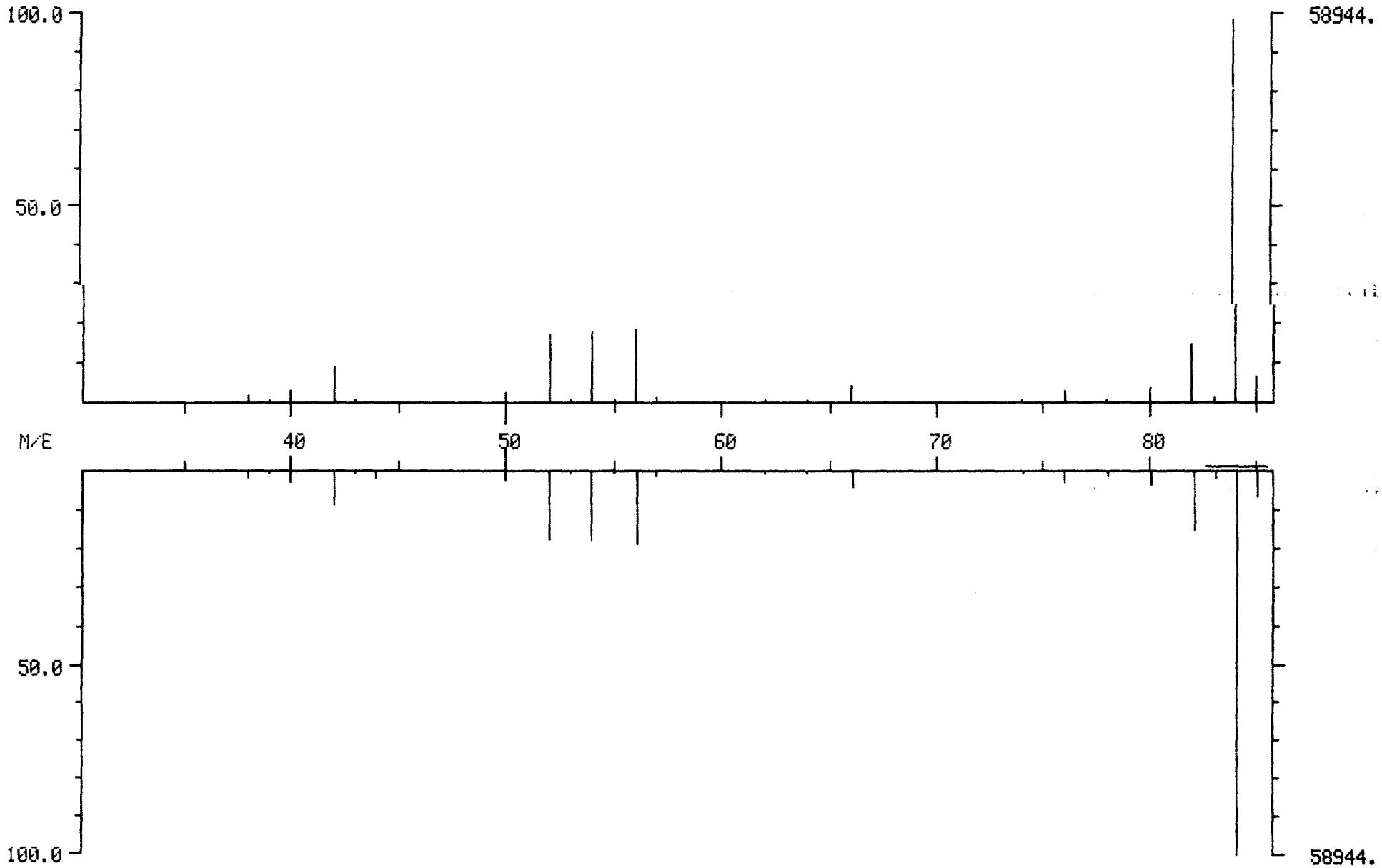
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 9:22
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #274 BASE M/E: 43/ 44
CALI: EPAVOA878 #1 RIC: 2523./ 9151.



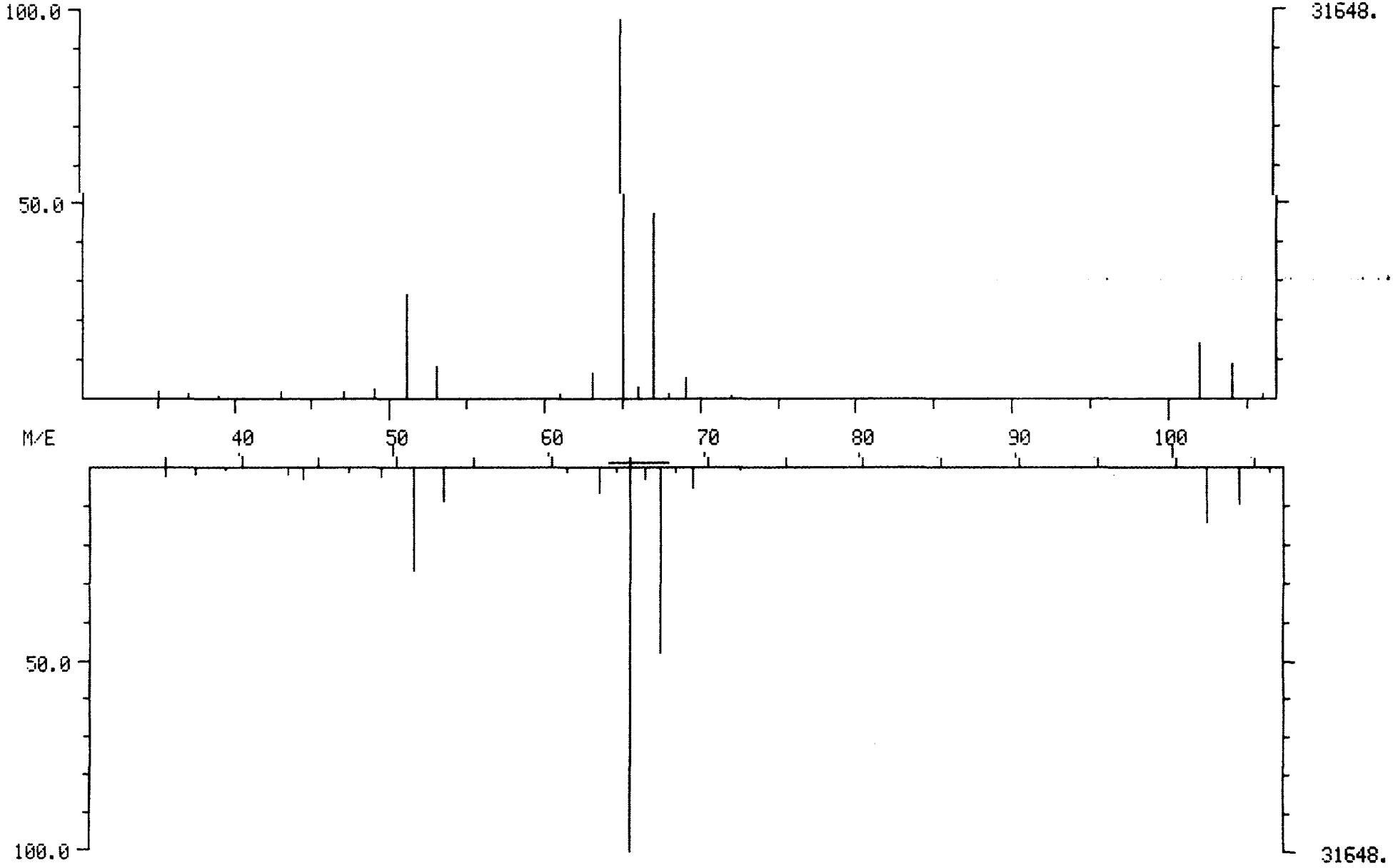
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 19:57
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #584 BASE M/E: 84/ 84
CALI: EPAVOA878 #1 RIC: 122111./ 125823.



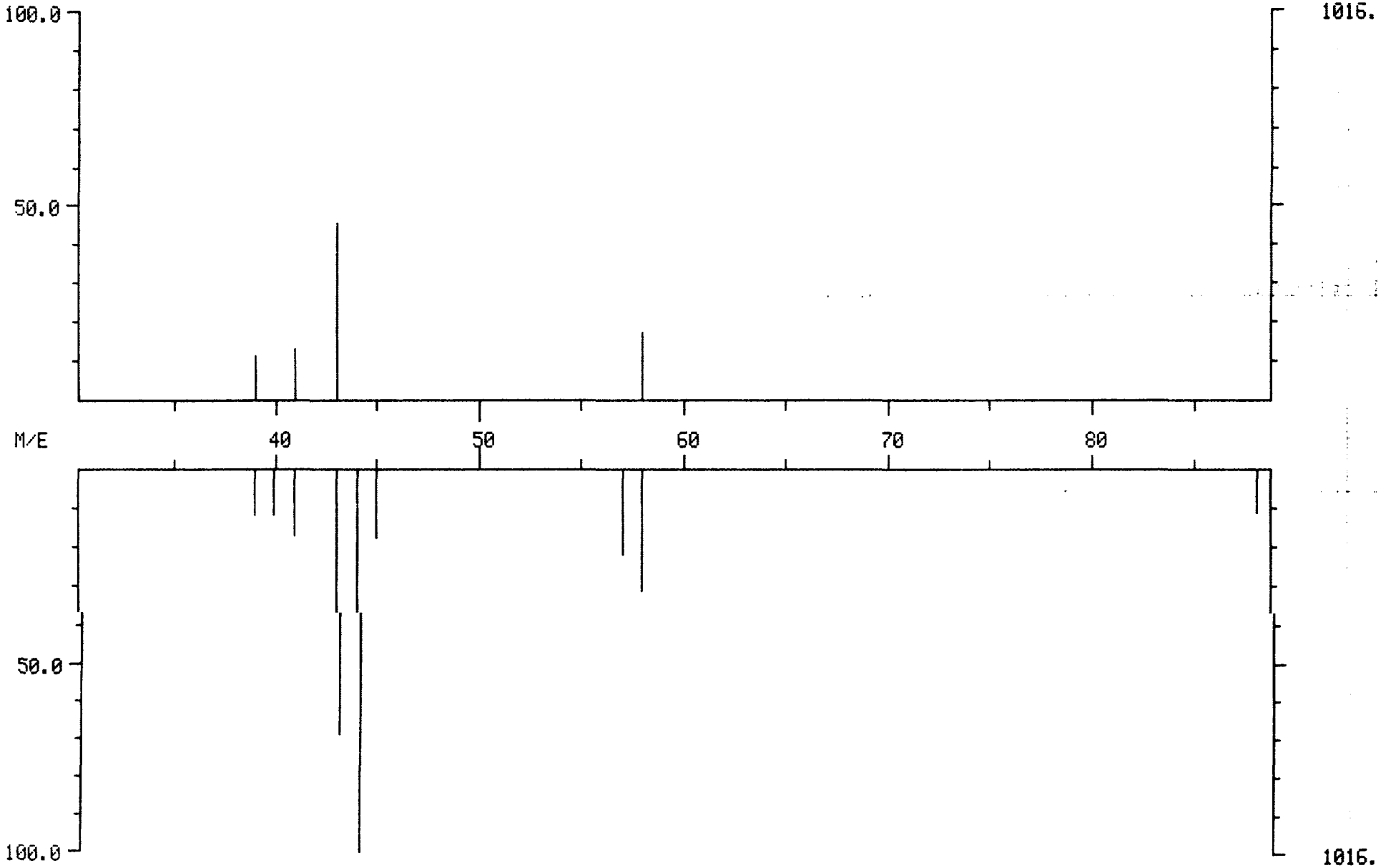
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 14:56
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #437 BASE M/E: 65/ 65
CALI: EPAVOA878 #1 RIC: 72703./ 75903.



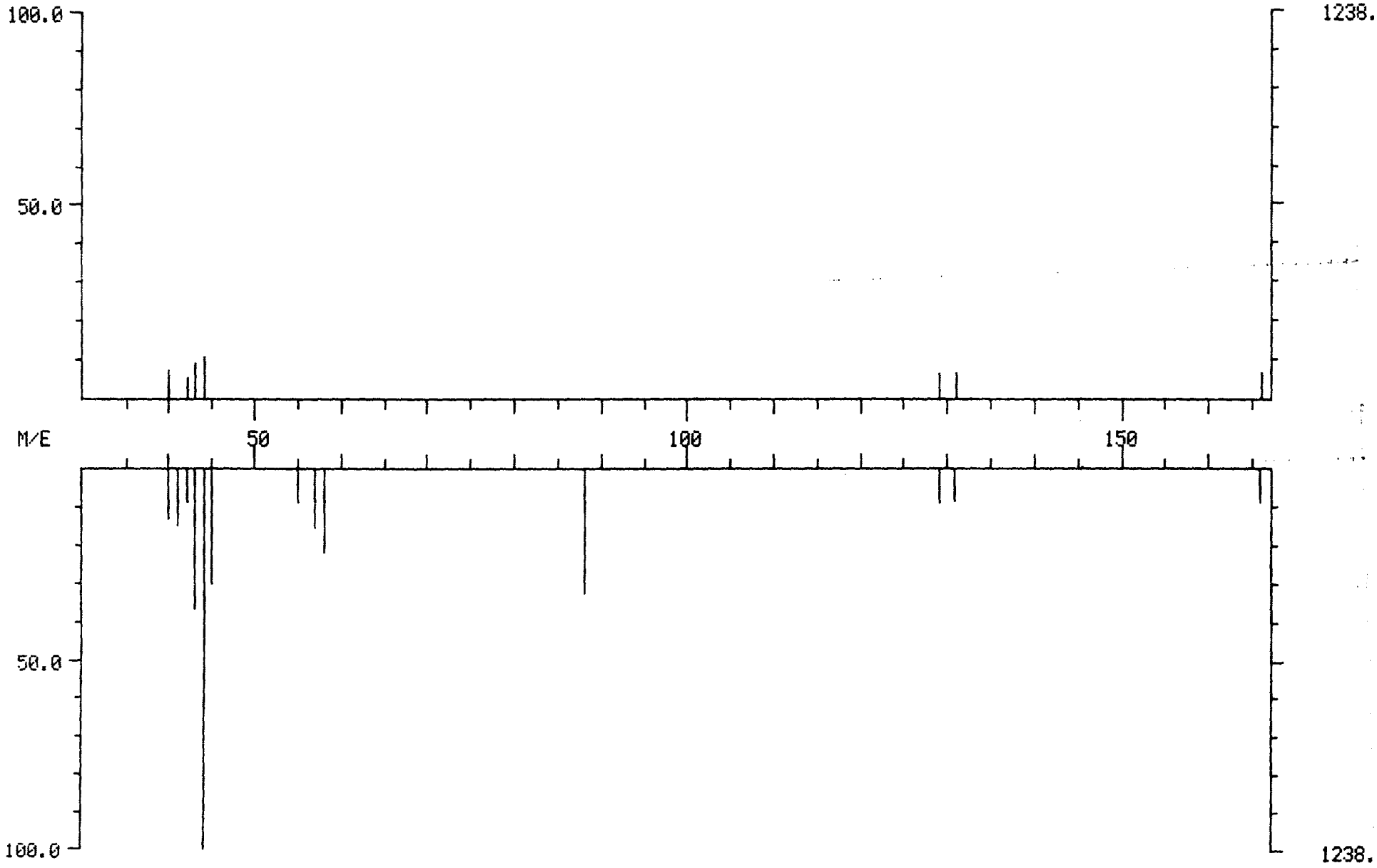
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 23:32
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #689 BASE M/E: 43/ 44
CALI: EPAVOA878 #1 RIC: 880./ 2963.



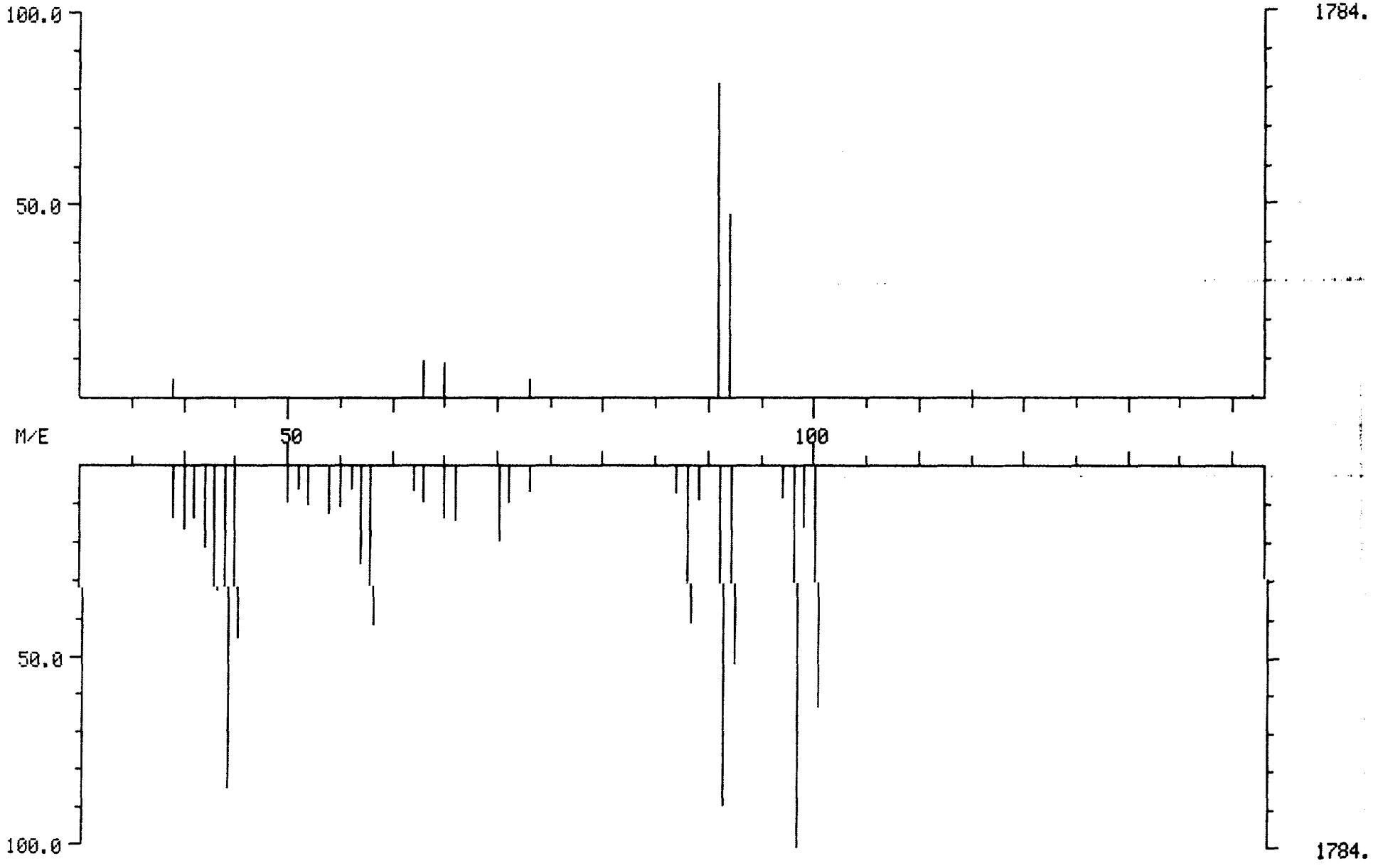
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 25:19
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #741 BASE M/E: 44/ 44
CALI: EPAVOA878 #1 RIC: 646./ 3811.



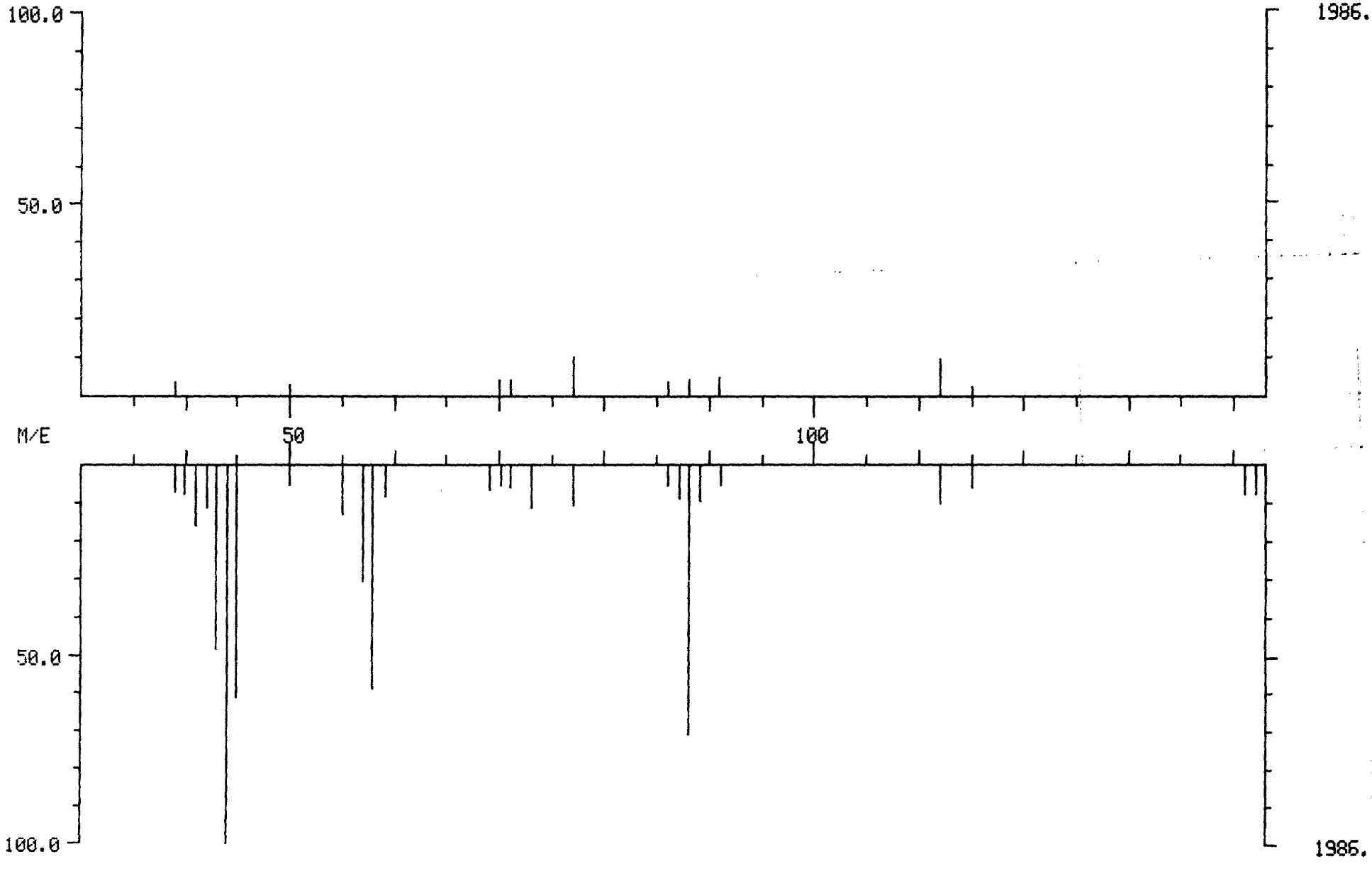
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 26:45
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #783 BASE M/E: 91/ 98
CALI: EPAVOA878 #1 RIC: 2835./ 14511.



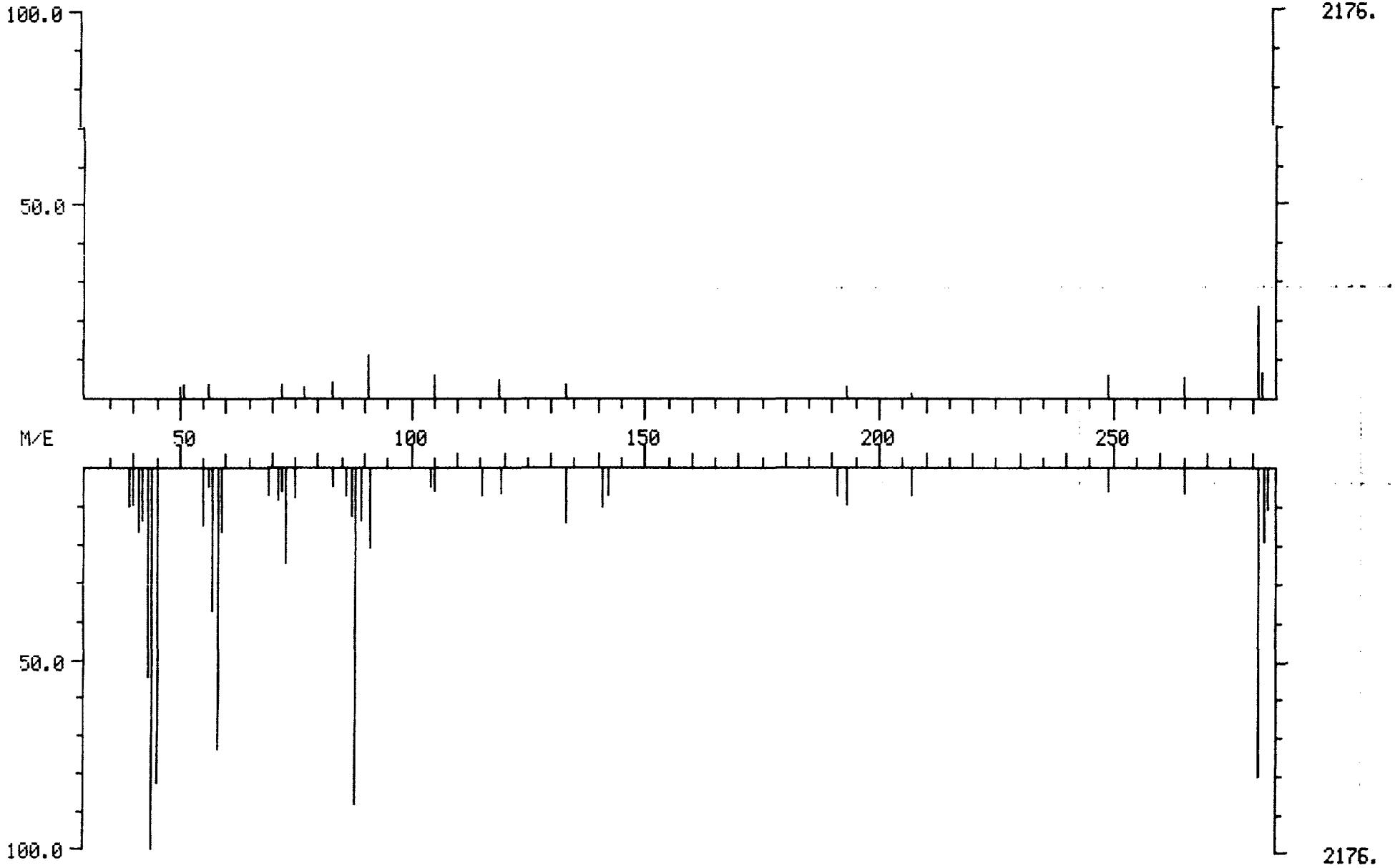
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 27:57
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #818 BASE M/E: 77/ 44
CALI: EPAVOA878 #1 RIC: 957./ 10687.



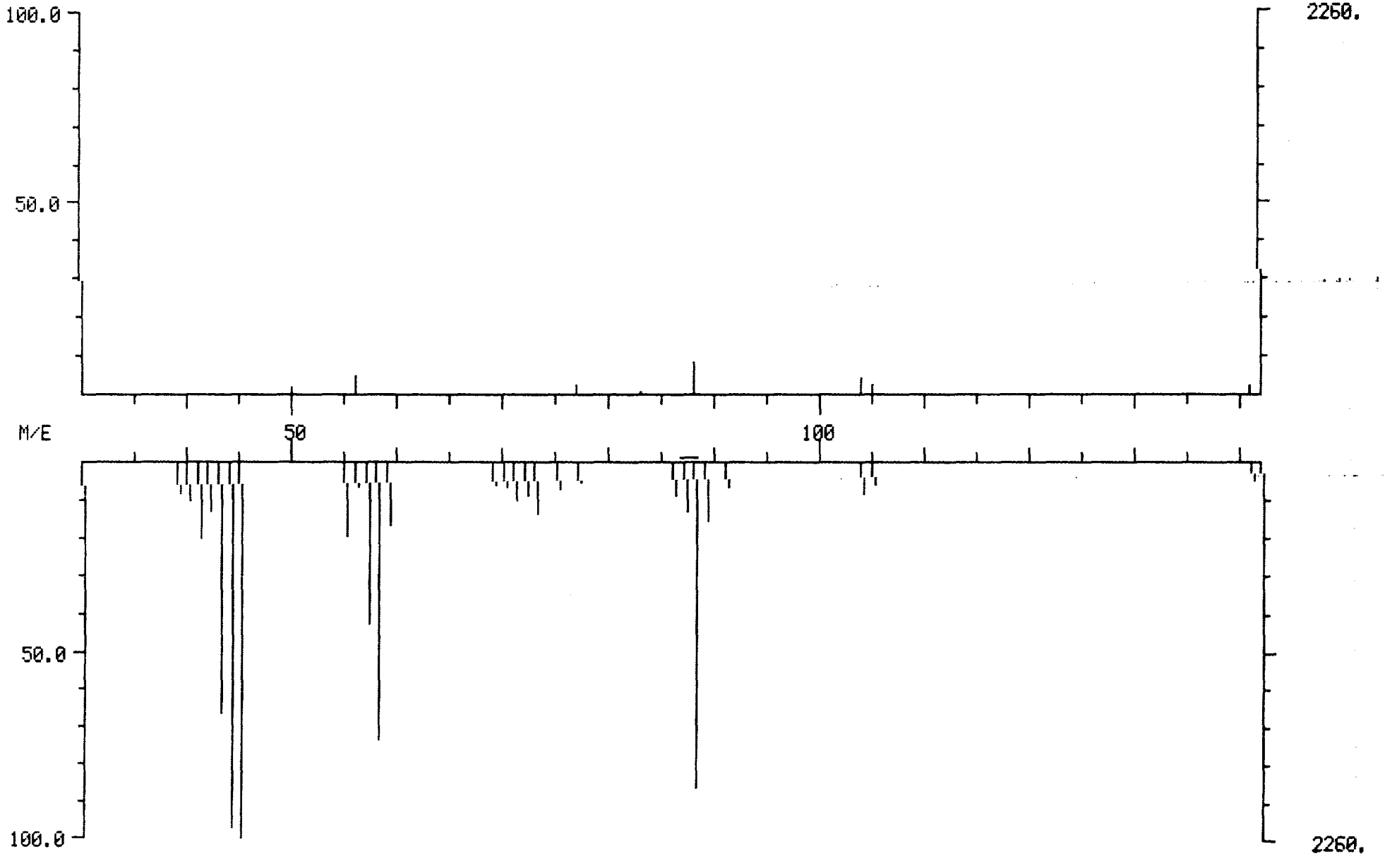
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 30:04
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #880 BASE M/E: 281/ 44
CALI: EPAVOA878 #1 RIC: 2019./ 18175.



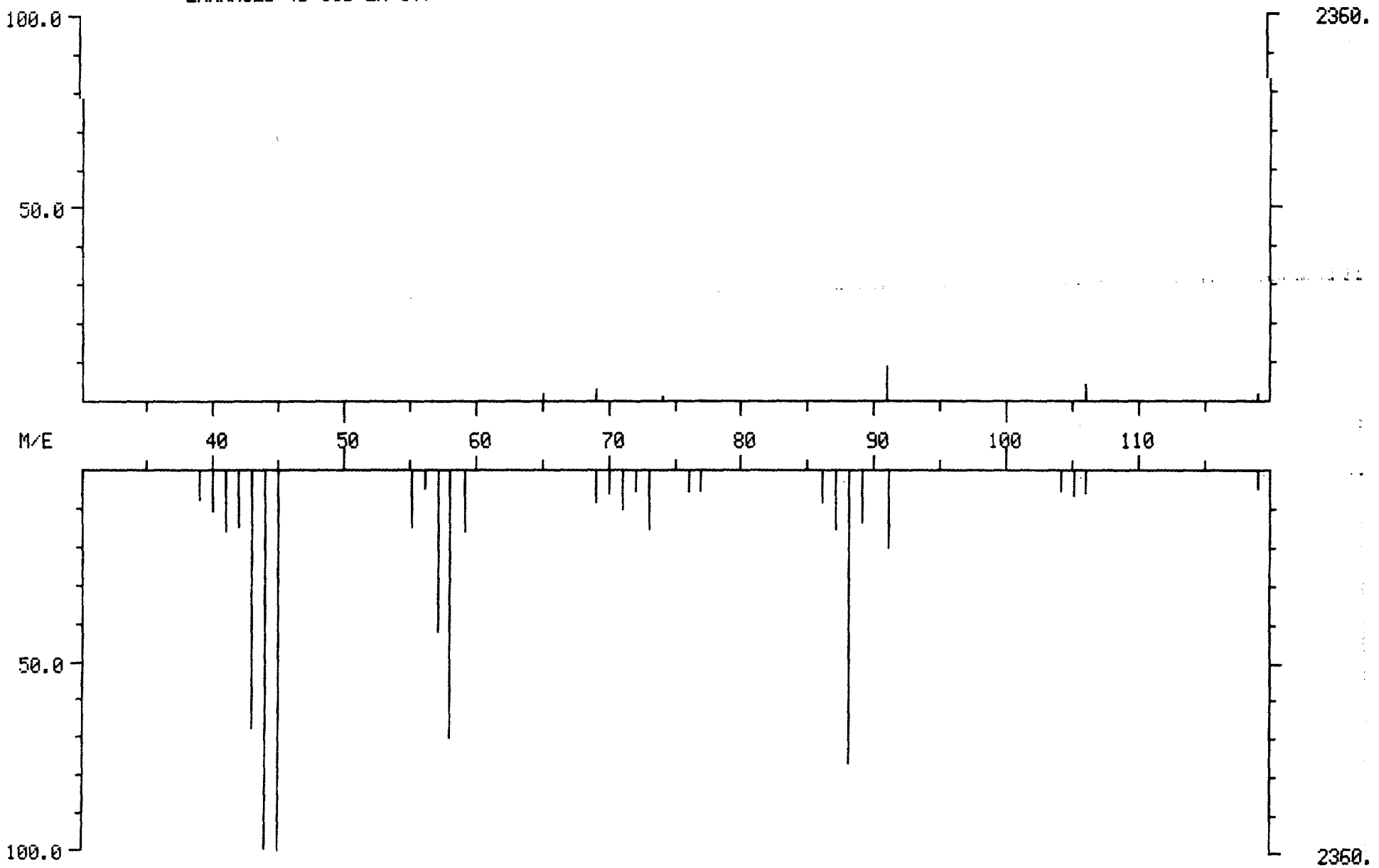
DUAL MASS SPECTRUM
02/26/84 18:02:00 + 34:12
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 #1001 BASE M/E: 88/ 45
CALI: EPAVOA878 #1 RIC: 601./ 15407.



DUAL MASS SPECTRUM
02/26/84 18:02:00 + 35:32
SAMPLE:
CONDS.:
ENHANCED (S 15B 2N 0T)

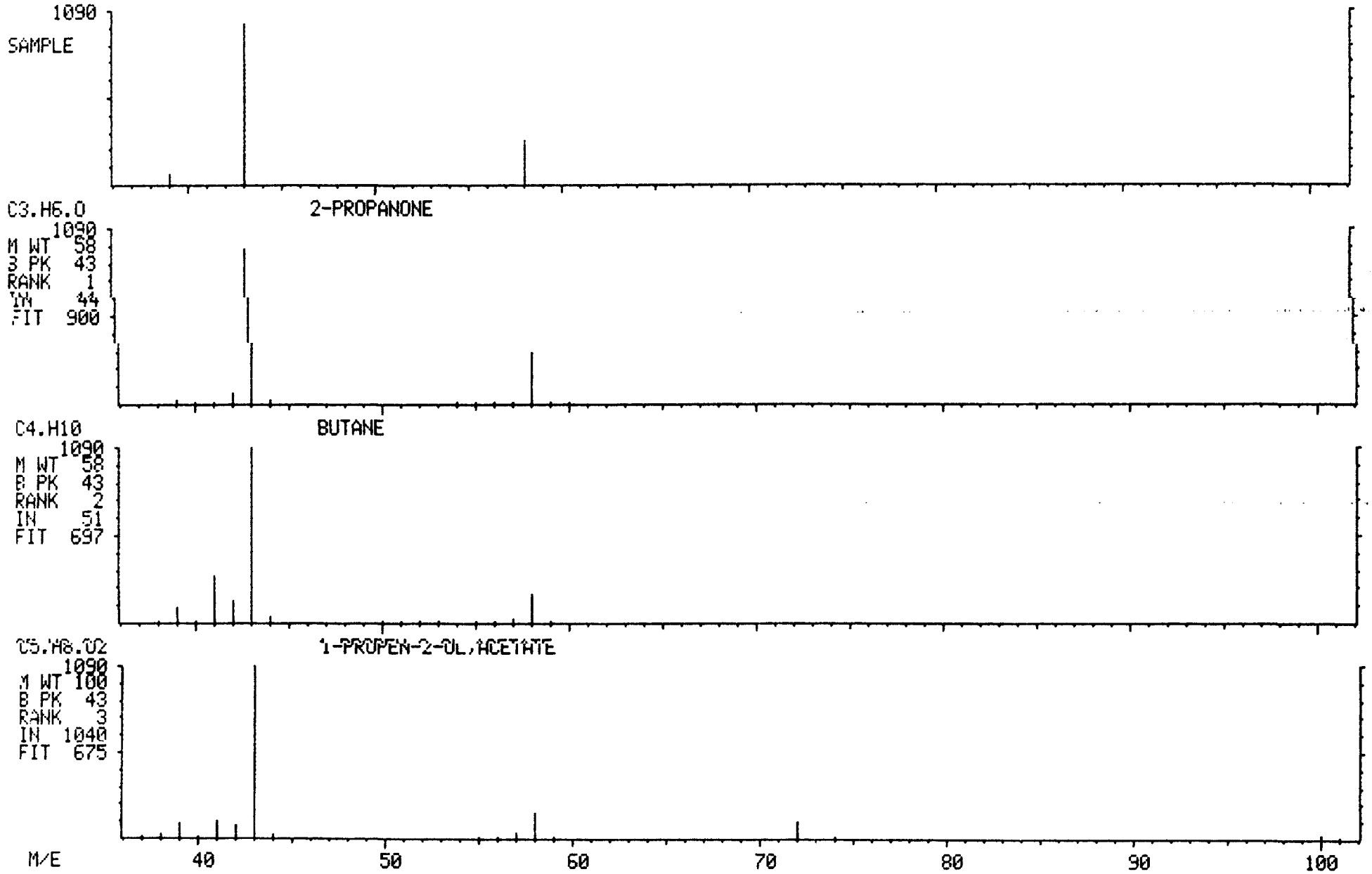
DATA: EPAVOA878 #1040 BASE M/E: 91/ 45
CALI: EPAVOA878 #1 RIC: 486./ 15967.



LIBRARY SEARCH
02/26/84 18:02:00 + 9:22
SAMPLE:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA878 # 274

BASE M/E: 43
RIC: 2523.

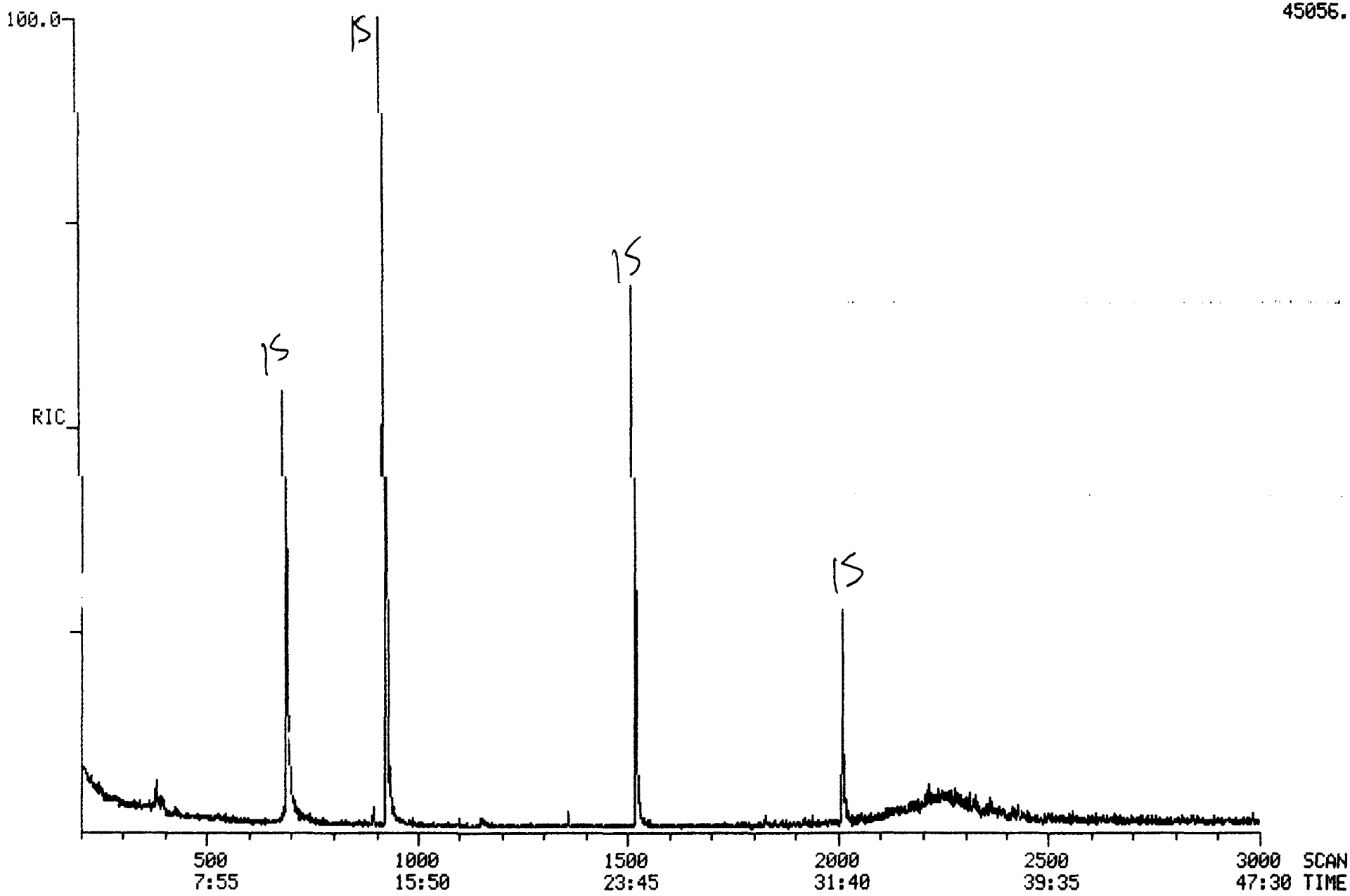


RIC
03/05/84 19:35:00
SAMPLE: EPA 77056-4 1/10DIL
CONDS.:
RANGE: G 1,3000 LABEL: N 2, 3.0 QUAN: A 2, 2.0 J 0 BASE: U 20, 3

DATA: EPABN702 #1
CALI: EPABN702 #1

SCANS 200 TO 3000

45056.



56-4 1/10 OK

QUANTITATION REPORT FILE: EPABN702

DATA: EPABN702.TI
03/05/84 19:35:00
SAMPLE: EPA 77056-4 1/10DIL
SUBMITTED BY: EPA ANALYST: SCP

AMOUNT CALCULATED FROM LINEAR FIT TO AREA/REF AREA
VS. CONC. USING THE 3 CLOSEST DATA POINTS IN .RL

NO	NAME	
1	*	D-4 1,4-DICHLOROBENZENE
2	*	D-8 NAPHTHALENE
3	*	D-10 PHENANTHRENE
4	*	D-12 CHRYSENE
5		N-NITROSODIMETHYLAMINE
6		2-CHLOROPHENOL
7		PHENOL
8		BIS (2-CHLOROETHYL) ETHER
9		1,3-DICHLOROBENZENE
10		1,4-DICHLOROBENZENE
11		1,2-DICHLOROBENZENE
12	HSL	ANILINE
13	HSL	BENZYL ALCOHOL
14		2-FLUOROPHENOL (SURROGATE)
15		D-5 PHENOL (SURROGATE)
16		BIS(2-CHLOROISOPROPYL)ETHER
17		HEXACHLOROETHANE
18		N-NITROSODIPROPYLAMINE
19		NITROBENZENE
20		ISOPHORONE
21		2-NITROPHENOL
22		2,4-DIMETHYLPHENOL
23		BIS(2-CHLOROETHOXY)METHANE
24		2,4-DICHLOROPHENOL
25		1,2,4-TRICHLOROBENZENE
26		NAPHTHALENE
27		HEXACHLOROBUTADIENE
28		P-CHLORO-M-CRESOL
29		HEXACHLOROCYCLOPENTADIENE
30		2,4,6-TRICHLOROPHENOL
31	HSL	2-METHYLPHENOL
32	HSL	4-METHYLPHENOL
33	HSL	BENZOIC ACID
34	HSL	4-CHLOROANILINE
35	HSL	2-METHYLNAPHTHALENE
36		D-5 NITROBENZENE (SURROGATE)
37		2-FLUOROBIPHENYL (SURROGATE)
38		2-CHLORONAPHTHALENE
39		DIMETHYL PHTHALATE
40		ACENAPHTHYLENE
41		2,6-DINITROTOLUENE
42		ACENAPHTHENE
43		2,4-DINITROPHENOL
44		4-NITROPHENOL
45		2,4-DINITROTOLUENE
46		FLUORENE

NO	NAME	
47		4-CHLOROPHENYL PHENYL ETHER
48		DIETHYL PHTHALATE
49		4,6-DINITRO-2-METHYLPHENOL
50		N-NITROSODIPHENYLAMINE
51		1,2-DIPHENYLHYDRAZINE
52		4-BROMOPHENYL PHENYL ETHER
53		HEXACHLOROBENZENE
54		PENTACHLOROPHENOL
55		PHENANTHRENE
56		ANTHRACENE
57		DI-N-BUTYL PHTHALATE
58		FLUORANTHENE
59	HSL	2,4,5-TRICHLOROPHENOL
60	HSL	2-NITROANILINE
61	HSL	3-NITROANILINE
62	HSL	DIBENZOFURAN
63	HSL	4-NITROANILINE
64		2,4,6-TRIBROMOPHENOL (SURROGATE)
65		BENZIDINE
66		PYRENE
67		BENZYL BUTYL PHTHALATE
68		BENZO(A)ANTHRACENE
69		3,3'-DICHLOROBENZIDINE
70		CHRYSENE
71		BIS(2-ETHYLHEXYL) PHTHALATE
72		D-14 TERPHENYL (SURROGATE)
73	*	D-12 BENZO(A)PYRENE
74		DI-N-OCTYL PHTHALATE
75		BENZO(B)FLUORANTHENE
76		BENZO(K)FLUORANTHENE
77		BENZO(A)PYRENE
78		INDENO(1,2,3-CD)PYRENE
79		DIBENZO(A,H)ANTHRACENE
80		BENZO(GHI)PERYLENE

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	152	687	10:53	1	1.000	A BV	22077.	20.000 UG/ML	24.70
2	136	926	14:40	2	1.000	A BB	80576.	20.000 UG/ML	24.70
3	188	1519	24:03	3	1.000	A BV	41272.	20.000 UG/ML	24.70
4	240	2010	31:49	4	1.000	A BB	19824.	20.000 UG/ML	24.70
5	NOT FOUND								
6	NOT FOUND								
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	NOT FOUND								
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
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21	NOT FOUND								
22	NOT FOUND								
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24	NOT FOUND								
25	NOT FOUND								
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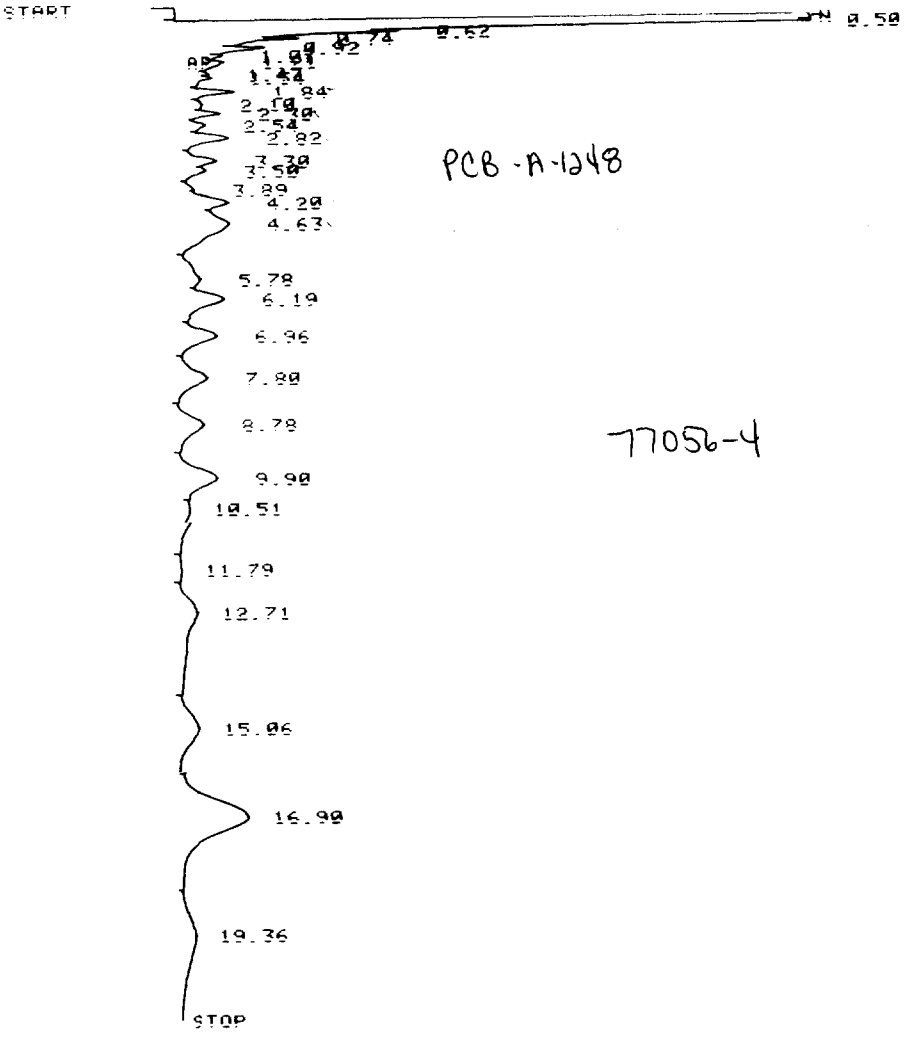
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
~~37~~	~~172~~	~~1150~~	~~18:12~~	~~2~~	~~1.242~~	~~A BV~~	~~1504.~~	~~-3.604 UG/ML~~	~~-4.44~~
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	NOT FOUND								
51	NOT FOUND								
52	NOT FOUND								
53	NOT FOUND								
54	NOT FOUND								
55	NOT FOUND								
56	NOT FOUND								

