U.S. Environmental Protection Agency Region V

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Lab Data Reference Sheet

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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: AUG 11 1989

SUBJECT: Review of Region 5 data for T.O. Plastics

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF-6231
Sample Numbers: 89FS22S1C, 89FS22S12, 89FS22DQ, 89ES11R17
Parameter(s): VOA / water
Laboratory: CRL / Weston ESAT

Results Status:

(X) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

S. Griffin

U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE:

Comments:

DATA SET	SITE	DU/ACT.
SF-6231	T.O. Plastics	TFA302

SAMPLES	PARAMETER(S)
89FS22S11, 89FS22S12, 89FS22D12, 89FS11R17	VOA / water

SAMPLED	RECEIVED	DUE	LAB
6/20/89	6/21/89	7/12/89	CRL/Weston ESAT

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
A. Alwan		R JOHNSON	

Comments By Reviewer:

The data is acceptable for use.

A. Alwan
7/19/89

DATA MANAGEMENT COORDINATOR

RECEIVED **TRANSMITTED**

CLERICAL SUPPORT

RECEIVED **COMPLETED**

(X) REVIEWED ( ) UNREVIEWED **TEAM LEADER/DATE** A. Alwan

( ) REVIEWED ( ) UNREVIEWED **SECTION CHIEF/DATE**

(X) REVIEWED ( ) UNREVIEWED **QC COORDINATOR/DATE** Richard [illegible] 7/5/89

REVIEWED BY CONTRACT COORDINATOR/DATE 8/14/89

RECEIVED 8/11/89 **TRANSMITTED** 8/11/89 **DATA MANAGEMENT COORDINATOR** Sylvia Griffin

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0627BLK1

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 0627BLK1

Sample wt/vol: 20 (g/mL) ML Lab File ID: 0627BLK1

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	1	U
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

0627BLK1 (CONT)

108-38-3--------M-Xylene	2	U
95-47-6---------O-&/or P-Xylene	2	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0627BLK1

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 0627BLK1

Sample wt/vol: 20 (g/mL) ML Lab File ID: 0627BLK1

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column (pack/cap) PACK Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS11R17

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS11R17

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231R17

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	1	U
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

89FS11R17 (CONT)

108-38-3--------M-Xylene	2	U
95-47-6---------0-&/or P-Xylene	2	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS11R17

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS11R17

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231R17

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column (pack/cap) PACK Dilution Factor: 1

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.17	1	J
2.	UNKNOWN	7.43	1	J
3.	UNKNOWN	10.80	1	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS22S12

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22S12

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231S12

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	1	U
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

89F522S12 (CONT)

108-38-3--------M-Xylene	2	U
95-47-6---------0-&/or P-Xylene	2	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS22S12

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22S12

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231S12

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column (pack/cap) PACK Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS22D12

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22D12

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231D12

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	1	U
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

89FS22D12 (CONT)

108-38-3---------M-Xylene	2	U
95-47-6---------0-&/or P-Xylene	2	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS22D12

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22D12

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231D12

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column (pack/cap) PACK Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS22S11

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22S11

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231S11

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	1	U
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

89F522511 (CONT)

108-38-3---------M-Xylene	2	U
95-47-6---------0-&/or P-Xylene	2	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

89FS22S11

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22S11

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231S11

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column (pack/cap) PACK Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS22S11MS

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22S11MS

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231S11M

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	6	
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	9	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	9	
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	9	
108-90-7	Chlorobenzene	9	
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

89F522511MJ (CONT)

108-38-3--------M-Xylene	2	U
95-47-6---------O-&/or P-Xylene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

89FS22S11MSD

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: 89FS22S11MSD

Sample wt/vol: 20 (g/mL) ML Lab File ID: 6231S11D

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	75	U
107-02-8	Acrolein	100	U
75-15-0	Carbon Disulfide	2	U
107-13-1	Acrylonitrile	50	U
75-35-4	1,1-Dichloroethene	6	
75-35-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	9	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	10	
10061-02-6	Trans-1,3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	2	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	10	
108-90-7	Chlorobenzene	10	
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	2	U

89FS22511MSD (CONT)

108-38-3--------M-Xylene	2	U
95-47-6---------0-&/or P-Xylene	2	U

USEPA REGION V CRL 07/19/89 17:41:05
DATA SET SF-6231;VOA;DTK. PAGE 01

WORKLIST : VODTK016 #326
TEST : VOWSO

WL#	ID	REP	COMMENTS
1	LRB		
2	LF1		
3	LF2		
4	S9000268	01	-S11
5	S9000269	01	-S12
6	S9000270	01	-D12
7	S9000271	01	-R17 *

SF-6231

D Kosel = 30min

SUPERFUND

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/~~[illegible]~~ 12/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17564	WATER ABN ORGANICS SCAN UG/L TOX 17574	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
89FS22S11	MSD/RW1 5-132726-30 5-188331-33	✓ ~~111~~ 111			
S12	RW2 5-132843-42	✓ 111			
D12	Dup 5-188339-341	✓ 111			
89FS11R17	Blk 5-18834749	✓ 111			

Davis [signature]
6/27/89

Date: 7/05/89

To: Alwan Alwan

From: David Kusel David Kusel

Re: Dataset SF-6231
T.O. Plastics

Four (4) low level water samples from dataset SF-6231 were submitted for volatile organic analysis (VOA) by GC/MS utilizing EPA method 624NS.

All samples were analyzed within seven (7) days of receipt.

The tuning was acceptable with BFB meeting all QC requirements (Form 5A). The initial calibration (Form 6A) was acceptable with all compounds having RSDs less than 35% except vinyl acetate (%RSD=48 / ave RF=0.318).

All internal standard areas and retention times were within QC limits (Form 8A).

All surrogates were within QC limits for all samples (Form 2A).

Sample 89FS22S11 was used for the matrix spike and matrix spike duplicate analyses (Form 3A). All % recoveries were within their respective QC limits except for 1,1-dichloroethene (55% in the matrix spike). All % RPDs met their respective criteria except for 1,1-dichloroethene (%RPD=15%) and toluene (%RPD=14%).