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
57	NOT FOUND								
58	NOT FOUND								
59	NOT FOUND								
60	NOT FOUND								
61	NOT FOUND								
62	NOT FOUND								
63	NOT FOUND								
64	NOT FOUND								
65	NOT FOUND								
66	NOT FOUND								
67	NOT FOUND								
68	NOT FOUND								
69	NOT FOUND								
70	NOT FOUND								
71	NOT FOUND								
72	244.	1828	28:57	4.	0.909	A.BB	2332.	5.030 UG/ML	6.21
73	NOT FOUND								
74	NOT FOUND								
75	NOT FOUND								
76	NOT FOUND								
77	NOT FOUND								
78	NOT FOUND								
79	NOT FOUND								
80	NOT FOUND								

77056-4



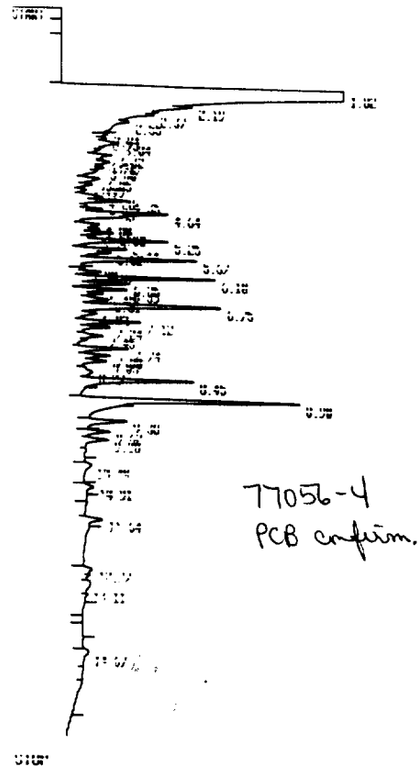
HP RUN # 513
ID:0
AREA %

RT	AREA	AREA %
1.21	52860	2.770
1.47	16700	0.875
1.54	35660	1.869
1.84	50170	2.629
2.10	30280	1.587
2.30	38410	2.013
2.54	33920	1.778
2.82	69760	3.656
3.30	50520	2.648
3.50	35320	1.851
3.89	17910	0.939
4.20	88240	4.625
4.63	169500	8.883
5.78	70340	3.686
6.19	113300	5.938
6.96	90980	4.768
7.80	85760	4.495
8.78	82460	4.322
9.90	129500	6.787
10.51	52950	2.775
11.79	8400	0.440
12.71	113000	5.922
15.06	93840	4.918
16.90	294400	15.429
19.36	83920	4.398

DIL FACTOR: 1.0000 E+ 0

ATTN 2↑ 9
A 60.0 59.8
TEMP1 400 210 210

Confirmation
77056-4
FSCC



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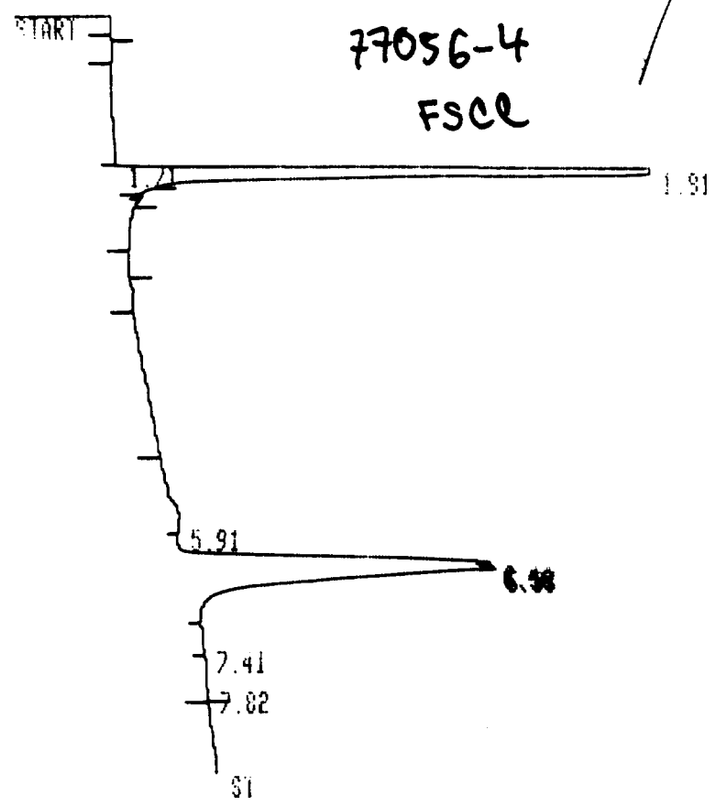
TCDD Screen

77056-4

FSCL



RUN # 64 MAR/16/84 11:20:17

HEIGHT%

RT	HEIGHT	TYPE	AR/HT	HEIGHT%
1.71	1699	PP	0.360	0.197
1.81	453737	PB	0.097	52.496
5.91	3182	PV	0.288	0.368
6.46	133027	VV	0.090	15.390
6.50	133710	VV	0.037	15.469
6.53	134422	D VV	0.169	15.552
7.41	3029	VV	0.362	0.350
7.82	1536	VB	0.510	0.178

TOTAL HGHT= 864360

MUL FACTOR= 1.0000E+00

P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
E7071

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: U S TESTING
Lab Sample ID No: 77056-5
Sample Matrix: water
Data Release Authorized By: jl

Case No: 2459 94MC04R05
QC Report No: 56
Contract No.: 68-01-6726
Date Sample Received: 2/23/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/26/84
DATE ANALYZED: 2/26
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

PP #	CAS #		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100 U
(3V)	107-13-1	acrylonitrile	100 U
(4V)	71-43-2	benzene	5 U
(6V)	56-23-5	carbon tetrachloride	5 U
(7V)	108-90-7	chlorobenzene	5 U
(10V)	107-06-2	1,2-dichloroethane	1 U
(11V)	71-55-6	1,1,1-trichloroethane	5 U
(13V)	75-34-3	1,1-dichloroethane	5 U
(14V)	79-00-5	1,1,2-trichloroethane	5 U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	10 U
(16V)	75-00-3	chloroethane	10 U
(19V)	110-75-8	2-chloroethylvinyl ether	10 U
(23V)	67-66-3	chloroform	5 U
(29V)	75-35-4	1,1-dichloroethene	5 U
(30V)	156-60-5	trans-1,2-dichloroethene	5 U
(32V)	78-87-5	1,2-dichloropropane	10 U
(33V)	10061-02-6	trans-1,3-dichloropropene	5 U
	10061-01-05	cis-1,3-dichloropropene	5 U
(38V)	100-41-4	ethylbenzene	5 U
(44V)	75-09-2	methylene chloride ND B ~~5 U~~	
(45V)	74-87-3	chloromethane	10 U
(46V)	74-83-9	bromomethane	~~10 U~~
(47V)	75-25-2	bromoform	10 U
(48V)	75-27-4	bromodichloromethane	5 U
(49V)	75-69-4	fluorotrichloromethane	
(50V)	75-71-8	dichlorodifluoromethane	
(51V)	124-48-1	chlorodibromomethane	5 U
(85V)	127-18-4	tetrachloroethene	5 U
(86V)	108-88-3	toluene	5 K
(87V)	79-01-6	trichloroethene	5 U
(88V)	75-01-4	vinyl chloride	10 U
	67-64-1	acetone	5 U
	78-93-3	2-butanone	5 U
	75-15-0	carbondisulfide	1 U
	519-78-6	2-hexanone	5 U
	108-10-1	4-methyl-2-pentanone	5 U
	100-42-5	styrene	5 U
	108-05-4	vinyl acetate	5 U
	1330-20-7	total xylenes	5 U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 2/29 & 3/13
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

PP #	CAS #		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	.005 U
(90P)	60-57-1	dieldrin	.005 U
(91P)	57-74-9	chlordane	.005 U
(92P)	50-29-3	4,4'-DDT	.010 U
(93P)	72-55-9	4,4'-DDE	.005 U
(94P)	72-54-8	4,4'-DDD	.010 U
(95P)	115-29-7	α-endosulfan	.005 U
(96P)	115-29-7	β-endosulfan	.005 U
(97P)	1031-07-8	endosulfan sulfate	.010 U
(98P)	72-20-8	endrin	.005 U
(99P)	7421-93-4	endrin aldehyde	.010 U
(100P)	76-44-8	heptachlor	.005 U
(101P)	1024-57-3	heptachlor epoxide	.005 U
(102P)	319-84-6	α-BHC	.005 U
(103P)	319-85-7	β-BHC	.005 U
(104P)	319-86-8	δ-BHC	.005 U
(105P)	58-89-9	γ-BHC (lindane)	.005 U
(106P)	53469-21-9	PCB-1242	.050 U
(107P)	11097-69-1	PCB-1254	.100 U
(108P)	11104-28-2	PCB-1221	.100 U
(109P)	11141-16-5	PCB-1232	.100 U
~~(110P)~~	~~12672-29-6~~	~~PCB-1248~~	~~.100 U~~
(111P)	11096-82-5	PCB-1260	.200 U
(112P)	12674-11-2	PCB-1016	.050 U
(113P)	8001-35-2	toxaphene	.050 U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/16
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

PP #	CAS #		(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	.005 U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

Sample Number
E 7071

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: US TESTING
Case No: 2459
Lab Sample ID No: 77056-5
QC Report No: 56
Sample Matrix: water
Contract No.: 68-01-6726
Data Release Authorized By: jl
Date Sample Received: 2/23/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 2/27/84
DATE ANALYZED: 3/5/84
PERCENT MOISTURE: —
CONC./DILUTION FACTOR: —

PP #	CAS #		(ug/l) or ug/kg (circle one)
(21A)	88-06-2	2,4,6- trichlorophenol	10 U
(22A)	59-50-7	p-chloro-m-cresol	10 U
(24A)	95-57-8	2- chlorophenol	10 U
(31A)	120-83-2	2,4-dichlorophenol	10 U
(34A)	105-67-9	2,4-dimethylphenol	10 U
(57A)	88-75-5	2- nitrophenol	20 U
(58A)	100-02-7	4-nitrophenol	50 U
(59A)	51-28-5	2,4-dinitrophenol	50 U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20 U
(64A)	87-86-5	pentachlorophenol	10 U
(65A)	108-95-2	phenol	10 U
	65-85-0	benzoic acid	100 U
	95-48-7	2-methylphenol	5 U
	108-39-4	4-methylphenol	5 U
	95-95-4	2,4,5-trichlorophenol	100 U
(1B)	83-32-9	acenaphthene	10 U
(5B)	92-87-5	benzidine	40 U
(8B)	120-82-1	1,2,4-trichlorobenzene	10 U
(9B)	118-74-1	hexachlorobenzene	10 U
(12B)	67-72-1	hexachloroethane	10 U
(18B)	111-44-4	bis(2-chloroethyl)ether	10 U
(20B)	91-58-7	2-chloronaphthalene	10 U
(25B)	95-50-1	1,2-dichlorobenzene	10 U
(26B)	541-73-1	1,3-dichlorobenzene	10 U
(27B)	106-46-7	1,4-dichlorobenzene	10 U
(28B)	91-94-1	3,3'-dichlorobenzidine	20 U
(35B)	121-14-2	2,4-dinitrotoluene	20 U
(36B)	606-20-2	2,6-dinitrotoluene	20 U
(37B)	122-66-7	1,2-diphenylhydrazine	20 U
(39B)	206-44-0	fluoranthene	10 U
(40B)	7005-72-3	4-chlorophenyl phenyl ether	10 U
(41B)	101-55-3	4-bromophenyl phenyl ether	10 U
(42B)	39638-32-9	bis (2-chloroisopropyl) ether	20 U
(43B)	111-91-1	bis (2-chloroethoxy) methane	20 U

PP #	CAS #		(ug/l) or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10 U
(53B)	77-47-4	hexachlorocyclopentadiene	10 U
(54B)	78-59-1	isophorone	10 U
(55B)	91-20-3	naphthalene	10 U
(56B)	98-95-3	nitrobenzene	10 U
(61B)	62-75-9	N-nitrosodimethylamine	10 U
(62B)	86-30-6	N-nitrosodiphenylamine	10 U
(63B)	621-64-7	N-nitrosodipropylamine	10 U
(66B)	117-81-7	bis (2-ethylhexyl) phthalate	10 U
(67B)	85-68-7	benzyl butyl phthalate	10 U
(68B)	84-74-2	di-n-butyl phthalate	10 U
(69B)	117-84-0	di-n-octyl phthalate	10 U
(70B)	84-66-2	diethyl phthalate	10 U
(71B)	131-11-3	dimethyl phthalate	10 U
(72B)	56-55-3	benzo(a)anthracene	10 U
(73B)	50-32-8	benzo(a)pyrene	20 U
(74B)	205-99-2	benzo(b)fluoranthene	20 U
(75B)	207-08-9	benzo(k)fluoranthene	20 U
(76B)	218-01-9	chrysene	20 U
(77B)	208-96-8	acenaphthylene	10 U
(78B)	120-12-7	anthracene	10 U
(79B)	191-24-2	benzo(ghi)perylene	20 U
(80B)	86-73-7	fluorene	10 U
(81B)	85-01-8	phenanthrene	10 U
(82B)	53-70-3	dibenzo(a,h)anthracene	20 U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20 U
(84B)	129-00-0	pyrene	10 U
	62-53-3	aniline	5 U
	100-51-6	benzyl alcohol	20 U
	106-47-8	4-chloroaniline	50 U
	132-64-9	dibenzofuran	10 U
	91-57-6	2-methylnaphthalene	20 U
	88-74-4	2-nitroaniline	100 U
	99-09-2	3-nitroaniline	100 U
	100-01-6	4-nitroaniline	100 U

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
E7071

Laboratory Name: U S TESTING Case No: 2459
QC Report No: 56

B. Tentatively Identified Compounds

CAS #	Compound Name	Fraction	Scan No. or Retention Time	% Maximum Score Attained Mass Matching Routine: (Specify: FIT)	Estimated Concentration (ug/L or ug/kg)
1.					
2.	2 Hydroxy-4-Methyl 2 Pentanone	ABN	409	953	20
3.					
4.	Unknown	ABN	243	—	40
5.					
6.					
7.					
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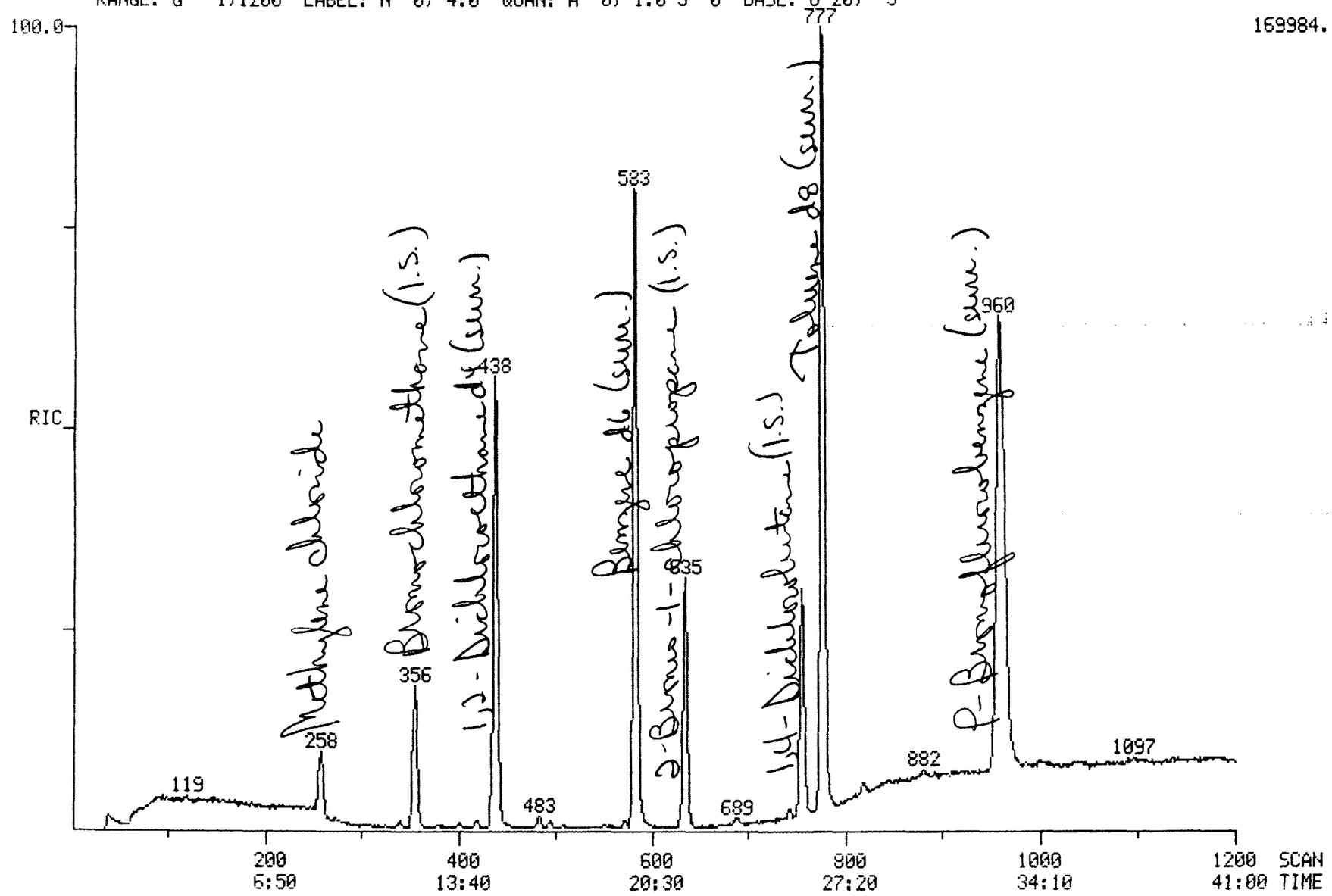
4/82

RIC
02/26/84 15:47:00
SAMPLE: 77056-5
CONDS.:
RANGE: G 1,1200 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: EPAVOA875 #1
CALI: EPAVOA875 #1

SCANS 1 TO 1200



QUANTITATION REPORT FILE: EPAVOA875

DATA: EPAVOA875.TI
02/26/84 15:47:00
SAMPLE: 77056-5
SUBMITTED BY: EPA ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

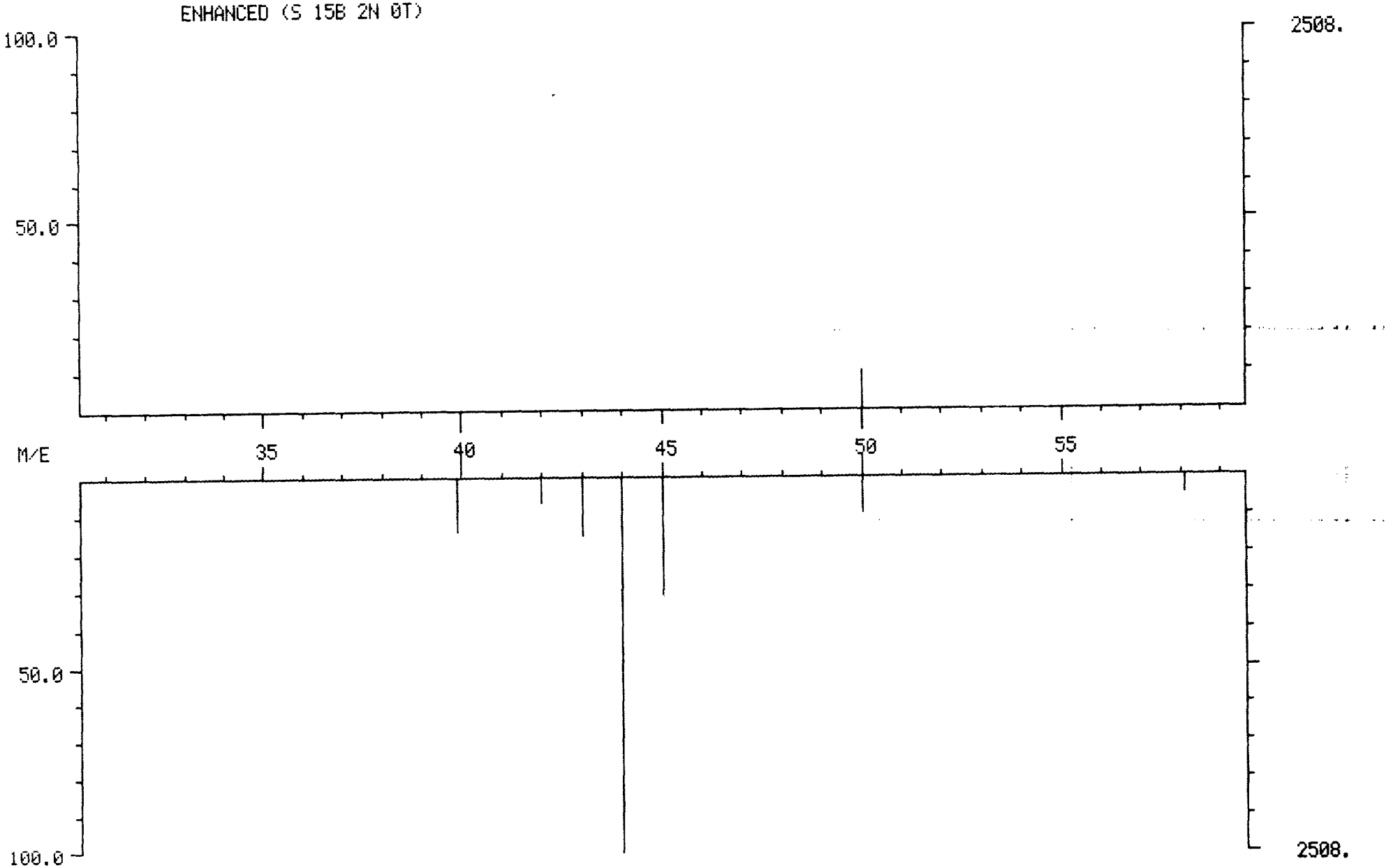
NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1,1,2,2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	355	12:08	1	1.000	A BB	29459.	50.000 UG/L	8.73
2	77	635	21:42	2	1.000	A BB	96539.	50.000 UG/L	8.73
3	55	756	25:50	3	1.000	A BB	98587.	50.000 UG/L	8.73
~~4~~	~~50~~	~~71~~	~~2:26~~	~~1~~	~~0.200~~	~~A BB~~	~~811.~~	~~0.917 UG/L~~	~~0.16~~
~~5~~	~~94~~	~~119~~	~~4:04~~	~~1~~	~~0.335~~	~~A BB~~	~~1281.~~	~~0.903 UG/L~~	~~0.16~~
~~6~~	~~62~~	~~148~~	~~5:03~~	~~1~~	~~0.417~~	~~A BB~~	~~1167.~~	~~0.973 UG/L~~	~~0.17~~
~~7~~	~~64~~	~~187~~	~~6:23~~	~~1~~	~~0.527~~	~~A BB~~	~~544.~~	~~0.735 UG/L~~	~~0.13~~
8	84	258	8:49	1	0.727	A BB	15842.	8.142 UG/L	1.42
9	NOT FOUND								
10	NOT FOUND								
~~11~~	~~61~~	~~340~~	~~11:37~~	~~1~~	~~0.958~~	~~A BB~~	~~2303.~~	~~1.032 UG/L~~	~~0.18~~
~~12~~	~~63~~	~~381~~	~~13:01~~	~~1~~	~~1.073~~	~~A BB~~	~~2190.~~	~~0.840 UG/L~~	~~0.15~~
~~13~~	~~96~~	~~400~~	~~13:40~~	~~1~~	~~1.127~~	~~A BB~~	~~1063.~~	~~0.890 UG/L~~	~~0.16~~
~~14~~	~~83~~	~~419~~	~~14:19~~	~~1~~	~~1.180~~	~~A BB~~	~~4012.~~	~~1.189 UG/L~~	~~0.21~~
~~15~~	~~82~~	~~441~~	~~15:04~~	~~1~~	~~1.242~~	~~A BB~~	~~6230.~~	~~2.550 UG/L~~	~~0.45~~
~~16~~	~~97~~	~~483~~	~~16:30~~	~~1~~	~~1.361~~	~~A BB~~	~~2905.~~	~~1.018 UG/L~~	~~0.18~~
~~17~~	~~58~~	~~275~~	~~9:24~~	~~1~~	~~0.775~~	~~A BB~~	~~355.~~	~~4.491 UG/L~~	~~0.78~~
~~18~~	~~76~~	~~306~~	~~10:27~~	~~1~~	~~0.862~~	~~A BB~~	~~1751.~~	~~0.647 UG/L~~	~~0.11~~
19	NOT FOUND								
~~20~~	~~83~~	~~508~~	~~17:21~~	~~2~~	~~0.800~~	~~A BB~~	~~866.~~	~~0.355 UG/L~~	~~0.06~~
~~21~~	~~63~~	~~550~~	~~18:47~~	~~2~~	~~0.866~~	~~A BB~~	~~792.~~	~~0.592 UG/L~~	~~0.10~~
~~22~~	~~75~~	~~557~~	~~19:02~~	~~2~~	~~0.877~~	~~A BB~~	~~630.~~	~~0.357 UG/L~~	~~0.06~~
23	95	573	19:35	2	0.902	A BB	1926.	0.925 UG/L	0.16
~~24~~	~~78~~	~~587~~	~~20:03~~	~~2~~	~~0.924~~	~~A BB~~	~~7518.~~	~~2.221 UG/L~~	~~0.39~~
25	NOT FOUND								
26	NOT FOUND								
~~27~~	~~75~~	~~596~~	~~20:22~~	~~2~~	~~0.939~~	~~A BB~~	~~263.~~	~~0.143 UG/L~~	~~0.03~~
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
~~32~~	~~43~~	~~689~~	~~23:32~~	~~2~~	~~1.085~~	~~A BB~~	~~3457.~~	~~4.453 UG/L~~	~~0.78~~
33	65	438	14:58	2	0.690	A BB	211534.	109.014 UG/L	19.03

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
34	84	583	19:55	2	0.918	A BB	347623.	96.391 UG/L	16.83
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
~~38~~	~~166~~	~~743~~	~~25:23~~	~~3~~	~~0.983~~	~~A BB~~	~~1493.~~	~~0.911 UG/L~~	~~0.16~~
39	NOT FOUND								
40	91	783	26:45	3	1.036	A BB	7470.	1.744 UG/L	0.30 ✓
~~41~~	~~112~~	~~819~~	~~27:59~~	~~3~~	~~1.083~~	~~A BB~~	~~2823.~~	~~0.891 UG/L~~	~~0.16~~
~~42~~	~~91~~	~~882~~	~~30:08~~	~~3~~	~~1.167~~	~~A BB~~	~~6905.~~	~~1.342 UG/L~~	~~0.23~~
43	NOT FOUND								
~~44~~	~~104~~	~~1005~~	~~34:20~~	~~3~~	~~1.329~~	~~A*BB~~	~~2883.~~	~~1.116 UG/L~~	~~0.19~~
~~45~~	~~106~~	~~1042~~	~~35:36~~	~~3~~	~~1.378~~	~~A BB~~	~~251.~~	~~0.154 UG/L~~	~~0.03~~
46	98	777	26:33	3	1.028	A BB	339088.	86.329 UG/L	15.07
47	NOT FOUND								
48	NOT FOUND								
49	NOT FOUND								
50	95	960	32:48	3	1.270	A BB	219504.	91.632 UG/L	16.00

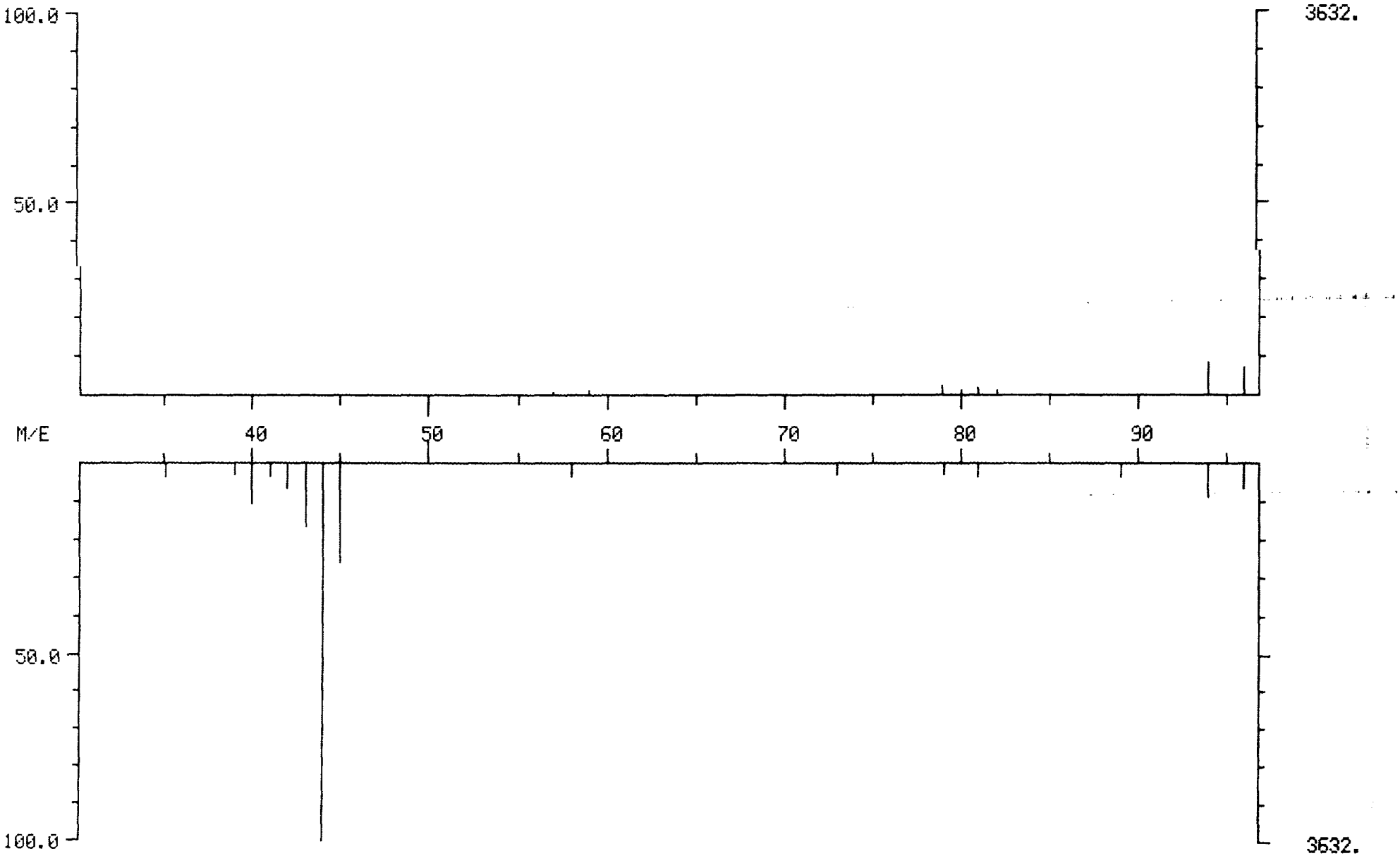
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 2:26
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #71 BASE M/E: 50/ 44
CALI: EPAVOA875 #1 RIC: 260./ 4551.



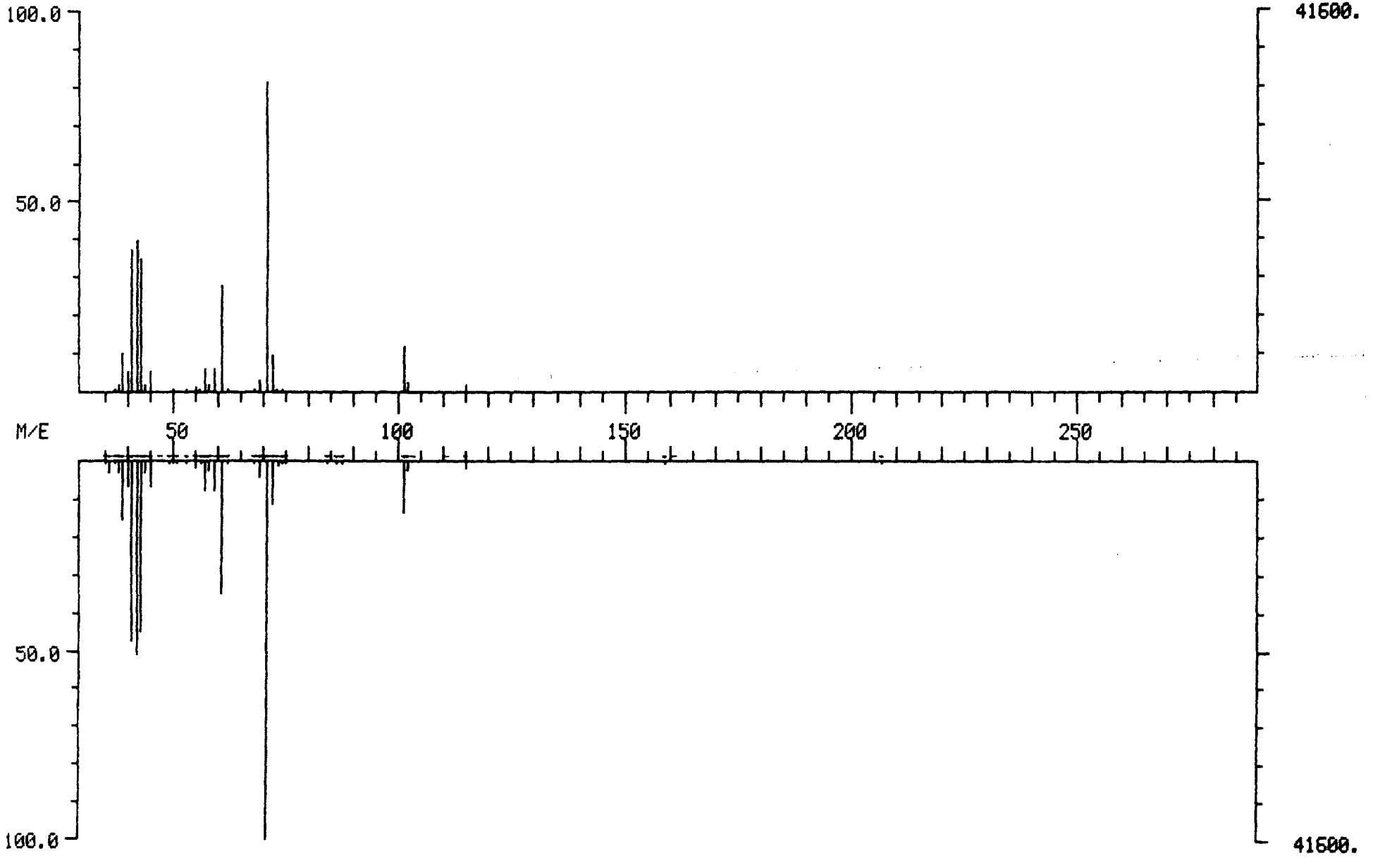
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 4:04
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #119 BASE M/E: 94/ 44
CALI: EPAVOA875 #1 RIC: 850./ 7327.



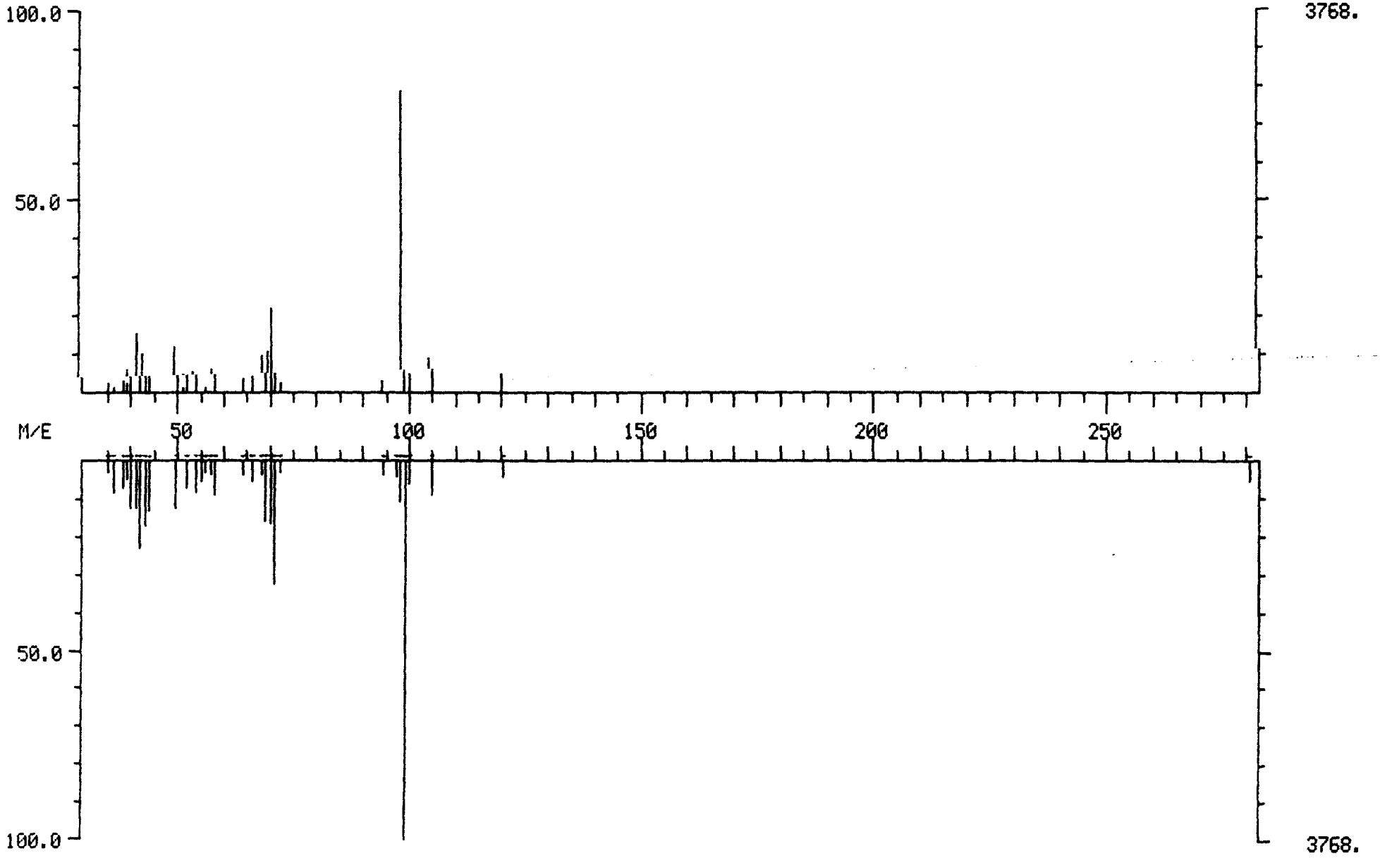
DUAL MASS SPECTRUM
03/05/84 20:38:00 + 3:51
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN703 #243 BASE M/E: 71/ 71
CALI: EPABN703 #1 RIC: 122111./ 157695.



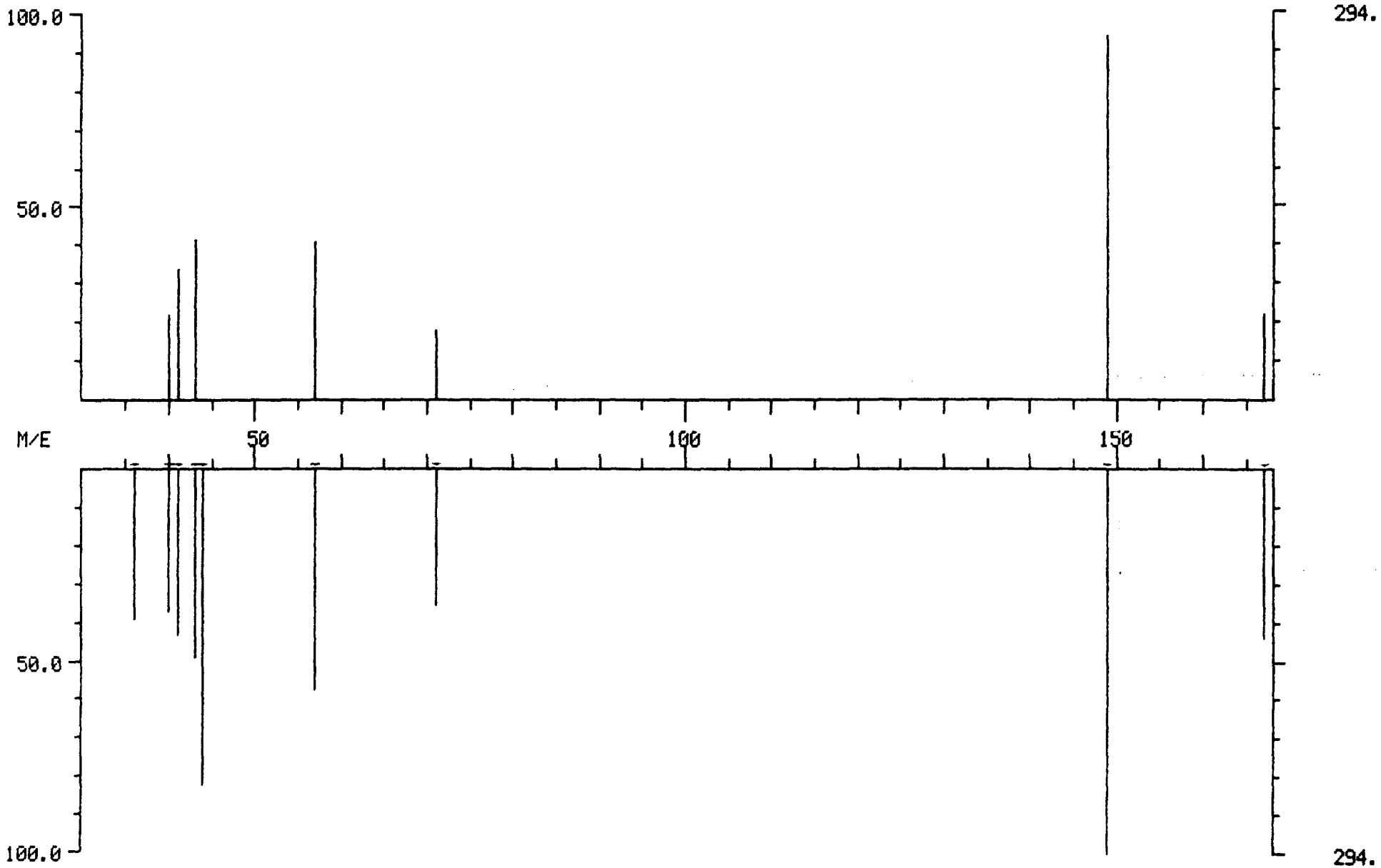
DUAL MASS SPECTRUM
03/05/84 20:38:00 + 10:34
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPABN703 #667 BASE M/E: 99/ 99
CALI: EPABN703 #1 RIC: 8511./ 14095.



DUAL MASS SPECTRUM
03/05/84 20:38:00 + 32:31
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

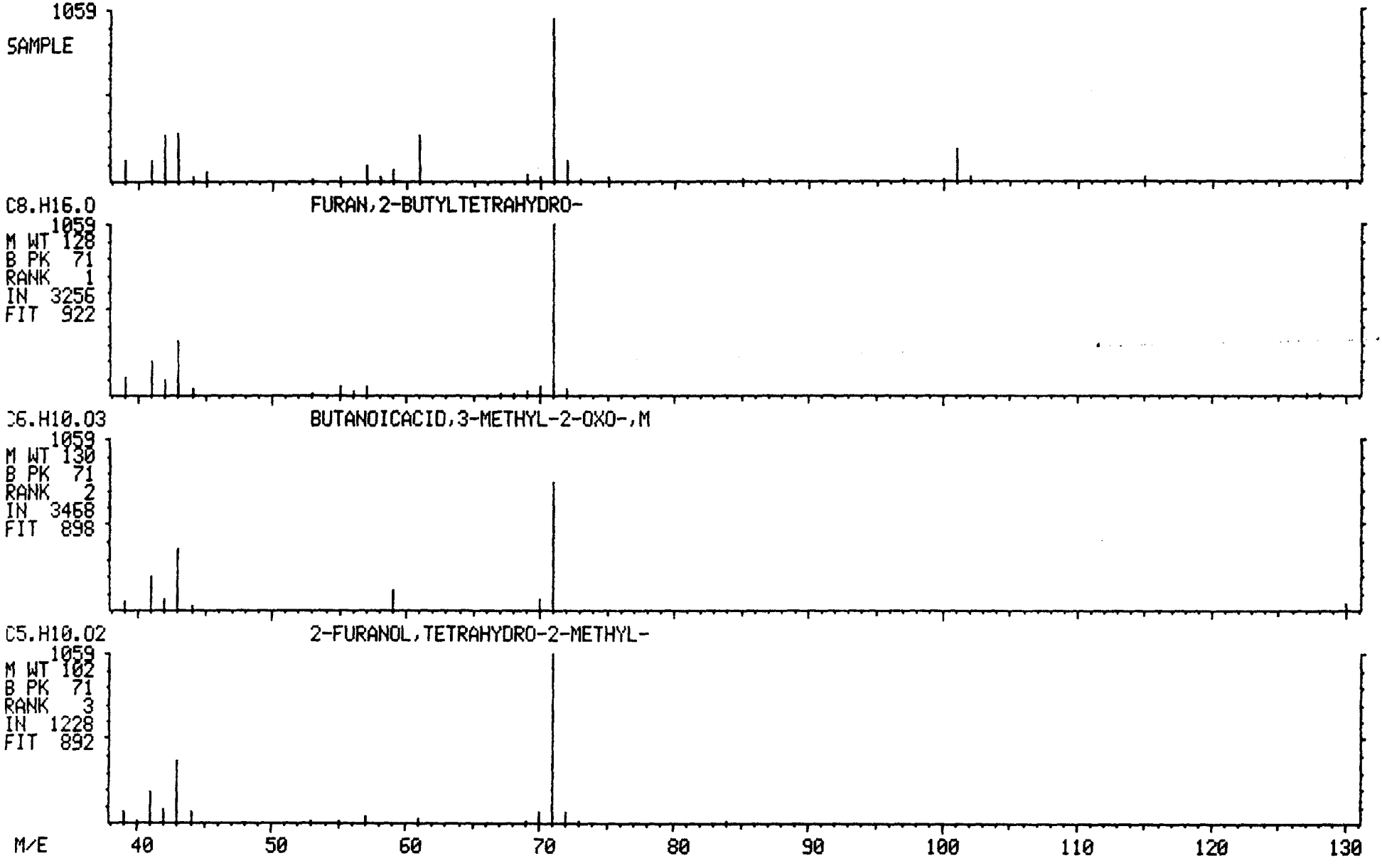
DATA: EPABN703 #2054 BASE M/E: 149/ 149
CALI: EPABN703 #1 RIC: 797./ 1431.



LIBRARY SEARCH
03/05/84 21:14:00 + 3:51
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

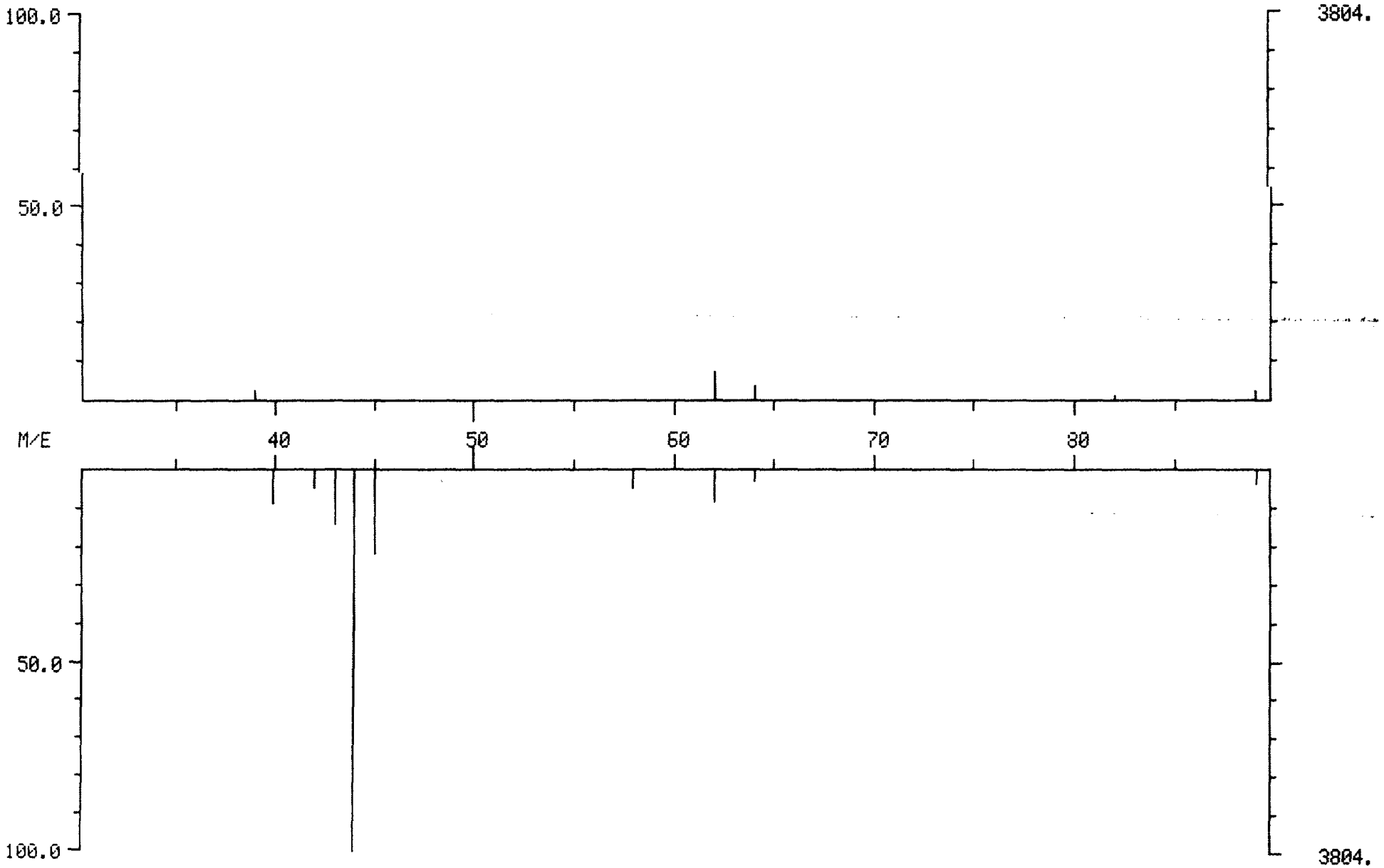
DATA: EPABN703 # 243
CALI: EPABN703 # 1

BASE M/E: 71
RIC: 56703.