There was one (1) method blank associated with the samples. No TCL compounds or TICs were detected in the method blank.

There was one (1) Field Blank (89FS11R17) associated with the samples. The Field Blank contained three TICs at 6:10, 7:26 and 10:48. No TCL compounds were detected in the Field Blank.

Sample 89FS22S12 and its duplicate 89FS22D12 correlated very well. No TCL compounds or TICs were detected in either sample.

Sample 89FS22S11 contained tetrachloroethene at the MDL level and no TICs.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MDL6231

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: MDL6231

Sample wt/vol: 20 (g/mL) ML Lab File ID: MDL6231

Level: (low/med) LOW Date Received: 06/21/89

% Moisture: not dec. 100 Date Analyzed: 06/27/89

Column: (pack/cap) PACK Dilution Factor: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	
74-83-9	Bromomethane	3	
75-01-4	Vinyl Chloride	2	
75-00-3	Chloroethane	2	
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	57	J
107-02-8	Acrolein	38	J
75-15-0	Carbon Disulfide	1	J
107-13-1	Acrylonitrile	47	J
75-35-4	1,1-Dichloroethene	0.9	J
75-35-3	1,1-Dichloroethane	1	
540-59-0	1,2-Dichloroethene (total)	0.9	J
67-66-3	Chloroform	1	
107-06-2	1,2-Dichloroethane	1	J
78-93-3	2-Butanone	21	J
71-55-6	1,1,1-Trichloroethane	1	
56-23-5	Carbon Tetrachloride	0.8	J
108-05-4	Vinyl Acetate	0.5	J
75-27-4	Bromodichloromethane	0.9	J
78-87-5	1,2-Dichloropropane	1	
10061-01-5	cis-1,3-Dichloropropene	1	
79-01-6	Trichloroethene	1	J
124-48-1	Dibromochloromethane	0.8	J
79-00-5	1,1,2-Trichloroethane	1	J
71-43-2	Benzene	1	
10061-02-6	Trans-1,3-Dichloropropene	0.6	J
110-75-8	2-Chloroethylvinylether	2	
75-25-2	Bromoform	0.9	J
108-10-1	4-Methyl-2-Pentanone	4	
591-78-6	2-Hexanone	4	
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	1	
108-88-3	Toluene	1	
108-90-7	Chlorobenzene	1	
100-41-4	Ethylbenzene	1	
100-42-5	Styrene	2	

MDL6231 (CONT)

108-38-3---------M-Xylene	3	
95-47-6---------0-&/or P-Xylene	4	

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Lab File ID: 0627BFB1 BFB Injection Date: 06/27/89

Instrument ID: INCOS1 BFB Injection Time: 0849

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) PACK

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.1
75	30.0 - 60.0% of mass 95	55.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	50.4
175	5.0 - 9.0% of mass 174	3.2 (6.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	50.1 (99.5)1
177	5.0 - 9.0% of mass 176	4.0 (8.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0627BLK1	0627BLK1	0627BLK1	06/27/89	0928
02	IC10627	IC10627	IC10627	06/27/89	1016
03	IC20627	IC20627	IC20627	06/27/89	1200
04	IC30627	IC30627	IC30627	06/27/89	1246
05	IC40627	IC40627	IC40627	06/27/89	1332
06	IC10627	IC10627	IC0627	06/27/89	1417
07	IC50627	IC50627	IC50627	06/27/89	1417
08	89FS11R17	89FS11R17	6231R17	06/27/89	1529
09	89FS22S12	89FS22S12	6231S12	06/27/89	1614
10	89FS22D12	89FS22D12	6231D12	06/27/89	1658
11	89FS22S11	89FS22S11	6231S11	06/27/89	1743
12	89FS22S11MS	89FS22S11MS	6231S11M	06/27/89	1827
13	89FS22S11MSD	89FS22S11MSD	6231S11D	06/27/89	1912
14	MDL6231	MDL6231	MDL6231	06/27/89	1956

ASK DESC:VO NUMBER OF ENTRIES: 6 CURRENT INDEX: 14 27 JUN 89

ENTRY NO.: 1 FILE NAME: 0627BLK1
SAMPLE: CLP,0627,,0627BLK1,L,W,,V,BLANK,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA: ANALYST : DTK WEIGHT: 1.000
SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 1

ENTRY NO.: 2 FILE NAME: IC10627
SAMPLE: CLP,0627,,IC10627,L,W,,V,IC-020,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA: ANALYST : DTK WEIGHT: 1.000
SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 2

ENTRY NO.: 3 FILE NAME: IC20627
SAMPLE: CLP,0627,,IC20627,L,W,,V,IC-050,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA: ANALYST : DTK WEIGHT: 1.000
SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 3

ENTRY NO.: 4 FILE NAME: IC30627
SAMPLE: CLP,0627,,IC30627,L,W,,V,IC-100,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA: ANALYST : DTK WEIGHT: 1.000
SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 4

ENTRY NO.: 5 FILE NAME: IC40627
SAMPLE: CLP,0627,,IC40627,L,W,,V,IC-150,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA: ANALYST : DTK WEIGHT: 1.000
SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 5