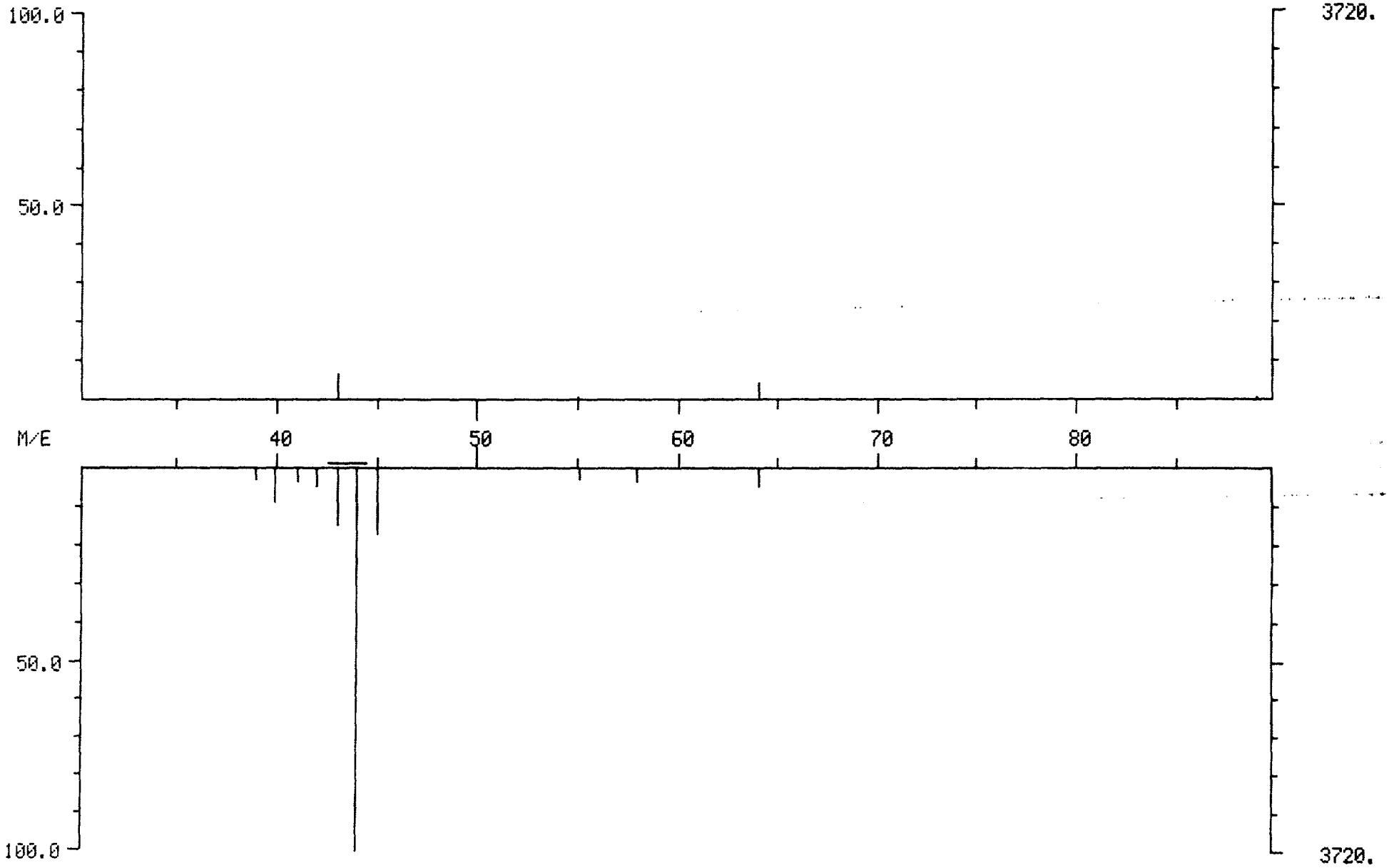
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 5:03
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #148 BASE M/E: 62/ 44
CALI: EPAVOA875 #1 RIC: 607./ 6447.



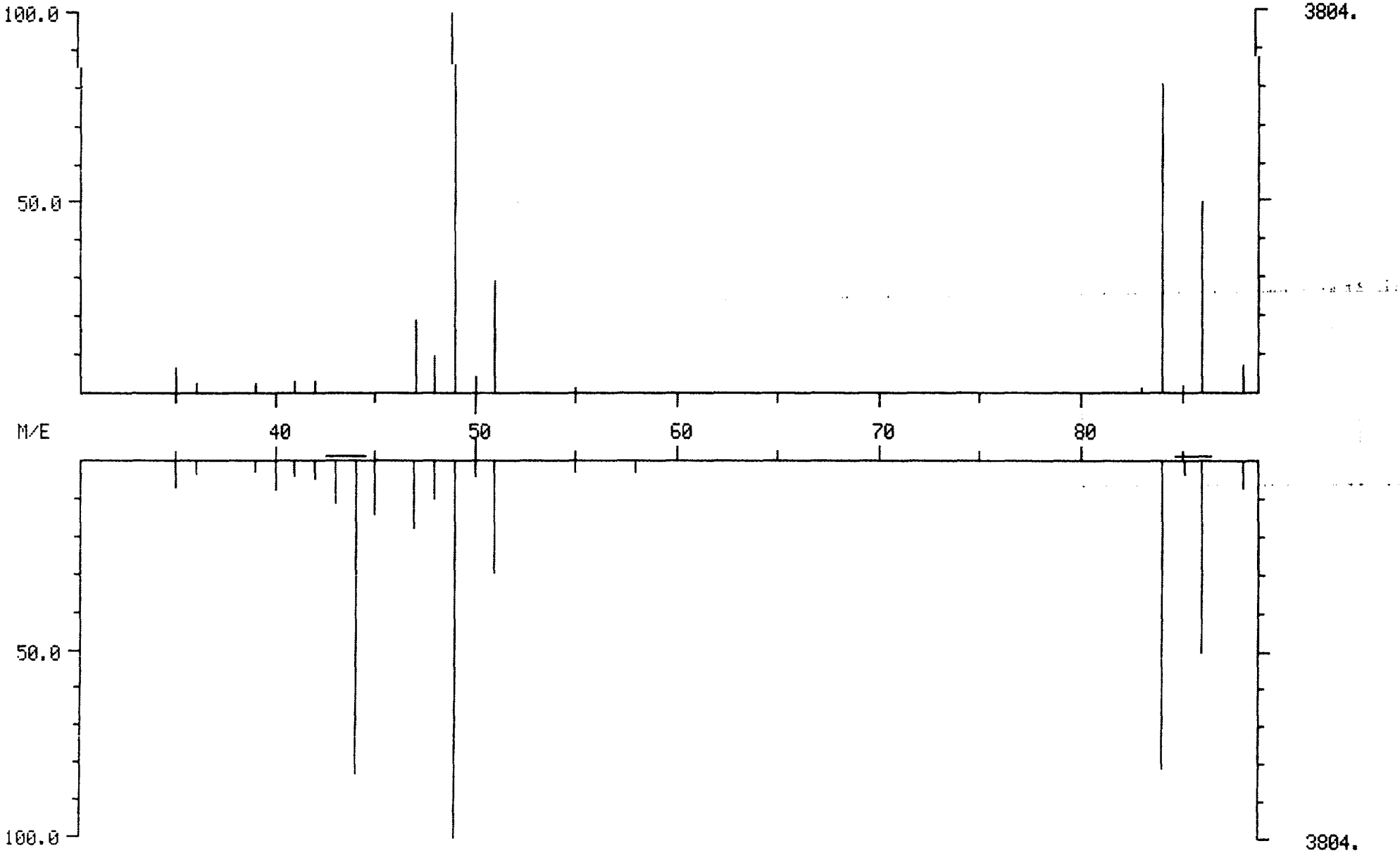
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 6:23
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #187 BASE M/E: 43/ 44
CALI: EPAVOA875 #1 RIC: 445./ 6063.



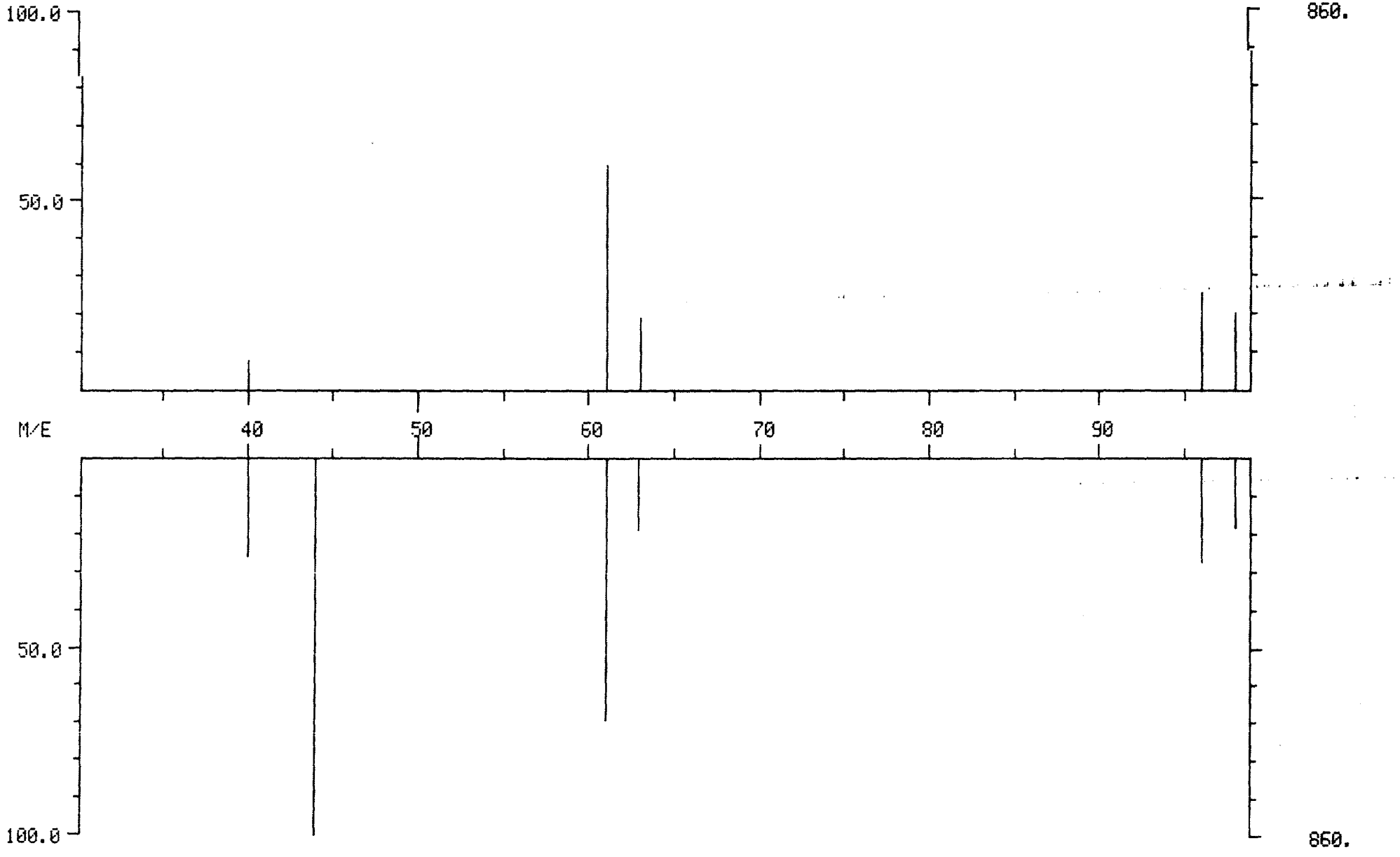
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 8:49
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #258 BASE M/E: 49/ 49
CALI: EPAVOA875 #1 RIC: 12223./ 16991.



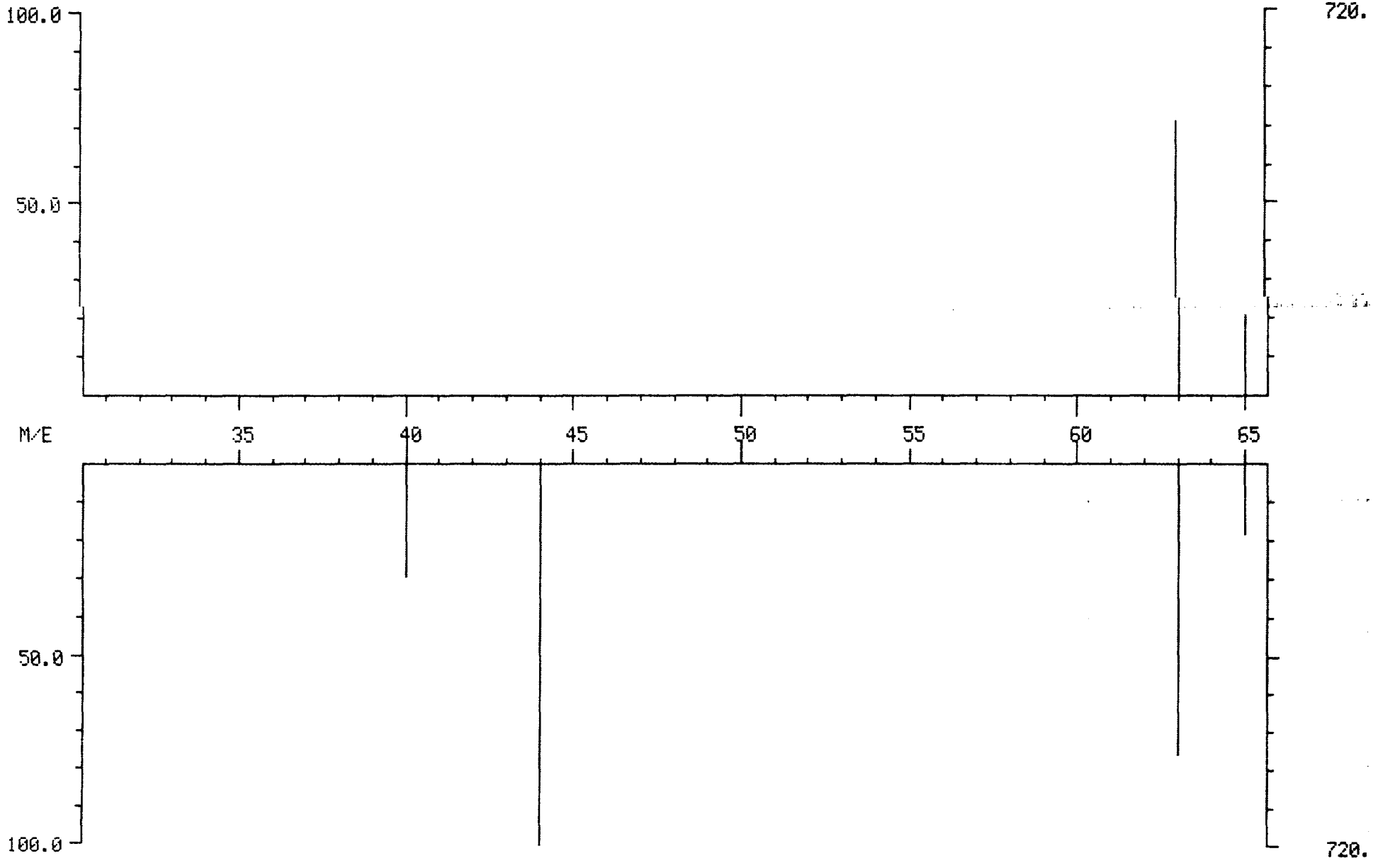
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 11:37
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #340 BASE M/E: 61/ 44
CALI: EPAVOA875 #1 RIC: 1127./ 2231.



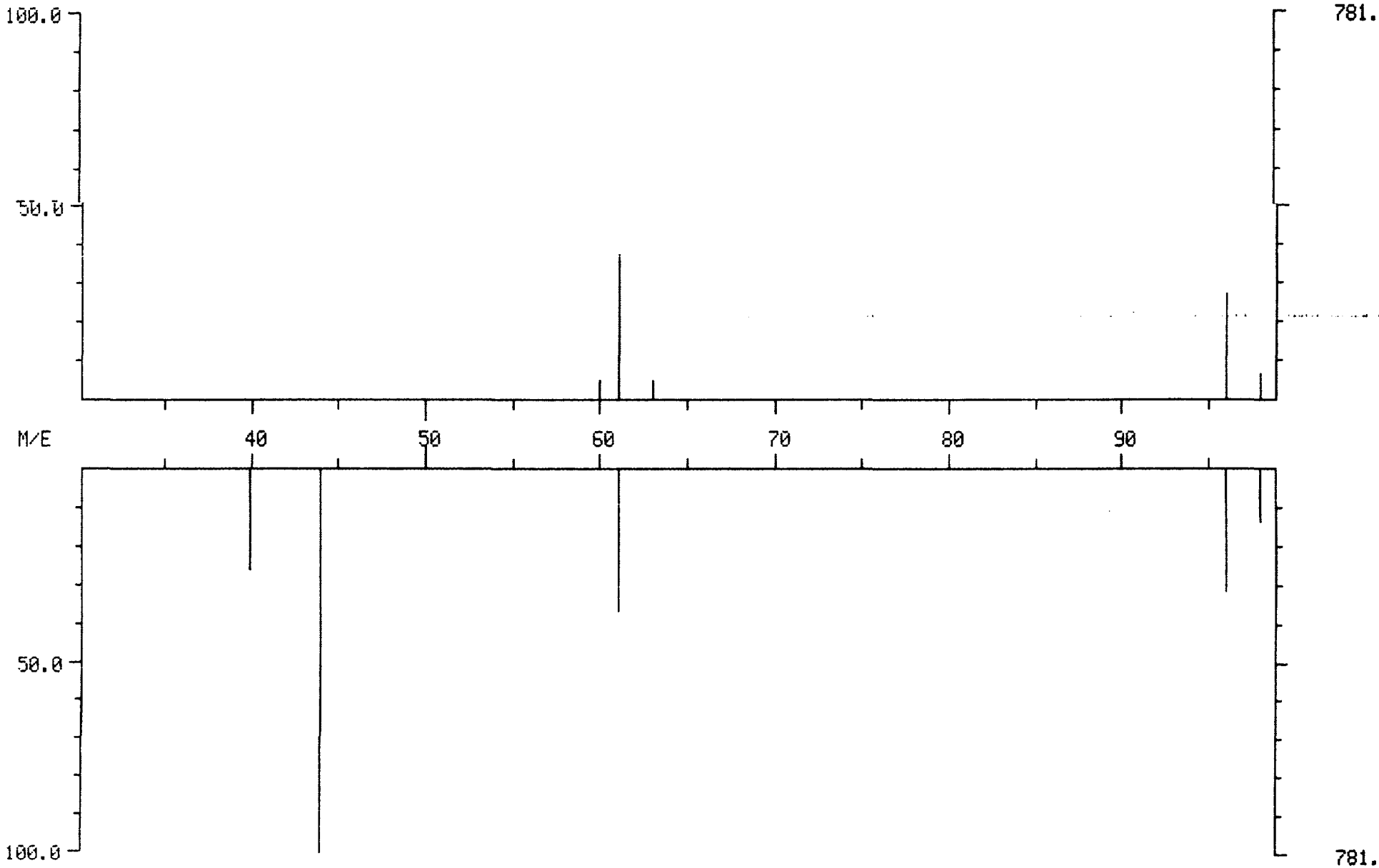
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 13:01
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #381 BASE M/E: 63/ 44
CALI: EPAVOA875 #1 RIC: 660./ 1611.



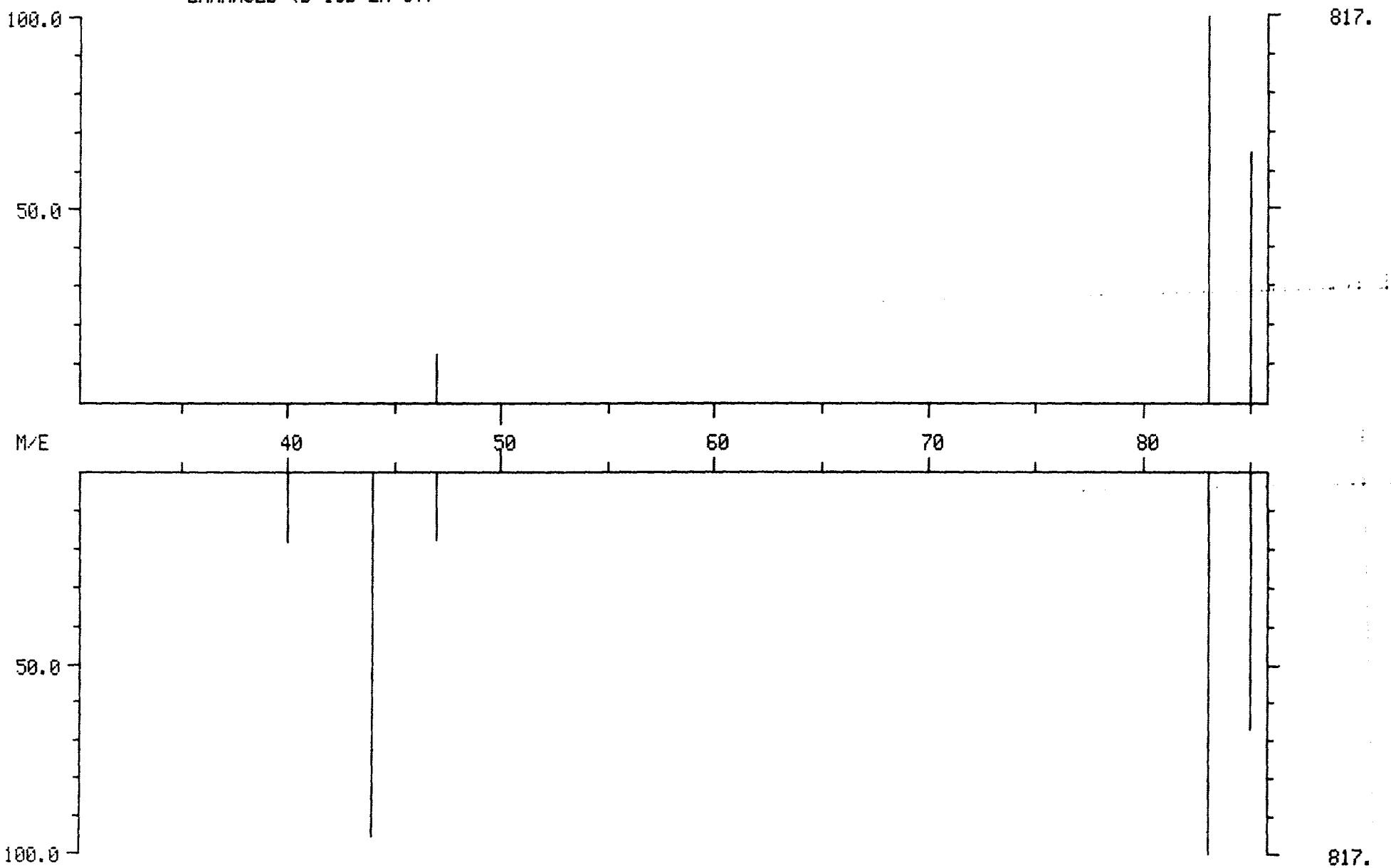
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 13:40
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #400 BASE M/E: 61/ 44
CALI: EPAVOA875 #1 RIC: 625./ 1621.



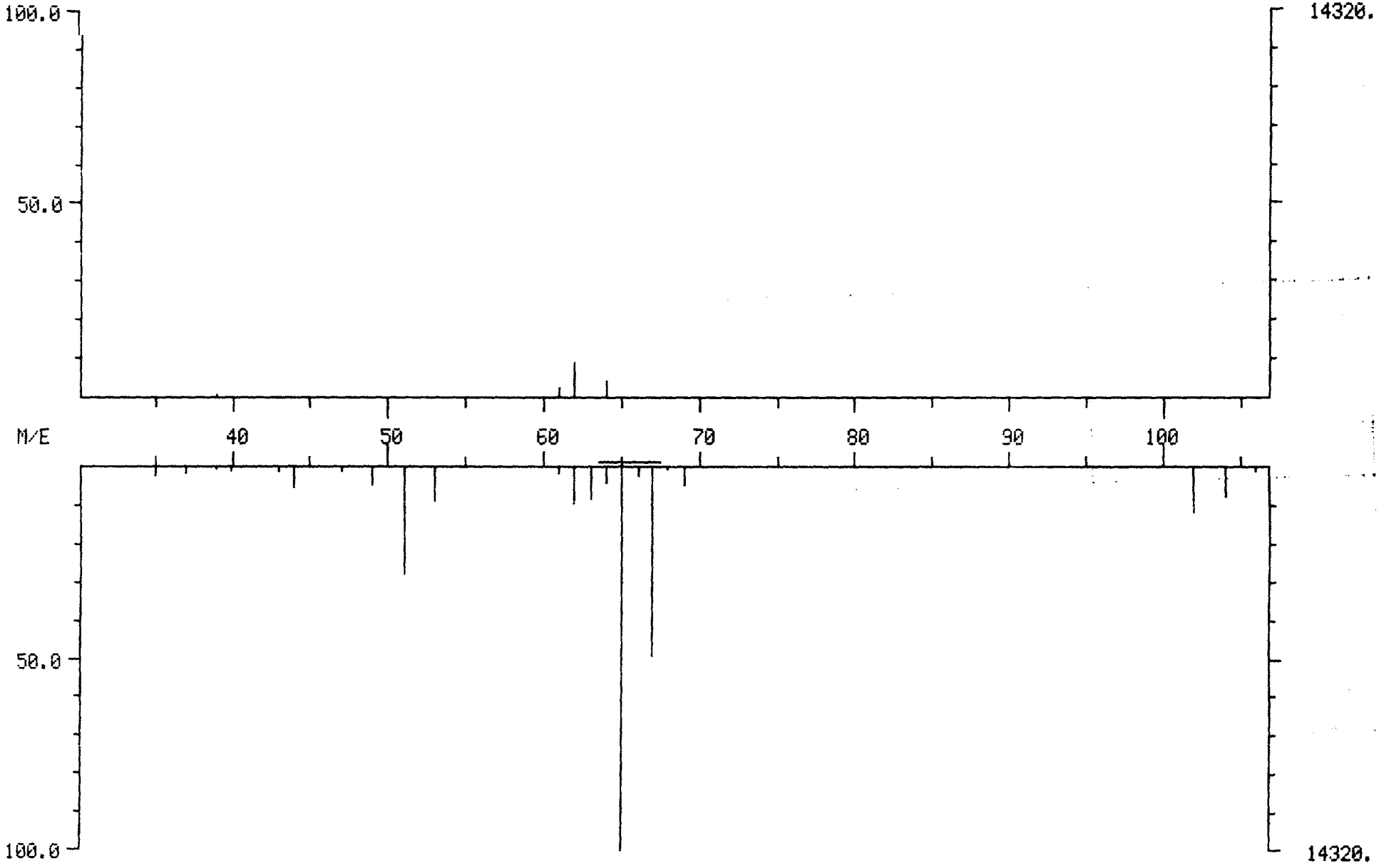
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 14:19
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #419 BASE M/E: 83/ 83
CALI: EPAVOA875 #1 RIC: 1441./ 2439.



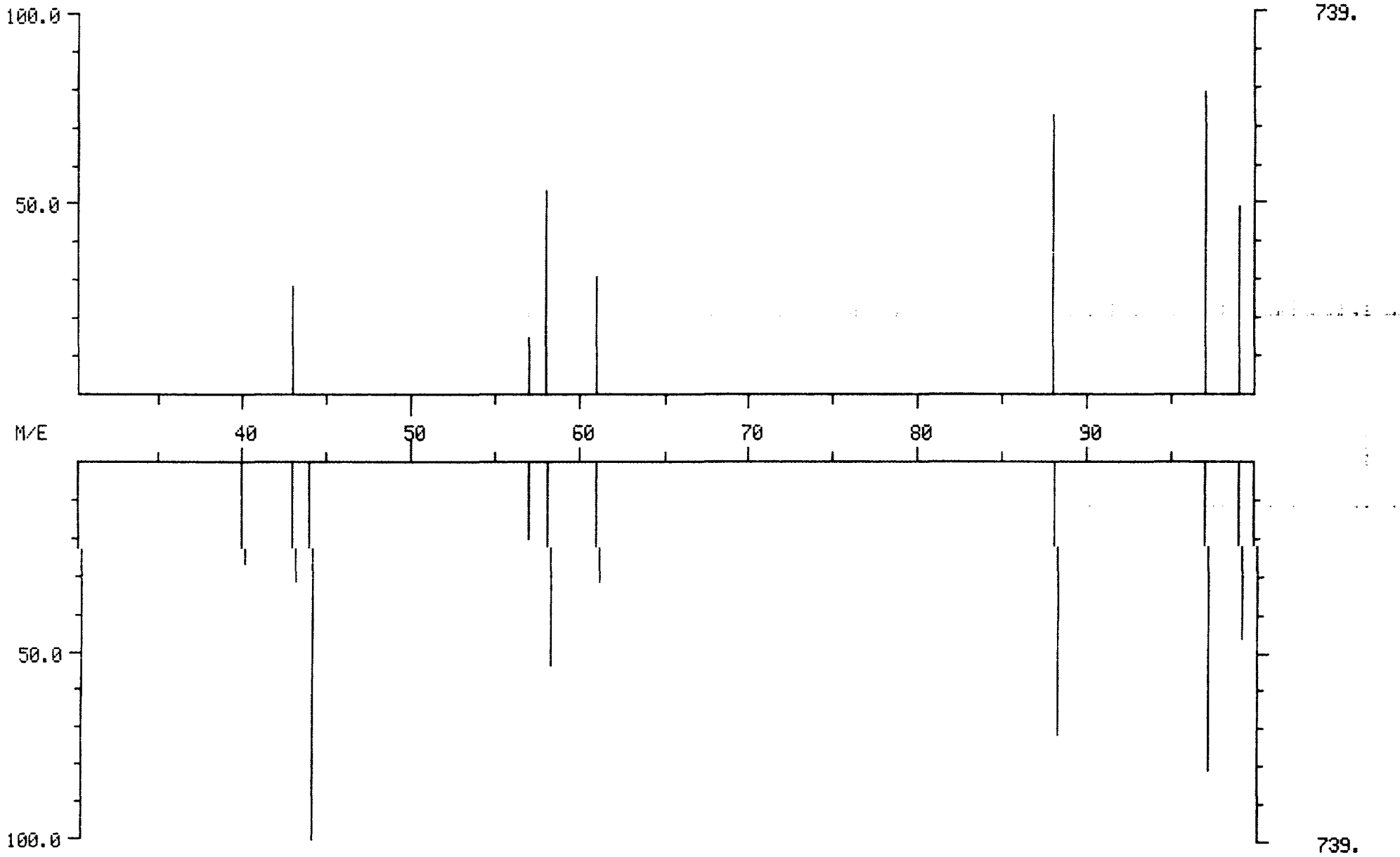
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 15:04
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #441 BASE M/E: 62/ 65
CALI: EPAVOA875 #1 RIC: 2267./ 36735.



DUAL MASS SPECTRUM
02/26/84 15:47:00 + 16:30
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

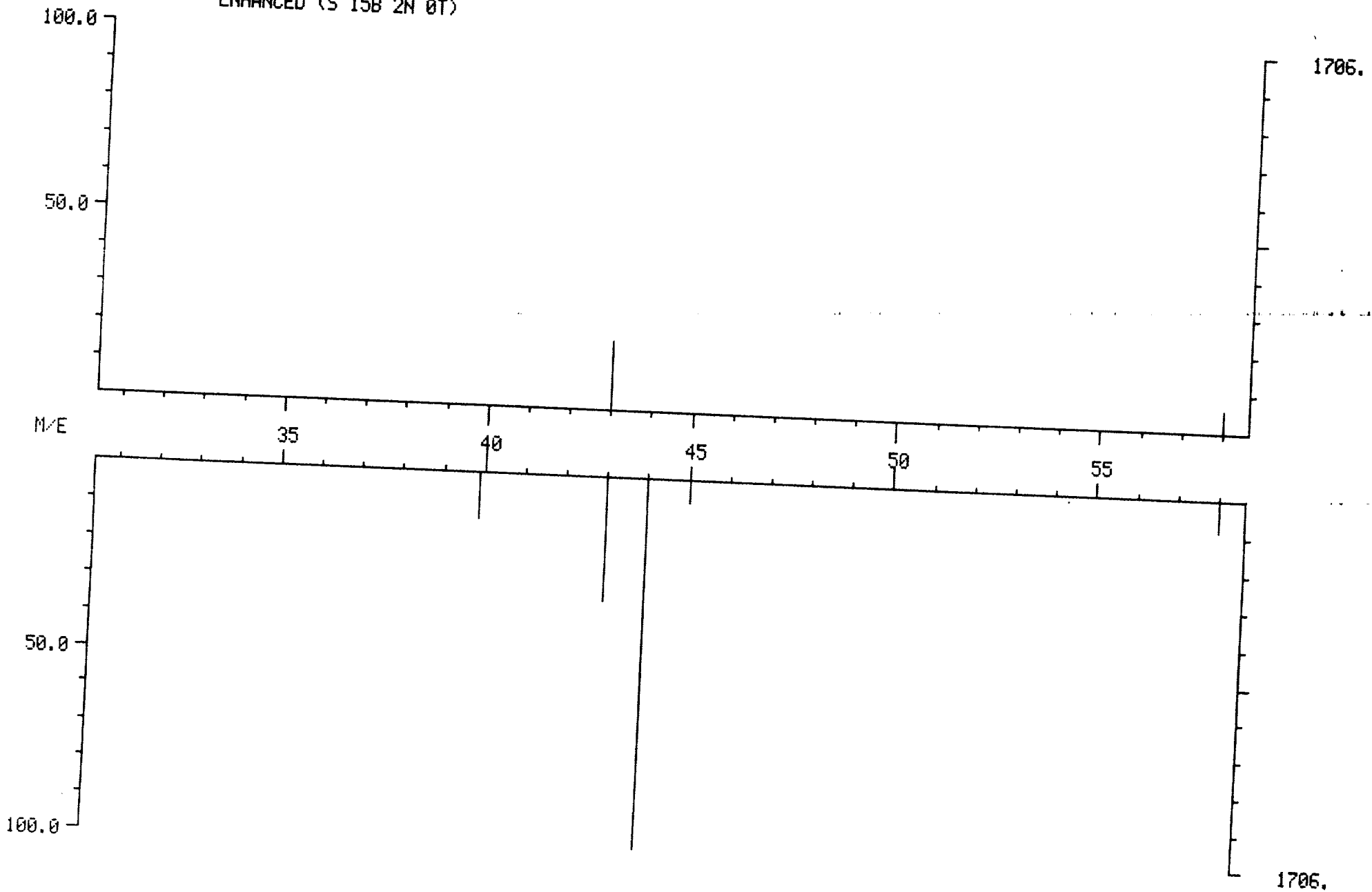
DATA: EPAVOA875 #483 BASE M/E: 97/ 44
CALI: EPAVOA875 #1 RIC: 2419./ 3415.



DUAL MASS SPECTRUM
02/26/84 15:47:00 + 9:24
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

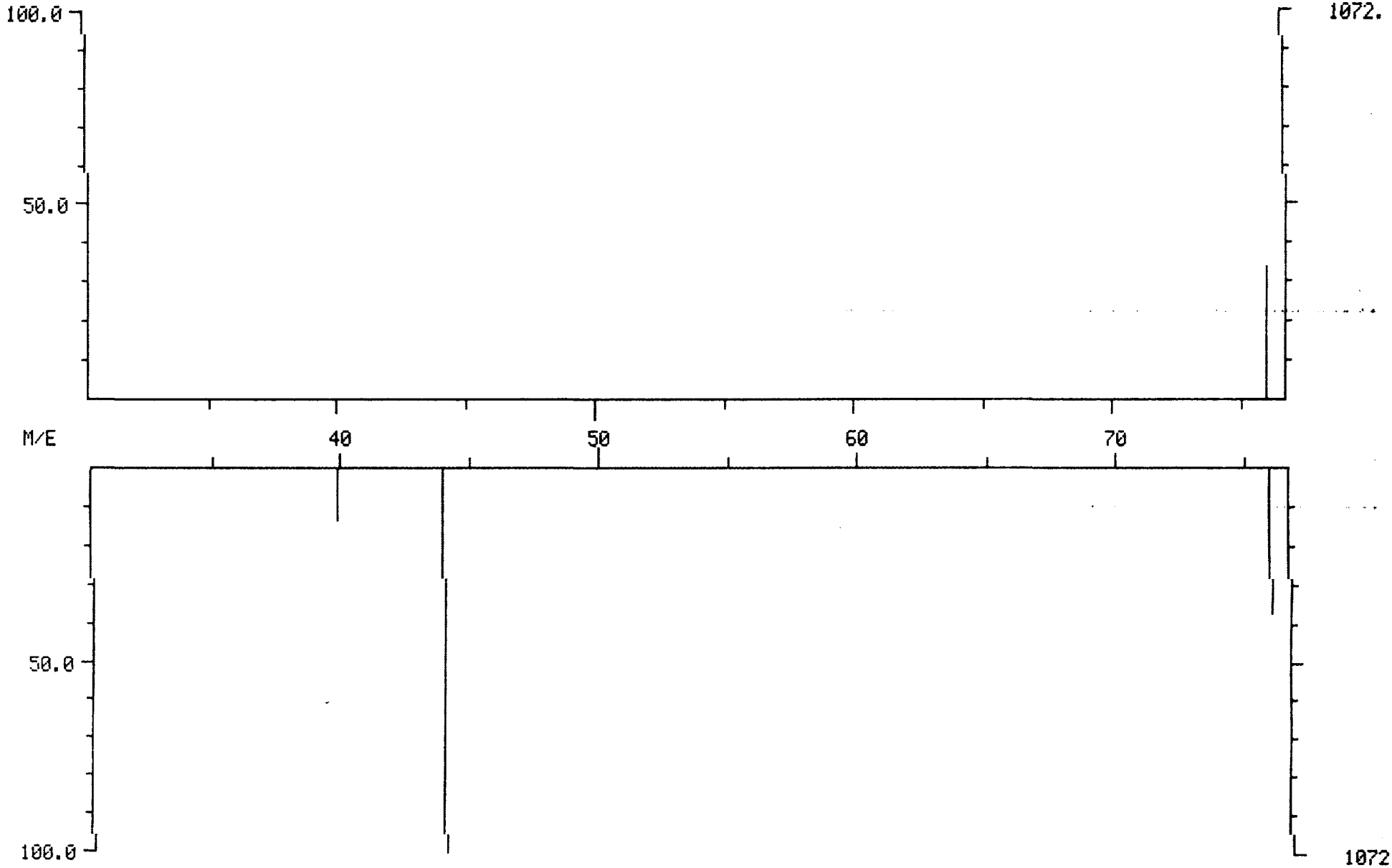
DATA: EPAVOA875 #275
CALI: EPAVOA875 #1

BASE M/E: 43/ 44
RIC: 410./ 2739.



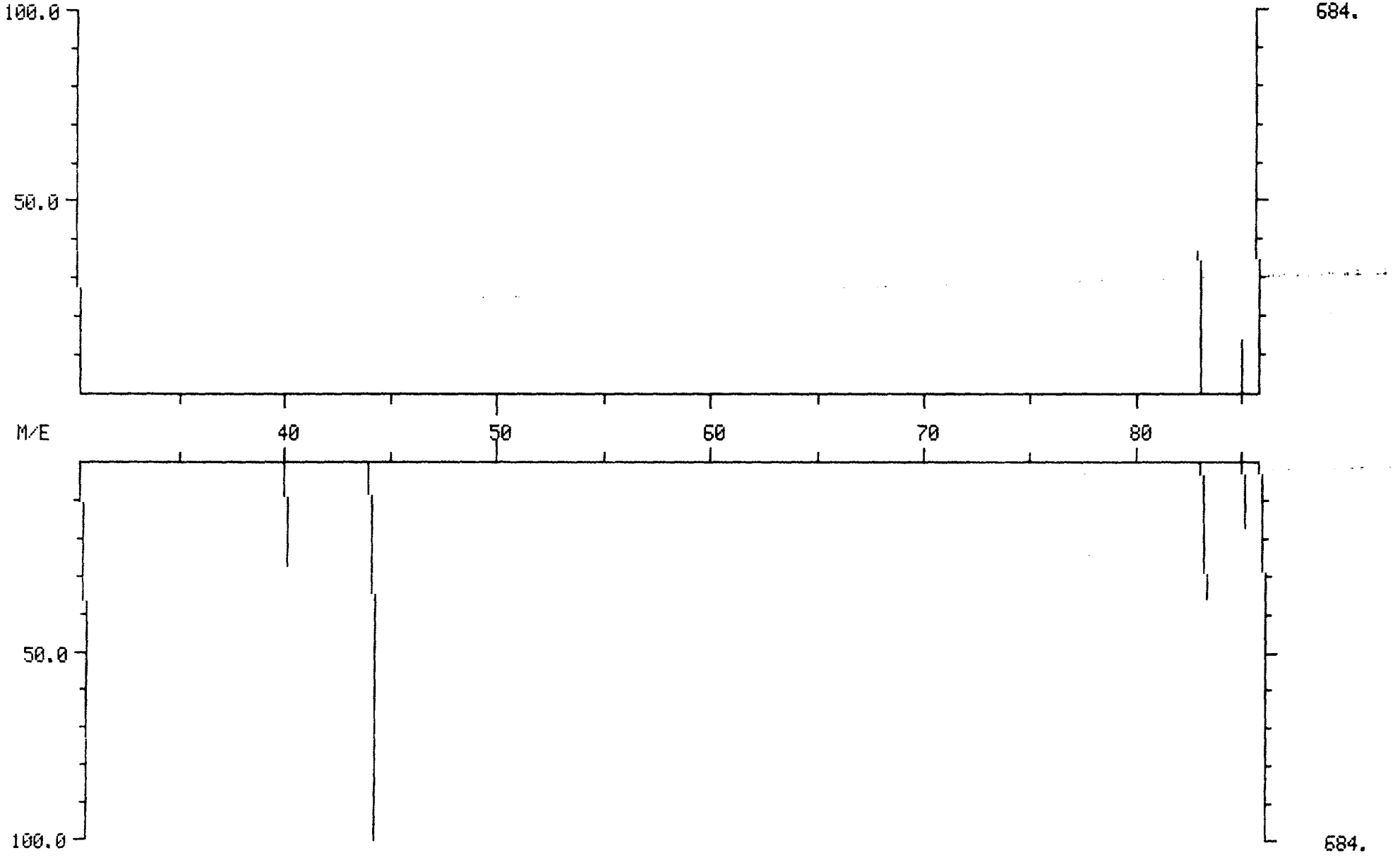
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 10:27
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #306 BASE M/E: 76/ 44
CALI: EPAVOA875 #1 RIC: 361./ 1621.



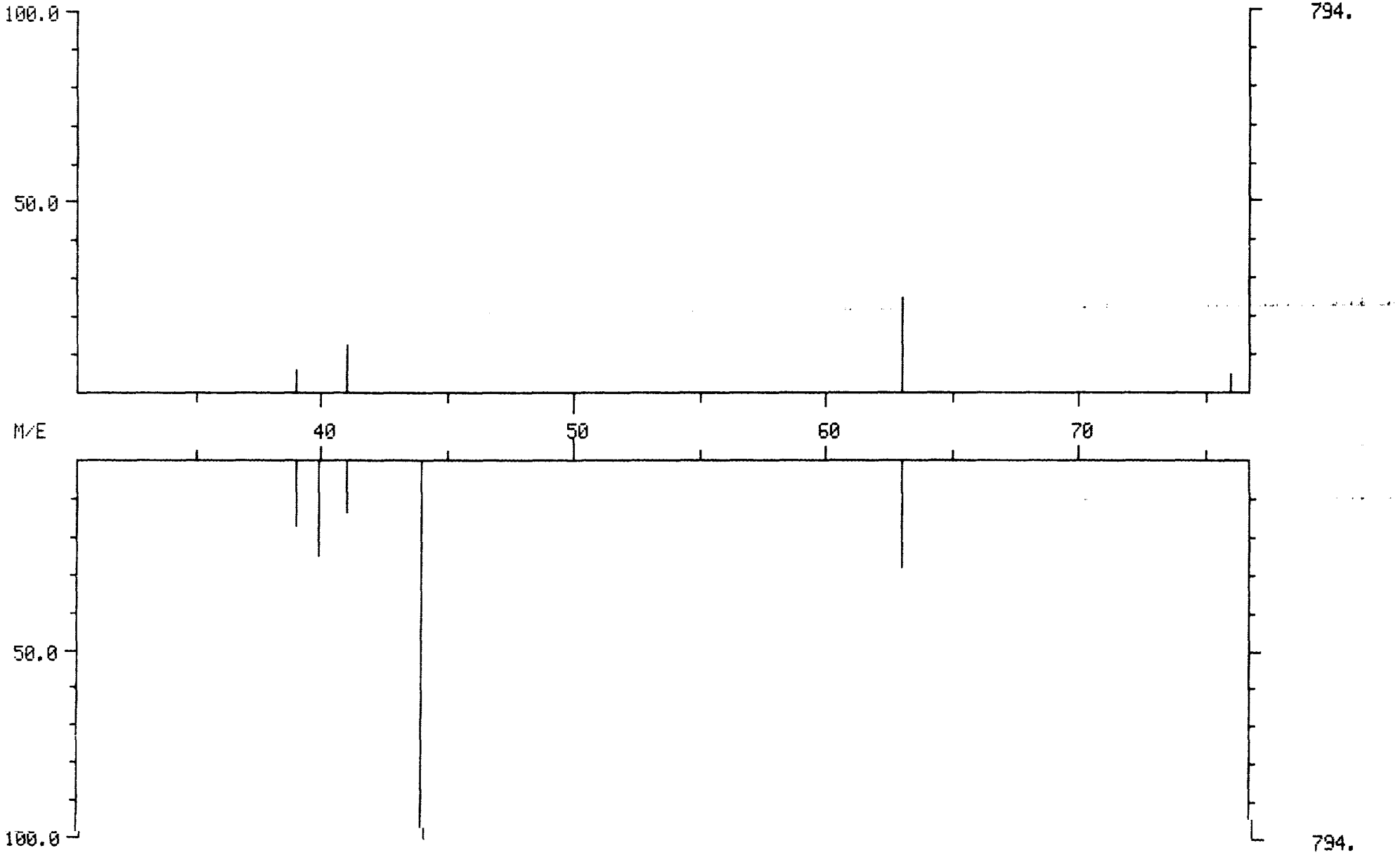
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 17:21
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #508 BASE M/E: 83/ 44
CALI: EPAVOA875 #1 RIC: 345./ 1231.



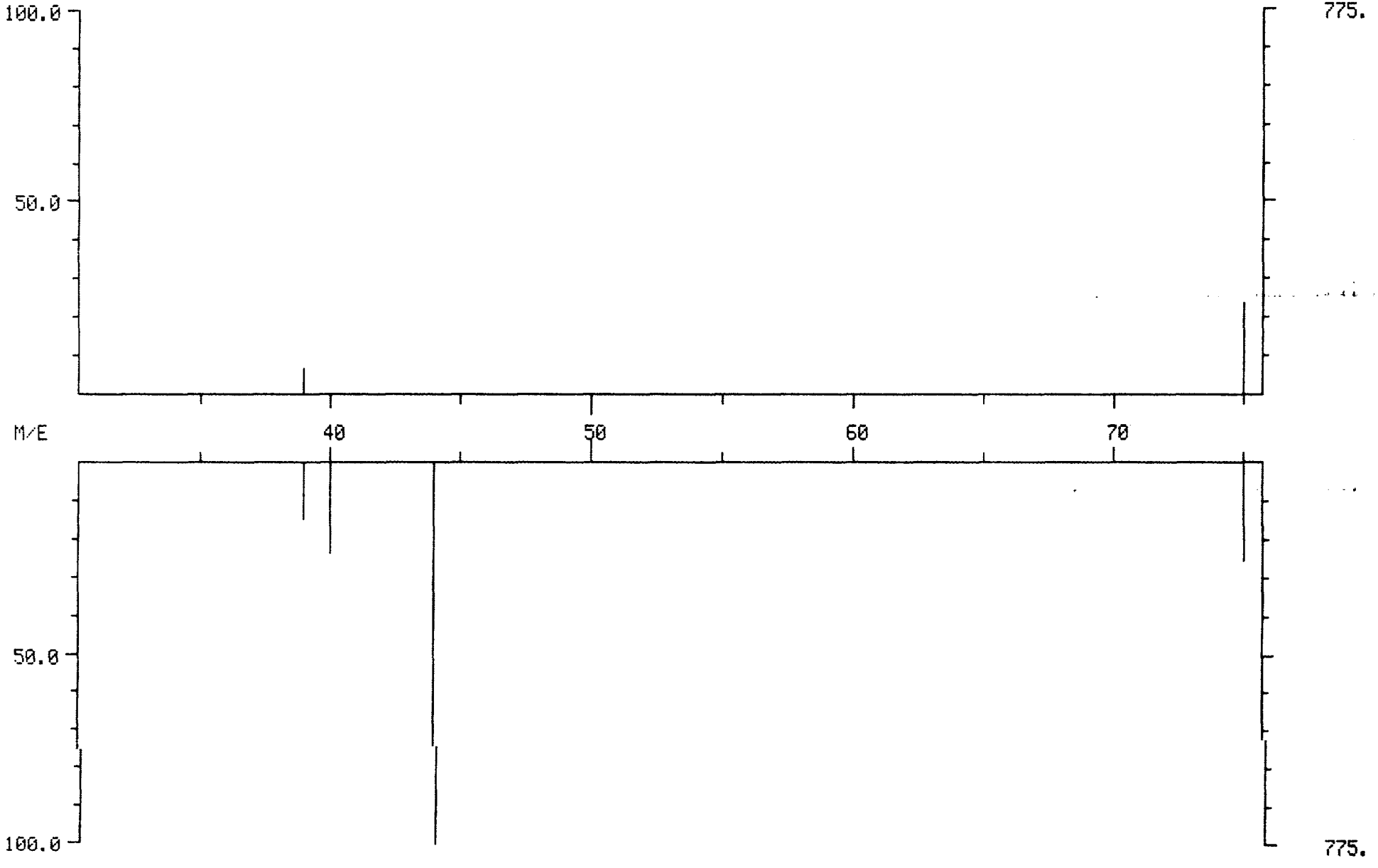
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 18:47
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #550 BASE M/E: 63/ 44
CALI: EPAVOA875 #1 RIC: 377./ 1455.



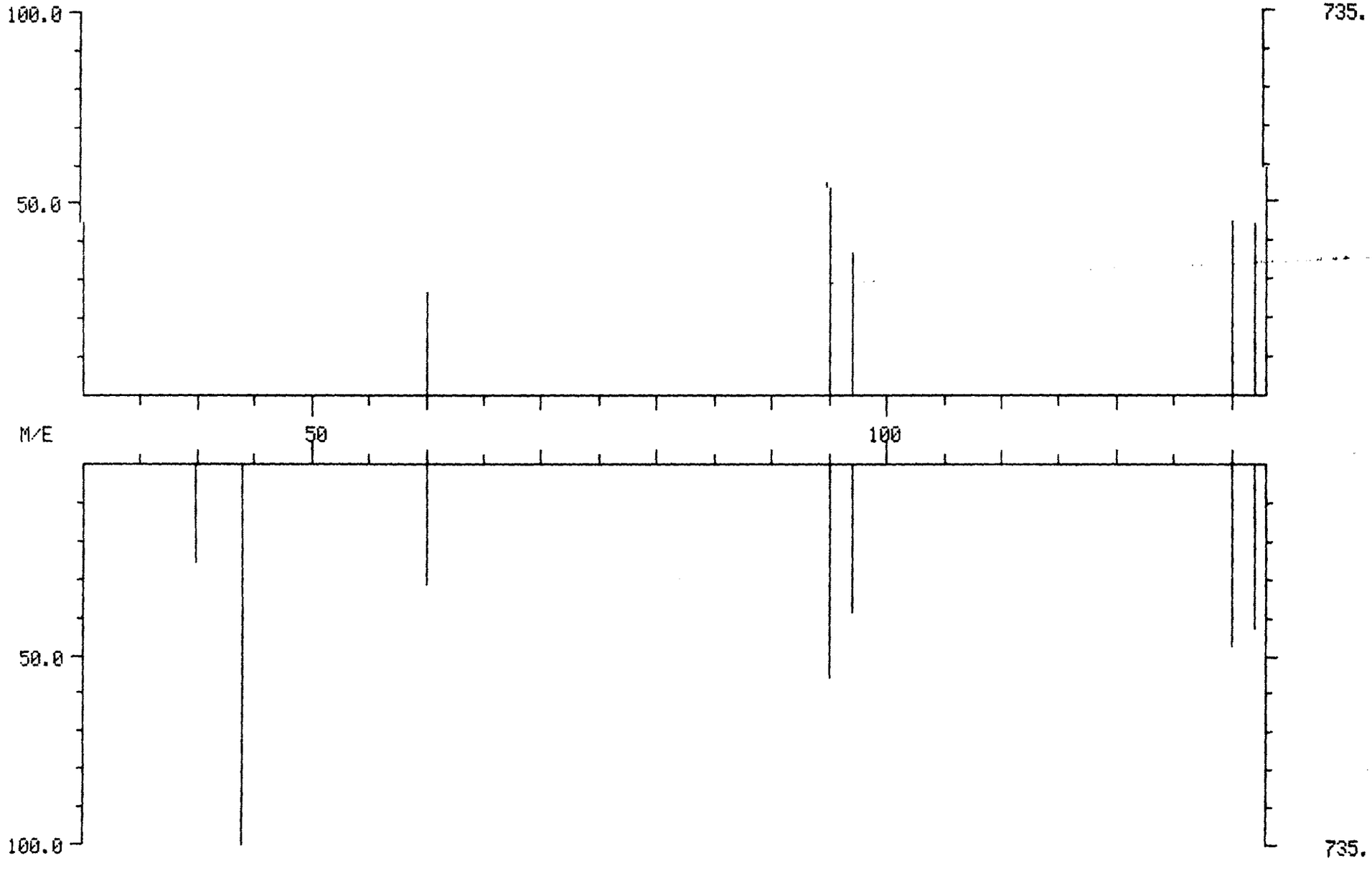
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 19:02
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #557 BASE M/E: 75/ 44
CALI: EPAVOA875 #1 RIC: 235./ 1269.



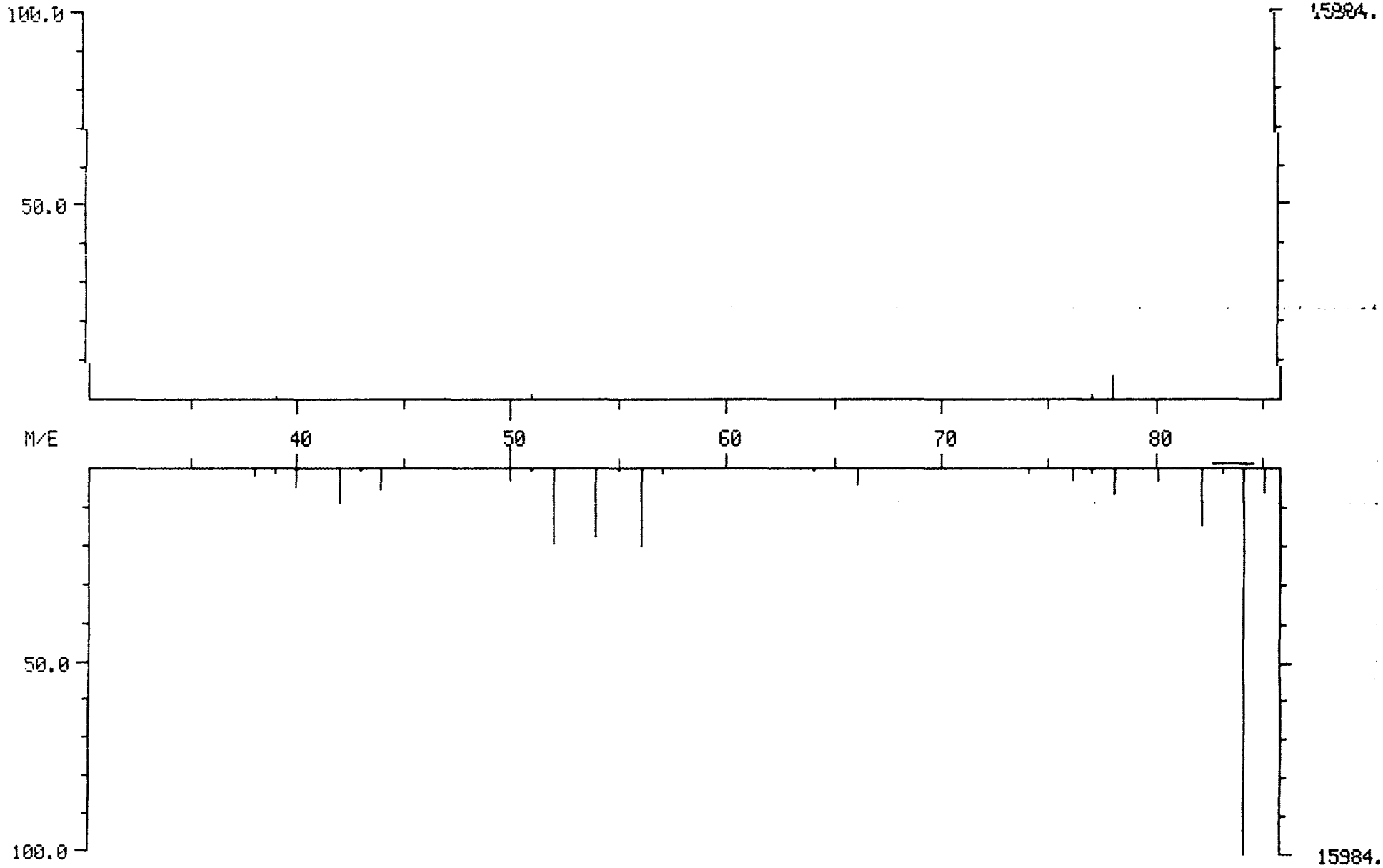
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 19:35
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #573 BASE M/E: 95/ 44
CALI: EPAVOA875 #1 RIC: 1525./ 2507.



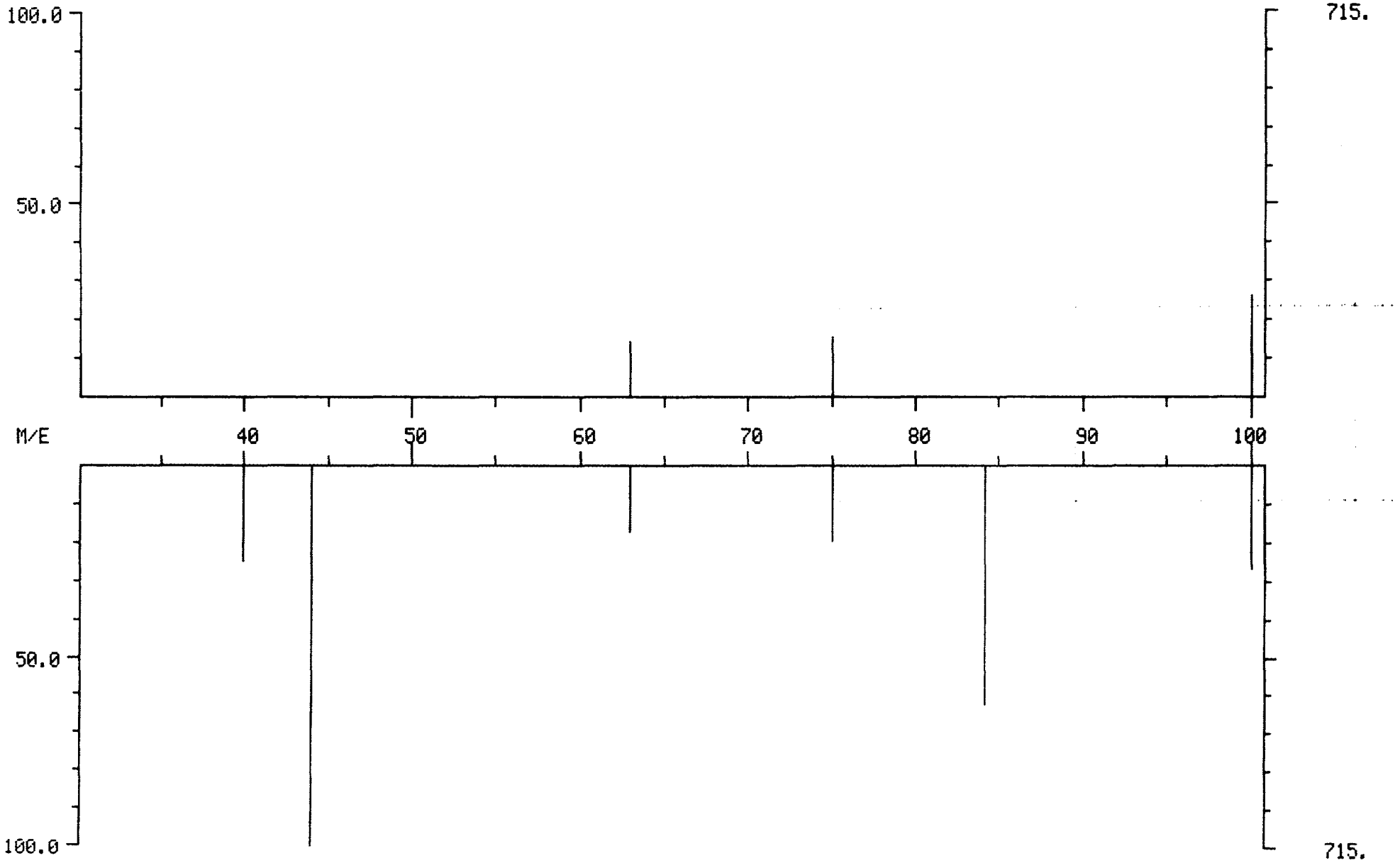
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 20:03
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #587 BASE M/E: 78/ 84
CALI: EPAVOA875 #1 RIC: 1433./ 36351.



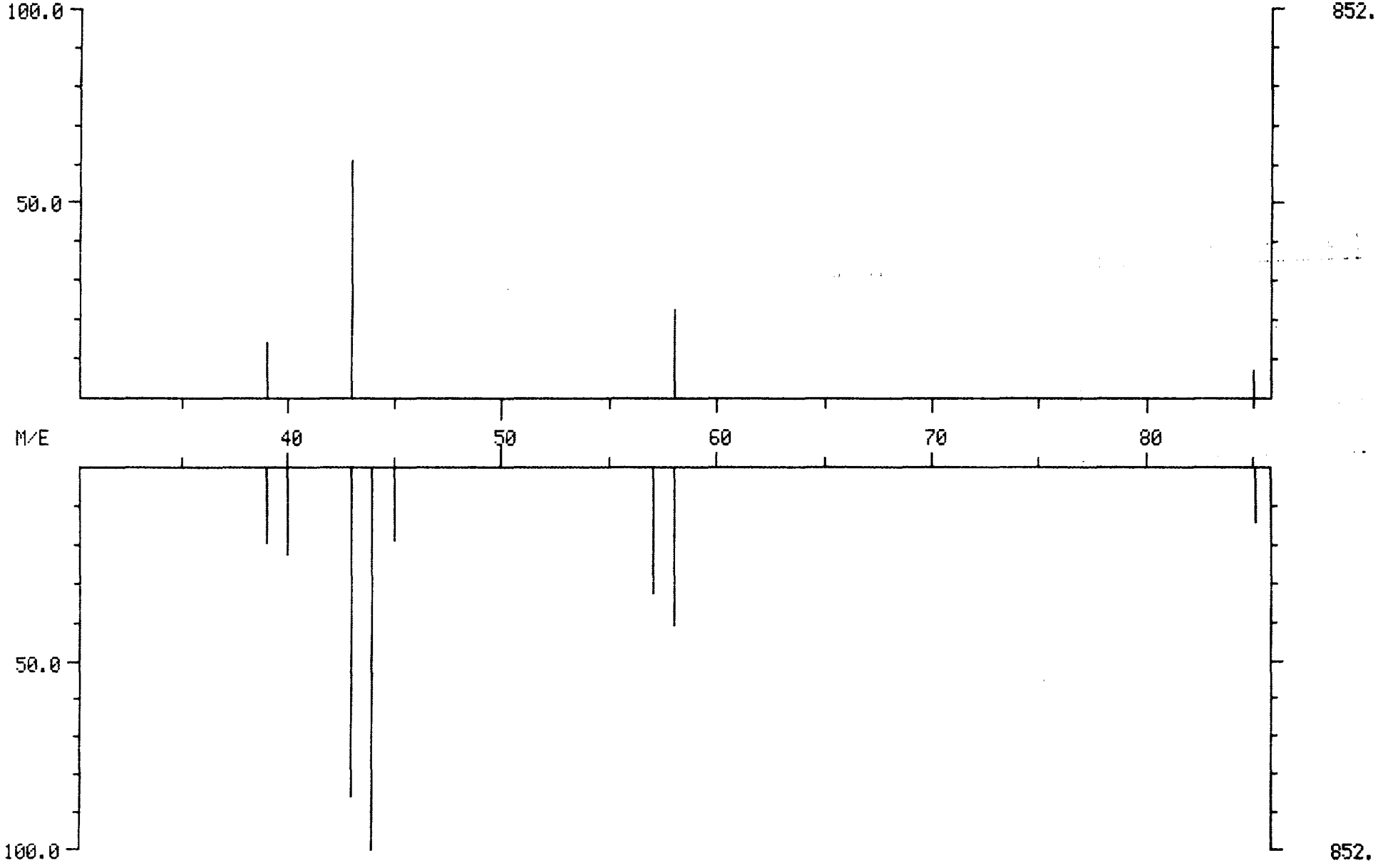
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 20:22
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #596 BASE M/E: 100/ 44
CALI: EPAVOA875 #1 RIC: 398./ 1789.



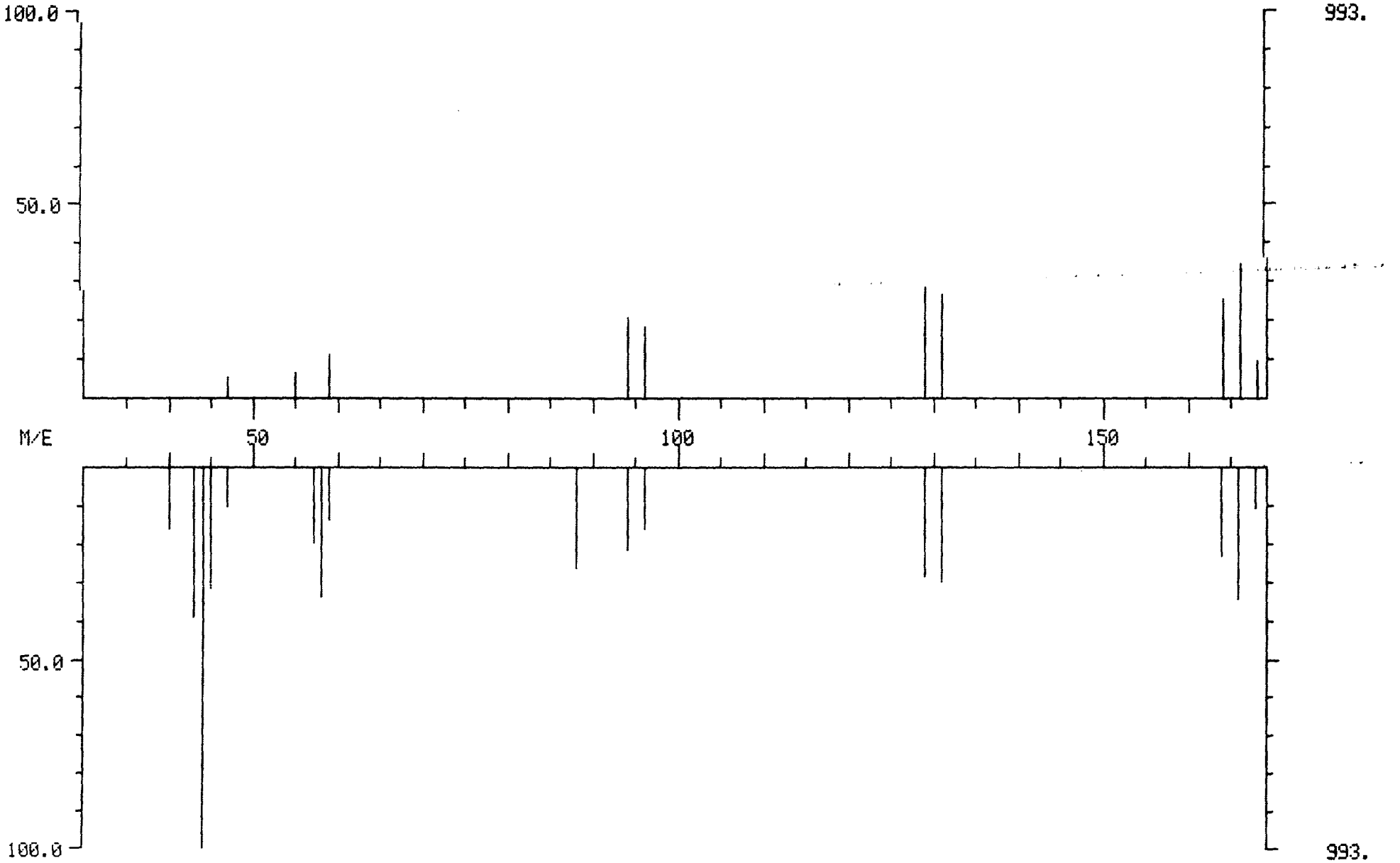
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 23:32
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #689 BASE M/E: 43/ 44
CALI: EPAVOA875 #1 RIC: 889./ 2847.



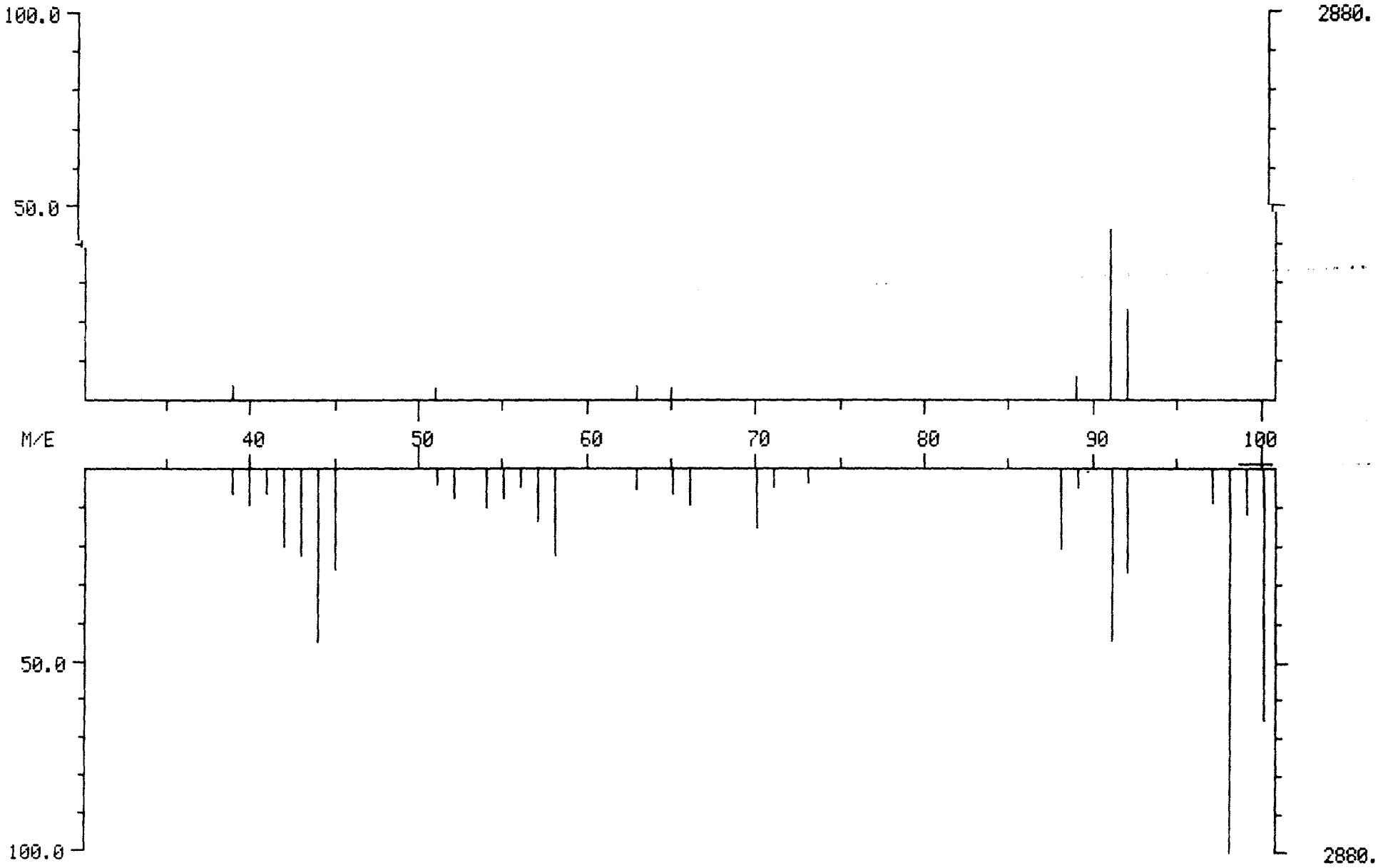
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 25:23
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #743 BASE M/E: 166/ 44
CALI: EPAVOA875 #1 RIC: 1847./ 4487.



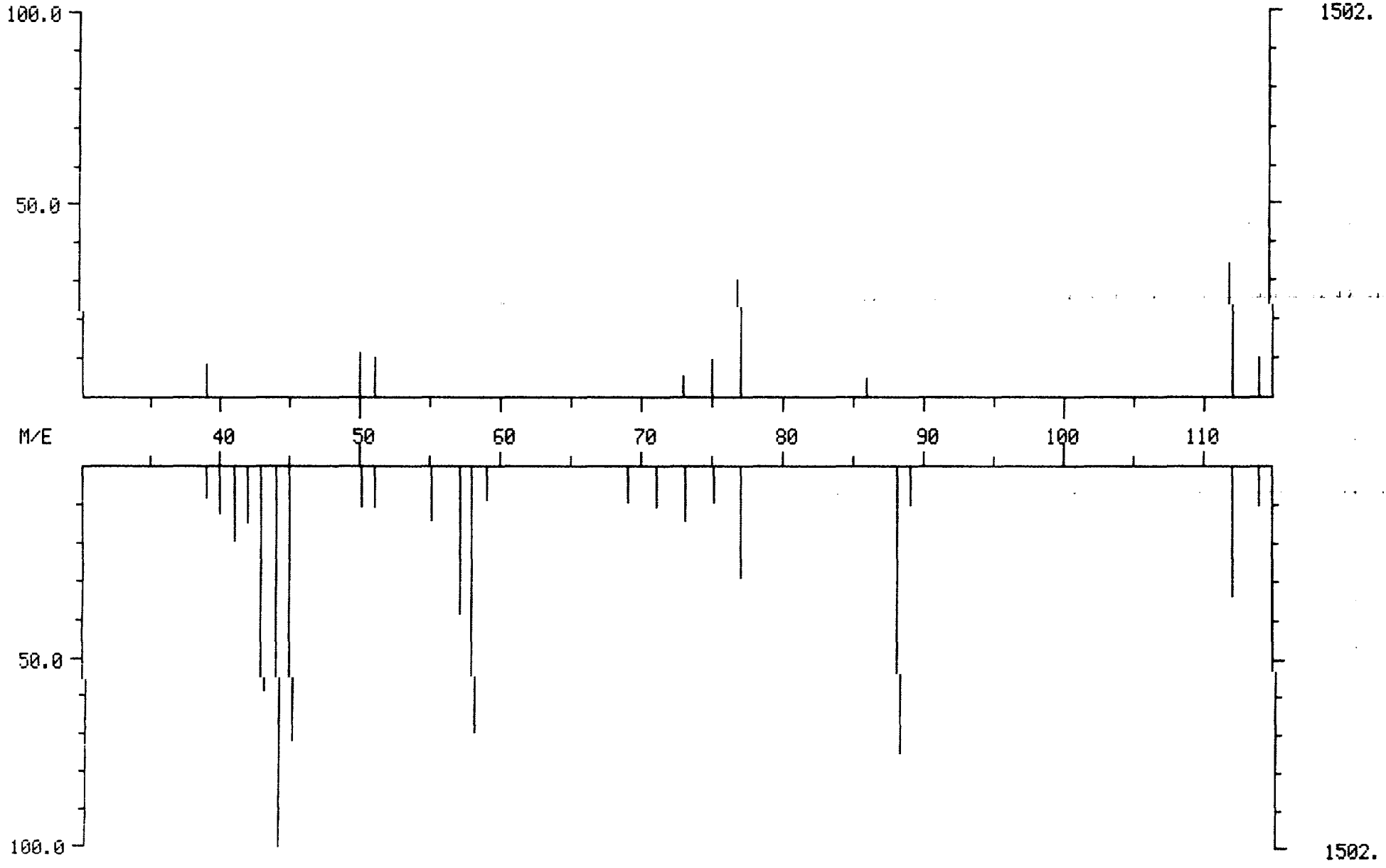
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 26:45
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #783 BASE M/E: 91/ 98
CALI: EPAVOA875 #1 RIC: 2487./ 15375.



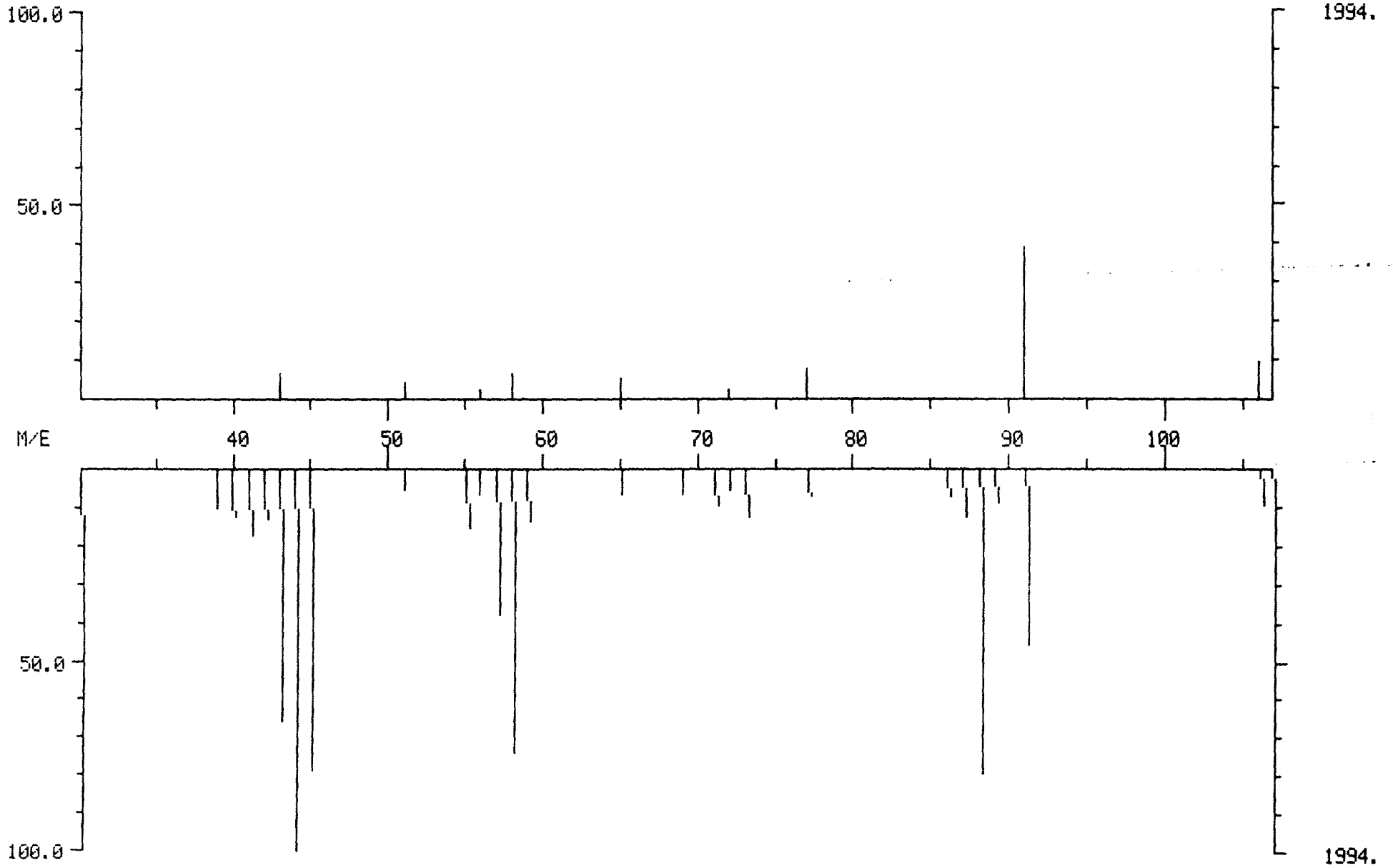
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 27:59
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #819 BASE M/E: 112/ 44
CALI: EPAVOA875 #1 RIC: 1857./ 9631.



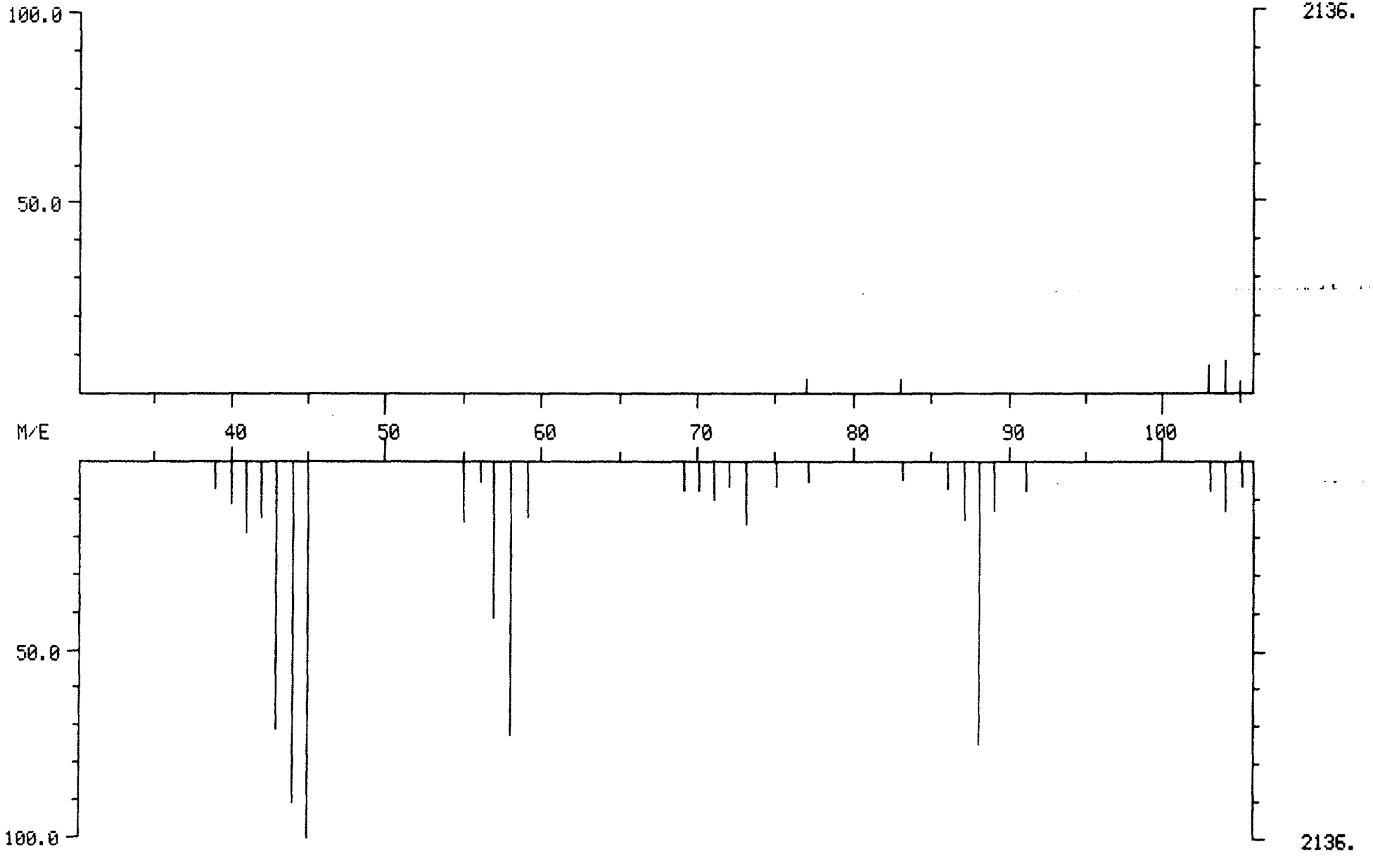
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 30:08
SAMPLE: 770506-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #882 BASE M/E: 91/ 44
CALI: EPAVOA875 #1 RIC: 1689./ 13199.



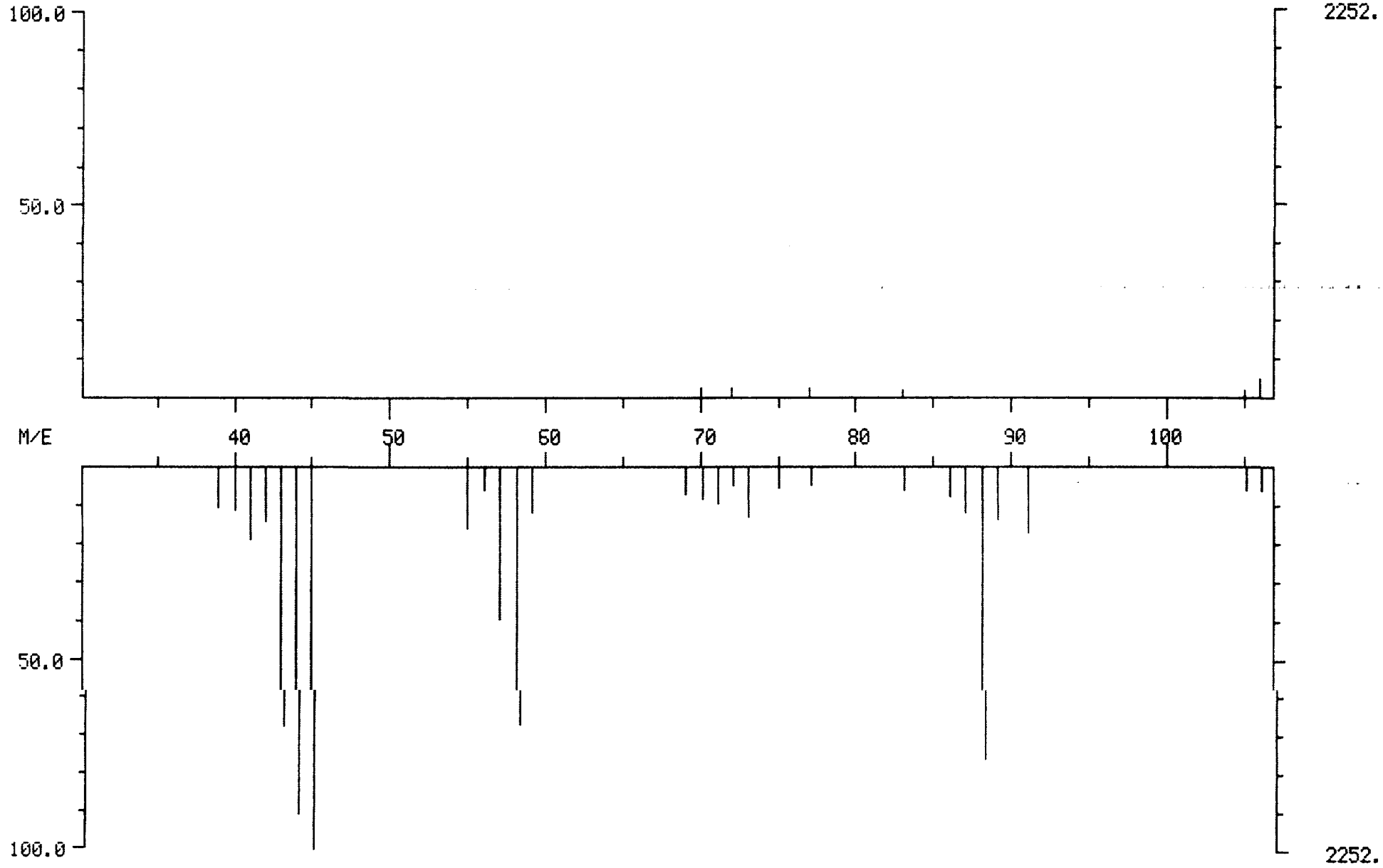
DUAL MASS SPECTRUM
02/26/84 15:47:00 + 34:20
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA875 #1005 BASE M/E: 104/ 45
CALI: EPAVOA875 #1 RIC: 541./ 14399.



DUAL MASS SPECTRUM
02/26/84 15:47:00 + 35:36
SAMPLE: 77056-5
CONDS.:
ENHANCED (S 15B 2N 0T)

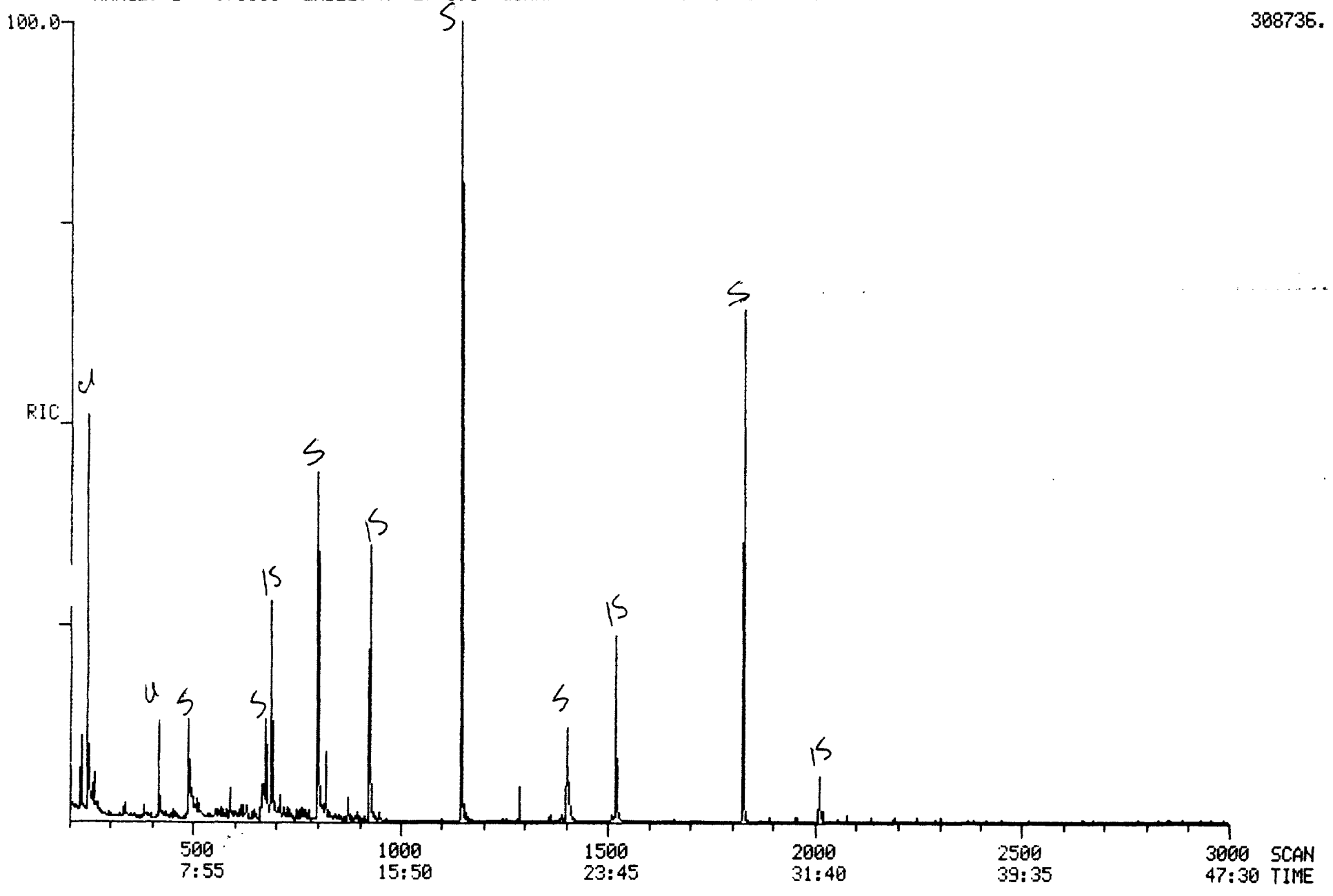
DATA: EPAVOA875 #1042 BASE M/E: 106/ 45
CALI: EPAVOA875 #1 RIC: 340./ 14623.



RIC
03/05/84 20:38:00
SAMPLE: 77056-5
CONDS.:
RANGE: G 1,3000 LABEL: N 2, 3.0 QUAN: A 2, 2.0 J 0 BASE: U 20, 3

DATA: EPABN703 #1
CALI: EPABN703 #1

SCANS 200 TO 3000



"QUANTITATION REPORT FILE: EPABN703

DATA: EPABN703.TI
03/05/84 20:38:00
SAMPLE: 77056-5
SUBMITTED BY: EPA ANALYST: SCP

AMOUNT CALCULATED FROM LINEAR FIT TO AREA/REF AREA
VS. CONC. USING THE 5 CLOSEST DATA POINTS IN .RL

NO	NAME	
1	*	D-4 1,4-DICHLOROBENZENE
2	*	D-8 NAPHTHALENE
3	*	D-10 PHENANTHRENE
4	*	D-12 CHRYSENE
5		N-NITROSODIMETHYLAMINE
6		2-CHLOROPHENOL
7		PHENOL
8		BIS (2-CHLOROETHYL) ETHER
9		1,3-DICHLOROBENZENE
10		1,4-DICHLOROBENZENE
11		1,2-DICHLOROBENZENE
12	HSL	ANILINE
13	HSL	BENZYL ALCOHOL
14		2-FLUOROPHENOL (SURROGATE)
15		D-5 PHENOL (SURROGATE)
16		BIS(2-CHLOROISOPROPYL)ETHER
17		HEXACHLOROETHANE
18		N-NITROSODIPROPYLAMINE
19		NITROBENZENE
20		ISOPHORONE
21		2-NITROPHENOL
22		2,4-DIMETHYLPHENOL
23		BIS(2-CHLOROETHOXY)METHANE
24		2,4-DICHLOROPHENOL
25		1,2,4-TRICHLOROBENZENE
26		NAPHTHALENE
27		HEXACHLOROBUTADIENE
28		P-CHLORO-M-CRESOL
29		HEXACHLOROCYCLOPENTADIENE
30		2,4,6-TRICHLOROPHENOL
31	HSL	2-METHYLPHENOL
32	HSL	4-METHYLPHENOL
33	HSL	BENZOIC ACID
34	HSL	4-CHLOROANILINE
35	HSL	2-METHYLNAPHTHALENE
36		D-5 NITROBENZENE (SURROGATE)
37		2-FLUOROBIPHENYL (SURROGATE)
38		2-CHLORONAPHTHALENE
39		DIMETHYL PHTHALATE
40		ACENAPHTHYLENE
41		2,6-DINITROTOLUENE
42		ACENAPHTHENE
43		2,4-DINITROPHENOL
44		4-NITROPHENOL
45		2,4-DINITROTOLUENE
46		FLUORENE

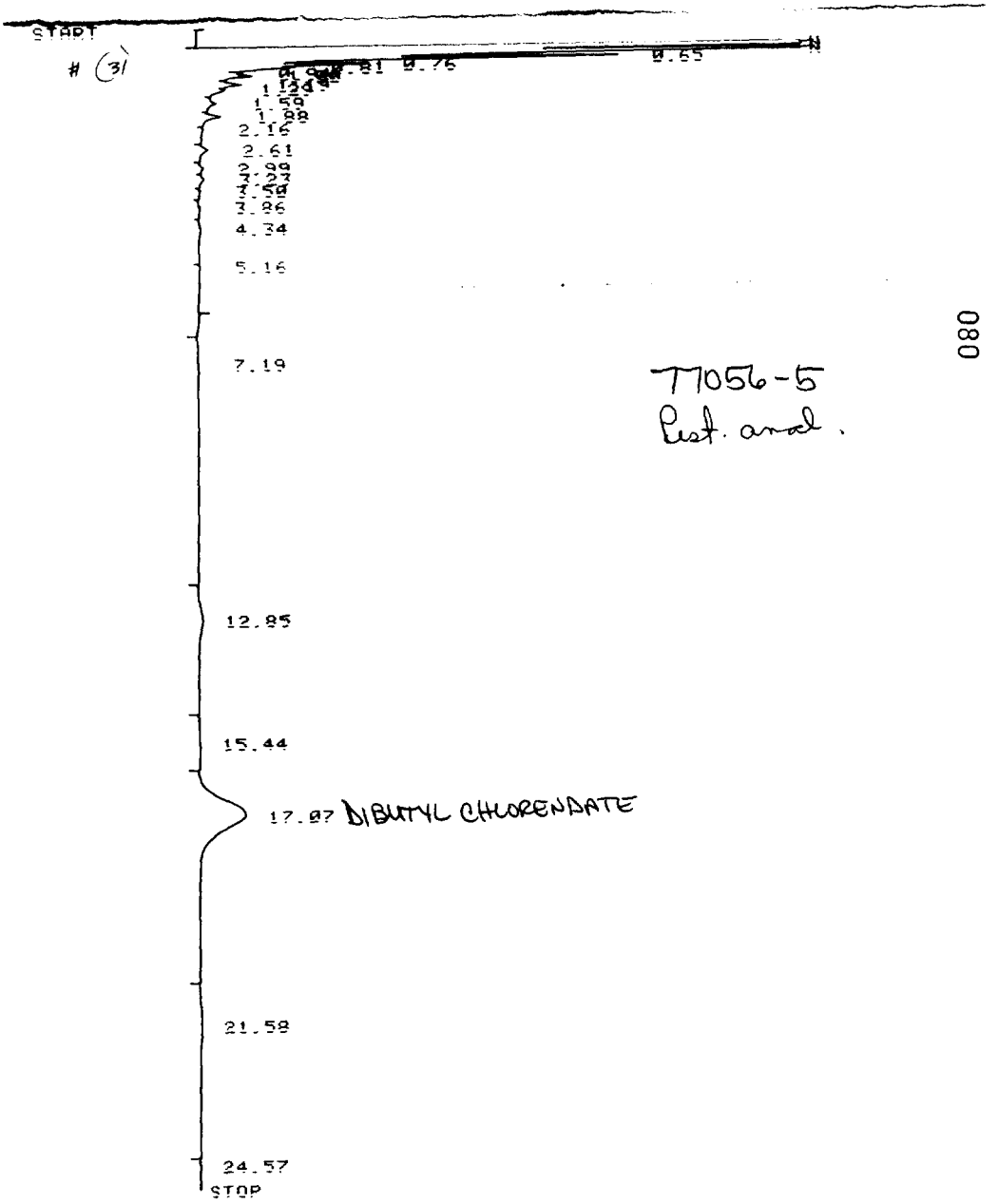
NO	NAME	
47		4-CHLOROPHENYL PHENYL ETHER
48		DIETHYL PHTHALATE
49		4,6-DINITRO-2-METHYLPHENOL
50		N-NITROSODIPHENYLAMINE
51		1,2-DIPHENYLHYDRAZINE
52		4-BROMOPHENYL PHENYL ETHER
53		HEXACHLOROBENZENE
54		PENTACHLOROPHENOL
55		PHENANTHRENE
56		ANTHRACENE
57		DI-N-BUTYL PHTHALATE
58		FLUORANTHENE
59	HSL	2,4,5-TRICHLOROPHENOL
60	HSL	2-NITROANILINE
61	HSL	3-NITROANILINE
62	HSL	DIBENZOFURAN
63	HSL	4-NITROANILINE
64		2,4,6-TRIBROMOPHENOL (SURROGATE)
65		BENZIDINE
66		PYRENE
67		BENZYL BUTYL PHTHALATE
68		BENZO(A)ANTHRACENE
69		3,3'-DICHLOROBENZIDINE
70		CHRYSENE
71		BIS(2-ETHYLHEXYL) PHTHALATE
72		D-14 TERPHENYL (SURROGATE)
73	*	D-12 BENZO(A)PYRENE
74		DI-N-OCTYL PHTHALATE
75		BENZO(B)FLUORANTHENE
76		BENZO(K)FLUORANTHENE
77		BENZO(A)PYRENE
78		INDENO(1,2,3-CD)PYRENE
79		DIBENZO(A,H)ANTHRACENE
80		BENZO(GHI)PERYLENE

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	152	687	10:53	1	1.000	A BB	53242.	20.000	UG/ML	6.18
2	136	925	14:39	2	1.000	A BB	128995.	20.000	UG/ML	6.18
3	188	1519	24:03	3	1.000	A BB	81401.	20.000	UG/ML	6.18
4	240	2010	31:49	4	1.000	A BB	29612.	20.000	UG/ML	6.18
5	74	243	3:51	1	0.354	A BB	544.	9.132	UG/ML	2.82
6	NOT	FOUND								
7	94	667	10:34	1	0.971	A BB	245.	2.695	UG/ML	0.83
8	NOT	FOUND								
9	146	680	10:46	1	0.990	A BB	322.	-2.368	UG/ML	-0.72
10	146	689	10:55	1	1.003	A BB	606.	-10.453	UG/ML	-3.22
11	NOT	FOUND								
12	NOT	FOUND								
13	NOT	FOUND								
14	112	486	7:42	1	0.707	A BB	67222.	36.830	UG/ML	11.38
15	99	666	10:33	1	0.969	A BB	44648.	16.485	UG/ML	5.09
16	NOT	FOUND								
17	NOT	FOUND								
18	NOT	FOUND								
19	NOT	FOUND								
20	NOT	FOUND								
21	NOT	FOUND								
22	NOT	FOUND								
23	NOT	FOUND								
24	NOT	FOUND								
25	NOT	FOUND								
26	128	930	14:43	2	1.005	A BB	1662.	-19.286	UG/ML	-5.95
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	NOT	FOUND								
36	82	800	12:40	2	0.865	A BV	121874.	50.387	UG/ML	15.57
37	172	1146	18:09	2	1.239	A BV	243967.	50.078	UG/ML	15.47
38	NOT	FOUND								
39	NOT	FOUND								
40	NOT	FOUND								
41	NOT	FOUND								
42	NOT	FOUND								
43	NOT	FOUND								
44	NOT	FOUND								
45	NOT	FOUND								
46	NOT	FOUND								
47	NOT	FOUND								
48	149	1363	21:35	3	0.897	A BB	756.	-6.590	UG/ML	-2.03
49	NOT	FOUND								
50	169	1387	21:58	3	0.913	A BV	4839.	-12.982	UG/ML	-4.00
51	NOT	FOUND								
52	NOT	FOUND								
53	NOT	FOUND								
54	NOT	FOUND								
55	NOT	FOUND								
56	NOT	FOUND								

jl

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
~~57~~	~~149~~	~~1662~~	~~26:17~~	~~3~~	~~1.094~~	~~A BB~~	~~887.~~	~~-7.236~~	~~UG/ML~~	~~-2.23~~
58	NOT	FOUND								
59	NOT	FOUND								
60	NOT	FOUND								
61	NOT	FOUND								
62	NOT	FOUND								
63	NOT	FOUND								
64	330	1401	22:11	3	0.922	A BB	18138.	37.177	UG/ML	11.49
65	NOT	FOUND								
66	NOT	FOUND								
67	NOT	FOUND								
68	NOT	FOUND								
69	NOT	FOUND								
70	NOT	FOUND								
71	149	2054	32:31	4	1.022	A BB	679.	4.298	UG/ML	1.33
72	244	1828	28:57	4	0.909	A BB	180917.	93.731	UG/ML	29.58
73	NOT	FOUND								
74	NOT	FOUND								
75	NOT	FOUND								
76	NOT	FOUND								
77	NOT	FOUND								
78	NOT	FOUND								
79	NOT	FOUND								
80	NOT	FOUND								



080

HP RUN # 319
BOTTLE 31
AREA %

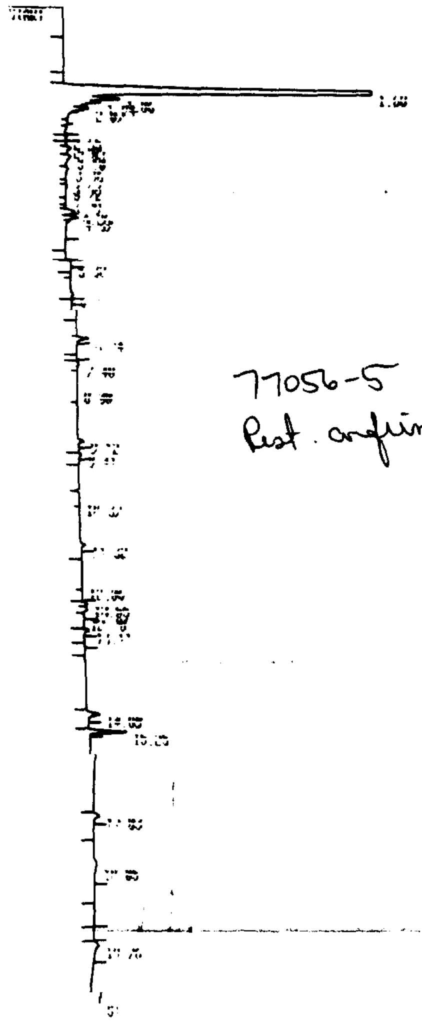
RT	AREA	AREA %
1.29	11810	5.728
1.59	13620	6.605
1.88	12320	5.975
2.16	5965	2.893
2.61	6588	3.195
2.99	4021	1.950
3.23	4348	2.109
3.50	1759	0.853
3.86	1680	0.815
4.34	4810	2.333
5.16	3038	1.473
7.19	10350	5.020
12.85	9326	4.523
15.44	2272	1.102
17.07	107400	52.087
21.58	6754	3.276
24.57	134	0.065

DIL FACTOR: 1.0000 E+ 0

ATTN 2↑ 8
A 60.0 59.3
TEMP1 400 210 210

081

77056-5



77056-5
Rest. confirm.