ENTRY NO.: 6 FILE NAME: IC50627
SAMPLE: CLP,0627,,IC50627,L,W,,V,IC-200,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA: ANALYST : DTK WEIGHT: 1.000
SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA
AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 6

```
ASK     DESC:VO   NUMBER OF ENTRIES:  7 CURRENT INDEX:  6                                                27 JUN 89
ENTRY NO.:  1                    FILE NAME:   6231R17
SAMPLE: CLP,6231,,89FS11R17,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA:                         ANALYST : DTK            WEIGHT:   1.000
SUBMITTED BY: CRL                ACCT. NO: TFA302         PROC:DOTCA
AS-DESC: VO   GC-DESC: VO   SEQ-DESC: VO    VIAL NO:  7
ENTRY NO.:  2                    FILE NAME:   6231S12
SAMPLE: CLP,6231,,89FS22S12,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA:                         ANALYST : DTK            WEIGHT:   1.000
SUBMITTED BY: CRL                ACCT. NO: TFA302         PROC:DOTCA
AS-DESC: VO   GC-DESC: VO   SEQ-DESC: VO    VIAL NO:  8
ENTRY NO.:  3                    FILE NAME:   6231D12
SAMPLE: CLP,6231,,89FS22D12,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA:                         ANALYST : DTK            WEIGHT:   1.000
SUBMITTED BY: CRL                ACCT. NO: TFA302         PROC:DOTCA
AS-DESC: VO   GC-DESC: VO   SEQ-DESC: VO    VIAL NO:  9
ENTRY NO.:  4                    FILE NAME:   6231S11
SAMPLE: CLP,6231,,89FS22S11,L,W,,V,EPA,
CONDS.: % RPD BASED ON % RECOVERY
FORMULA:                         ANALYST : DTK            WEIGHT:   1.000
SUBMITTED BY: CRL                ACCT. NO: TFA302         PROC:DOTCA
AS-DESC: VO   GC-DESC: VO   SEQ-DESC: VO    VIAL NO: 10
ENTRY NO.:  5                    FILE NAME:   6231S11M
SAMPLE: CLP,6231,,89FS22S11MS,L,W,,V,MS,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA:                         ANALYST : DTK            WEIGHT:   1.000
SUBMITTED BY: CRL                ACCT. NO: TFA302         PROC:DOTCA
AS-DESC: VO   GC-DESC: VO   SEQ-DESC: VO    VIAL NO:  1
ENTRY NO.:  6                    FILE NAME:   6231S11D
SAMPLE: CLP,6231,,89FS22S11MSD,L,W,,V,MSD,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
FORMULA:                         ANALYST : DTK            WEIGHT:   1.000
SUBMITTED BY: CRL                ACCT. NO: TFA302         PROC:DOTCA
AS-DESC: VO   GC-DESC: VO   SEQ-DESC: VO    VIAL NO:  2


MORE TO COME, TYPE <CR> TO CONTINUE...
```

ASK DESC:VO NUMBER OF ENTRIES: 7 CURRENT INDEX: 6 27 JUN 89

ENTRY NO.: 7 FILE NAME: MDL6231

SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,

CONDS.: 45' (3MIN) TO 220'@ 8'/MIN

FORMULA: ANALYST : DTK WEIGHT: 1.000

SUBMITTED BY: CRL ACCT. NO: TFA302 PROC:DOTCA

AS-DESC: VO GC-DESC: VO SEQ-DESC: VO VIAL NO: 3

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Lab File ID (Standard): IC0627 Date Analyzed: 06/27/89

Instrument ID: INCOS1 Time Analyzed: 1417

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) PACK

		IS1(BCM) AREA #	RT	IS2 (~~DFB~~) (BCP) AREA #	RT	IS3 (~~CBZ~~) (DCB) AREA #	RT
	12 HOUR STD	33520	9.99	145600	19.20	92320	23.20
	UPPER LIMIT	67040	10.49	291200	19.70	184640	23.70
	LOWER LIMIT	16760	9.49	72800	18.70	46160	22.70
	EPA SAMPLE NO.						
01	89FS11R17	36100	9.97	141000	19.20	76900	23.20
02	89FS22D12	37900	9.97	148000	19.17	93100	23.20
03	89FS22S11	34800	10.00	132000	19.20	85100	23.20
04	89FS22S12	37600	9.97	147000	19.20	92100	23.20
05	MDL6231	30800	9.97	119000	19.20	71100	23.20
06	89FS22S11MS	40100	9.97	150000	19.20	99700	23.20
07	89FS22S11MSD	39100	10.00	146000	19.20	93500	23.20
08	0627BLK1	25200	9.97	120000	19.20	79800	23.20

IS1 (BCM) = Bromochloromethane
~~IS2 (DFB) = 1,4-Difluorobenzene~~
~~IS3 (CBZ) = Chlorobenzene~~
IS2 (BCP) = 2-Bromo-1-Chloropropane
IS3 (DCB) = 1,4-Dichlorobutane

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA 1/87 Rev.

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

	EPA SAMPLE NO.	S1 (TOL) #	S2 ~~(BFB)~~ (BEN) #	S3 (DCE) #	OTHER	TOT OUT
01	89FS11R17	117	118	88		0
02	89FS22D12	109	108	93		0
03	89FS22S11	112	111	92		0
04	89FS22S11MS	103	105	90		0
05	89FS22S11MSD	113	108	88		0
06	89FS22S12	112	107	95		0
07	MDL6231	118	108	91		0
08	0627BLK1	93	97	109		0

	QC LIMITS
S1 (TOL) = Toluene-d8	(80-120)
~~S2 (BFB) = Bromofluorobenzene~~	(80-120)
S3 (DCE) = 1,2-Dichloroethane-d4	(80-120)
S2 (BEN) = Benzene-d_6	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

(2 crossouts D Kusel 7/5/89)

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Instrument ID: INCOS1 Calibration Date(s): 06/27/89 06/27/89

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

(10 compounds DKwed 7/5/89)

LAB FILE ID: ~~RRF20~~ = IC10627=RRF05 ~~RRF50~~ = IC20627=RRF10
~~RRF100~~= IC30627=RRF15 ~~RRF150~~= IC40627=RRF20 ~~RRF200~~= IC50627=RRF25