RUN # 1056 MAR/13/04 14:50:56

HEIGHT%

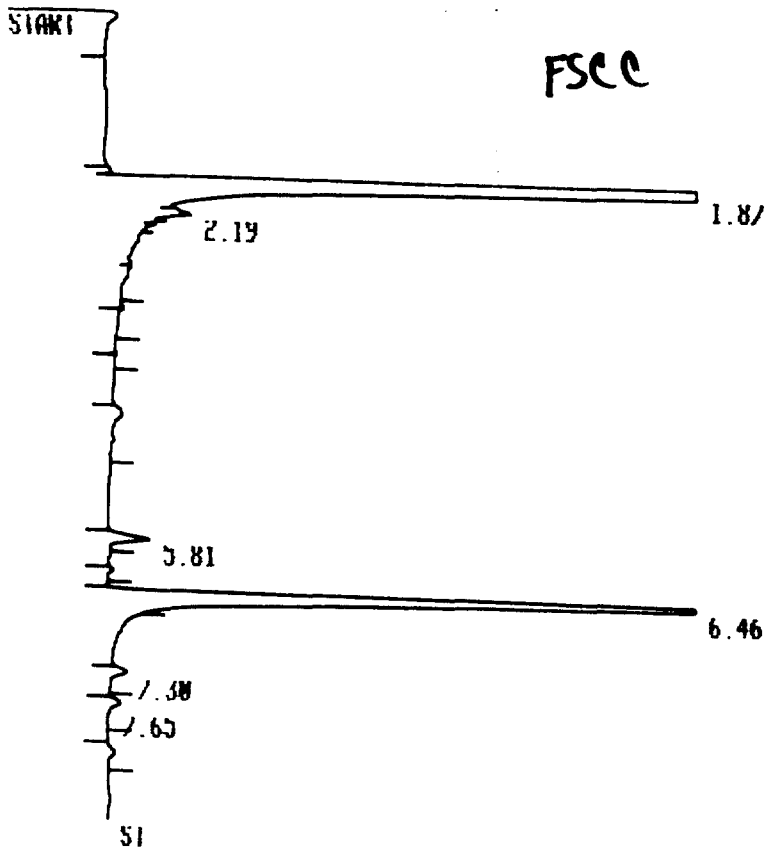
RT	HEIGHT	TYPE	AR/HT	HEIGHT%
1.00	459606	SBB	0.003	80.346
1.86	7707	TBV	0.058	1.475
1.96	[illegible]	TVT	0.051	0.773
2.07	3004	TVB	0.055	0.700
2.65	3107	BB	0.061	0.601
2.82	2454	TV	0.067	0.047
2.93	14733	VV	0.086	0.204
3.10	19625	VV	0.103	0.201
3.36	0309	VT	0.101	0.161
3.63	2335	TV	0.068	0.046
3.72	3945	VT	0.121	0.074
3.89	2073	TV	0.071	0.040
4.26	20779	VV	0.069	0.553
4.57	35723	VV	0.061	0.678
5.32	1706	BB	0.054	0.007
6.01	5507	TB	0.069	0.107
6.94	30948	TB	0.063	0.658
7.40	7131	BT	0.074	0.137
8.08	1497	TV	0.063	0.029
9.12	15943	VB	0.062	0.304
9.41	7531	BB	0.062	0.145
10.37	3982	TV	0.253	0.130
11.32	12592	VB	0.368	0.249
12.06	538	TT	0.094	0.010
12.35	13048	BV	0.063	0.266
12.67	14759	VT	0.102	0.284
12.70	4551	TB	0.065	0.085
13.11	15626	BB	0.065	0.290
14.09	36512	TB	0.060	0.702
15.25	110777	TB	0.081	2.167
17.63	16611	TB	0.079	0.319
18.05	8650	TB	0.137	0.166
19.76	14707	BB	0.103	0.284

TOTAL AREA= [illegible]
MUL FACTOR= 1.0000E+00

TCDD Screen

77056-5

FSCC



RUN # 1/24 MAR/01/84 20:49:22

HEIGHTS

RT	HEIGHT	TYPE	AR/HT	HEIGHTS
1.87	794668	SHB	0.077	97.709
2.19	5607	BBP	0.059	0.069
3.81	8218	PB	0.078	0.101
6.46	166591	PB	0.055	2.048
7.30	5238	BB	0.050	0.048
7.65	2706	BB	0.097	0.033

TOTAL HEIGHT= 8134000

MUL FACTOR= 1.00000E+00

INITIAL CALIBRATION DATA - VOLATILE HSL COMPOUNDS

6726

CASE NO. 2455 CONTRACT LAB USTCO CONTRACT NO. 68-01 ~~6726~~
INSTRUMENT IDENTIFIER VOA CALIBRATION DATE 2-26-84

COMPOUND	AVG RRT	RF-20	RF-100	RF-200	AVG RF	SPCC
CHLOROMETHANE	.199	1.734	1.418	1.350	1.501	
BROMOMETHANE	.334	2.702	2.283	2.237	2.407	
DICHLORODIFLUOROMETHANE	0.000	0.000	0.000	0.000	0.000	
VINYL CHLORIDE	.416	2.259	1.933	1.913	2.035	
CHLOROETHANE	.525	1.375	1.193	1.200	1.256	
METHYLENE CHLORIDE	.728	4.350	2.882	2.675	3.302	
TRICHLOROFLUOROMETHANE	0.000	0.000	0.000	0.000	0.000	
ETHENE 1.1-DICHLORO-	.958	4.035	3.691	3.640	3.789	
ETHANE 1.1-DICHLORO-	1.070	4.721	4.242	4.306	4.423	
1.2-TRANS-DICHLOROETHENE	1.126	2.148	1.978	1.957	2.028	
CHLOROFORM	1.180	6.141	5.529	5.516	5.729	
ETHANE 1.2-DICHLORO-	1.242	4.498	3.970	3.974	4.147	
ETHANE 1.1.1-TRICHLORO-	1.360	5.092	4.777	4.668	4.846	
CARBONTETRACHLORIDE	.762	.137	.142	.137	.139	
BROMODICHLOROMETHANE	.802	1.233	1.248	1.305	1.262	
PROPANE 1.2-DICHLORO-	.868	.714	.679	.687	.693	
1.3-TRANS-DICHLOROPROPENE	.879	.928	.892	.922	.914	
TRICHLOROETHYLENE	.902	1.203	1.026	1.005	1.078	
CHLORODIBROMOMETHANE	.937	.690	.781	.860	.777	
BENZENE	.926	1.946	1.674	1.640	1.753	
ETHANE 1.1.2-TRICHLORO	.940	.598	.549	.566	.571	
1.3-CIS-DICHLOROPROPENE	.939	.959	.925	.970	.951	
2-CHLOROETHYL VINYL ETHER	.989	.325	.292	.321	.313	
BROMOFORM	1.068	.239	.304	.368	.304	
ETHANE 1.1.2.2-TETRACHLORO-	.987	.532	.491	.470	.498	
ETHENE TETRACHLORO-	.983	.932	.838	.724	.831	
TOLUENE	1.036	2.456	2.146	1.916	2.173	
CHLOROBENZENE	1.083	1.774	1.607	1.442	1.608	
ETHLYBENZENE	1.167	2.932	2.634	2.261	2.609	
ACETONE	.772	.188	.099	.116	.134	
2-BUTANONE	.688	.056	.041	.046	.048	
CARBONDISULFIDE	.860	4.536	4.585	4.667	4.596	
2-HEXANONE	.972	.306	.248	.261	.272	
4-METHYL-2-PENTANONE	1.085	.491	.341	.374	.402	
STYRENE	1.328	1.413	1.327	1.191	1.310	
VINYL ACETATE	.803	0.009	.009	.011	.007	
o-XYLENE	1.376	.941	.805	.729	.825	

INITIAL CALIBRATION DATA - VOLATILE HSL COMPOUNDS

CASE NO. 2459 CONTRACT LAB USTCO CONTRACT NO. 68-01-6780
INSTRUMENT IDENTIFIER VOA CALIBRATION DATE 2-26-84

COMPOUND	AVG RRT	RF-20	RF-100	RF-200	AVG RF	SPCC
CHLOROMETHANE	.199	1.734	1.418	1.350	1.501	
BROMOMETHANE	.334	2.702	2.283	2.237	2.407	
DICHLORODIFLUOROMETHANE	0.000	0.000	0.000	0.000	0.000	
VINYL CHLORIDE	.416	2.259	1.933	1.913	2.035	
CHLOROETHANE	.525	1.375	1.193	1.200	1.256	
METHYLENE CHLORIDE	.728	4.350	2.882	2.675	3.302	
TRICHLOROFLUOROMETHANE	0.000	0.000	0.000	0.000	0.000	
ETHENE 1,1-DICHLORO-	.958	4.035	3.691	3.640	3.789	
ETHANE 1,1-DICHLORO-	1.070	4.721	4.242	4.306	4.423	
1,2-TRANS-DICHLOROETHENE	1.126	2.148	1.978	1.957	2.028	
CHLOROFORM	1.180	6.141	5.529	5.516	5.729	
ETHANE 1,2-DICHLORO-	1.242	4.498	3.970	3.974	4.147	
ETHANE 1,1,1-TRICHLORO-	1.360	5.092	4.777	4.668	4.846	
CARBONTETRACHLORIDE	.762	.137	.142	.137	.139	
BROMODICHLOROMETHANE	.802	1.233	1.248	1.305	1.262	
PROPANE 1,2-DICHLORO-	.868	.714	.679	.687	.693	
1,3-TRANS-DICHLOROPROPENE	.879	.928	.892	.922	.914	
TRICHLOROETHYLENE	.902	1.203	1.026	1.005	1.078	
CHLORODIBROMOMETHANE	.937	.690	.781	.860	.777	
BENZENE	.926	1.946	1.674	1.640	1.753	
ETHANE 1,1,2-TRICHLORO	.940	.598	.549	.566	.571	
1,3-CIS-DICHLOROPROPENE	.939	.959	.925	.970	.951	
2-CHLOROETHYL VINYL ETHER	.989	.325	.292	.321	.313	
BROMOFORM	1.068	.239	.304	.368	.304	
ETHANE 1,1,2,2-TETRACHLORO-	.987	.532	.491	.470	.498	
ETHENE TETRACHLORO-	.983	.932	.838	.724	.831	
TOLUENE	1.036	2.456	2.146	1.916	2.173	
CHLOROBENZENE	1.083	1.774	1.607	1.442	1.608	
ETHLYBENZENE	1.167	2.932	2.634	2.261	2.609	
ACETONE	.772	.188	.099	.116	.134	
2-BUTANONE	.688	.056	.041	.046	.048	
CARBONDISULFIDE	.860	4.536	4.585	4.667	4.596	
2-HEXANONE	.972	.306	.248	.261	.272	
4-METHYL-2-PENTANONE	1.085	.491	.341	.374	.402	
STYRENE	1.328	1.413	1.327	1.191	1.310	
VINYL ACETATE	.803	0.000	.009	.011	.007	
o-XYLENE	1.376	.941	.805	.729	.825	

INITIAL CALIBRATION DATA - VOLATILE HSL COMPOUNDS

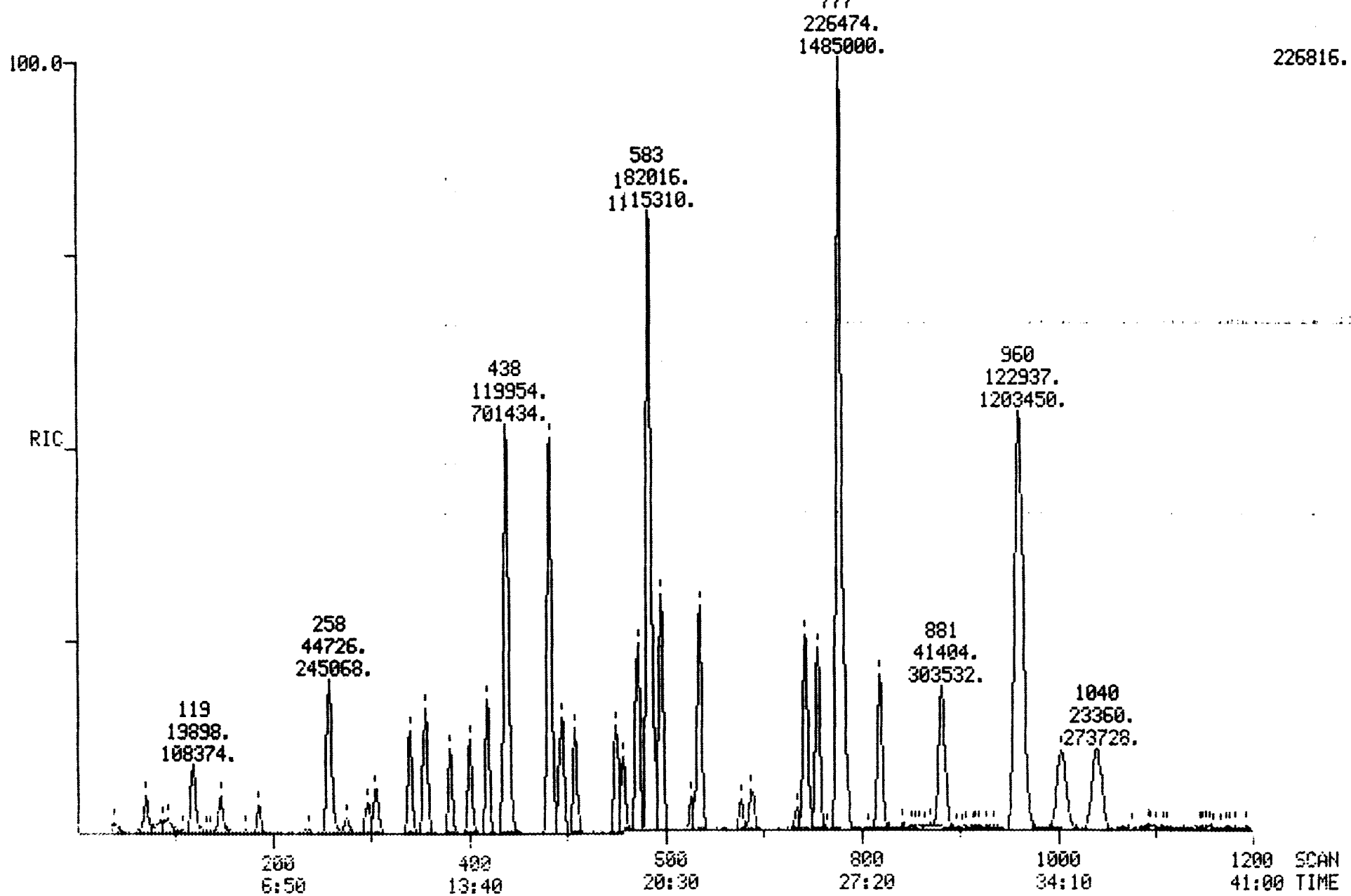
CASE NO. 2459 CONTRACT LAB USTCO CONTRACT NO. 68-01-6780
INSTRUMENT IDENTIFIER VOA CALIBRATION DATE 2-26-84

COMPOUND	AVG RRT	RF-20	RF-100	RF-200	AVG RF	SPCC
CHLOROMETHANE	.199	1.734	1.418	1.350	1.501	
BROMOMETHANE	.334	2.702	2.283	2.237	2.407	
DICHLORODIFLUOROMETHANE	0.000	0.000	0.000	0.000	0.000	
VINYL CHLORIDE	.416	2.259	1.933	1.913	2.035	
CHLOROETHANE	.525	1.375	1.193	1.200	1.256	
METHYLENE CHLORIDE	.728	4.350	2.882	2.675	3.302	
TRICHLOROFLUOROMETHANE	0.000	0.000	0.000	0.000	0.000	
ETHENE 1,1-DICHLORO-	.958	4.035	3.691	3.640	3.789	
ETHANE 1,1-DICHLORO-	1.070	4.721	4.242	4.306	4.423	
1,2-TRANS-DICHLOROETHENE	1.126	2.148	1.978	1.957	2.028	
CHLOROFORM	1.180	6.141	5.529	5.516	5.729	
ETHANE 1,2-DICHLORO-	1.242	4.498	3.970	3.974	4.147	
ETHANE 1,1,1-TRICHLORO-	1.360	5.092	4.777	4.668	4.846	
CARBONTETRACHLORIDE	.762	.137	.142	.137	.139	
BROMODICHLOROMETHANE	.802	1.233	1.248	1.305	1.262	
PROPANE 1,2-DICHLORO-	.868	.714	.679	.687	.693	
1,3-TRANS-DICHLOROPROPENE	.879	.928	.892	.922	.914	
TRICHLOROETHYLENE	.902	1.203	1.026	1.005	1.078	
CHLORODIBROMOMETHANE	.937	.690	.781	.860	.777	
BENZENE	.926	1.946	1.674	1.640	1.753	
ETHANE 1,1,2-TRICHLORO	.940	.598	.549	.566	.571	
1,3-CIS-DICHLOROPROPENE	.939	.959	.925	.970	.951	
2-CHLOROETHYL VINYL ETHER	.989	.325	.292	.321	.313	
BROMOFORM	1.068	.239	.304	.368	.304	
ETHANE 1,1,2,2-TETRACHLORO-	.987	.532	.491	.470	.498	
ETHENE TETRACHLORO-	.983	.932	.838	.724	.831	
TOLUENE	1.036	2.456	2.146	1.916	2.173	
CHLOROBENZENE	1.083	1.774	1.607	1.442	1.608	
ETHLYBENZENE	1.167	2.932	2.634	2.261	2.609	
ACETONE	.772	.188	.099	.116	.134	
2-BUTANONE	.688	.056	.041	.046	.048	
CARBONDISULFIDE	.860	4.536	4.585	4.667	4.596	
2-HEXANONE	.972	.306	.248	.261	.272	
4-METHYL-2-PENTANONE	1.085	.491	.341	.374	.402	
STYRENE	1.328	1.413	1.327	1.191	1.310	
VINYL ACETATE	.803	0.000	.009	.011	.007	
o-XYLENE	1.376	.941	.805	.729	.825	

RIC
02/26/84 9:04:00
SAMPLE: @ 20 UG/L STANDARD
CONDS.:
RANGE: G 1,1200 LABEL: N 2, 2.0 QUAN: A 2, 3.0 J 0 BASE: U 20, 3

DATA: EPAVOA868 #1
CALI: EPAVOA868 #1

SCANS 1 TO 1200



QUANTITATION REPORT FILE: EPAVOA868

DATA: EPAVOA868.TI
02/26/84 9:04:00
SAMPLE:
SUBMITTED BY: ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1, 1, 2, 2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	356	12:10	1	1.000	A BB	34585.	50.000 UG/L	3.22
2	77	635	21:42	2	1.000	A BB	123643.	50.000 UG/L	3.22
3	55	755	25:48	3	1.000	A BB	109715.	50.000 UG/L	3.22
4	50	71	2:26	1	0.199	A BB	23986.	23.109 UG/L	1.49
5	94	119	4:04	1	0.334	A BB	37381.	22.450 UG/L	1.45
6	62	148	5:03	1	0.416	A BB	31250.	22.201 UG/L	1.43
7	64	187	6:23	1	0.525	A BB	19024.	21.898 UG/L	1.41
8	84	258	8:49	1	0.725	A BB	60182.	26.345 UG/L	1.70
9	56	276	9:26	1	0.775	A BB	10870.	117.722 UG/L	7.58
10	53	297	10:09	1	0.834	A BB	30154.	120.375 UG/L	7.75
11	61	340	11:37	1	0.955	A BB	55823.	21.301 UG/L	1.37
12	63	381	13:01	1	1.070	A BB	65306.	21.348 UG/L	1.37
13	96	401	13:42	1	1.126	A BB	29717.	21.190 UG/L	1.36
14	83	419	14:19	1	1.177	A BB	84953.	21.439 UG/L	1.38
15	62	441	15:04	1	1.239	A BB	62219.	21.688 UG/L	1.40
16	97	483	16:30	1	1.357	A BB	70446.	21.018 UG/L	1.35
17	58	275	9:24	1	0.772	A BB	2594.	27.951 UG/L	1.80
18	76	305	10:25	1	0.857	A BB	62751.	19.739 UG/L	1.27
19	117	483	16:30	2	0.761	A BV	6799.	19.796 UG/L	1.27
20	83	509	17:23	2	0.802	A BB	60976.	19.536 UG/L	1.26
21	63	551	18:50	2	0.868	A BB	35299.	20.589 UG/L	1.33
22	75	558	19:04	2	0.879	A BB	45879.	20.305 UG/L	1.31
23	95	572	19:33	2	0.901	A BB	59500.	22.319 UG/L	1.44
24	78	588	20:05	2	0.926	A BB	96255.	22.198 UG/L	1.43
25	129	594	20:18	2	0.935	A BB	34109.	17.751 UG/L	1.14
26	83	597	20:24	2	0.940	A BB	29592.	20.948 UG/L	1.35
27	75	596	20:22	2	0.939	A BB	47418.	20.159 UG/L	1.30
28	63	627	21:25	2	0.987	A BB	16057.	20.777 UG/L	1.34
29	173	677	23:08	2	1.066	A BB	11803.	15.727 UG/L	1.01
30	72	437	14:56	2	0.688	A BB	2753.	23.424 UG/L	1.51
31	NOT	FOUND							
32	43	688	23:30	2	1.083	A BB	24288.	24.424 UG/L	1.57
33	65	438	14:58	2	0.690	A BB	245608.	98.828 UG/L	6.36
34	84	583	19:55	2	0.918	A BB	466046.	100.900 UG/L	6.50
35	NOT	FOUND							
36	NOT	FOUND							
37	NOT	FOUND							
38	166	743	25:23	3	0.984	A BB	40899.	22.428 UG/L	1.44
39	83	745	25:27	3	0.987	A BB	23338.	21.374 UG/L	1.38
40	91	783	26:45	3	1.037	A BB	107766.	22.605 UG/L	1.46
41	112	819	27:59	3	1.085	A BB	77858.	22.070 UG/L	1.42
42	91	881	30:06	3	1.167	A BB	128655.	22.473 UG/L	1.45
43	43	734	25:05	3	0.972	A BB	13423.	22.522 UG/L	1.45
44	104	1003	34:16	3	1.328	A BB	62027.	21.574 UG/L	1.39

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
45	106	1039	35:30	3	1.376	A BB	41318.	22.816	UG/L	1.47
46	98	777	26:33	3	1.029	A BB	447826.	102.448	UG/L	6.60
47	NOT FOUND									
48	NOT FOUND									
49	83	745	25:27	3	0.987	A BB	23338.	21.374	UG/L	1.38
50	95	960	32:48	3	1.272	A BB	278043.	104.297	UG/L	6.71

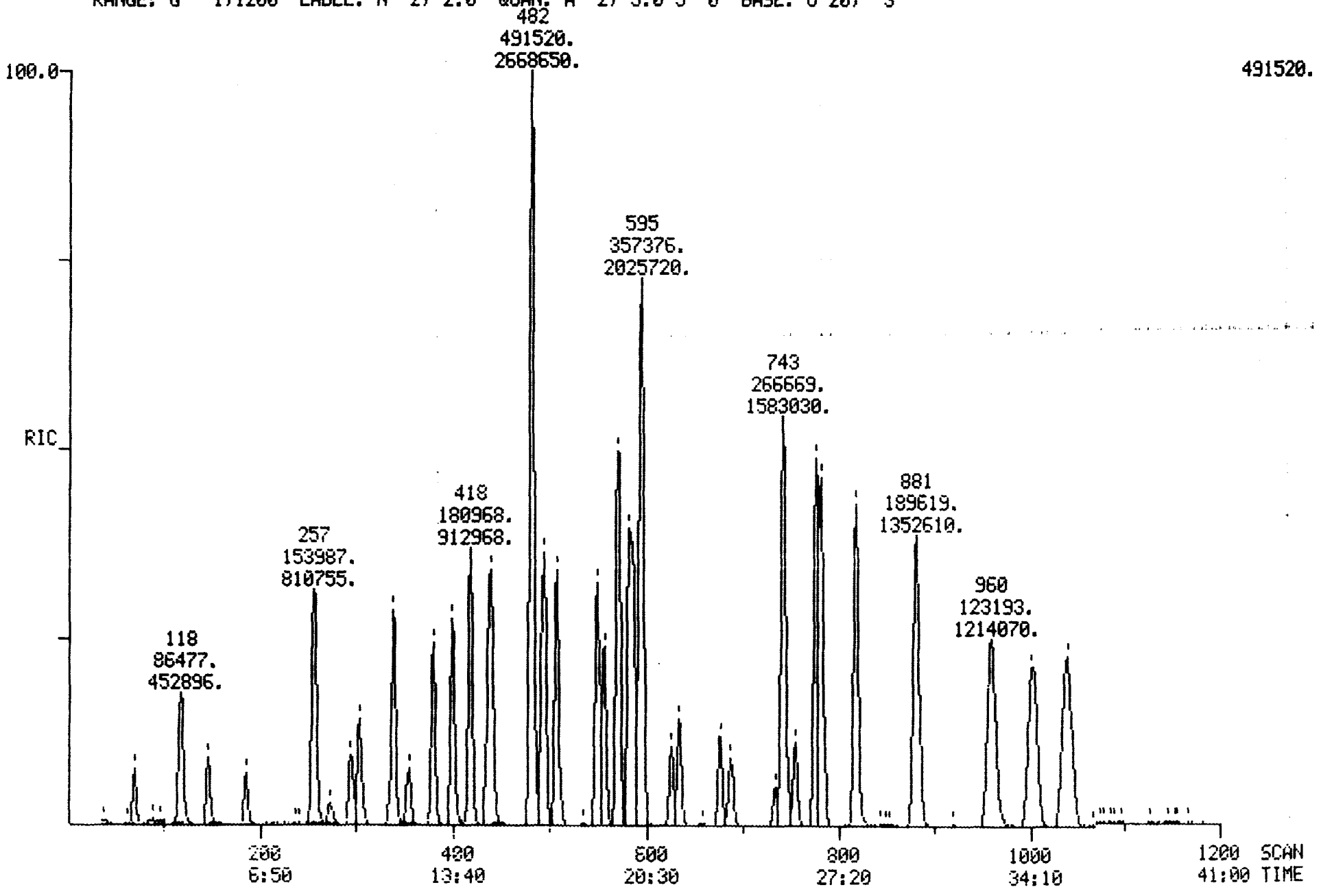
NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R.FAC	R.FAC(L)	RATIO
1	12:10	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	21:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	25:50	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	2:26	1.00	0.199	1.00	23.11	20.00	1.734	1.501	1.16
5	4:04	1.00	0.334	1.00	22.45	20.00	2.702	2.407	1.12
6	5:03	1.00	0.416	1.00	22.20	20.00	2.259	2.035	1.11
7	6:23	1.00	0.525	1.00	21.90	20.00	1.375	1.256	1.09
8	8:51	1.00	0.728	1.00	26.35	20.00	4.350	3.303	1.32
9	9:24	1.00	0.772	1.00	117.72	100.00	0.157	0.133	1.18
10	10:09	1.00	0.834	1.00	120.38	100.00	0.436	0.362	1.20
11	11:39	1.00	0.958	1.00	21.30	20.00	4.035	3.789	1.07
12	13:01	1.00	1.070	1.00	21.35	20.00	4.721	4.423	1.07
13	13:42	1.00	1.126	1.00	21.19	20.00	2.148	2.027	1.06
14	14:21	1.00	1.180	1.00	21.44	20.00	6.141	5.729	1.07
15	15:06	1.00	1.242	1.00	21.69	20.00	4.498	4.147	1.08
16	16:32	1.00	1.360	1.00	21.02	20.00	5.092	4.846	1.05
17	9:24	1.00	0.772	1.00	27.95	20.00	0.188	0.134	1.40
18	10:27	1.00	0.860	1.00	19.74	20.00	4.536	4.596	0.99
19	16:32	1.00	0.762	1.00	19.80	20.00	0.137	0.139	0.99
20	17:23	1.00	0.802	1.00	19.54	20.00	1.233	1.262	0.98
21	18:50	1.00	0.868	1.00	20.59	20.00	0.714	0.693	1.03
22	19:04	1.00	0.879	1.00	20.30	20.00	0.928	0.914	1.02
23	19:35	1.00	0.902	1.00	22.32	20.00	1.203	1.078	1.12
24	20:05	1.00	0.926	1.00	22.20	20.00	1.946	1.753	1.11
25	20:20	1.00	0.937	1.00	17.75	20.00	0.690	0.777	0.89
26	20:24	1.00	0.940	1.00	20.95	20.00	0.598	0.571	1.05
27	20:22	1.00	0.939	1.00	20.16	20.00	0.959	0.951	1.01
28	21:27	1.00	0.989	1.00	20.78	20.00	0.325	0.313	1.04
29	23:10	1.00	1.068	1.00	15.73	20.00	0.239	0.304	0.79
30	14:56	1.00	0.688	1.00	23.42	20.00	0.056	0.048	1.17
31	17:25		0.803			100.00		0.009	
32	23:32	1.00	1.085	1.00	24.42	20.00	0.491	0.402	1.22
33	15:00	1.00	0.691	1.00	98.83	100.00	0.993	1.005	0.99
34	19:57	1.00	0.920	1.00	100.90	100.00	1.885	1.868	1.01
35	12:49		0.704			100.00		3.074	
36	14:41		0.691			100.00		0.009	
37	16:55		0.770			100.00		0.432	
38	25:23	1.00	0.983	1.00	22.43	20.00	0.932	0.831	1.12
39	25:29	1.00	0.987	1.00	21.37	20.00	0.532	0.498	1.07
40	26:45	1.00	1.036	1.00	22.61	20.00	2.456	2.173	1.13
41	27:59	1.00	1.083	1.00	22.07	20.00	1.774	1.608	1.10
42	30:08	1.00	1.167	1.00	22.47	20.00	2.932	2.609	1.12
43	25:07	1.00	0.972	1.00	22.52	20.00	0.306	0.272	1.13
44	34:18	1.00	1.328	1.00	21.57	20.00	1.413	1.310	1.08
45	35:32	1.00	1.376	1.00	22.82	20.00	0.941	0.825	1.14
46	26:33	1.00	1.028	1.00	102.45	100.00	2.041	1.992	1.02
47	27:55		1.297			100.00		1.637	
48	23:43		1.102			100.00		2.050	

NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R. FAC	R. FAC(L)	RATIO
49	25:29	1.00	0.987	1.00	21.37	20.00	0.532	0.498	1.07
50	32:48	1.00	1.270	1.00	104.30	100.00	1.267	1.215	1.04

RIC
02/26/84 10:02:00
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
RANGE: G 1,1200 LABEL: N 2, 2.0 QUAN: A 2, 3.0 J 0 BASE: U 20, 3

DATA: EPAVOA869 #1
CALI: EPAVOA869 #1

SCANS 1 TO 1200



QUANTITATION REPORT FILE: EPAVOA869

DATA: EPAVOA869.TI
02/26/84 10:02:00
SAMPLE:
SUBMITTED BY: ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1,1,2,2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	130	355	12:08	1	1.000	A BB	35197.	50.000	UG/L	1.06
2	77	634	21:40	2	1.000	A BB	128307.	50.000	UG/L	1.06
3	55	755	25:48	3	1.000	A BB	111765.	50.000	UG/L	1.06
4	50	70	2:23	1	0.197	A BB	99831.	94.509	UG/L	2.01
5	94	118	4:02	1	0.332	A BB	160691.	94.828	UG/L	2.02
6	62	147	5:01	1	0.414	A BB	136048.	94.974	UG/L	2.02
7	64	186	6:21	1	0.524	A BB	83981.	94.988	UG/L	2.02
8	84	257	8:47	1	0.724	A BB	202889.	87.273	UG/L	1.86
9	56	275	9:24	1	0.775	A BB	25030.	266.362	UG/L	5.67
10	53	295	10:05	1	0.831	A BB	108657.	426.218	UG/L	9.07
11	61	339	11:35	1	0.955	A BB	259846.	97.427	UG/L	2.07
12	63	380	12:59	1	1.070	A BB	298582.	95.907	UG/L	2.04
13	96	400	13:40	1	1.127	A BB	139210.	97.541	UG/L	2.08
14	83	418-	14:17	1	1.177	A BB	389216.	96.514	UG/L	2.05
15	62	440	15:02	1	1.239	A BB	279491.	95.730	UG/L	2.04
16	97	482	16:28	1	1.358	A BB	336253.	98.579	UG/L	2.10
17	58	274	9:22	1	0.772	A BB	6981.	73.914	UG/L	1.57
18	76	304	10:23	1	0.856	A BB	322760.	99.761	UG/L	2.12
19	117	482	16:28	2	0.760	A BV	36397.	102.120	UG/L	2.17
20	83	508-	17:21	2	0.801	A BB	320377.	98.913	UG/L	2.10
21	63	550	18:47	2	0.868	A BB	174259.	97.947	UG/L	2.08
22	75	557	19:02	2	0.879	A BB	228883.	97.614	UG/L	2.08
23	95	571	19:31	2	0.901	A BB	263405.	95.215	UG/L	2.03
24	78	587	20:03	2	0.926	A BB	429601.	95.473	UG/L	2.03
25	129	594*	20:18	2	0.937	A BB	200535.	100.571	UG/L	2.14
26	83	596	20:22	2	0.940	A VB	140898.	96.117	UG/L	2.05
27	75	595-	20:20	2	0.938	A BB	237266.	97.205	UG/L	2.07
28	63	626	21:23	2	0.987	A BB	74823.	93.299	UG/L	1.99
29	173	676	23:06	2	1.066	A BB	78033.	100.193	UG/L	2.13
30	72	436	14:54	2	0.688	A BB	10621.	87.085	UG/L	1.85
31	86	508	17:21	2	0.801	A BB	2404.	93.517	UG/L	1.99
32	43	688	23:30	2	1.085	A BB	87629.	84.916	UG/L	1.81
33	65	437	14:56	2	0.689	A BB	254169.	98.555	UG/L	2.10
34	84	582	19:53	2	0.918	A VV	485345.	101.258	UG/L	2.15
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	166	742	25:21	3	0.983	A BB	187250.	100.800	UG/L	2.14
39	83	745	25:27	3	0.987	A BB	109701.	98.629	UG/L	2.10
40	91	782	26:43	3	1.036	A BB	479760.	98.791	UG/L	2.10
41	112	818-	27:57	3	1.083	A BB	359184.	99.949	UG/L	2.13
42	91	881	30:06	3	1.167	A BB	588770.	100.959	UG/L	2.15
43	43	734	25:05	3	0.972	A BB	55419.	91.285	UG/L	1.94
44	104	1002	34:14	3	1.327	A BB	296604.	101.270	UG/L	2.15
45	106	1039	35:30	3	1.376	A BB	180040.	97.598	UG/L	2.08

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
46	98	776	26:31	3	1.028	A BB	465387.	104.514 UG/L	2.22
47	NOT FOUND								
48	NOT FOUND								
49	83	745	25:27	3	0.987	A BB	109701.	98.629 UG/L	2.10
50	95	960	32:48	3	1.272	A BB	279568.	102.946 UG/L	2.19

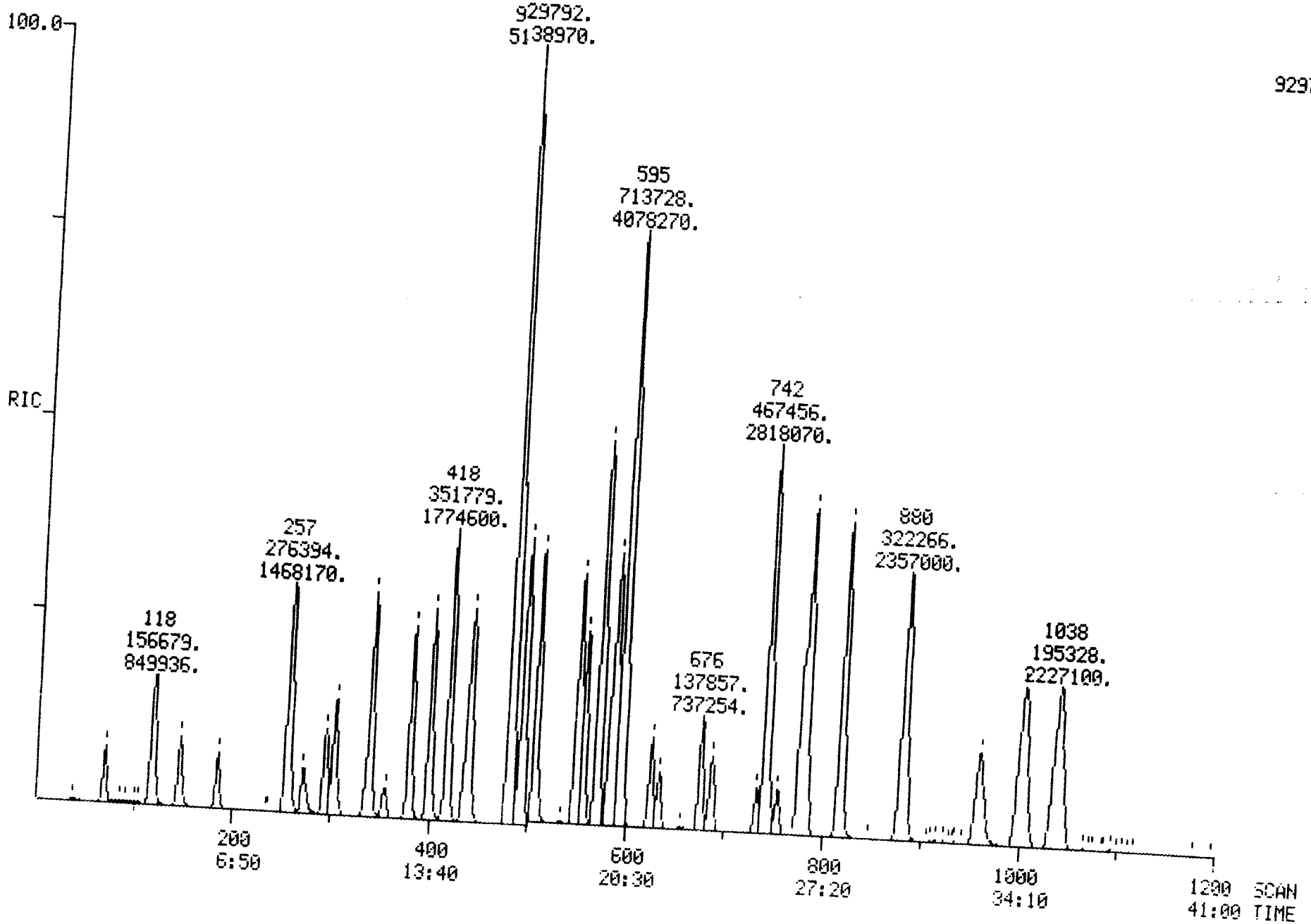
NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R.FAC	R.FAC(L)	RATIO
1	12:10	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	21:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	25:50	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	2:26	0.99	0.199	0.99	94.51	100.00	1.418	1.501	0.95
5	4:04	0.99	0.334	0.99	94.83	100.00	2.283	2.407	0.95
6	5:03	0.99	0.416	1.00	94.97	100.00	1.933	2.035	0.95
7	6:23	0.99	0.525	1.00	94.99	100.00	1.193	1.256	0.95
8	8:51	0.99	0.728	1.00	87.27	100.00	2.882	3.303	0.87
9	9:24	1.00	0.772	1.00	266.36	500.00	0.071	0.133	0.53
10	10:09	0.99	0.834	1.00	426.22	500.00	0.309	0.362	0.85
11	11:39	0.99	0.958	1.00	97.43	100.00	3.691	3.789	0.97
12	13:01	1.00	1.070	1.00	95.91	100.00	4.242	4.423	0.96
13	13:42	1.00	1.126	1.00	97.54	100.00	1.978	2.027	0.98
14	14:21	1.00	1.180	1.00	96.51	100.00	5.529	5.729	0.97
15	15:06	1.00	1.242	1.00	95.73	100.00	3.970	4.147	0.96
16	16:32	1.00	1.360	1.00	98.58	100.00	4.777	4.846	0.99
17	9:24	1.00	0.772	1.00	73.91	100.00	0.099	0.134	0.74
18	10:27	0.99	0.860	1.00	99.76	100.00	4.585	4.596	1.00
19	16:32	1.00	0.762	1.00	102.12	100.00	0.142	0.139	1.02
20	17:23	1.00	0.802	1.00	98.91	100.00	1.248	1.262	0.99
21	18:50	1.00	0.868	1.00	97.95	100.00	0.679	0.693	0.98
22	19:04	1.00	0.879	1.00	97.61	100.00	0.892	0.914	0.98
23	19:35	1.00	0.902	1.00	95.22	100.00	1.026	1.078	0.95
24	20:05	1.00	0.926	1.00	95.47	100.00	1.674	1.753	0.95
25	20:20	1.00	0.937	1.00	100.57	100.00	0.781	0.777	1.01
26	20:24	1.00	0.940	1.00	96.12	100.00	0.549	0.571	0.96
27	20:22	1.00	0.939	1.00	97.21	100.00	0.925	0.951	0.97
28	21:27	1.00	0.989	1.00	93.30	100.00	0.292	0.313	0.93
29	23:10	1.00	1.068	1.00	100.19	100.00	0.304	0.304	1.00
30	14:56	1.00	0.688	1.00	87.09	100.00	0.041	0.048	0.87
31	17:25	1.00	0.803	1.00	93.52	100.00	0.009	0.010	0.94
32	23:32	1.00	1.085	1.00	84.92	100.00	0.341	0.402	0.85
33	15:00	1.00	0.691	1.00	98.55	100.00	0.990	1.005	0.99
34	19:57	1.00	0.920	1.00	101.26	100.00	1.891	1.868	1.01
35	12:49		0.704			100.00		3.074	
36	14:41		0.691			100.00		0.009	
37	16:55		0.770			100.00		0.432	
38	25:23	1.00	0.983	1.00	100.80	100.00	0.838	0.831	1.01
39	25:29	1.00	0.987	1.00	98.63	100.00	0.491	0.498	0.99
40	26:45	1.00	1.036	1.00	98.79	100.00	2.146	2.173	0.99
41	27:59	1.00	1.083	1.00	99.95	100.00	1.607	1.608	1.00
42	30:08	1.00	1.167	1.00	100.96	100.00	2.634	2.609	1.01
43	25:07	1.00	0.972	1.00	91.28	100.00	0.248	0.272	0.91
44	34:18	1.00	1.328	1.00	101.27	100.00	1.327	1.310	1.01
45	35:32	1.00	1.376	1.00	97.60	100.00	0.805	0.825	0.98
46	26:33	1.00	1.028	1.00	104.51	100.00	2.082	1.992	1.05
47	27:55		1.297			100.00		1.637	
48	23:43		1.102			100.00		2.050	
49	25:29	1.00	0.987	1.00	98.63	100.00	0.491	0.498	0.99

NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R. FAC	R. FAC(L)	RATIO
50	32:48	1.00	1.270	1.00	102.95	100.00	1.251	1.215	1.03

RIC
02/26/84 11:00:00
SAMPLE: P 200 UG/L STANDARD
CONDS.:
RANGE: G 1,1200 LABEL: N 2, 2.0 QUAN: A 2, 3.0 J 0 BASE: U 20, 3

DATA: EPAVOA870 #1
CALI: EPAVOA870 #1

SCANS 1 TO 1200



9297

QUANTITATION REPORT FILE: EPAVOA870

DATA: EPAVOA870.TI
02/26/84 11:00:00
SAMPLE:
SUBMITTED BY: ANALYST:

AMOUNT=AREA * REF. AMNT/(REF. AREA)* RESP. FACT)
RESP. FAC. FROM AVERAGE OF WHOLE .RL

NO	NAME	
1	*	BROMOCHLORMETHANE (INTERAL STANDARD)
2	*	2-BROMO-1-CHLOROPROPANE (INTERNAL STANDARD)
3	*	1,4-DICHLOROBUTANE (INTERNAL STANDARD)
4		CHLOROMETHANE
5		BROMOMETHANE
6		VINYL CHLORIDE
7		CHLOROETHANE
8		METHYLENE CHLORIDE
9		ACROLEIN
10		ACRYLONITRILE
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	HSL	ACETONE
18	HSL	CARBON DISULFIDE
19		CARBON TETRACHLORIDE
20		BROMODICHLOROMETHANE
21		1,2-DICHLOROPROPANE
22		TRANS-1,3-DICHLOROPROPYLENE
23		TRICHLOROETHYLENE
24		BENZENE
25		DIBROMOCHLOROMETHANE
26		1,1,2-TRICHLOROETHANE
27		CIS-1,3-DICHLOROPROPYLENE
28		2-CHLOROETHYL VINYL ETHER
29		BROMOFORM
30	HSL	METHYL ETHYL KETONE
31	HSL	VINYL ACETATE
32	HSL	METHYL ISOBUTYL KETONE
33		1,2-DICHLOROETHANE-D4 (SURROGATE)
34		BENZENE-D6 (SURROGATE)
35		DIBROMOTETRAFLUOROETHANE (SURROGATE)
36		BIS(PERFLUOROISOPROPYL)KETONE (SURROGATE)
37		FLUOROBENZENE (SURROGATE)
38		TETRACHLOROETHYLENE
39		1,1,2,2-TETRACHLOROETHANE
40		TOLUENE
41		CHLOROBENZENE
42		ETHYLBENZENE
43	HSL	2-HEXANONE
44	HSL	STYRENE
45	HSL	O-XYLENE
46		TOLUENE-D8 (SURROGATE)

NO	NAME
47	M-BROMOBENZOTRIFLUORIDE (SURROGATE)
48	D-5 ETHYLBENZENE (SURROGATE)
49	1,1,2,2-TETRACHLOROETHANE
50	P-BROMOFLUOROBENZENE (SURROGATE)

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
1	130	354	12:06	1	1.000	A BB	33594.	50.000	UG/L	0.52
2	77	634	21:40	2	1.000	A BB	120817.	50.000	UG/L	0.52
3	55	755	25:48	3	1.000	A BB	111857.	50.000	UG/L	0.52
4	50	70	2:23	1	0.198	A BB	181368.	179.892	UG/L	1.86
5	94	118	4:02	1	0.333	A BB	300582.	185.846	UG/L	1.92
6	62	147	5:01	1	0.415	A BB	257091.	188.037	UG/L	1.94
7	64	186	6:21	1	0.525	A BB	161215.	191.045	UG/L	1.97
8	84	257	8:47	1	0.726	A BB	359460.	162.000	UG/L	1.67
9	56	274	9:22	1	0.774	A BB	115705.	1290.050	UG/L	13.33
10	53	295	10:05	1	0.833	A BB	229649.	943.809	UG/L	9.75
11	61	339	11:35	1	0.958	A BB	489112.	192.139	UG/L	1.98
12	63	380	12:59	1	1.073	A BV	578565.	194.707	UG/L	2.01
13	96	400	13:40	1	1.130	A BB	262920.	193.013	UG/L	1.99
14	83	418	14:17	1	1.181	A BB	741270.	192.585	UG/L	1.99
15	62	440	15:02	1	1.243	A BB	534073.	191.658	UG/L	1.98
16	97	482	16:28	1	1.362	A BB	627231.	192.660	UG/L	1.99
17	58	273	9:20	1	0.771	A VB	15565.	172.664	UG/L	1.78
18	76	304	10:23	1	0.859	A BB	627137.	203.090	UG/L	2.10
19	117	482	16:28	2	0.760	A BV	66384.	197.803	UG/L	2.04
20	83	508	17:21	2	0.801	A BB	630763.	206.815	UG/L	2.14
21	63	550	18:47	2	0.868	A BB	332058.	198.213	UG/L	2.05
22	75	556	19:00	2	0.877	A BB	445393.	201.727	UG/L	2.08
23	95	571	19:31	2	0.901	A BB	485503.	186.378	UG/L	1.93
24	78	587	20:03	2	0.926	A BB	792626.	187.071	UG/L	1.93
25	129	593	20:16	2	0.935	A BB	415586.	221.343	UG/L	2.29
26	83	596	20:22	2	0.940	A BB	273697.	198.283	UG/L	2.05
27	75	595	20:20	2	0.938	A BB	468860.	203.995	UG/L	2.11
28	63	626	21:23	2	0.987	A BB	155282.	205.629	UG/L	2.12
29	173	676	23:06	2	1.066	A BB	177728.	242.347	UG/L	2.50
30	72	436	14:54	2	0.688	A BB	22002.	191.586	UG/L	1.98
31	86	507	17:19	2	0.800	A BB	5155.	212.965	UG/L	2.20
32	43	687	23:28	2	1.084	A BB	180669.	185.927	UG/L	1.92
33	65	437	14:56	2	0.689	A BB	249198.	102.618	UG/L	1.06
34	84	582	19:53	2	0.918	A VV	441597.	97.842	UG/L	1.01
35	NOT	FOUND								
36	NOT	FOUND								
37	NOT	FOUND								
38	166	742	25:21	3	0.983	A BB	323718.	174.119	UG/L	1.80
39	83	744	25:25	3	0.985	A BB	210388.	188.997	UG/L	1.95
40	91	782	26:43	3	1.036	A BB	857208.	176.367	UG/L	1.82
41	112	818	27:57	3	1.083	A BB	645251.	179.403	UG/L	1.85
42	91	881	30:06	3	1.167	A BB	1011790.	173.353	UG/L	1.79
43	43	733	25:03	3	0.971	A BB	116788.	192.208	UG/L	1.99
44	104	1002	34:14	3	1.327	A BB	532682.	181.723	UG/L	1.88
45	106	1038	35:28	3	1.375	A BB	326119.	176.640	UG/L	1.82

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
46	98	776	26:31	3	1.028	A BB	414630.	93.038 UG/L	0.96
47	NOT FOUND								
48	NOT FOUND								
49	83	744	25:25	3	0.985	A BB	210388.	188.997 UG/L	1.95
50	95	959	32:46	3	1.270	A BB	252109.	92.757 UG/L	0.96

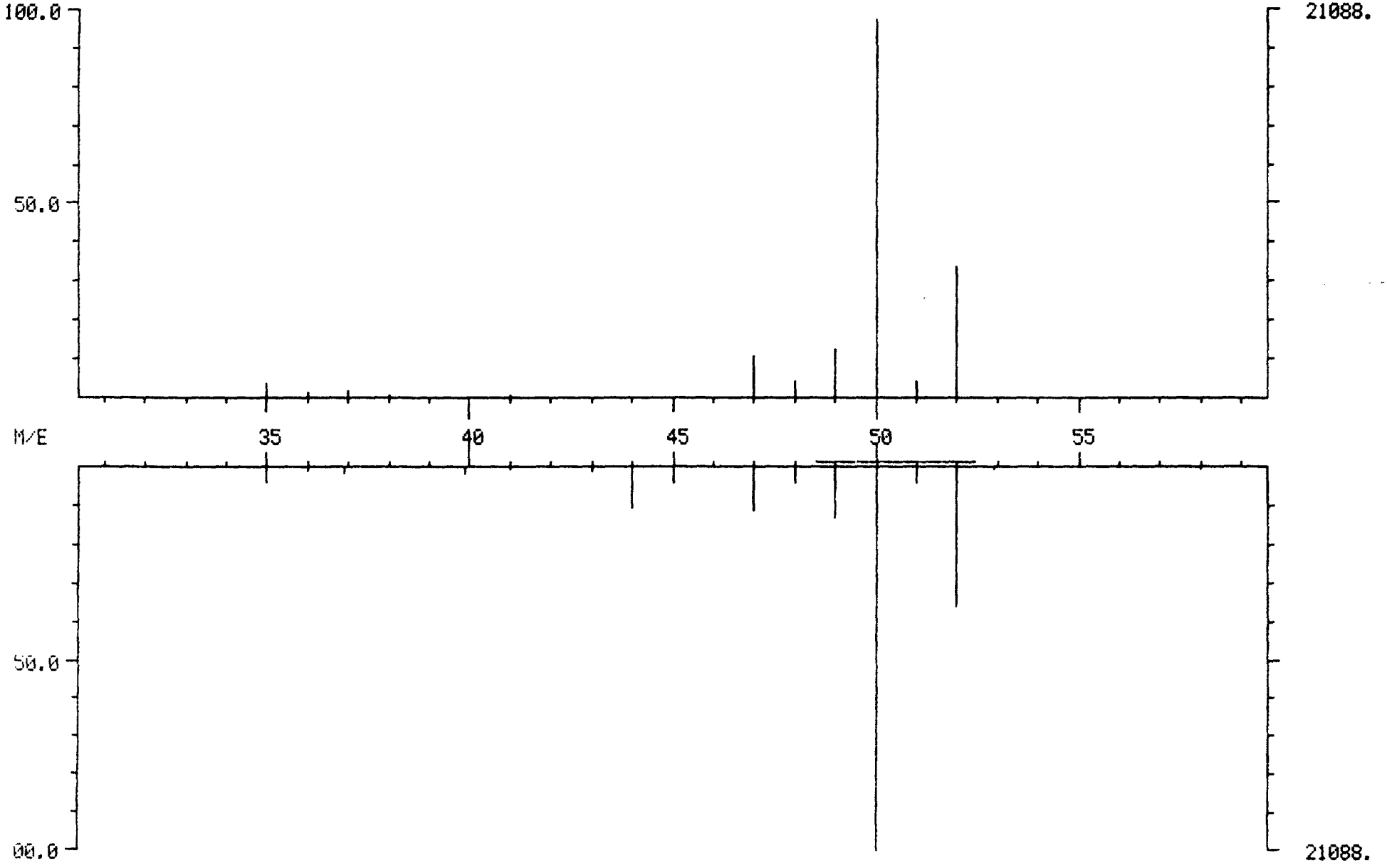
NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R. FAC	R. FAC(L)	RATIO
1	12:10	0.99	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	21:42	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
3	25:50	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
4	2:26	0.99	0.199	0.99	179.89	200.00	1.350	1.501	0.90
5	4:04	0.99	0.334	1.00	185.85	200.00	2.237	2.407	0.93
6	5:03	0.99	0.416	1.00	188.04	200.00	1.913	2.035	0.94
7	6:23	0.99	0.525	1.00	191.04	200.00	1.200	1.256	0.96
8	8:51	0.99	0.728	1.00	162.00	200.00	2.675	3.303	0.81
9	9:24	1.00	0.772	1.00	1290.05	1000.00	0.172	0.133	1.29
10	10:09	0.99	0.834	1.00	943.81	1000.00	0.342	0.362	0.94
11	11:39	0.99	0.958	1.00	192.14	200.00	3.640	3.789	0.96
12	13:01	1.00	1.070	1.00	194.71	200.00	4.306	4.423	0.97
13	13:42	1.00	1.126	1.00	193.01	200.00	1.957	2.027	0.97
14	14:21	1.00	1.180	1.00	192.58	200.00	5.516	5.729	0.96
15	15:06	1.00	1.242	1.00	191.66	200.00	3.974	4.147	0.96
16	16:32	1.00	1.360	1.00	192.66	200.00	4.668	4.846	0.96
17	9:24	0.99	0.772	1.00	172.66	200.00	0.116	0.134	0.86
18	10:27	0.99	0.860	1.00	203.09	200.00	4.667	4.596	1.02
19	16:32	1.00	0.762	1.00	197.80	200.00	0.137	0.139	0.99
20	17:23	1.00	0.802	1.00	206.81	200.00	1.305	1.262	1.03
21	18:50	1.00	0.868	1.00	198.21	200.00	0.687	0.693	0.99
22	19:04	1.00	0.879	1.00	201.73	200.00	0.922	0.914	1.01
23	19:35	1.00	0.902	1.00	186.38	200.00	1.005	1.078	0.93
24	20:05	1.00	0.926	1.00	187.07	200.00	1.640	1.753	0.94
25	20:20	1.00	0.937	1.00	221.34	200.00	0.860	0.777	1.11
26	20:24	1.00	0.940	1.00	198.28	200.00	0.566	0.571	0.99
27	20:22	1.00	0.939	1.00	203.99	200.00	0.970	0.951	1.02
28	21:27	1.00	0.989	1.00	205.63	200.00	0.321	0.313	1.03
29	23:10	1.00	1.068	1.00	242.35	200.00	0.368	0.304	1.21
30	14:56	1.00	0.688	1.00	191.59	200.00	0.046	0.048	0.96
31	17:25	0.99	0.803	1.00	212.97	200.00	0.011	0.010	1.06
32	23:32	1.00	1.085	1.00	185.93	200.00	0.374	0.402	0.93
33	15:00	1.00	0.691	1.00	102.62	100.00	1.031	1.005	1.03
34	19:57	1.00	0.920	1.00	97.84	100.00	1.828	1.868	0.98
35	12:49		0.704			100.00		3.074	
36	14:41		0.691			100.00		0.009	
37	16:55		0.770			100.00		0.432	
38	25:23	1.00	0.983	1.00	174.12	200.00	0.724	0.831	0.87
39	25:29	1.00	0.987	1.00	189.00	200.00	0.470	0.498	0.94
40	26:45	1.00	1.036	1.00	176.37	200.00	1.916	2.173	0.88
41	27:59	1.00	1.083	1.00	179.40	200.00	1.442	1.608	0.90
42	30:08	1.00	1.167	1.00	173.35	200.00	2.261	2.609	0.87
43	25:07	1.00	0.972	1.00	192.21	200.00	0.261	0.272	0.96
44	34:18	1.00	1.328	1.00	181.72	200.00	1.191	1.310	0.91
45	35:32	1.00	1.376	1.00	176.64	200.00	0.729	0.825	0.88
46	26:33	1.00	1.028	1.00	93.04	100.00	1.853	1.992	0.93
47	27:55		1.297			100.00		1.637	
48	23:43		1.102			100.00		2.050	
49	25:29	1.00	0.987	1.00	189.00	200.00	0.470	0.498	0.94

NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R. FAC	R. FAC(L)	RATIO
50	32:48	1.00	1.270	1.00	92.76	100.00	1.127	1.215	0.93

#4

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 2:23
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

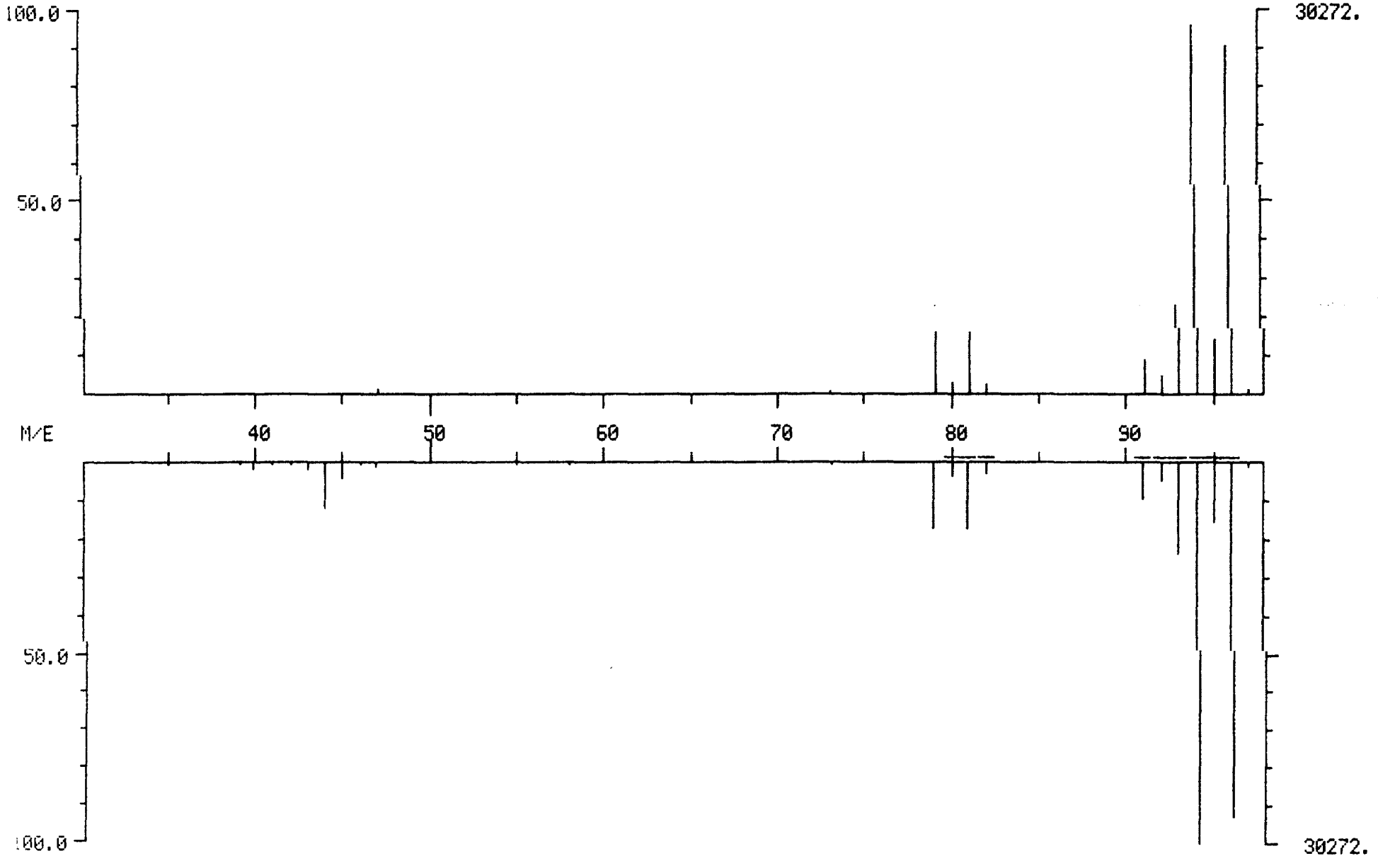
DATA: EPAVOA869 #70 BASE M/E: 50/ 50
CALI: EPAVOA869 #1 RIC: 35967./ 41151.



5

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 4:02
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

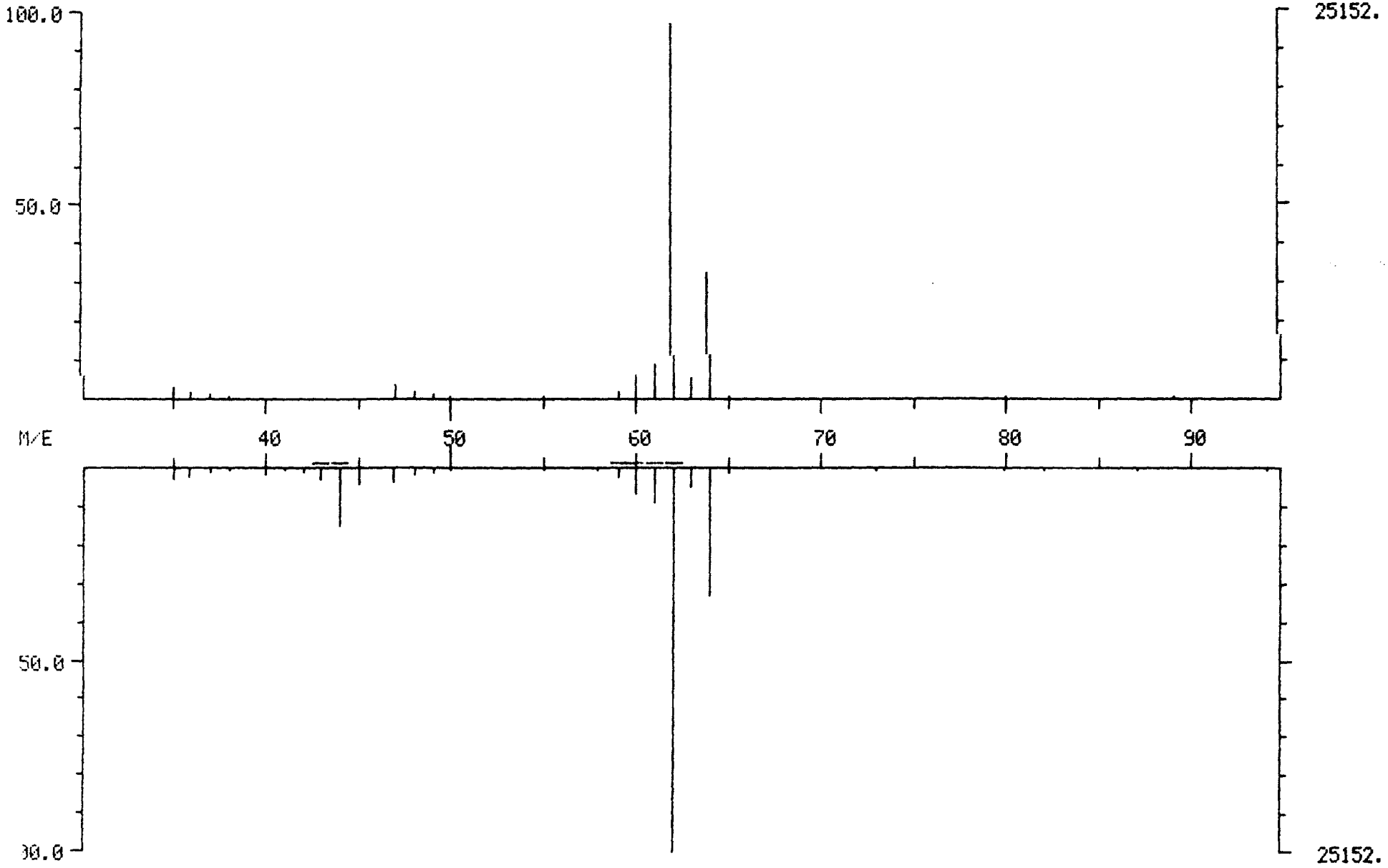
DATA: EPAVOA869 #118 BASE M/E: 94/ 94
CALI: EPAVOA869 #1 RIC: 83967./ 94591.



DUAL MASS SPECTRUM
02/26/84 10:02:00 + 5:01
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#6

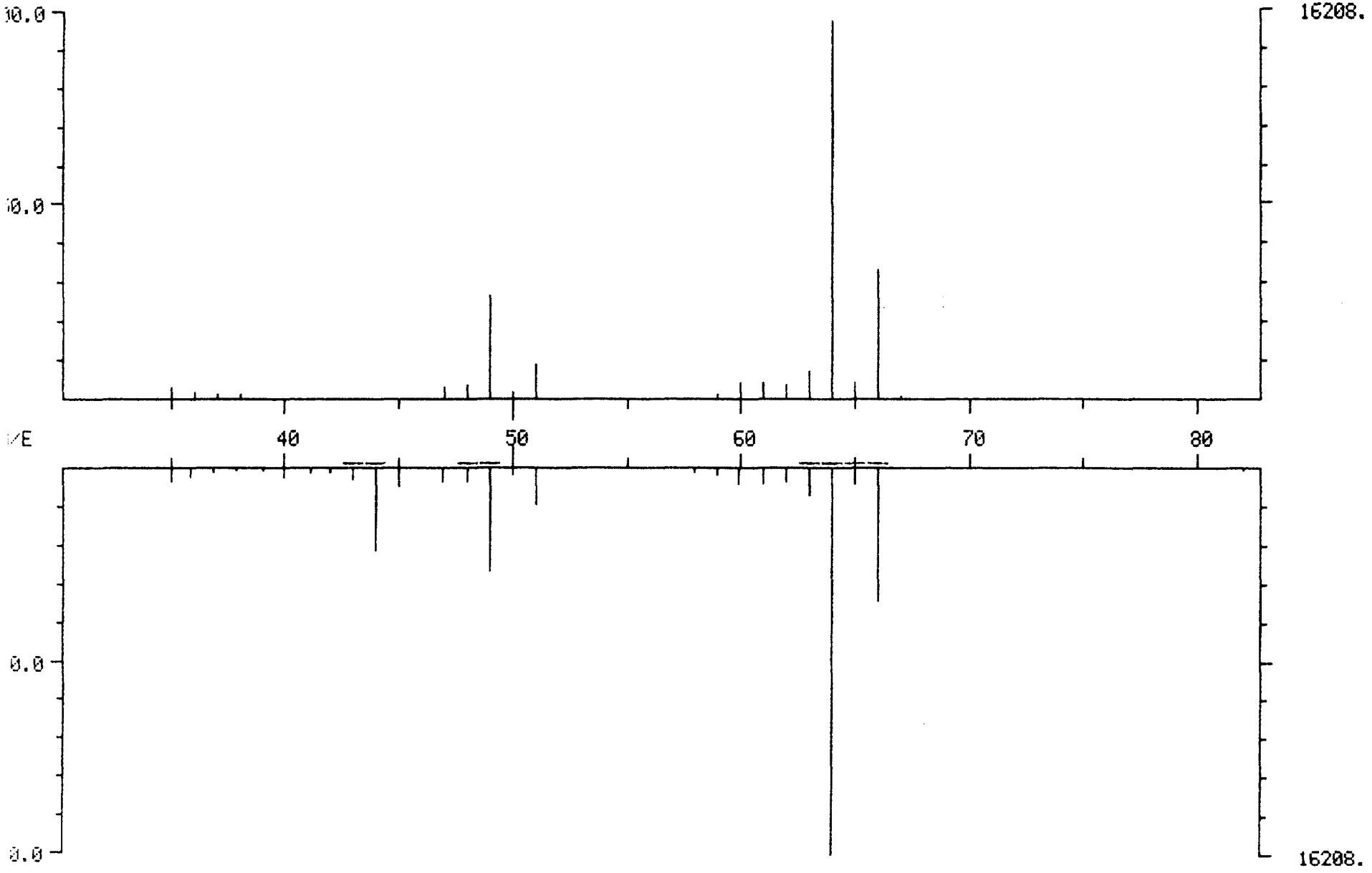
DATA: EPAVOA869 #147 BASE M/E: 62/ 62
CALI: EPAVOA869 #1 RIC: 42239./ 50687.



DUAL MASS SPECTRUM
02/26/84 10:02:00 + 6:21
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#7

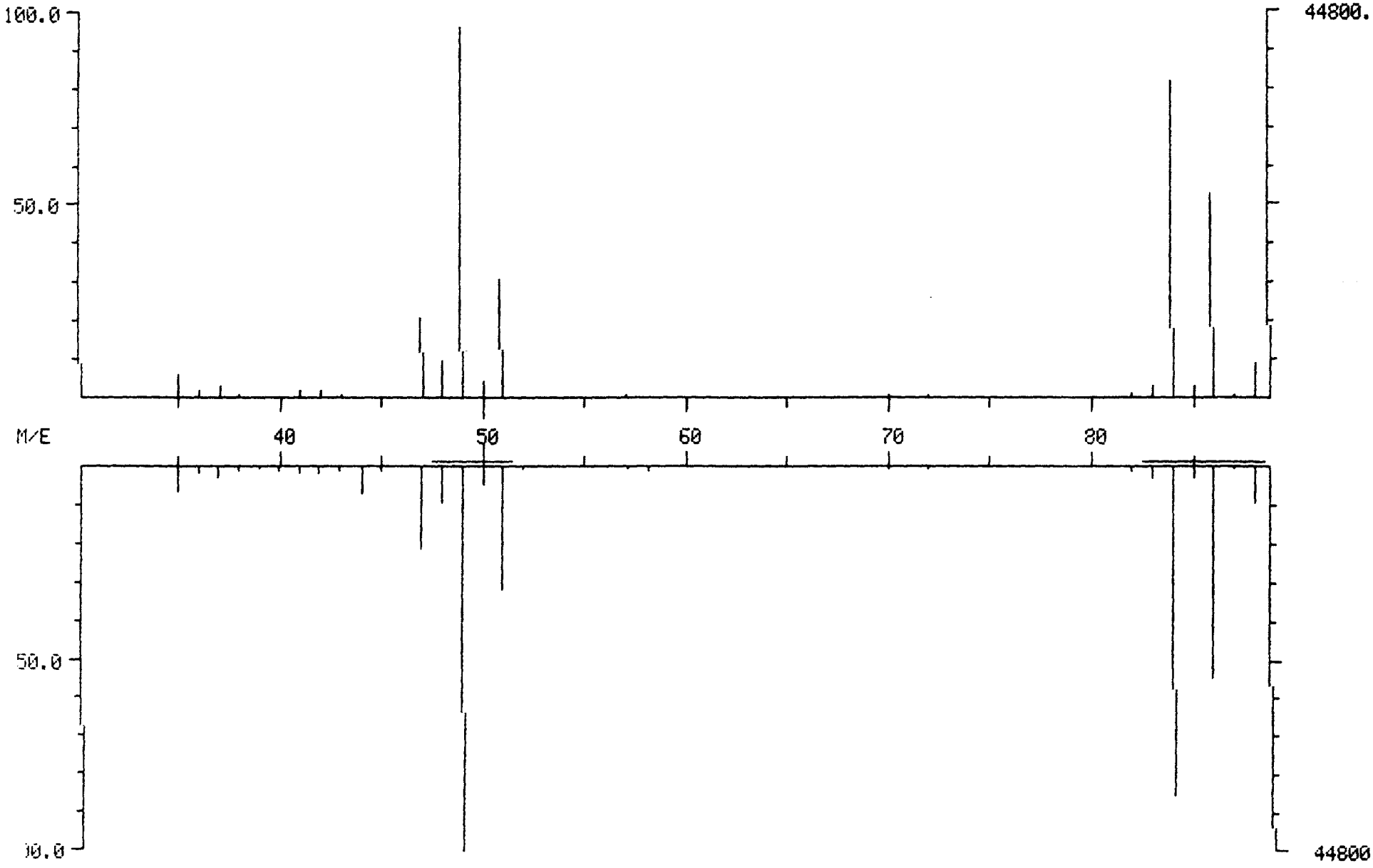
DATA: EPAVOA869 #186 BASE M/E: 64/ 64
CALI: EPAVOA869 #1 RIC: 33343./ 40063.



#8

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 8:47
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

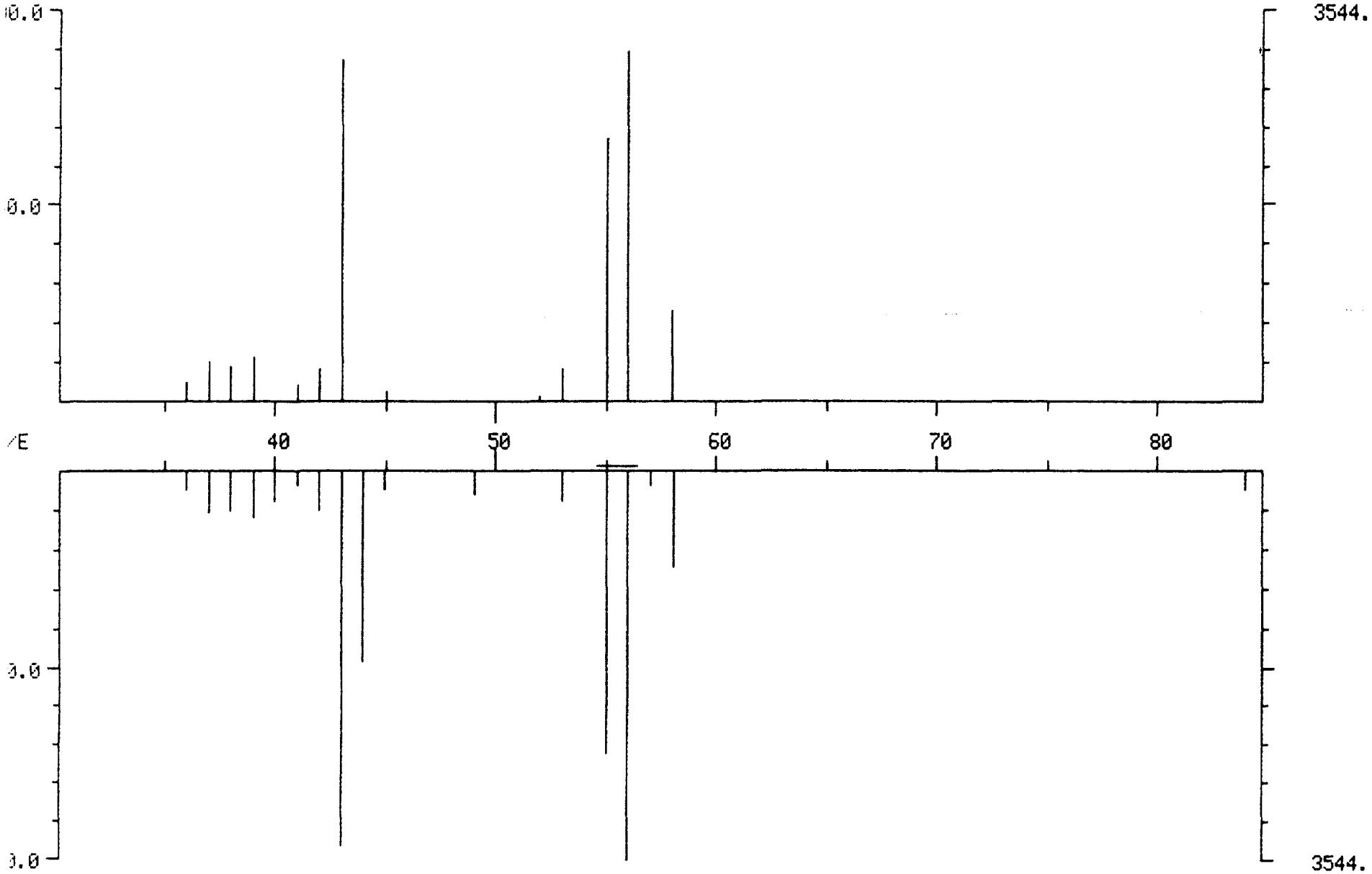
DATA: EPAVOA869 #257 BASE M/E: 49/ 49
CALI: EPAVOA869 #1 RIC: 148479./ 158975.



#9

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 9:24
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

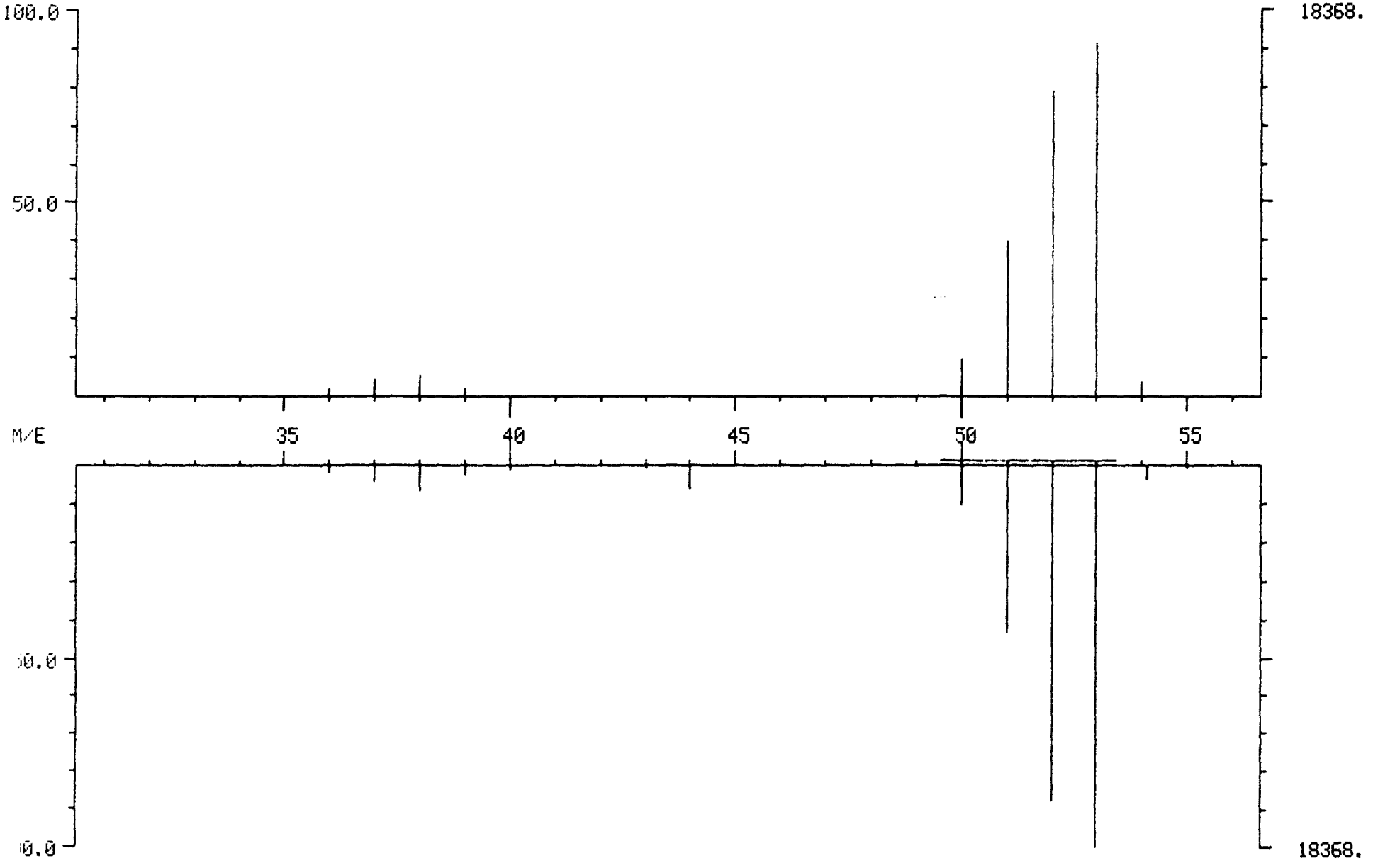
DATA: EPAVOA869 #275 BASE M/E: 56/ 56
CALI: EPAVOA869 #1 RIC: 11583./ 15135.



#10

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 10:05
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

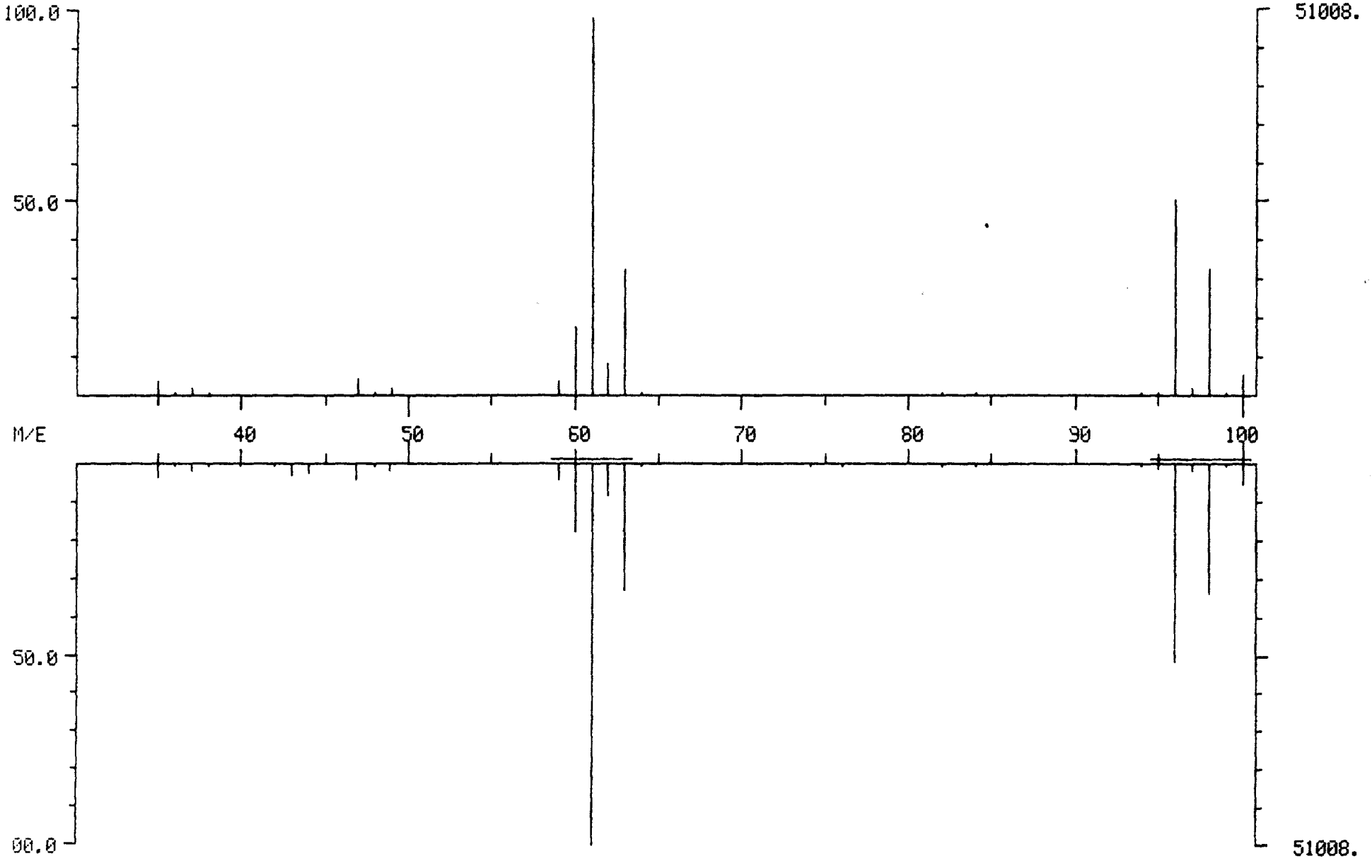
DATA: EPAVOA869 #295 BASE M/E: 53/ 53
CALI: EPAVOA869 #1 RIC: 43391./ 49343.



#11

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 11:35
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

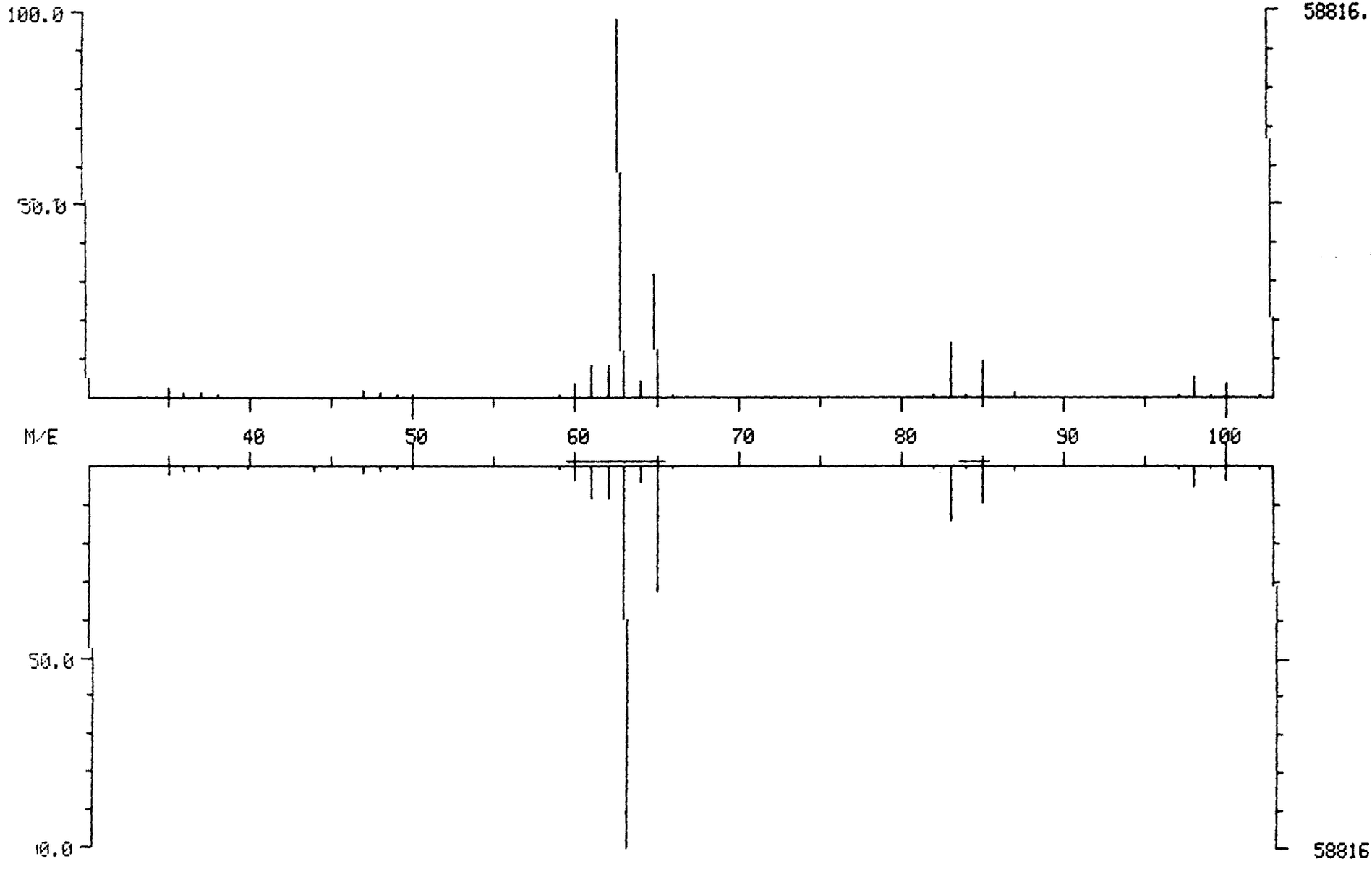
DATA: EPAV0A869 #339 BASE M/E: 61/ 61
CALI: EPAV0A869 #1 RIC: 135679./ 143359.



#12

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 12:59
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

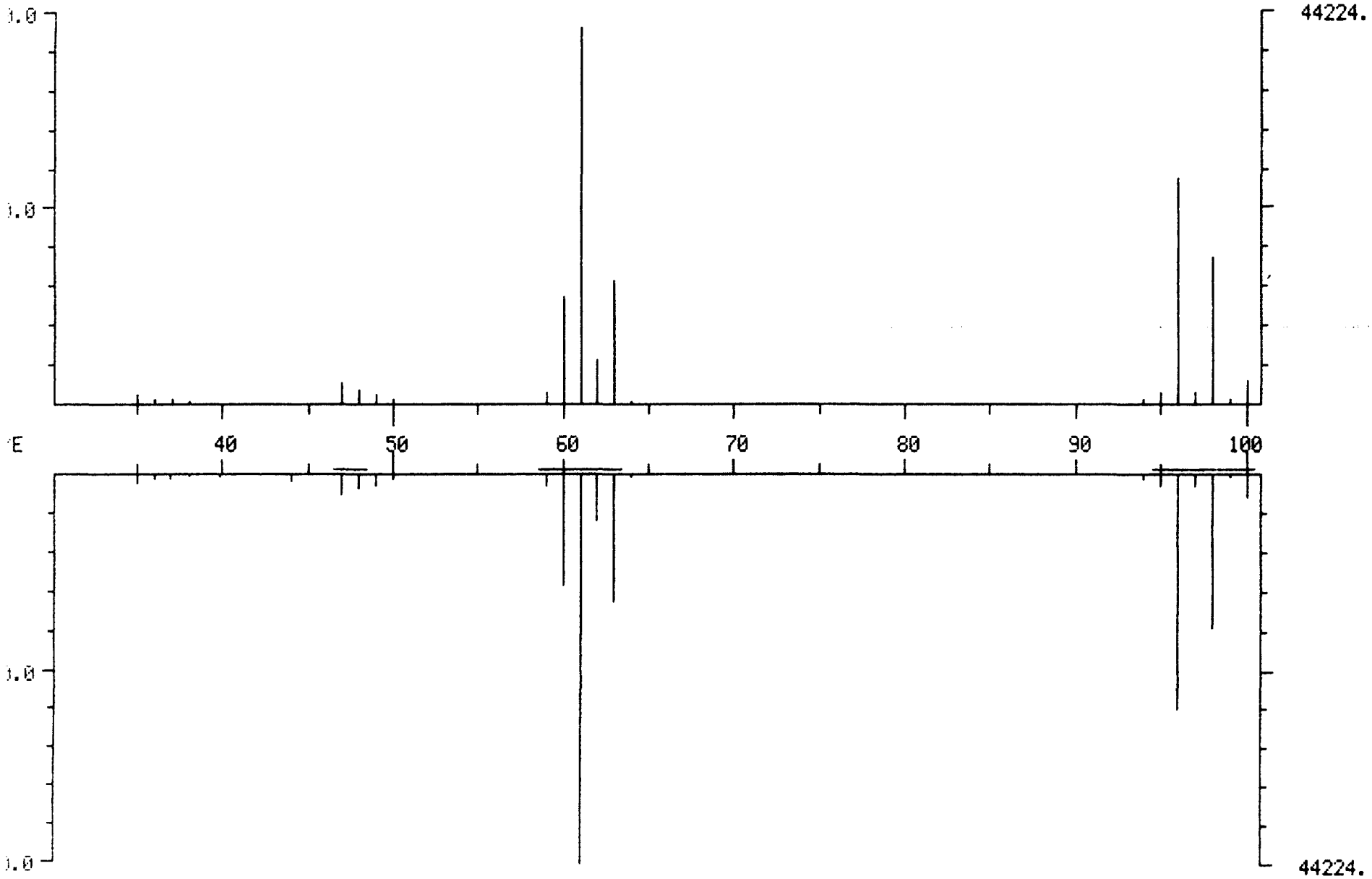
DATA: EPAVOA869 #380 BASE M/E: 63/ 63
CALI: EPAVOA869 #1 RIC: 117631./ 120959.



#13

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 13:40
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

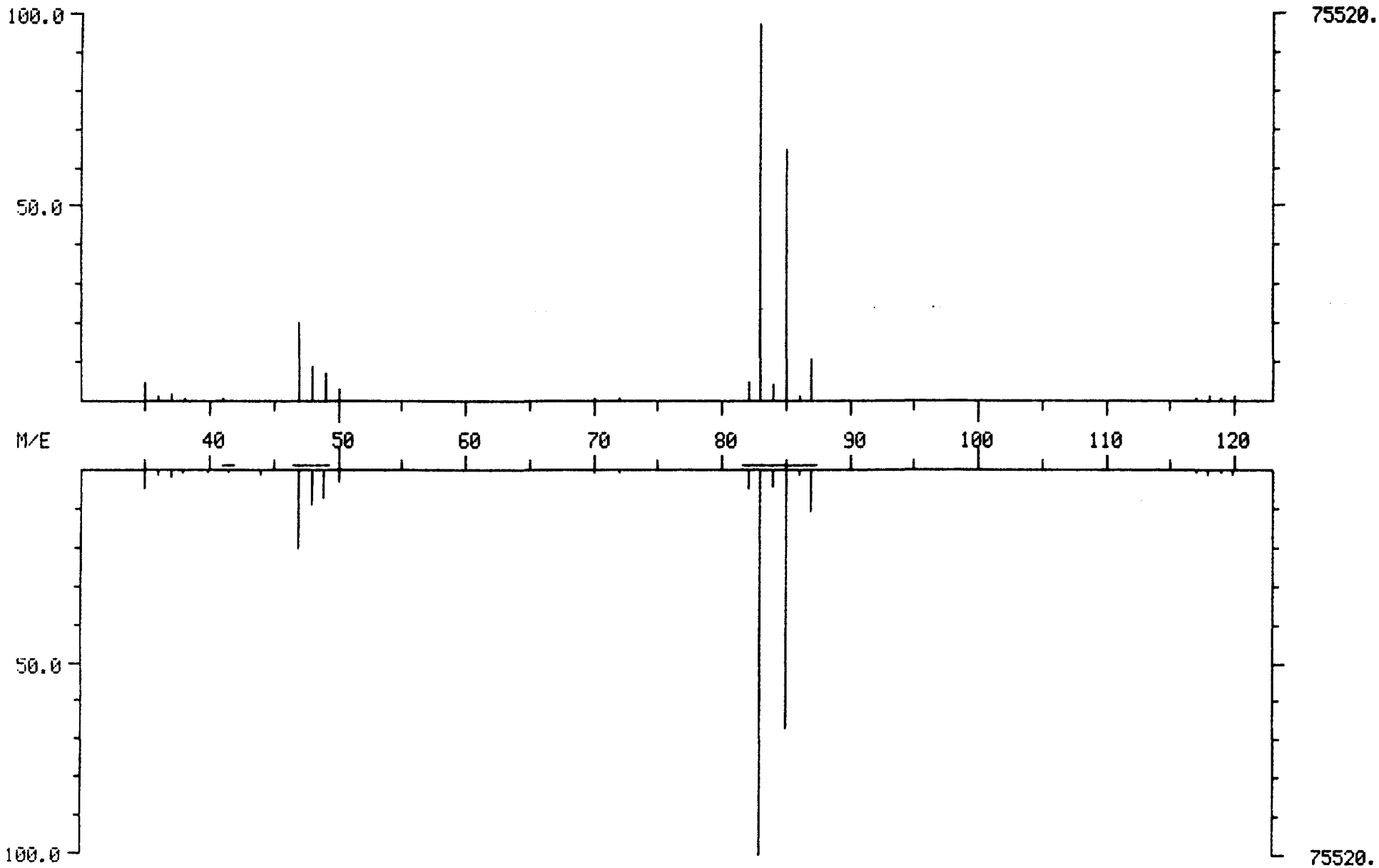
DATA: EPAVOA869 #400 BASE M/E: 61/ 61
CALI: EPAVOA869 #1 RIC: 130431./ 136191.