COMPOUND	RRF05 ~~RRF20~~	RRF10 ~~RRF50~~	RRF15 ~~RRF100~~	RRF20 ~~RRF150~~	RRF25 ~~RRF200~~	$\overline{RRF}$	% RSD
Chloromethane #	4.295	3.096	3.160	3.668	3.820	3.608	13.7#
Bromomethane	3.620	2.659	2.775	3.220	3.186	3.092	12.4
Vinyl Chloride *	4.235	3.265	3.254	3.792	3.943	3.698	11.7*
Chloroethane	2.754	2.091	2.072	2.374	2.546	2.367	12.4
Methylene Chloride	1.988	2.399	2.280	2.217	2.367	2.250	7.3
Acetone	0.144	0.166	0.148	0.178	0.147	0.157	9.4
Acrolein	0.028	0.030	0.022	0.017	0.026	0.025	20.7
Carbon Disulfide	1.377	1.337	1.230	1.450	1.425	1.364	6.3
Acrylonitrile	0.127	0.152	0.135	0.172	0.142	0.146	11.9
1,1-Dichloroethene *	1.967	2.672	2.607	2.569	3.103	2.584	15.7*
1,1-Dichloroethane #	4.879	6.142	6.109	5.698	6.630	5.892	11.1#
1,2-Dichloroethene (total)	2.008	2.619	2.605	2.505	2.993	2.546	13.9
Chloroform *	4.826	5.966	6.024	5.609	6.363	5.758	10.2*
1,2-Dichloroethane	2.017	2.460	2.522	2.373	2.537	2.382	9.0
2-Butanone	0.010	0.012	0.011	0.013	0.011	0.011	10.4
1,1,1-Trichloroethane	0.951	1.195	1.210	1.142	1.420	1.184	14.2
Carbon Tetrachloride	0.734	1.027	1.119	1.040	1.320	1.048	20.1
Vinyl Acetate	0.493	0.473	0.208	0.166	0.252	0.318	48.3
Bromodichloromethane	0.620	0.813	0.875	0.841	0.976	0.825	15.8
1,2-Dichloropropane *	0.642	0.764	0.786	0.742	0.846	0.756	9.9*
cis-1,3-Dichloropropene	0.606	0.758	0.803	0.775	0.897	0.768	13.7
Trichloroethene	0.738	0.918	0.958	0.890	1.098	0.920	14.1
Dibromochloromethane	0.318	0.417	0.490	0.480	0.520	0.445	18.0
1,1,2-Trichloroethane	0.256	0.327	0.331	0.316	0.346	0.315	11.1
Benzene	1.660	1.944	2.006	1.871	2.161	1.928	9.6
Trans-1,3-Dichloropropene	0.330	0.430	0.483	0.468	0.522	0.447	16.3
2-Chloroethylvinylether	0.136	0.155	0.160	0.146	0.161	0.152	6.9
Bromoform #	0.102	0.141	0.180	0.171	0.194	0.158	23.2#
4-Methyl-2-Pentanone	0.223	0.240	0.234	0.298	0.236	0.246	12.1
2-Hexanone	0.285	0.335	0.301	0.396	0.323	0.328	13.0
Tetrachloroethene	1.010	1.182	1.199	1.152	1.414	1.191	12.2
1,1,2,2-Tetrachloroethane #	0.298	0.402	0.446	0.426	0.450	0.404	15.5#
Toluene *	1.805	2.063	2.097	2.014	2.313	2.058	8.8*
Chlorobenzene #	2.047	2.471	2.647	2.417	2.708	2.458	10.6#
Ethylbenzene *	1.097	1.257	1.348	1.287	1.497	1.297	11.2*
Styrene	2.073	2.194	2.170	2.869	2.302	2.322	13.6
M-Xylene	2.052	1.485	1.623	1.698	1.624	1.696	12.6
O-&/or P-Xylene	1.823	1.360	1.563	1.630	1.538	1.583	10.6

6A (CONT)

Toluene-d8	3.201	3.158	3.079	3.113	3.196	3.149	1.7
Benzene-d6	2.189	2.181	2.071	2.104	2.174	2.144	2.5
1,2-Dichloroethane-d4	2.325	2.347	2.324	2.459	2.340	2.359	2.4

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Matrix Spike - EPA Sample No.: 89FS22S11

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	10.0	0	5.54	55 *	61-145
Trichloroethene	10.0	0	8.50	85	71-120
Benzene	10.0	0	9.18	92	76-127
Toluene	10.0	0	9.03	90	76-125
Chlorobenzene	10.0	0	8.98	90	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	10.0	6.40	64	+15 *	14	61-145
Trichloroethene	10.0	9.44	94	+10	14	71-120
Benzene	10.0	10.1	101	-9	11	76-127
Toluene	10.0	10.4	104	+14 *	13	76-125
Chlorobenzene	10.0	10.1	101	+12	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 2 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

COMMENTS: CLP,6231,,89FS22S11,L,W,,V,EPA,
% RPD BASED ON % RECOVERY

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: USEPA-REGION V Contract: TFA302

Lab Code: CRL Case No.: 6231 SAS No.: NA SDG No.: NA

Lab File ID: 0627BLK1 Lab Sample ID: 0627BLK1

Date Analyzed: 06/27/89 Time Analyzed: 0928

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: INCOS1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	89FS11R17	89FS11R17	6231R17	1529
02	89FS22D12	89FS22D12	6231D12	1658
03	89FS22S11	89FS22S11	6231S11	1743
04	89FS22S12	89FS22S12	6231S12	1614
05	MDL6231	MDL6231	MDL6231	1956
06	89FS22S11MS	89FS22S11MS	6231S11M	1827
07	89FS22S11MSD	89FS22S11MSD	6231S11D	1912

COMMENTS: CLP,0627,,0627BLK1,L,W,,V,BLANK,
45' (3MIN) TO 220'@ 8'/MIN

BROMOFLUOROBENZENE

Tuning Report
06/27/89 8:49:00 + 12:14
Instrument: INCOS1
Case Number:

Data: 0627BFB1 # 367
Cali: CALI0419 # 3
Analyst: DTK
Laboratory:

Base m/z: 95
RIC: 19680.
Acct. No.: TFA302
Contract:

m/z	Intensity	% RA	Ion Abundance Criteria Min %	Max %	Mass	Actual	Status
50	738.	23.1	15.0	40.0	95	23.1	PASS
75	1756.	55.1	30.0	60.0	95	55.1	PASS
95	3188.	100.0	100.0	---	---	100.0	PASS
96	271.	8.5	5.0	9.0	95	8.5	PASS
173	0.	0.0	---	2.0	174	0.0	PASS
174	1606.	50.4	50.0	---	95	50.4	PASS
175	103.	3.2	5.0	9.0	174	6.4	PASS
176	1598.	50.1	95.0	101.0	174	99.5	PASS
177	128.	4.0	5.0	9.0	176	8.0	PASS

Mass List Data: 0627BFB1 # 367 Base m/z: 95
06/27/89 8:49:00 + 12:14 Cali: CALI0419 # 3 RIC: 19680.
Sample: 50NG BFB INCOS-50 GC/MS/DS USEPA-REGION_V
Conds.: 150' TO 220'@ 15'/MIN

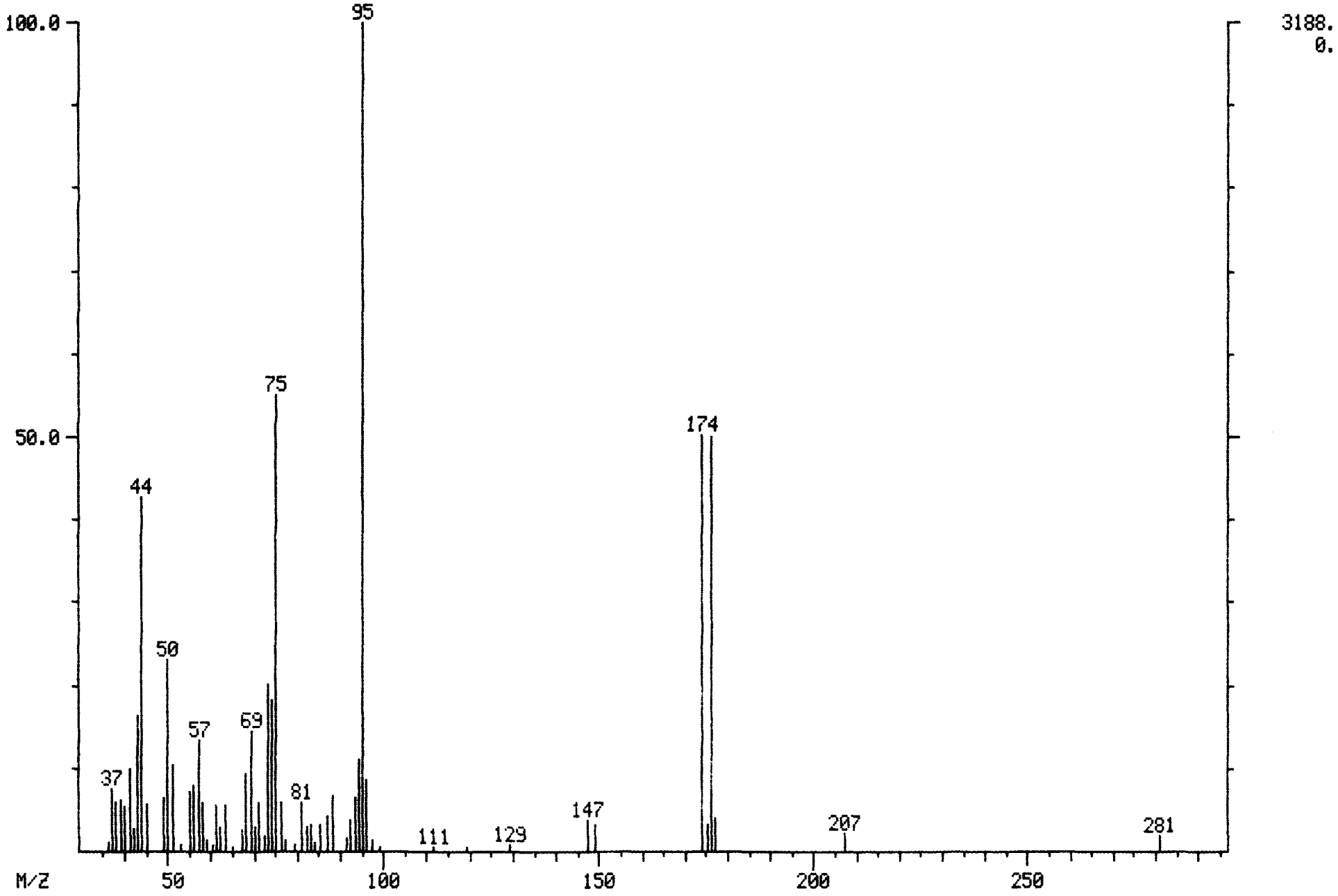
36 0.00 0. Minima Min Inten: 0.
281 Maxima # 0

Mass		% RA	Inten.	Mass		% RA	Inten.
36?	M	1.16	37.	111		0.53	17.
37?	M	7.40	236.	119		0.60	19.
38?	M	5.93	189.	129		0.72	23.
39?	M	6.30	201.	147	M	3.73	119.
40?	M	5.43	173.	149	M	3.36	107.
41?		9.82	313.	174		50.38	1606.
42?	M	2.63	84.	175	M	3.23	103.
43?	M	16.31	520.	176		50.13	1598.
44?		42.66	1360.	177	M	4.02	128.
45?	M	5.77	184.	207	M	2.10	67.
49?	M	6.59	210.	281		1.79	57.
50?		23.15	738.				
51?	M	10.48	334.				
53?		0.78	25.				
55?	M	7.34	234.				
56?	M	8.16	260.				
57?		13.43	428.				
58?	M	6.02	192.				
59?	M	1.29	41.				
60?		0.94	30.				
61?		5.74	183.				
62?	M	2.82	90.				
63?		5.58	178.				
65?		0.63	20.				
67?	M	2.63	84.				
68?		9.28	296.				
69		14.59	465.				
70		3.01	96.				
71	M	6.02	192.				
72	M	1.79	57.				
73		20.11	641.				
74		18.38	586.				
75		55.08	1756.				
76	M	5.99	191.				
77	M	1.41	45.				
79		0.88	28.				
81	M	5.80	185.				
82	M	2.95	94.				
83	M	3.26	104.				
84	M	1.10	35.				
85	M	3.20	102.				
87	M	4.23	135.				
88	M	6.81	217.				
91		1.73	55.				
92	M	3.89	124.				
93	M	6.56	209.				
94	M	10.95	349.				
95		100.00	3188.				
96		8.50	271.				
97		1.44	46.				
99		0.60	19.				