#14

DUAL MASS SPECTRUM
02/25/84 10:02:00 + 14:17
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

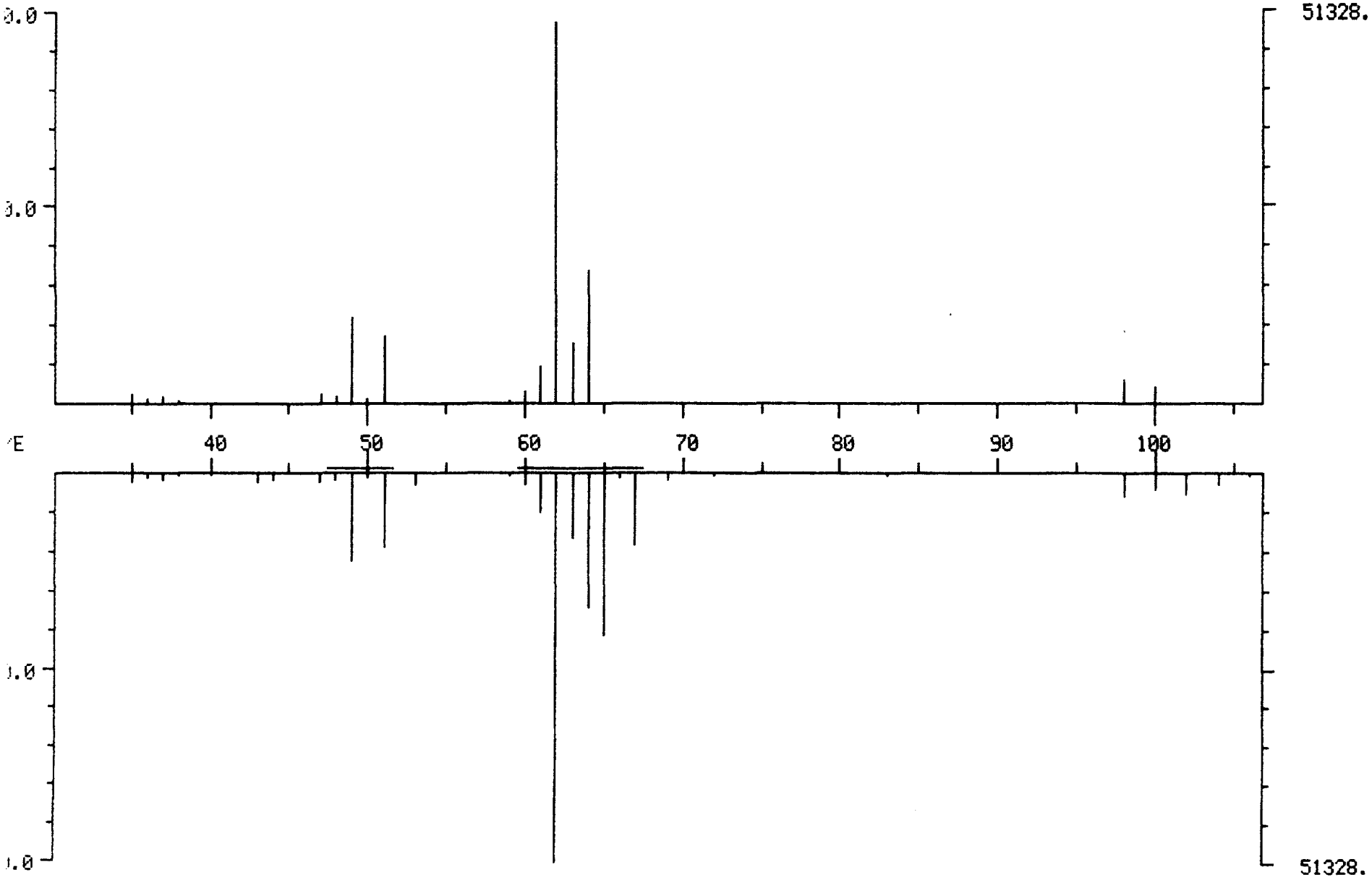
DATA: EPAVOA869 #418 BASE M/E: 83/ 83
CALI: EPAVOA869 #1 R.I.C.: 176895./ 183551.



#15

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 15:02
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

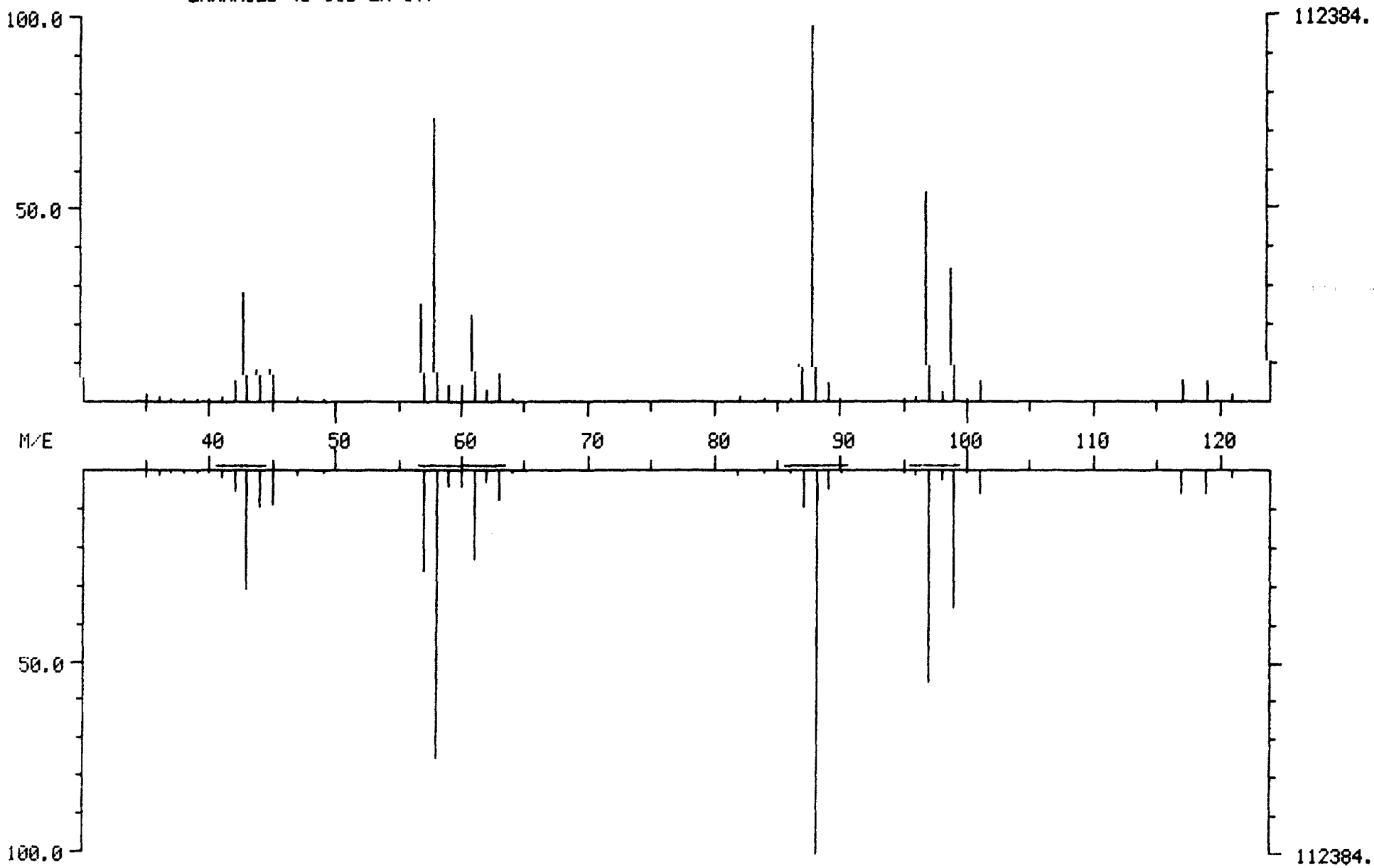
DATA: EPAVOA869 #440 BASE M/E: 62/ 62
CALI: EPAVOA869 #1 RIC: 113279./ 159487.



#16

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 16:28
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

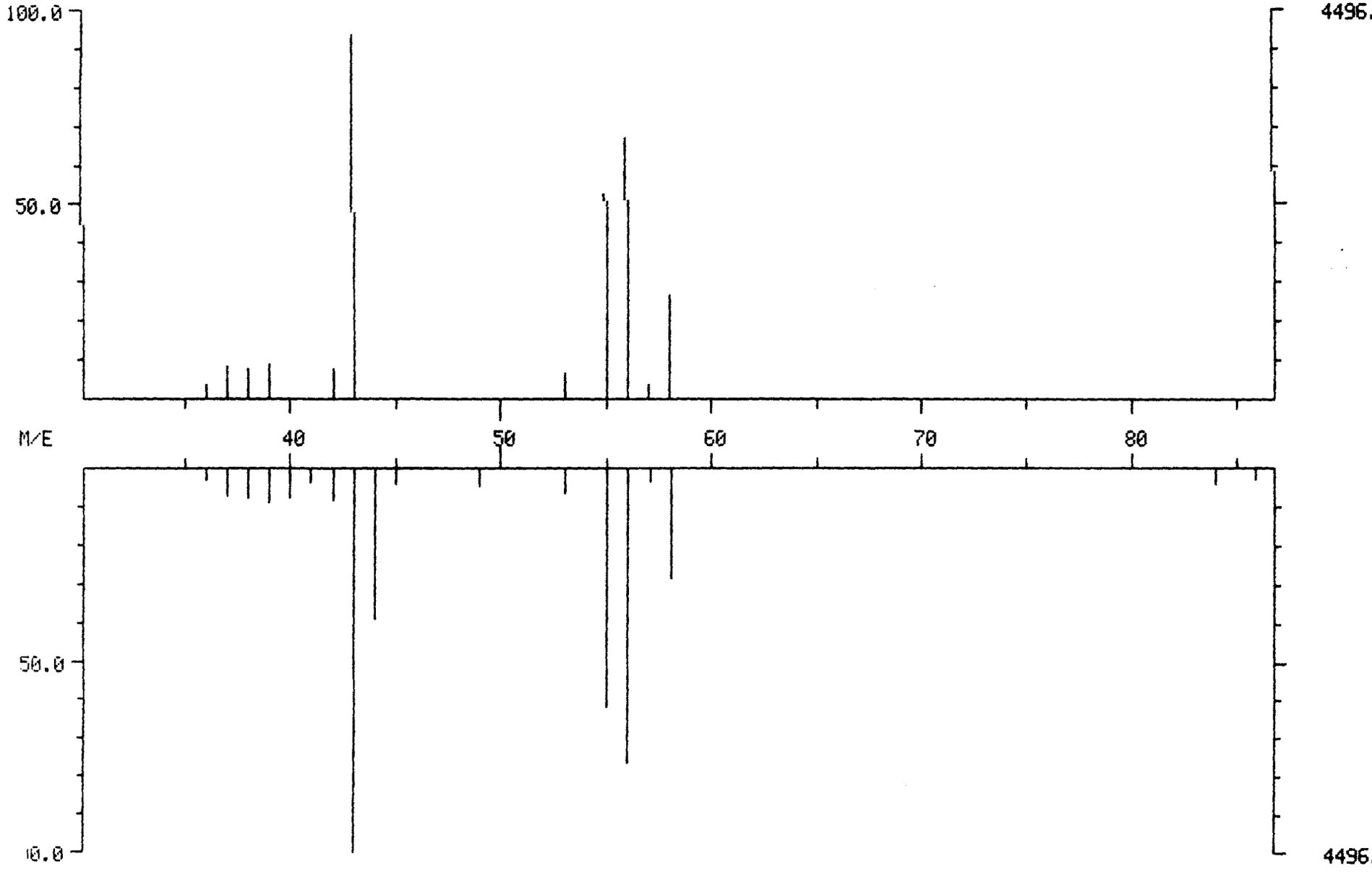
DATA: EPAVOA869 #482 BASE M/E: 88/ 88
CALI: EPAVOA869 #1 RIC: 478207./ 495103.



#17

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 9:22
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

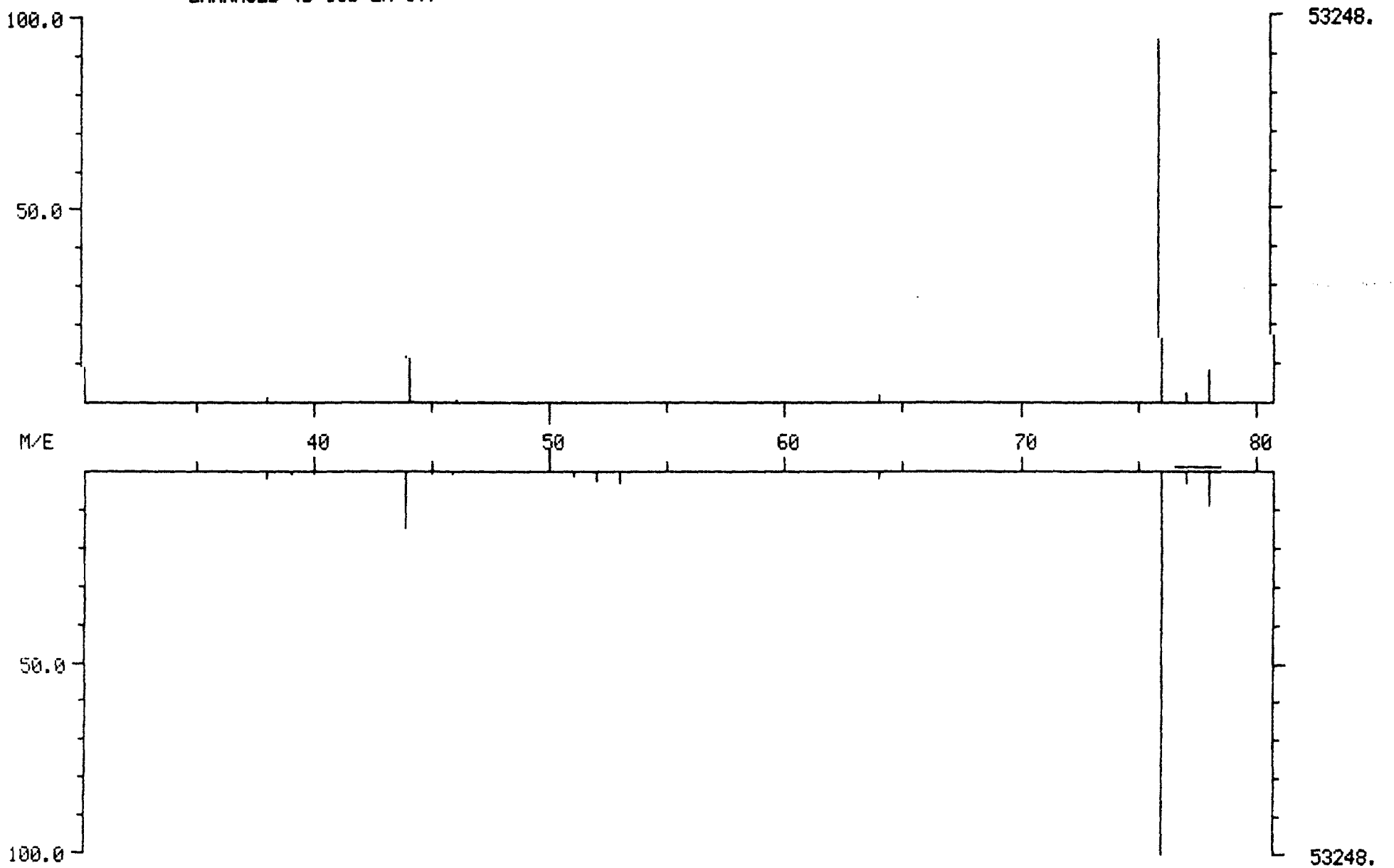
DATA: EPAVOA869 #274 BASE M/E: 43/ 43
CALI: EPAVOA869 #1 RIC: 12847./ 17055.



#18

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 10:23
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

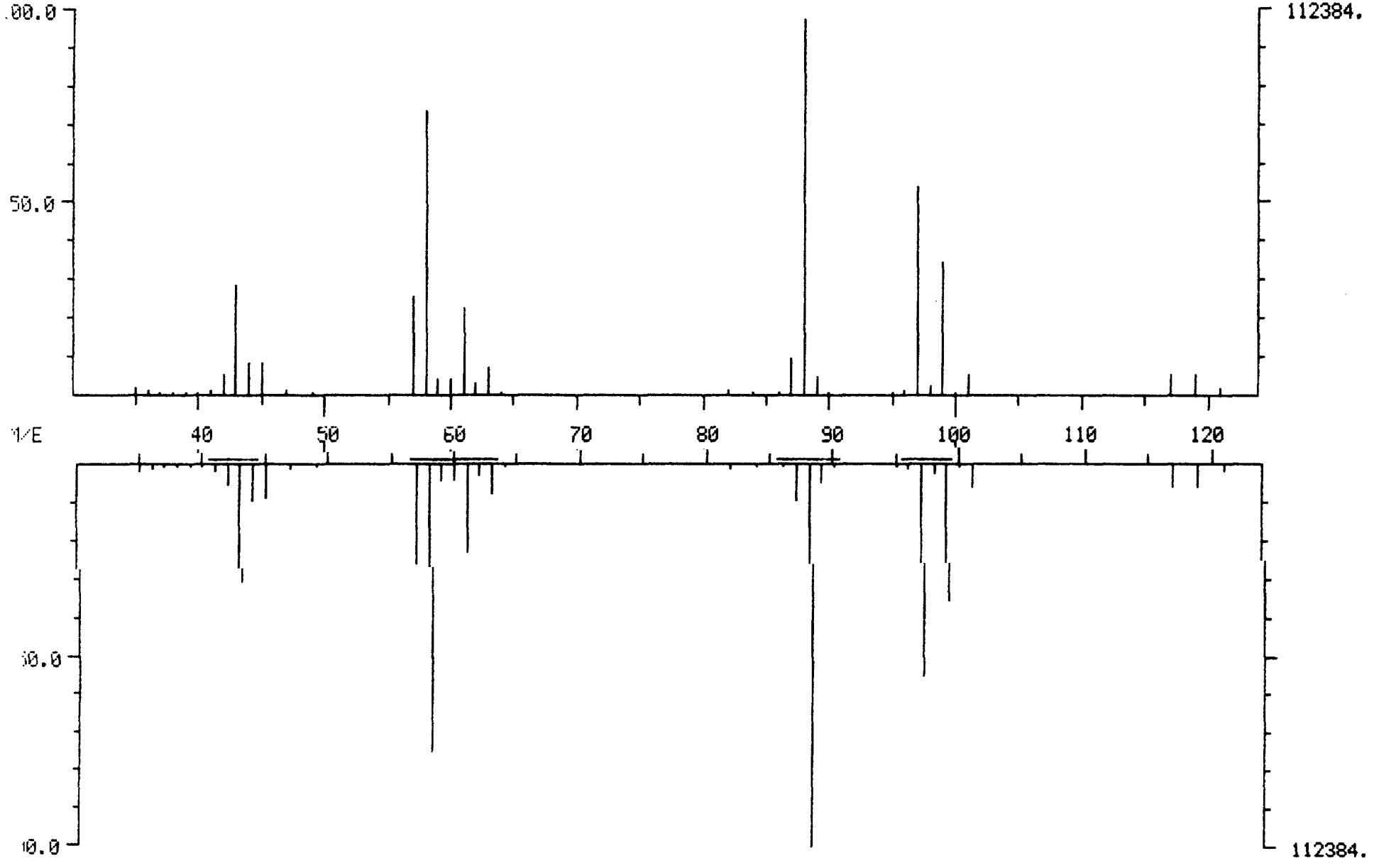
DATA: EPAVOA869 #304 BASE M/E: 76/ 76
CALI: EPAVOA869 #1 RIC: 64319./ 74239.



DUAL MASS SPECTRUM
02/26/84 10:02:00 + 16:28
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#19

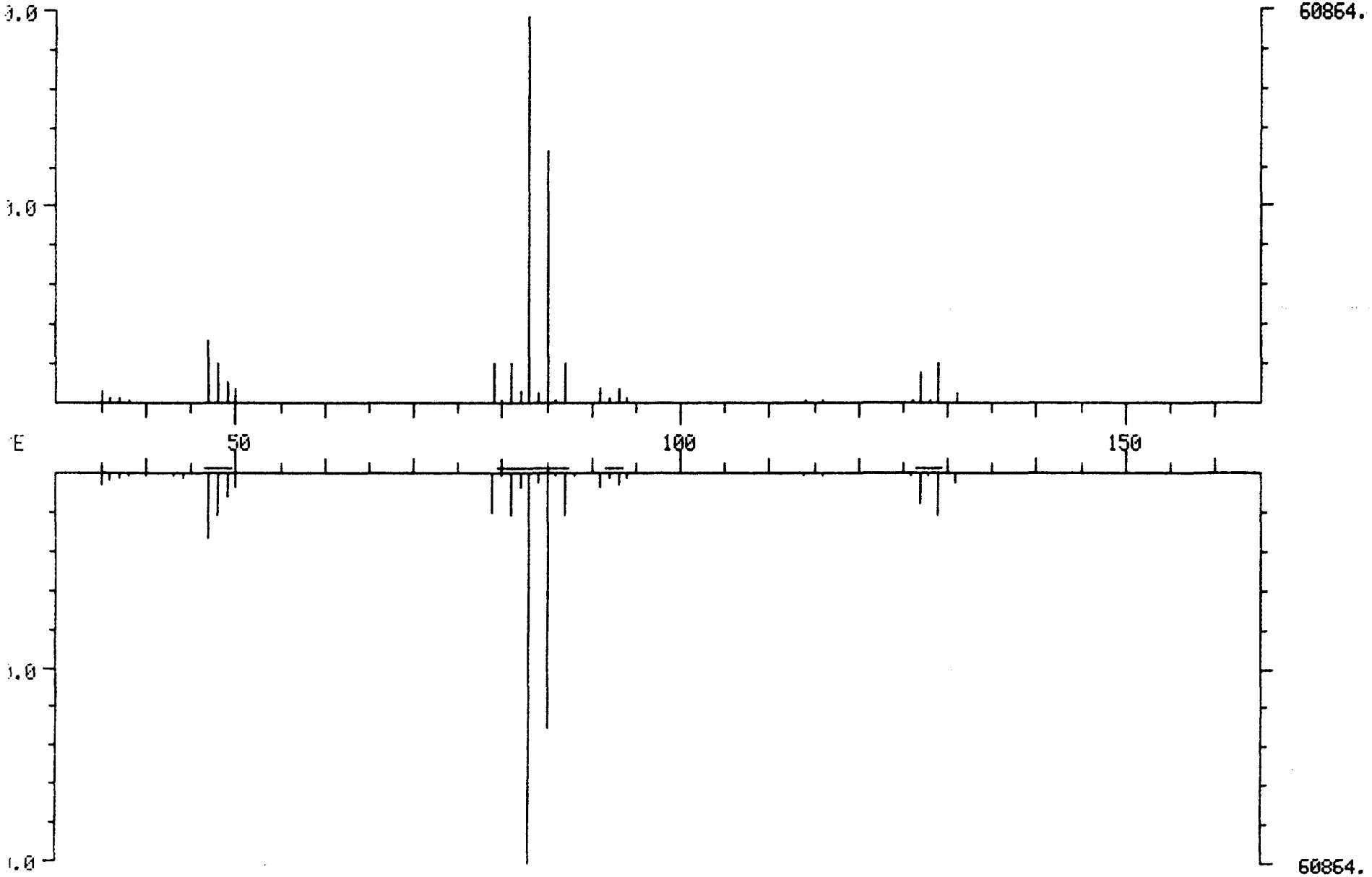
DATA: EPAVOA869 #482 BASE M/E: 88/ 88
CALI: EPAVOA869 #1 RIC: 478207./ 495103.



DUAL MASS SPECTRUM
02/26/84 10:02:00 + 17:21
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#20

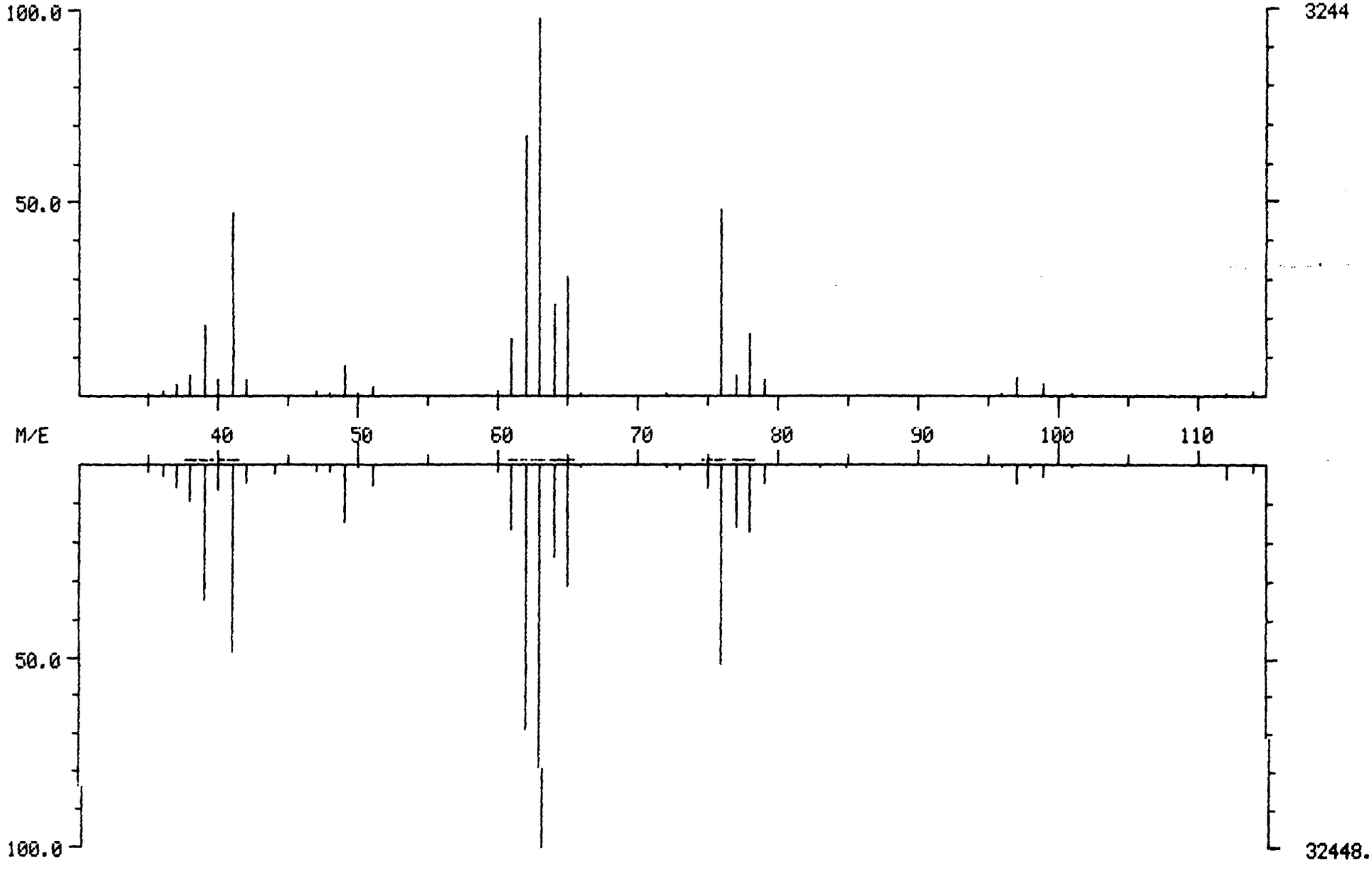
DATA: EPAVOA869 #508 BASE M/E: 83/ 83
CALI: EPAVOA869 #1 RIC: 165119./ 171775.



#21

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 18:47
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

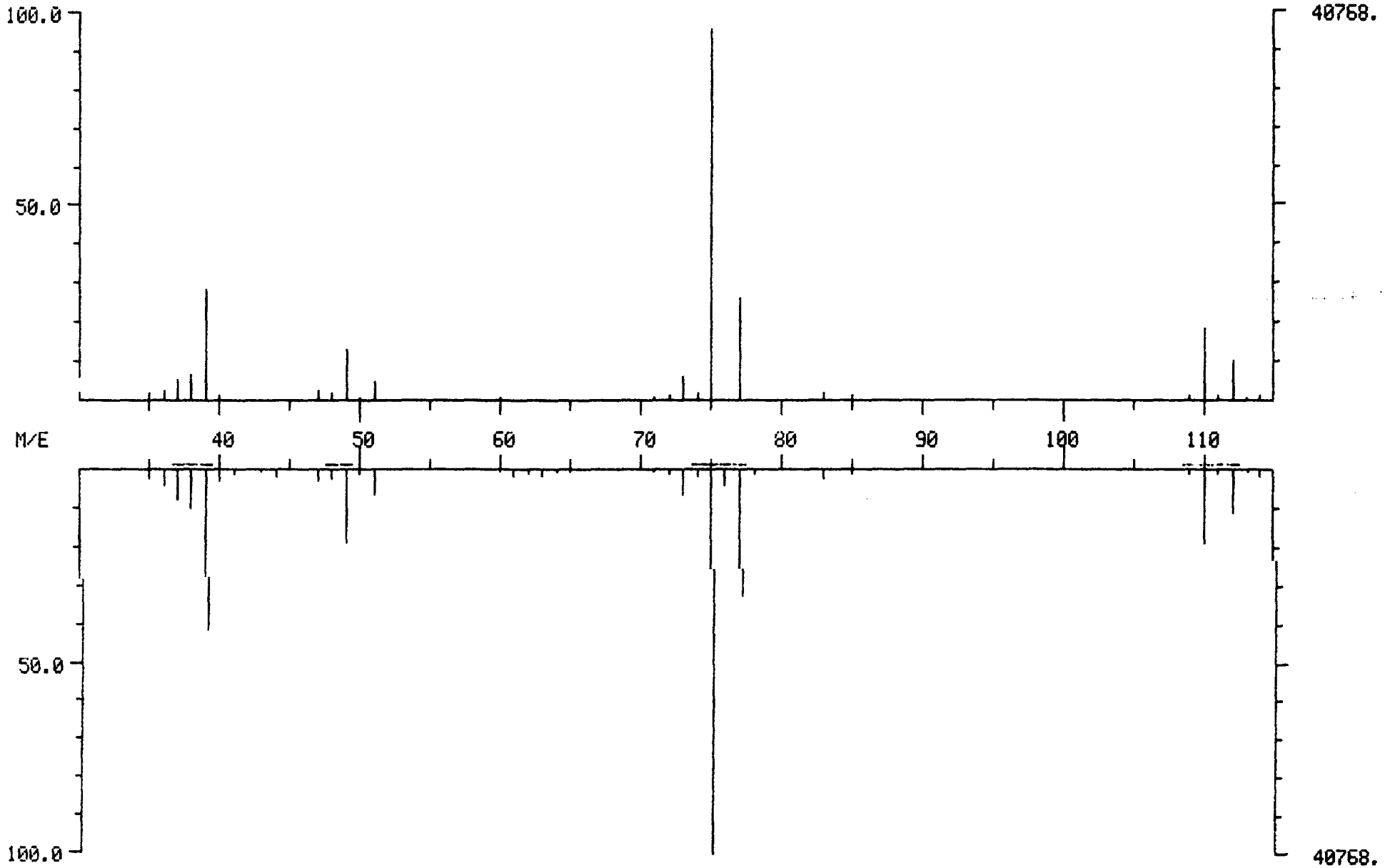
DATA: EPAVOA869 #550 BASE M/E: 63/ 63
CALI: EPAVOA869 #1 RIC: 135423./ 161535.



#22

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 19:02
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

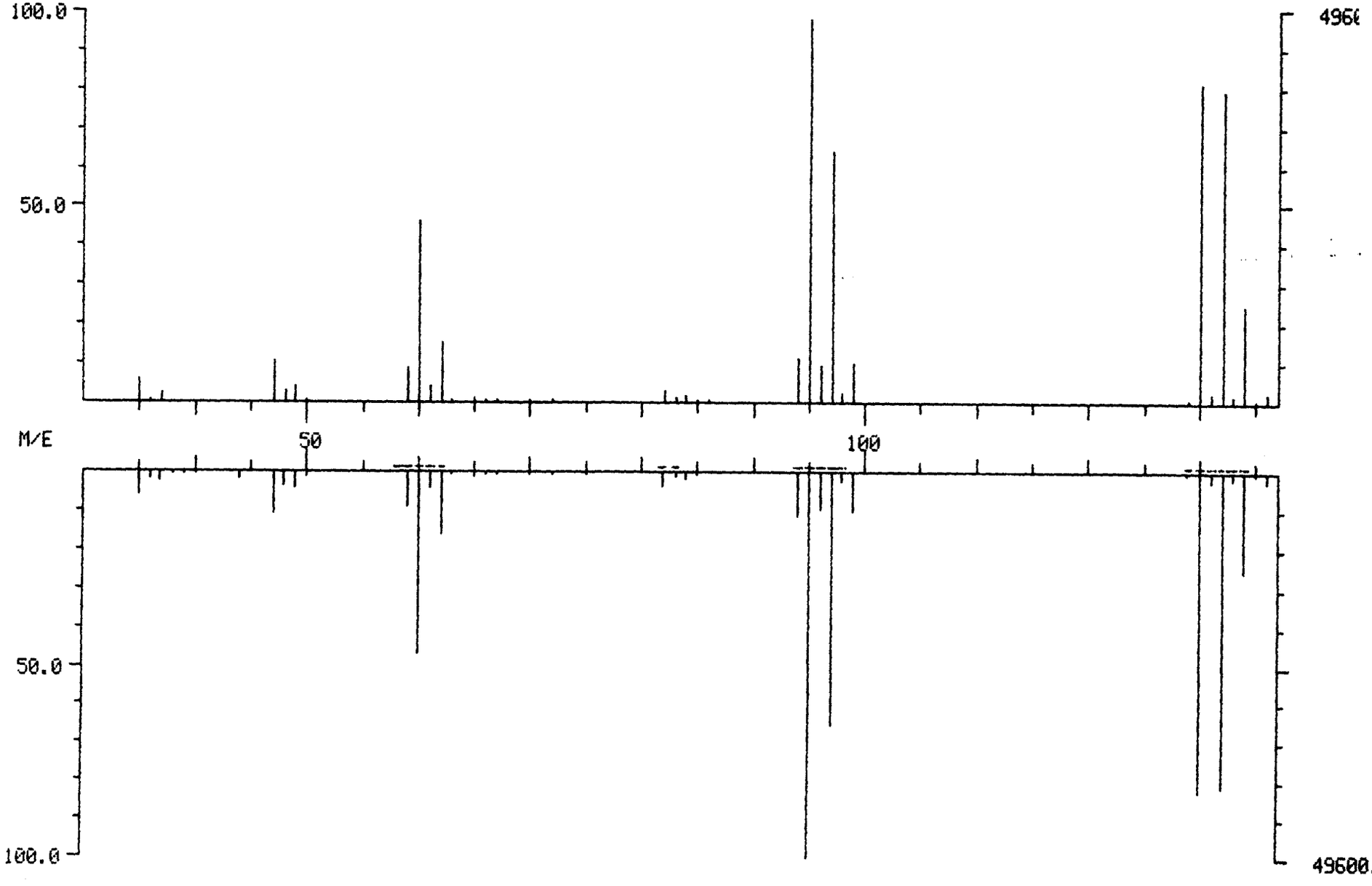
DATA: EPAVOA869 #557 BASE M/E: 75/ 75
CALI: EPAVOA869 #1 RIC: 95615./ 120319.



#23

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 19:31
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

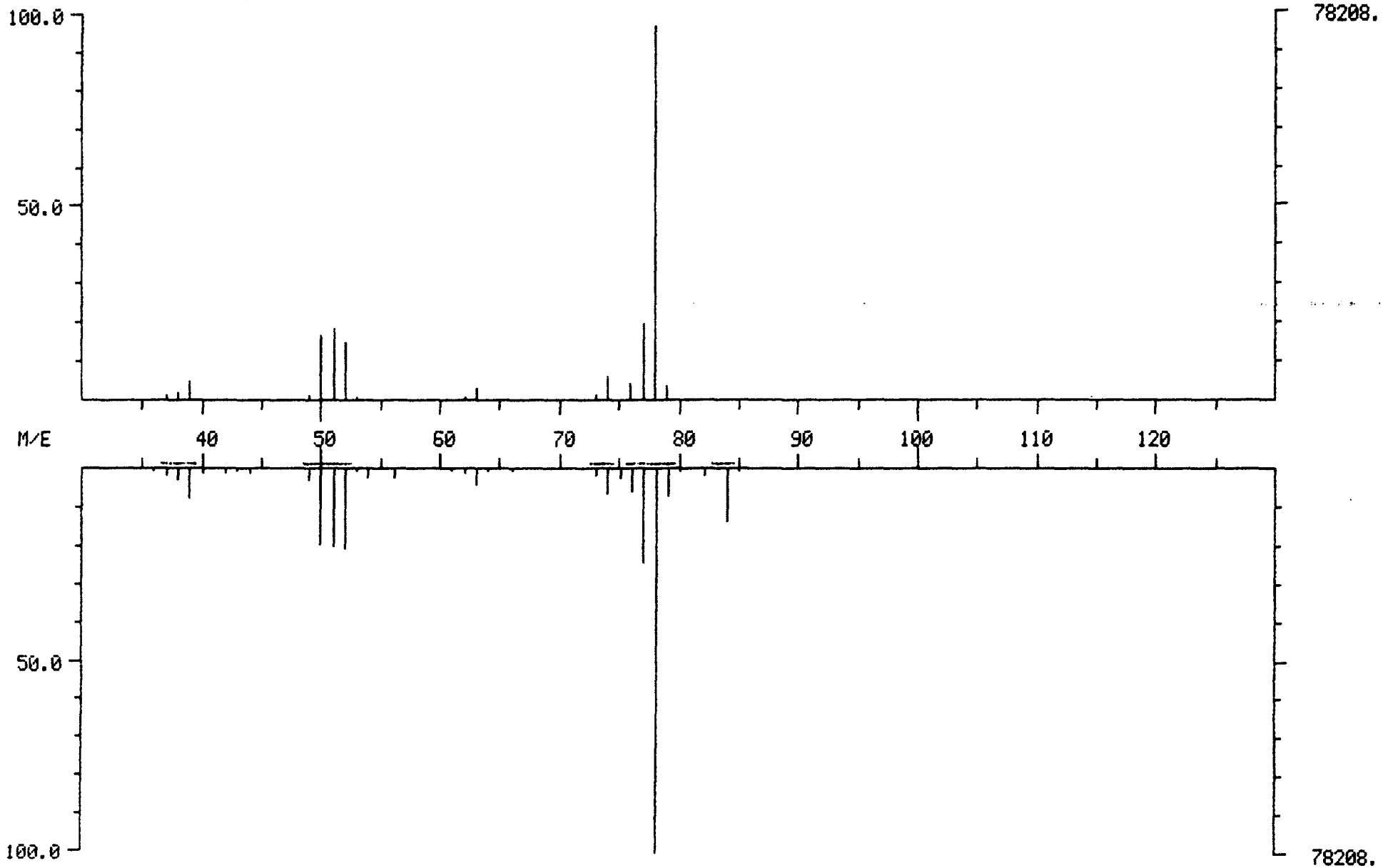
DATA: EPAVOA869 #571 BASE M/E: 95/ 95
CALI: EPAVOA869 #1 RIC: 248063./ 255231.



#24

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 20:03
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #587 BASE M/E: 78/ 78
CALI: EPAVOA869 #1 RIC: 152319./ 203263.

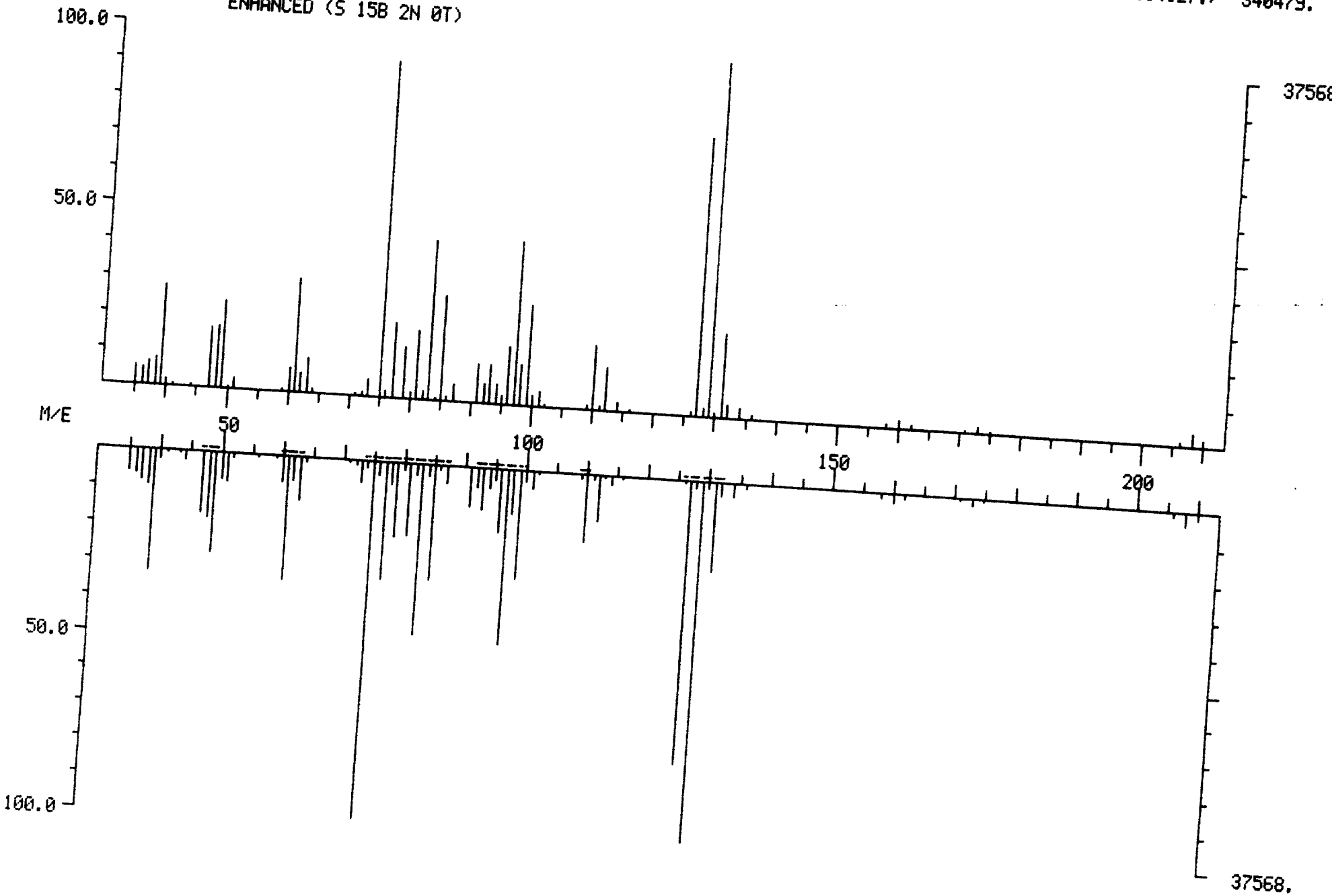


DUAL MASS SPECTRUM
02/26/84 10:02:00 + 20:18
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#25

DATA: EPAVOA869 #594
CALI: EPAVOA869 #1

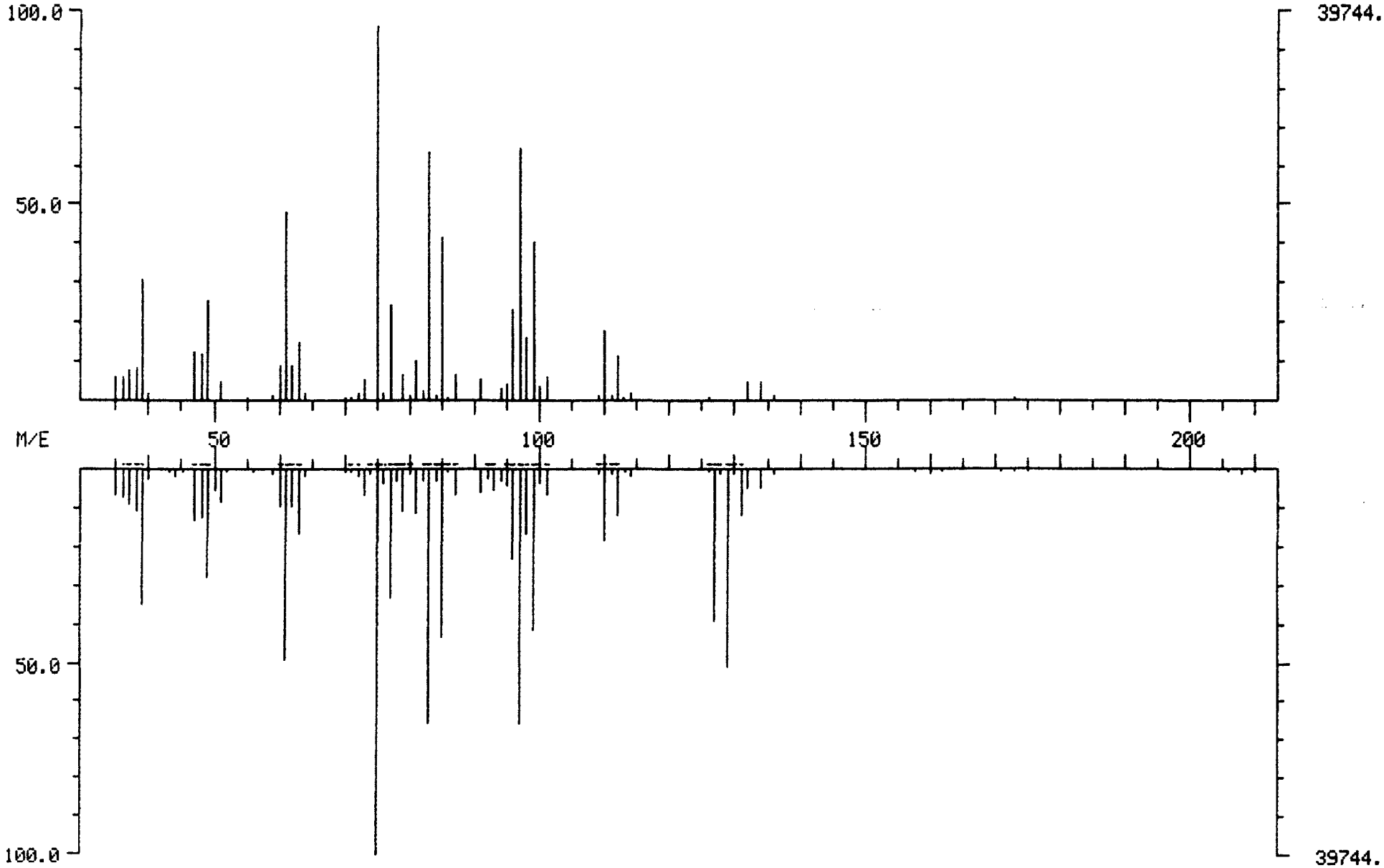
BASE M/E: 129/ 129
RIC: 304127./ 340479.



#26

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 20:22
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #596 BASE M/E: 75/ 75
CALI: EPAVOA869 #1 RIC: 268799./ 339967.

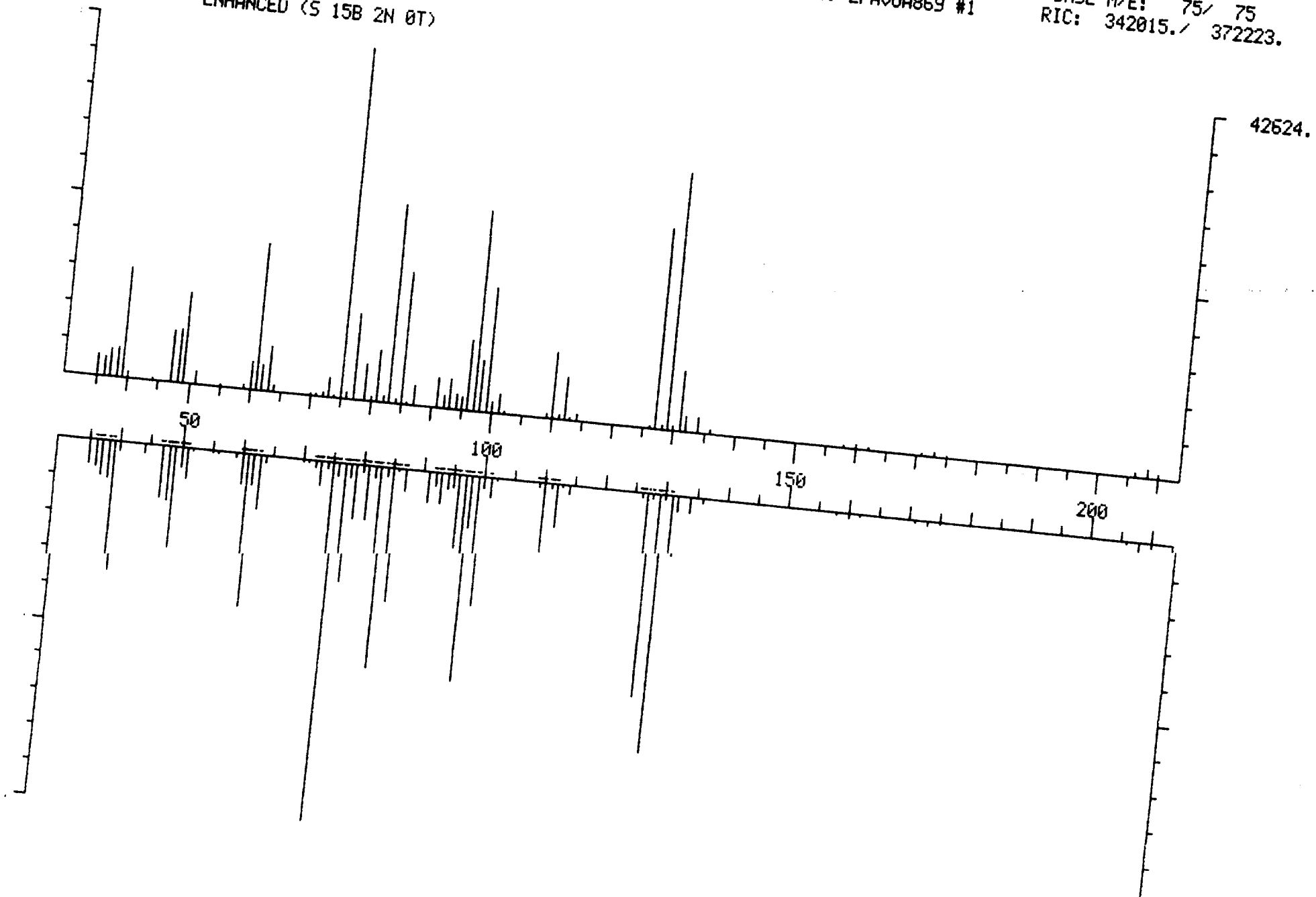


#27

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 20:20
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #595
CALI: EPAVOA869 #1

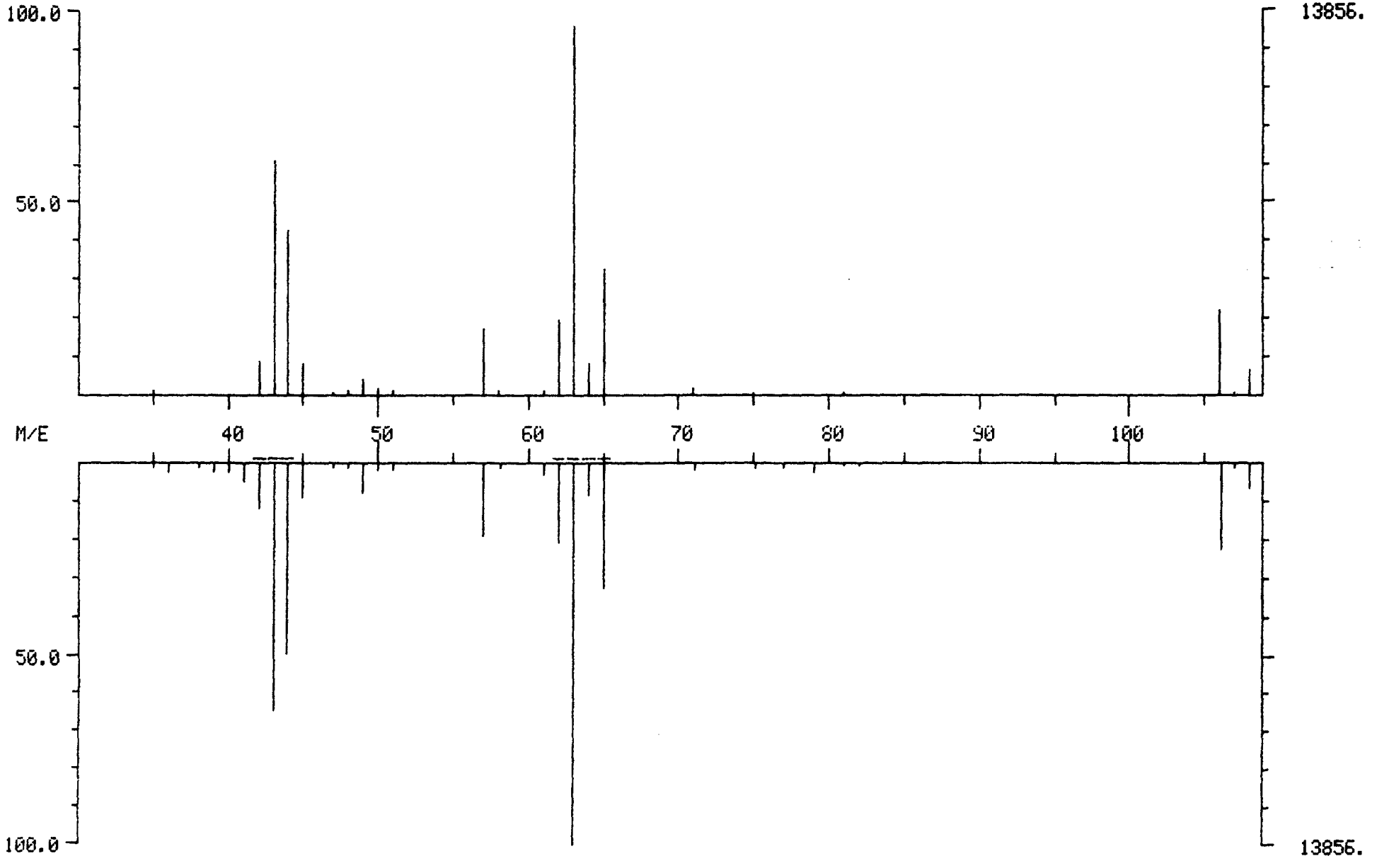
BASE M/E: 75/ 75
RIC: 342015./ 372223.