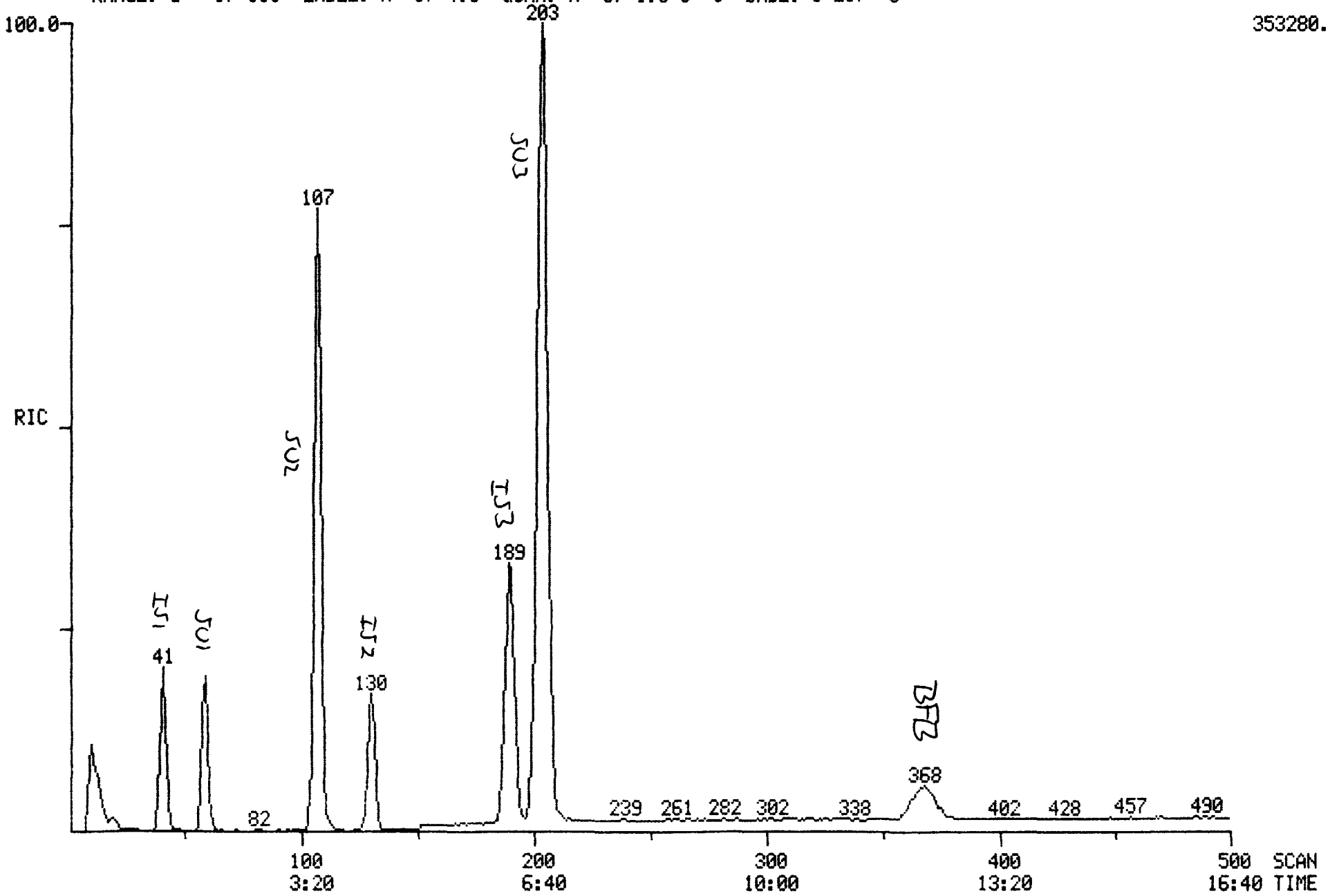
MASS SPECTRUM
06/27/89 8:49:00 + 12:14
SAMPLE: 50NG BFB INCOS-50 GC/MS/DS USEPA-REGION_V
CONDS.: 150' TO 220'@ 15'/MIN
TEMP: 219 DEG. C

DATA: 0627BFB1 #367
CALI: CALI0419 #3

BASE M/Z: 95
RIC: 19680.



RIC DATA: 0627BFB1 #367 SCANS 1 TO 500
06/27/89 8:49:00 CALI: CALI0419 #3
SAMPLE: 50NG BFB INCOS-50 GC/MS/DS USEPA-REGION_V
CONDS.: 150' TO 220'@ 15'/MIN
RANGE: G 1, 500 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: IC10627

Data: IC10627.TI
06/27/89 10:16:00
Sample: CLP,0627,,IC10627,L,W,,V,IC-020,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	VINYL CHLORIDE	
10	C025	CHLOROETHANE	
11	C030	METHYLENE CHLORIDE	
12	C035	ACETONE	
13	C040	CARBON DISULFIDE	
14	C043	ACRYLONITRILE	
15	C045	1,1-DICHLOROETHENE	
16	C050	1,1-DICHLOROETHANE	
17	C053	1,2-DICHLOROETHENE (TOTAL)	
18	C060	CHLOROFORM	
19	C065	1,2-DICHLOROETHANE	
20	C110	2-BUTANONE	
21	C115	1,1,1-TRICHLOROETHANE	
22	C120	CARBON TETRACHLORIDE	
23	C125	VINYL ACETATE	
24	C130	BROMODICHLOROMETHANE	
25	C140	1,2-DICHLOROPROPANE	
26	C143	CIS-1,3-DICHLOROPROPENE	
27	C150	TRICHLOROETHENE	
28	C155	DIBROMOCHLOROMETHANE	
29	C160	1,1,2-TRICHLOROETHANE	
30	C165	BENZENE	
31	C172	TRANS-1,3-DICHLOROPROPENE	
32	C175	2-CHLOROETHYLVINYLETHER	
33	C180	BROMOFORM	
34	C210	2-HEXANONE	
35	C205	4-METHYL-2-PENTANONE	
36	C220	TETRACHLOROETHENE	
37	C225	1,1,2,2-TETRACHLOROETHANE	
38	C230	TOLUENE	
39	C235	CHLOROBENZENE	
40	C240	ETHYL BENZENE	
41	C245	STYRENE	
42	C260	M-XYLENE	
43	C270	O-&/OR P-XYLENE	
44	C038	ACROLEIN	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	300	10:00	1	1.000	A BB	28922.	10.000	UG/L	0.52
2	77	576	19:12	2	1.000	A BB	124199.	10.000	UG/L	0.52
3	55	697	23:14	3	1.000	A BB	78969.	10.000	UG/L	0.52
4	65	382	12:44	1	1.273	A BB	67240.	10.323	UG/L	0.54
5	84	528	17:36	2	0.917	A BB	271892.	10.532	UG/L	0.55
6	98	721	24:02	3	1.034	A BB	252765.	16.451	UG/L	0.86
7	50	49	1:38	1	0.163	A BV	124226.	13.591	UG/L	0.71
8	94	80	2:40	1	0.267	A BB	104686.	11.425	UG/L	0.60
9	62	104	3:28	1	0.347	A BB	122490.	12.830	UG/L	0.67
10	64	135	4:30	1	0.450	A BB	79663.	11.959	UG/L	0.63
11	84	200	6:40	1	0.667	A BB	28755.	3.907	UG/L	0.20
12	43	219	7:18	1	0.730	A BB	93540.	387.348	UG/L	20.25
13	76	247	8:14	1	0.823	A BB	29866.	135.839	UG/L	7.10
14	53	241	8:02	1	0.803	A BB	82528.	321.148	UG/L	16.79
15	96	285	9:30	1	0.950	A BB	28440.	3.575	UG/L	0.19
16	63	324	10:48	1	1.080	A BB	70554.	3.929	UG/L	0.21
17	96	346	11:32	1	1.153	A BB	29032.	3.710	UG/L	0.19
18	83	363	12:06	1	1.210	A BB	69795.	3.894	UG/L	0.20
19	62	385	12:50	1	1.283	A BB	29164.	4.083	UG/L	0.21
20	72	382	12:44	2	0.663	A BB	9766.	79.955	UG/L	4.18
21	97	425	14:10	2	0.738	A BB	59074.	3.840	UG/L	0.20
22	117	436	14:32	2	0.757	A VB	45569.	3.342	UG/L	0.17
23	43	440	14:40	2	0.764	A BB	137849.	35.122	UG/L	1.84
24	83	453	15:06	2	0.786	A BB	38484.	3.603	UG/L	0.19
25	63	493	16:26	2	0.856	A BB	39851.	4.273	UG/L	0.22
26	75	501	16:42	2	0.870	A BB	45175.	4.765	UG/L	0.25
27	130	517	17:14	2	0.898	A BB	45817.	3.850	UG/L	0.20
28	129	538	17:56	2	0.934	A BB	19727.	3.403	UG/L	0.18
29	97	540	18:00	2	0.937	A BB	15888.	4.009	UG/L	0.21
30	78	532	17:44	2	0.924	A BB	103111.	4.135	UG/L	0.22
31	75	540	18:00	2	0.937	A BB	16375.	2.858	UG/L	0.15
32	63	572	19:04	2	0.993	A BB	8437.	4.594	UG/L	0.24
33	173	618	20:36	2	1.073	A BB	6358.	3.104	UG/L	0.16
34	43	631	21:02	3	0.905	A BB	33789.	11.906	UG/L	0.62
35	43	678	22:36	3	0.973	A BB	26399.	12.725	UG/L	0.67
36	164	688	22:56	3	0.987	A BB	39879.	3.683	UG/L	0.19
37	83	687	22:54	3	0.986	A BB	11759.	3.285	UG/L	0.17
38	92	726	24:12	3	1.042	A BB	71259.	4.028	UG/L	0.21
39	112	761	25:22	3	1.092	A BB	80824.	3.743	UG/L	0.20
40	106	824	27:28	3	1.182	A BB	43330.	3.830	UG/L	0.20
41	104	953	31:46	3	1.367	A BB	122781.	5.649	UG/L	0.30
42	106	961	32:02	3	1.379	A BB	162008.	10.751	UG/L	0.56
43	106	993	33:06	3	1.425	A BB	179982.	14.970	UG/L	0.78
44	56	220	7:20	1	0.733	A BB	18026.	693.271	UG/L	36.24