DUAL MASS SPECTRUM
02/26/84 10:02:00 + 21:23
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#28

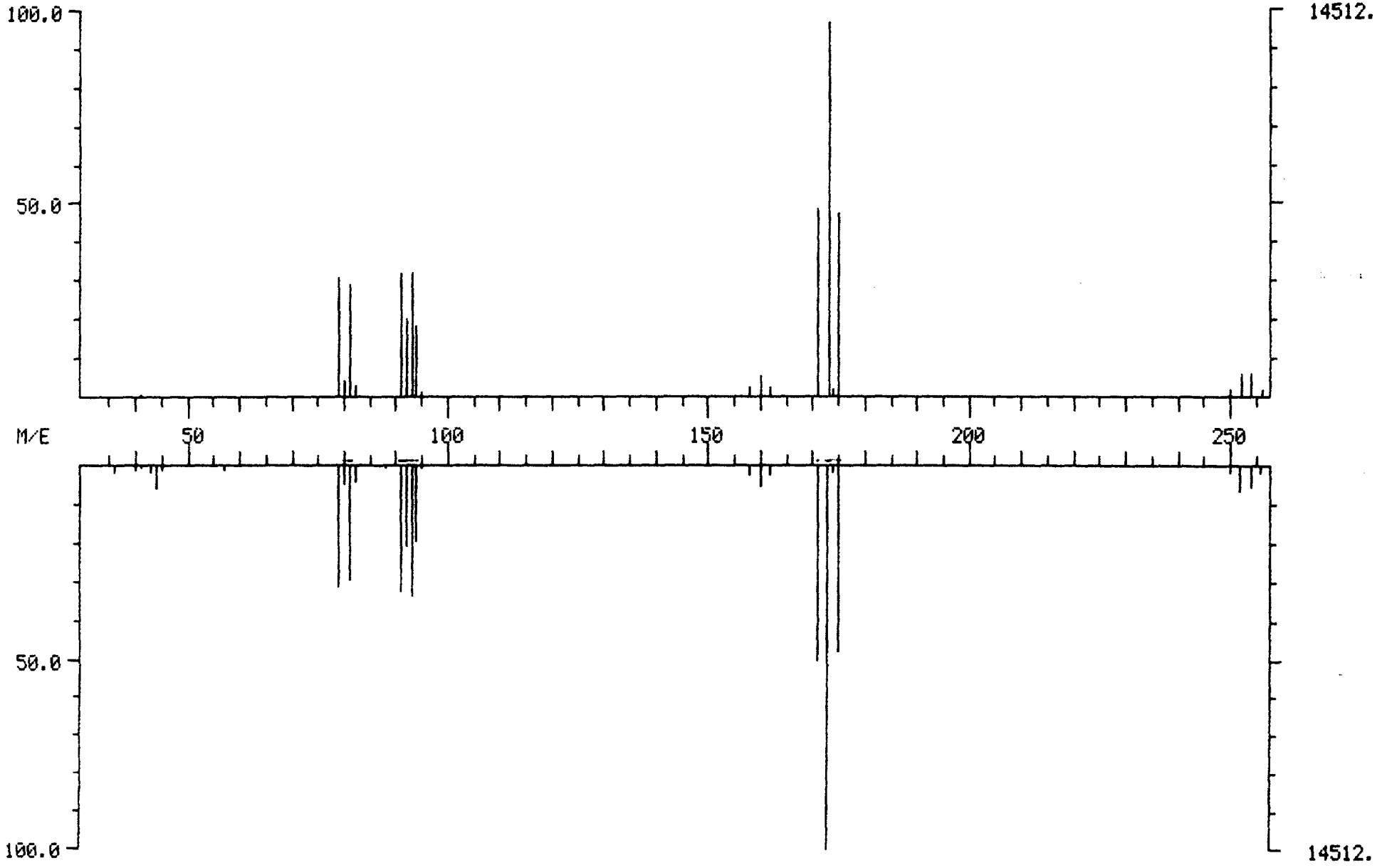
DATA: EPAVOA869 #626 BASE M/E: 63/ 63
CALI: EPAVOA869 #1 RIC: 47103./ 53311.



#29

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 23:06
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

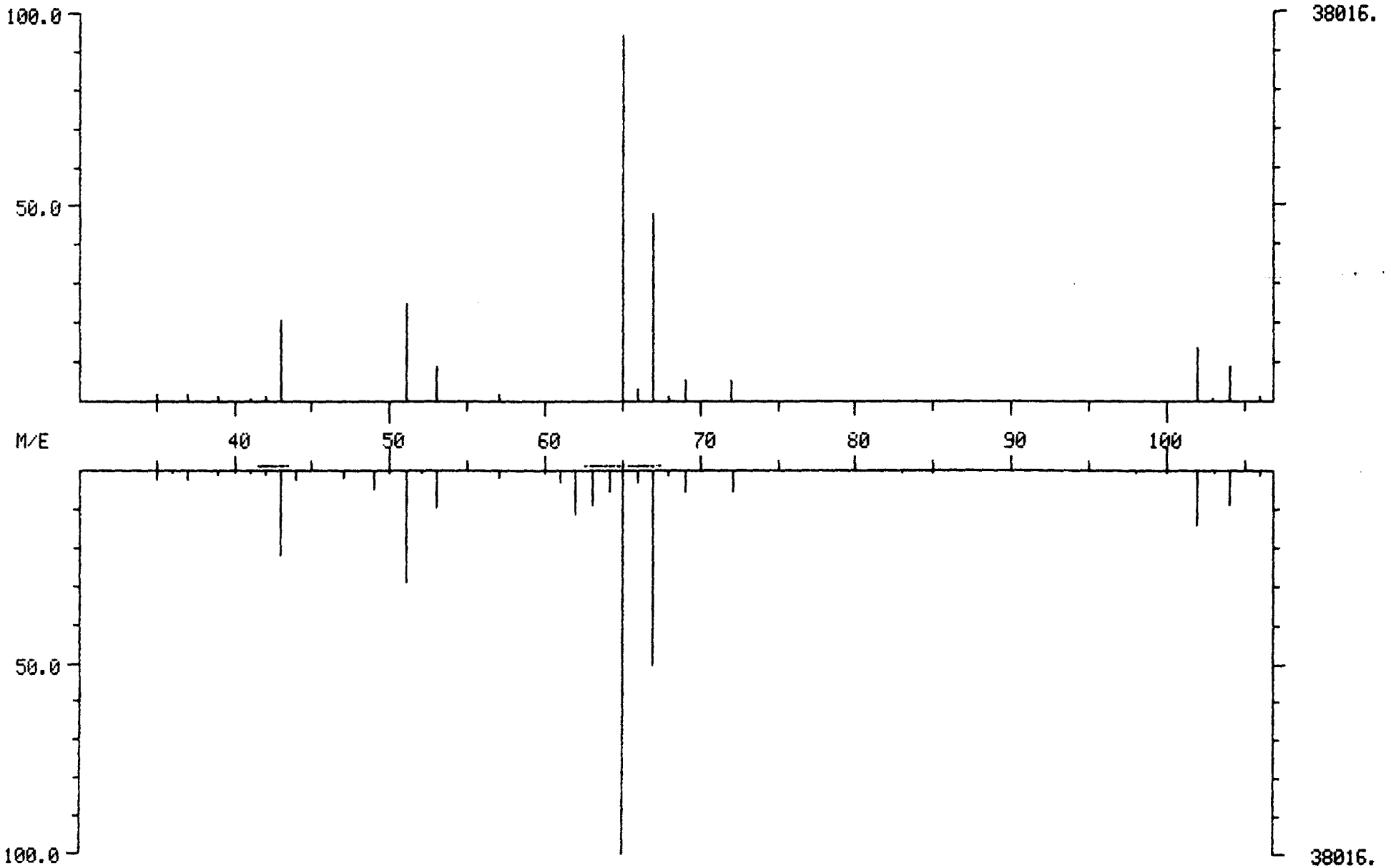
DATA: EPAVOA869 #676 BASE M/E: 173/ 173
CALI: EPAVOA869 #1 RIC: 56511./ 60479.



#30

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 14:54
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

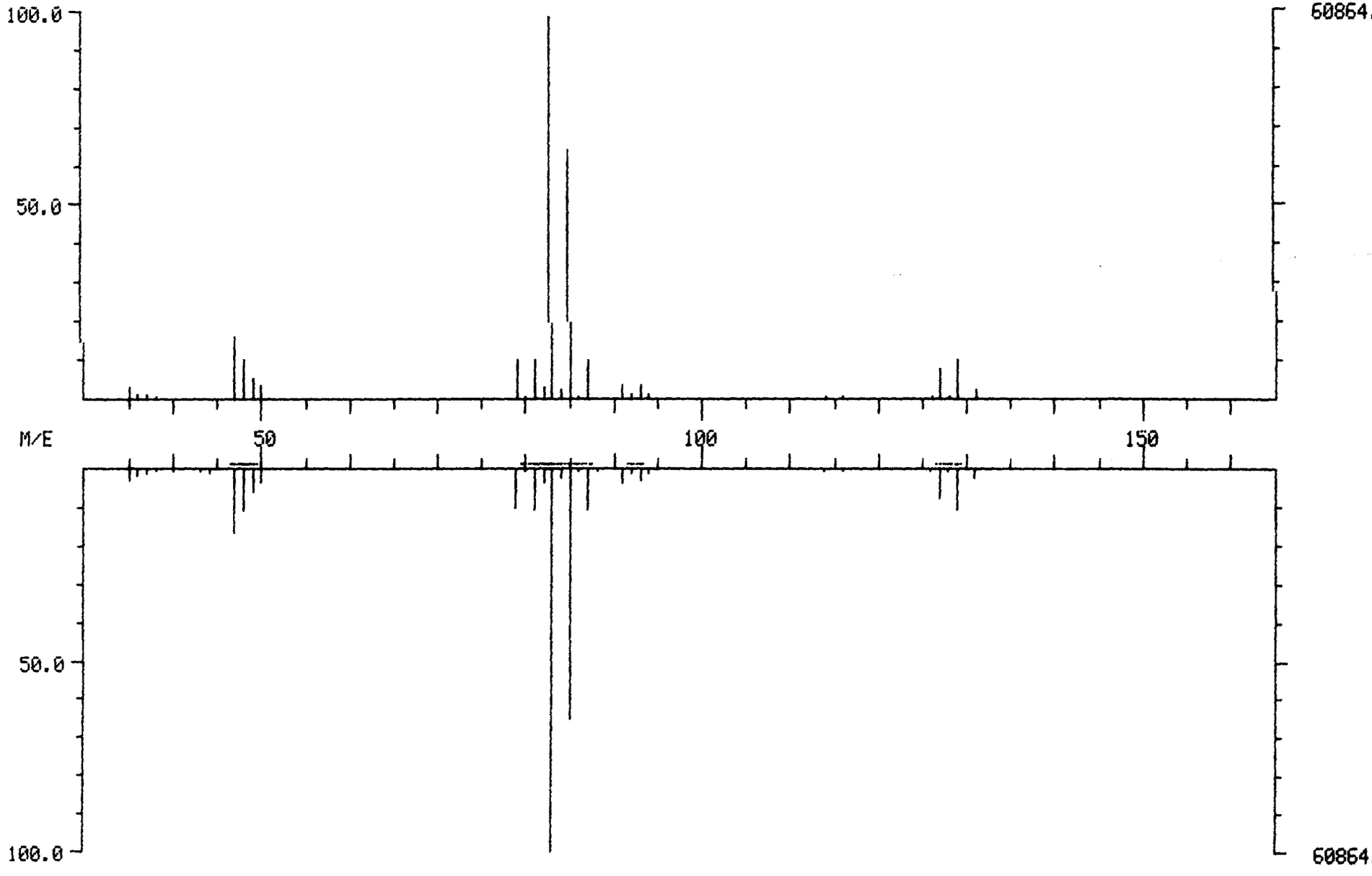
DATA: EPAVOA869 #436 BASE M/E: 65/ 65
CALI: EPAVOA869 #1 RIC: 92671./ 114559.



#31

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 17:21
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

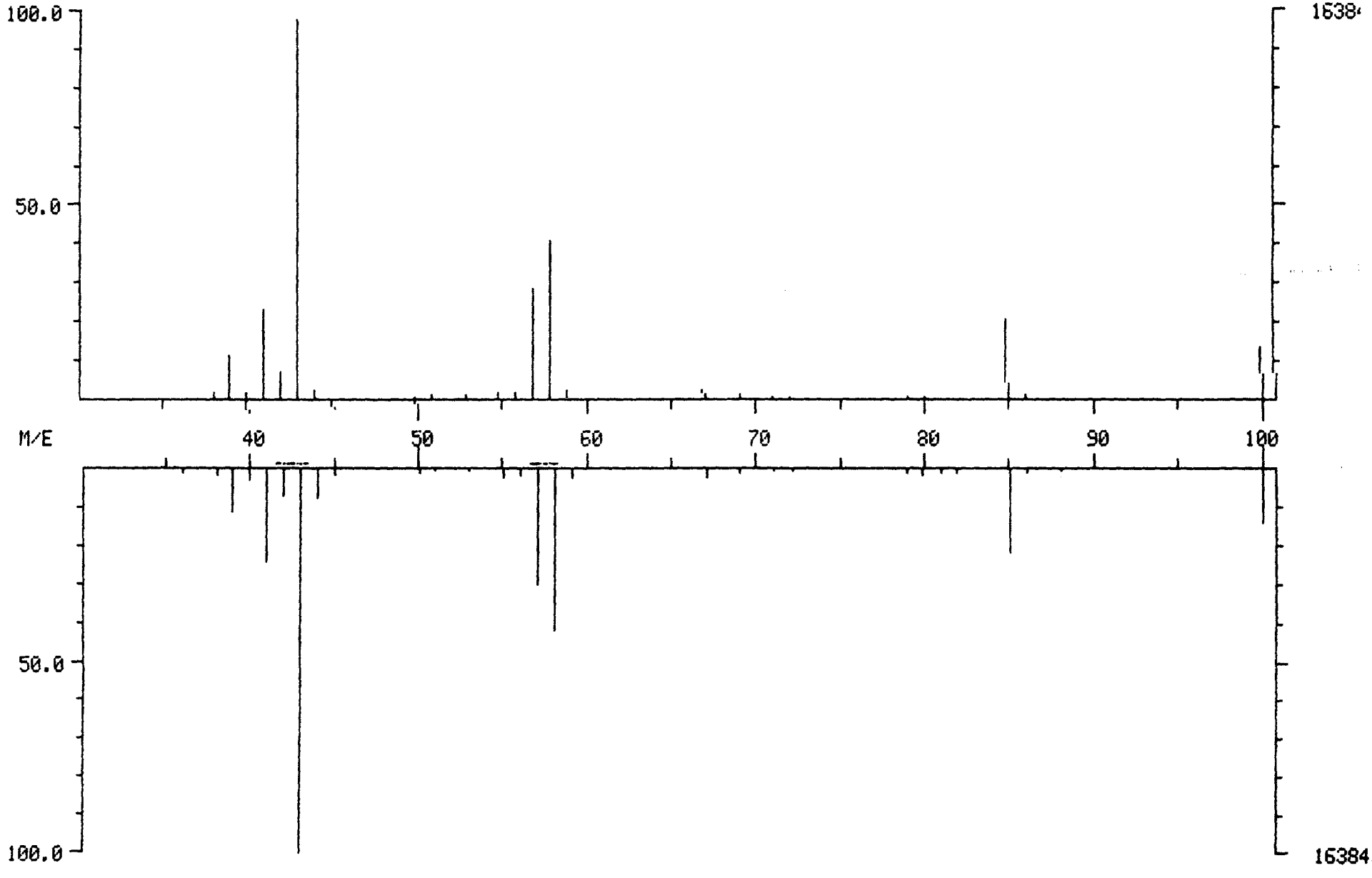
DATA: EPAVOA869 #508 BASE M/E: 83/ 83
CALI: EPAVOA869 #1 RIC: 165119./ 171775.



DUAL MASS SPECTRUM
02/26/84 10:02:00 + 23:30
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#32

DATA: EPAVOA869 #688 BASE M/E: 43/ 43
CALI: EPAVOA869 #1 RIC: 43071./ 46975.

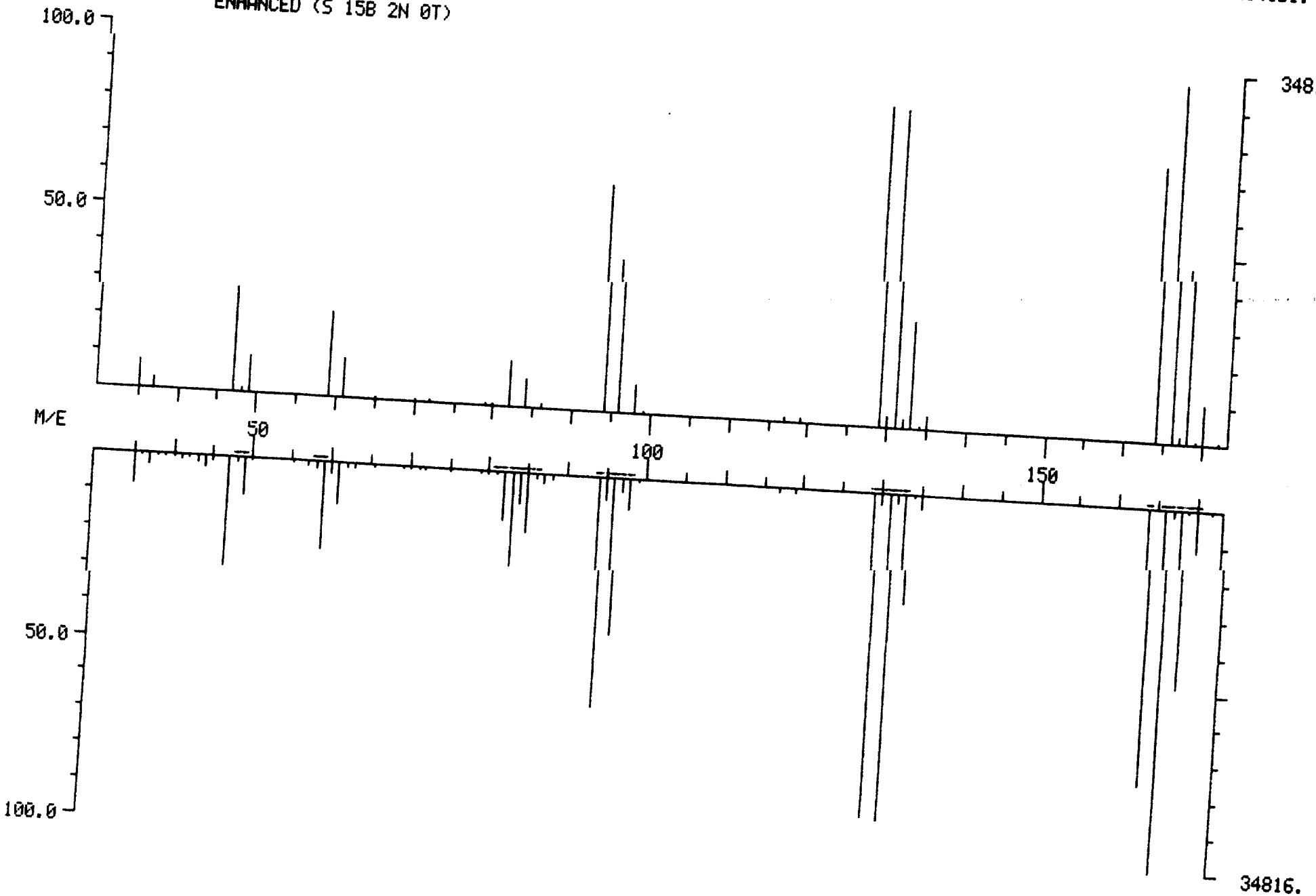


DUAL MASS SPECTRUM
02/26/84 10:02:00 + 25:21
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#38

DATA: EPAVOA869 #742
CALI: EPAVOA869 #1

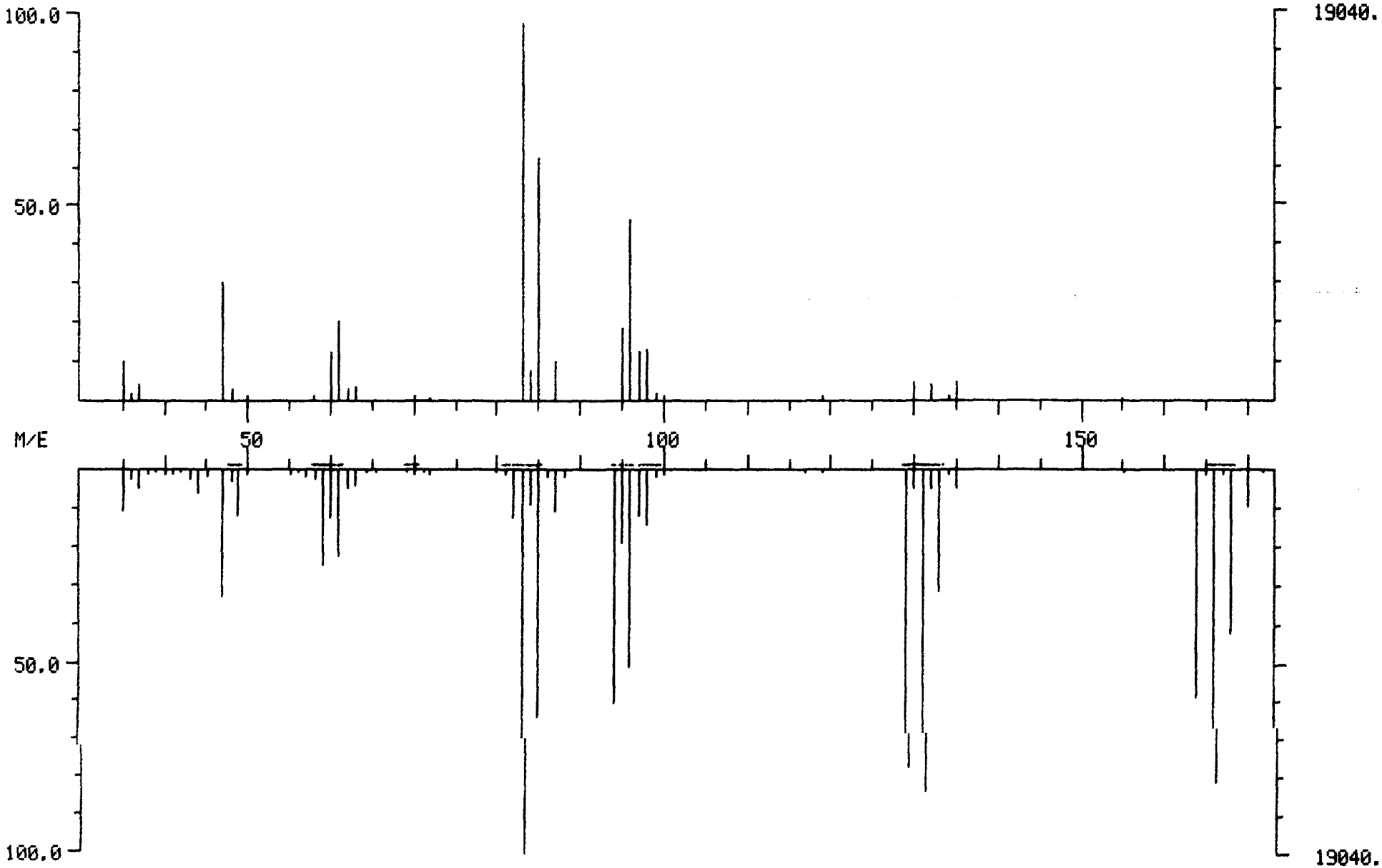
BASE M/E: 166/ 166
RIC: 232447./ 264191.



#39

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 25:27
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #745 BASE M/E: 83/ 83
CALI: EPAVOA869 #1 RIC: 72447./ 176383.

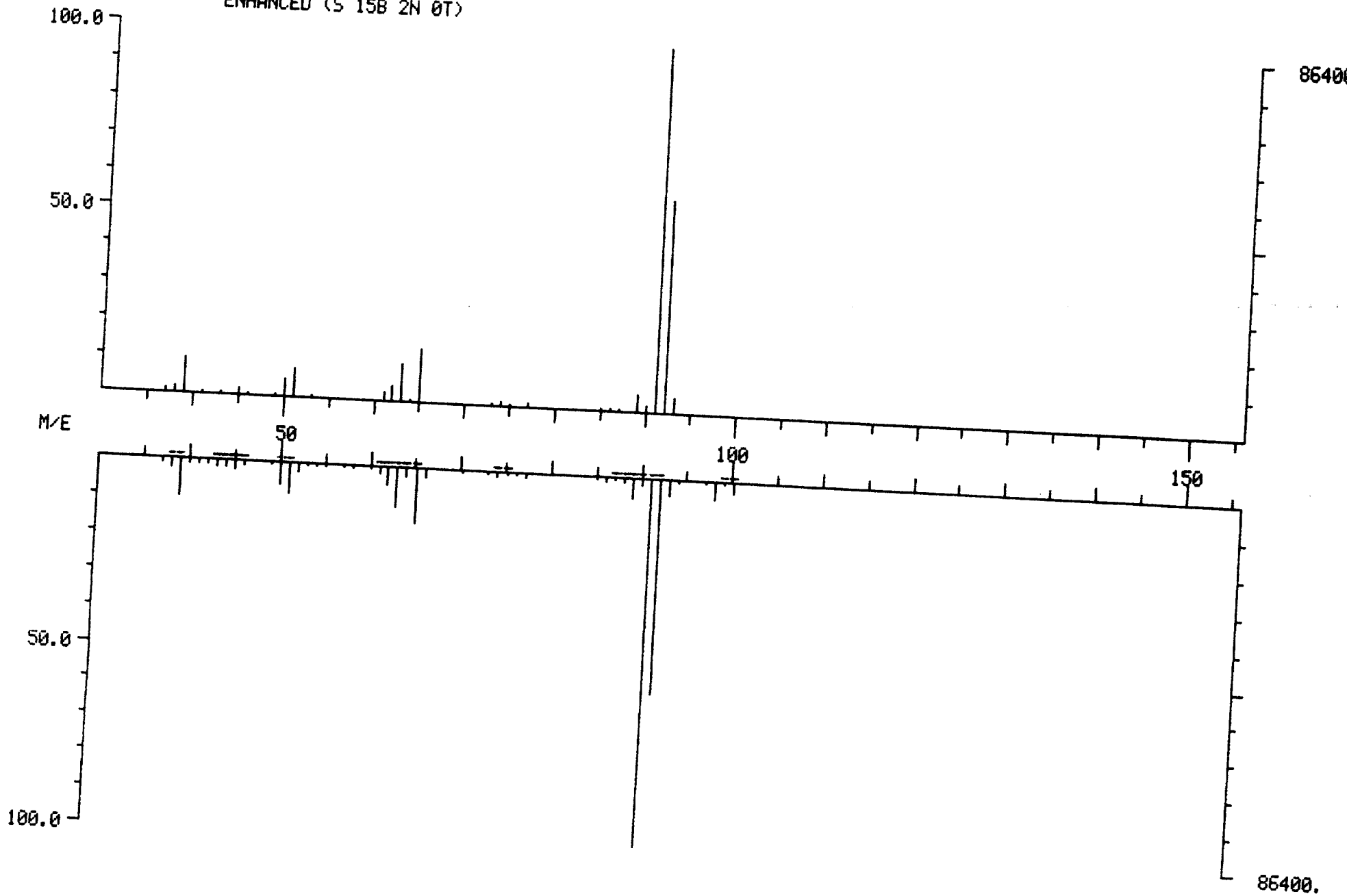


DUAL MASS SPECTRUM
02/26/84 10:02:00 + 26:43
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#40

DATA: EPAVOA869 #782
CALI: EPAVOA869 #1

BASE M/E: 91/ 91
RIC: 201215./ 236287.

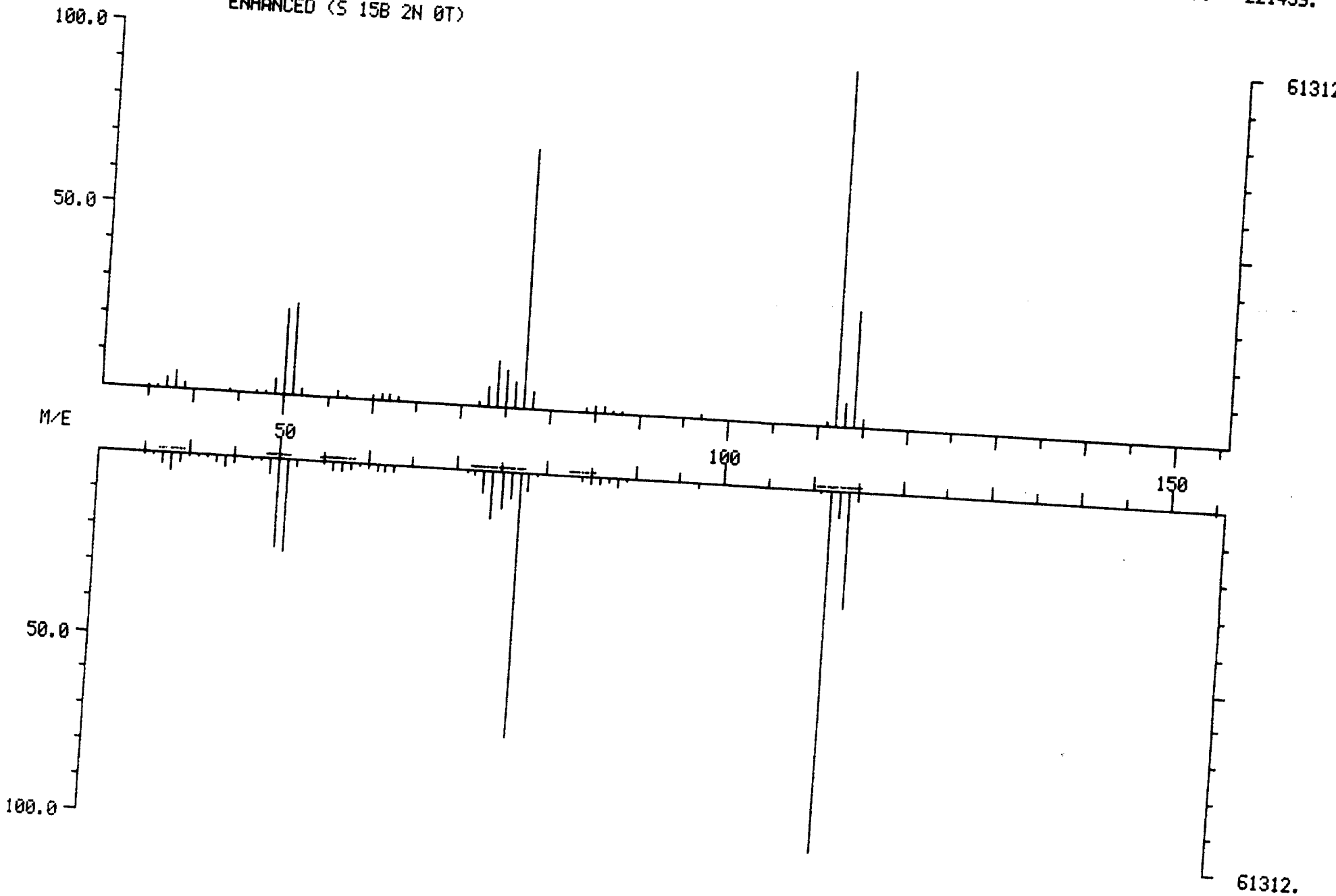


DUAL MASS SPECTRUM
02/26/84 10:02:00 + 27:57
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#41

DATA: EPAVOA869 #818
CALI: EPAVOA869 #1

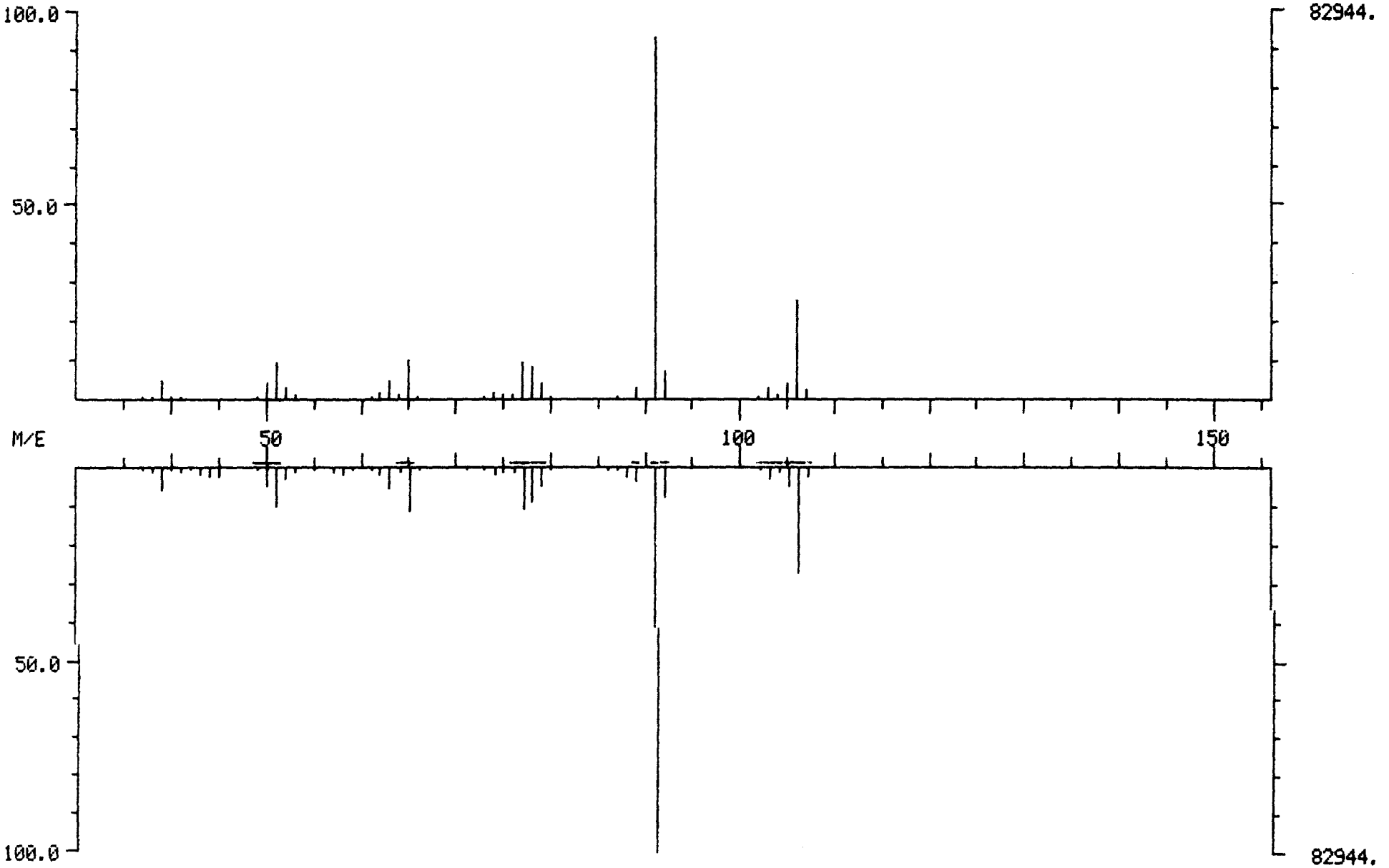
BASE M/E: 112/ 112
RIC: 203007./ 221439.



#42

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 30:06
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #881 BASE M/E: 91/ 91
CALI: EPAVOA869 #1 RIC: 176895./ 204799.

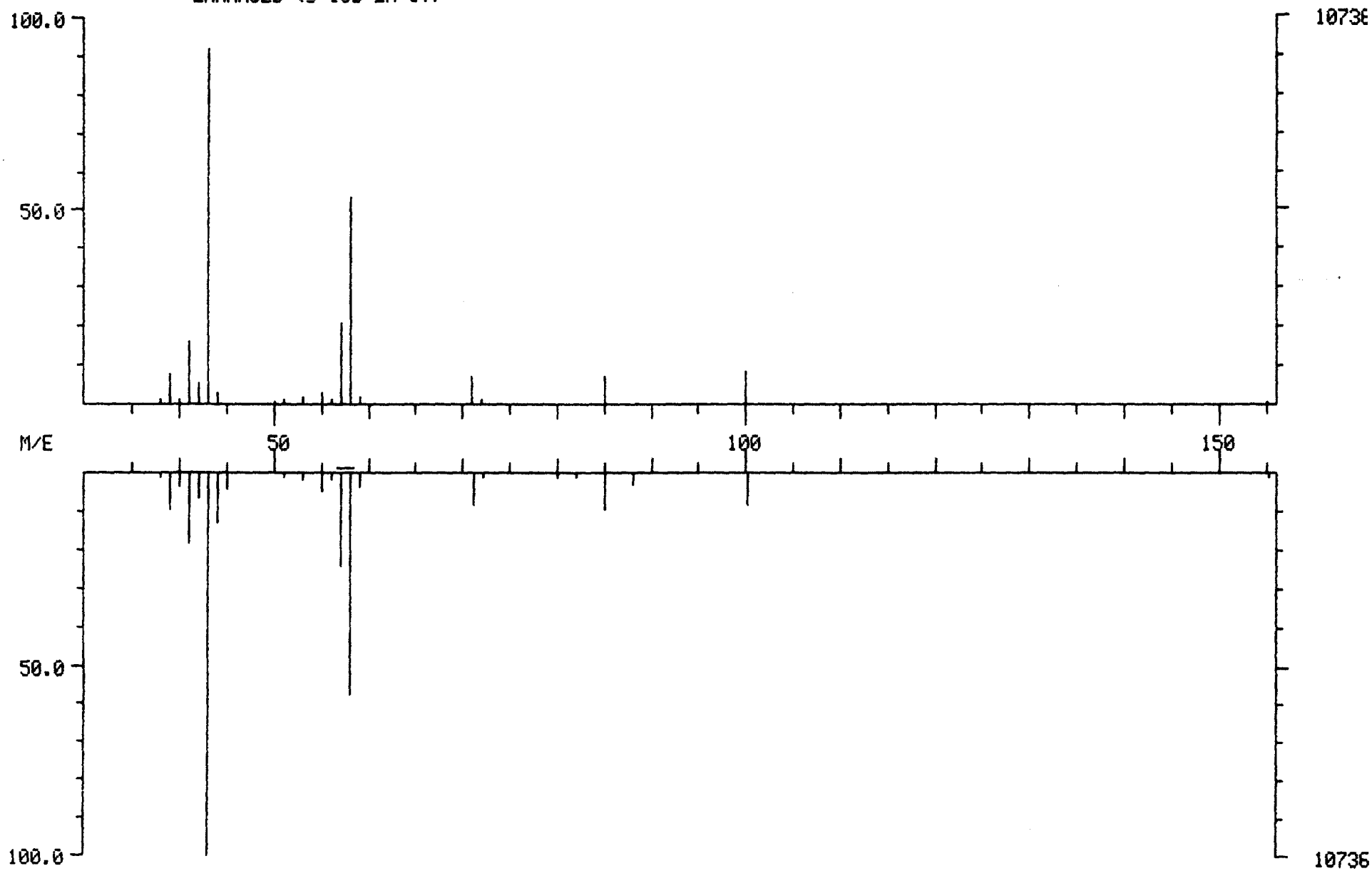


DUAL MASS SPECTRUM
02/26/84 10:02:00 + 25:05
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

#43

DATA: EPAVOA869 #734
CALI: EPAVOA869 #1

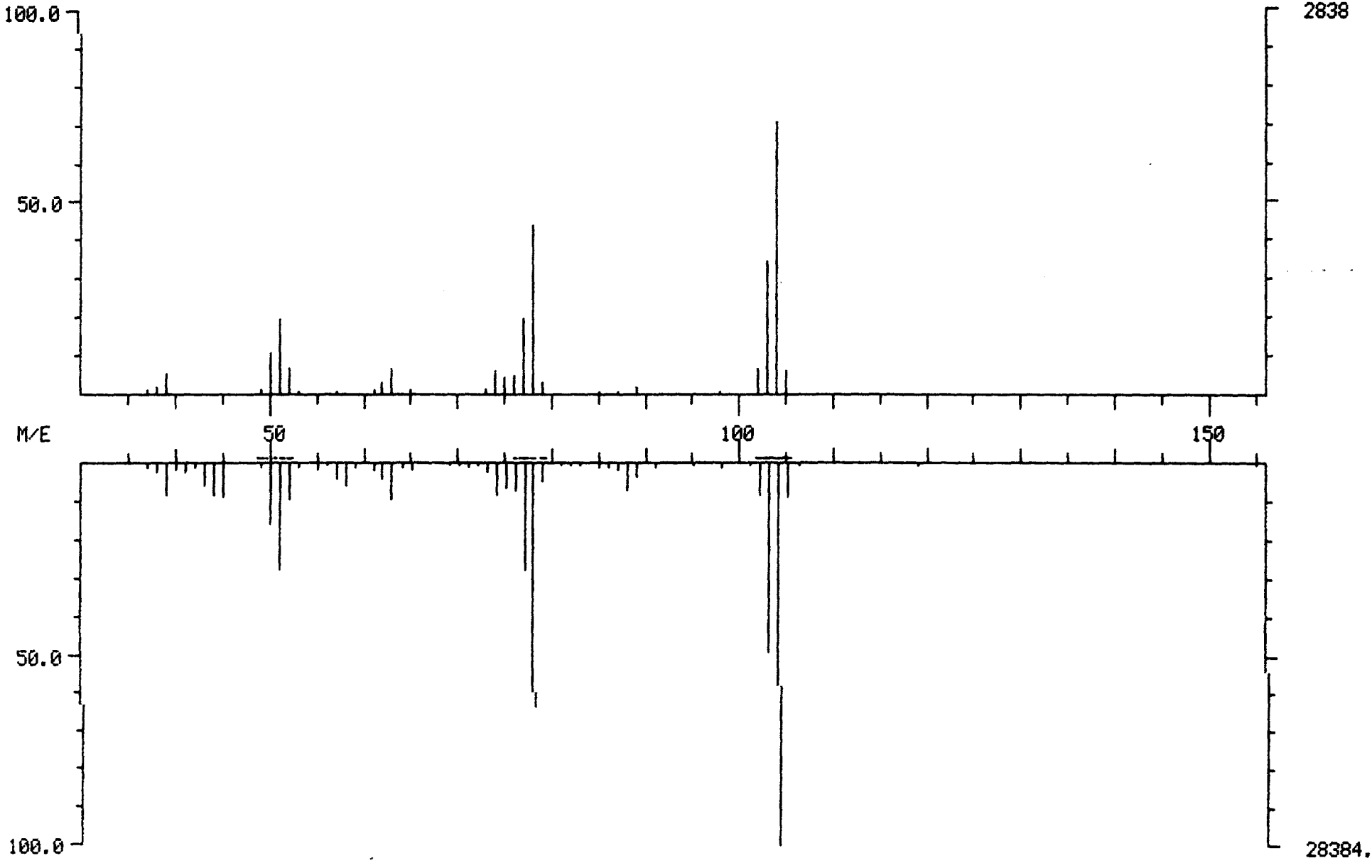
BASE M/E: 43/ 43
RIC: 25151./ 30303.



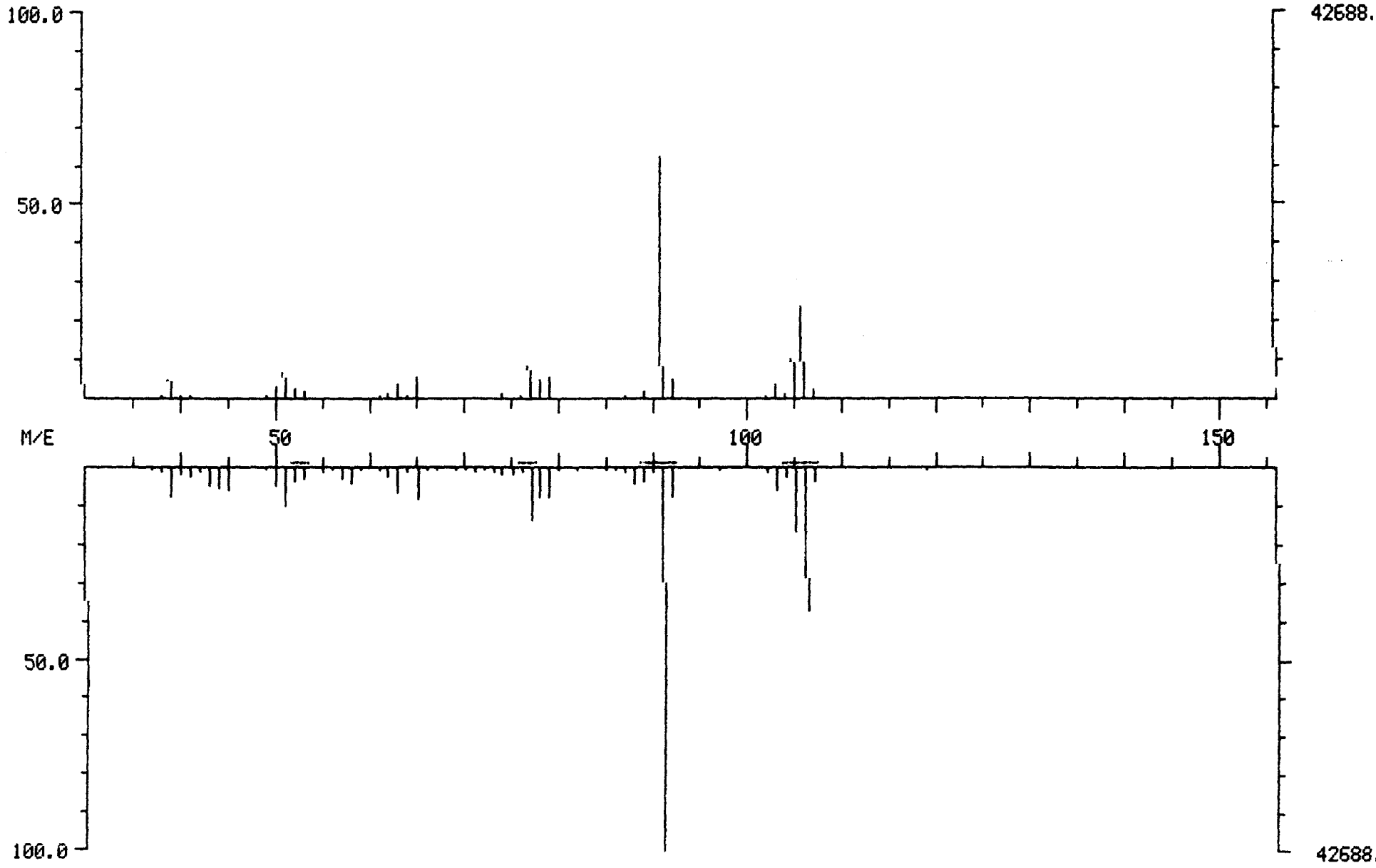
#44

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 34:14
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #1002 BASE M/E: 104/ 104
CALI: EPAVOA869 #1 RIC: 74495./ 124927.



#45

DUAL MASS SPECTRUM
02/26/84 10:02:00 + 35:30
SAMPLE: @ 100 UG/L STANDARD
CONDS.:
ENHANCED (S 15B 2N 0T)

DATA: EPAVOA869 #1039 BASE M/E: 91/ 91
CALI: EPAVOA869 #1 RIC: 70143./ 131327.