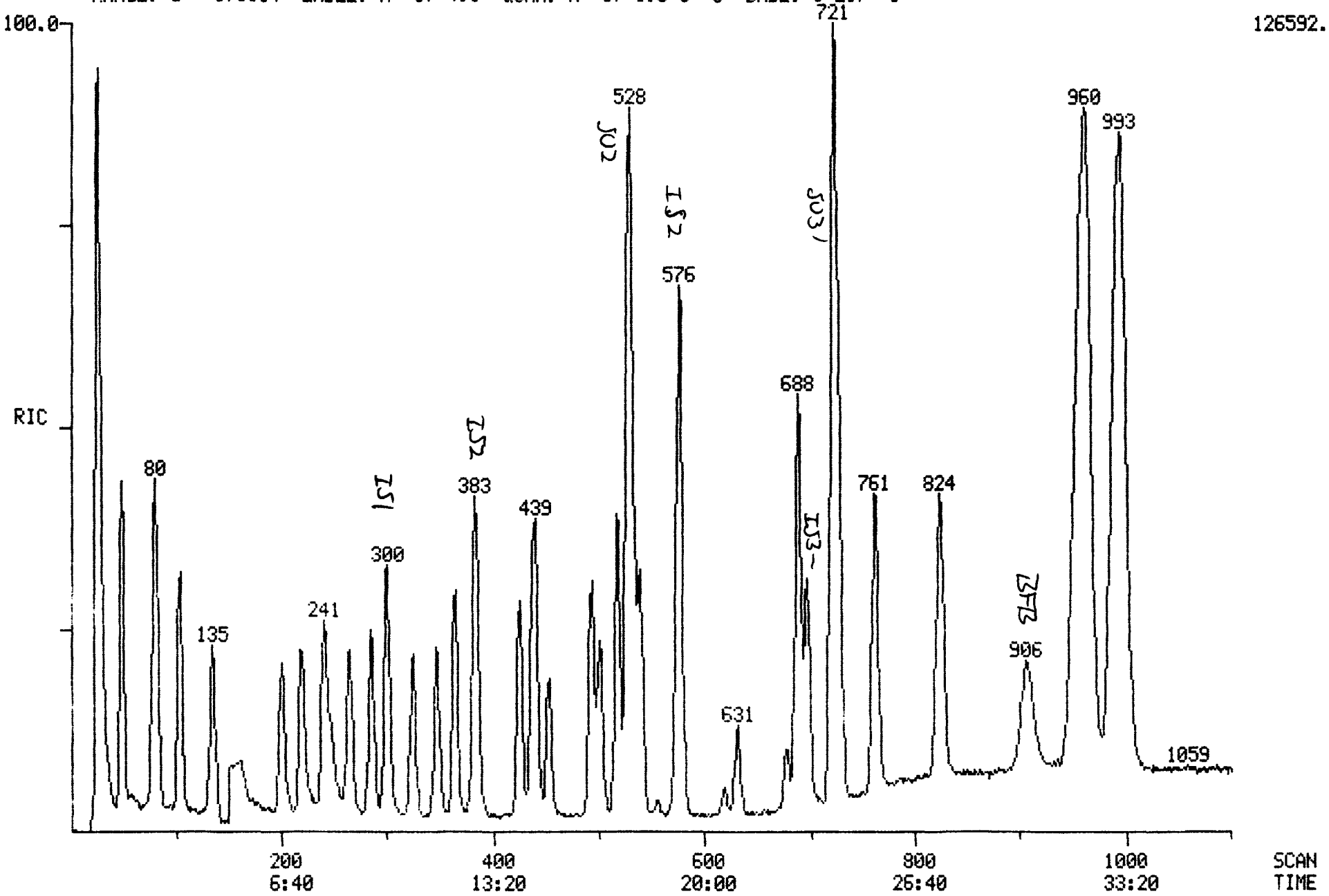
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	10.32	10.00	2.325	2.252	1.03
5	17:26	1.01	0.917	1.00	10.53	10.00	2.189	2.079	1.05
6	23:52	1.01	1.038	1.00	16.45	10.00	3.201	1.946	1.65
7	1:38	1.00	0.181	0.90	13.59	10.00	4.295	3.160	1.36
8	2:36	1.03	0.285	0.94	11.43	10.00	3.620	3.168	1.14
9	3:22	1.03	0.361	0.96	12.83	10.00	4.235	3.301	1.28
10	4:22	1.03	0.462	0.97	11.96	10.00	2.754	2.303	1.20

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:30	1.03	0.681	0.98	3.91	5.00	1.988	2.545	0.78
12	7:06	1.03	0.757	0.96	387.35	225.00	0.144	0.083	1.72
13	8:06	1.02	0.833	0.99	135.84	7.50	1.377	0.076	18.11
14	7:48	1.03	0.826	0.97	321.15	225.00	0.127	0.089	1.43
15	9:22	1.01	0.955	0.99	3.57	5.00	1.967	2.751	0.71
16	10:40	1.01	1.090	0.99	3.93	5.00	4.879	6.208	0.79
17	11:24	1.01	1.170	0.99	3.71	5.00	2.008	2.705	0.74
18	12:02	1.01	1.229	0.98	3.89	5.00	4.826	6.197	0.78
19	12:44	1.01	1.312	0.98	4.08	5.00	2.017	2.470	0.82
20	12:36	1.01	0.664	1.00	79.95	75.00	0.010	0.010	1.07
21	14:02	1.01	0.731	1.01	3.84	5.00	0.951	1.239	0.77
22	14:26	1.01	0.752	1.01	3.34	5.00	0.734	1.098	0.67
23	14:34	1.01	0.764	1.00	35.12	22.50	0.493	0.316	1.56
24	15:00	1.01	0.780	1.01	3.60	5.00	0.620	0.860	0.72
25	16:20	1.01	0.854	1.00	4.27	5.00	0.642	0.751	0.85
26	16:34	1.01	0.868	1.00	4.76	6.00	0.606	0.763	0.79
27	17:06	1.01	0.898	1.00	3.85	5.00	0.738	0.958	0.77
28	17:48	1.01	0.930	1.00	3.40	5.00	0.318	0.467	0.68
29	17:54	1.01	0.937	1.00	4.01	5.00	0.256	0.319	0.80
30	17:36	1.01	0.924	1.00	4.14	5.00	1.660	2.008	0.83
31	17:52	1.01	0.937	1.00	2.86	4.00	0.330	0.461	0.71
32	18:56	1.01	0.995	1.00	4.59	5.00	0.136	0.148	0.92
33	20:30	1.00	1.076	1.00	3.10	5.00	0.102	0.165	0.62
34	20:56	1.00	0.907	1.00	11.91	15.00	0.285	0.359	0.79
35	22:28	1.01	0.974	1.00	12.72	15.00	0.223	0.263	0.85
36	22:48	1.01	0.990	1.00	3.68	5.00	1.010	1.371	0.74
37	22:48	1.00	0.988	1.00	3.29	5.00	0.298	0.453	0.66
38	24:04	1.01	1.046	1.00	4.03	5.00	1.805	2.240	0.81
39	25:14	1.01	1.097	1.00	3.74	5.00	2.047	2.734	0.75
40	27:16	1.01	1.186	1.00	3.83	5.00	1.097	1.433	0.77
41	31:24	1.01	1.367	1.00	5.65	7.50	2.073	2.752	0.75
42	31:42	1.01	1.378	1.00	10.75	10.00	2.052	1.908	1.08
43	32:44	1.01	1.425	1.00	14.97	12.50	1.823	1.522	1.20
44	7:06	1.03	0.757	0.97	693.27	225.00	0.028	0.009	3.08

RIC
06/27/89 10:16:00
SAMPLE: CLP,0627,,IC10627,L,W,,V,IC-020,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: IC10627 #1
CALI: IC10627 #3

SCANS 1 TO 1100



Quantitation Report File: IC20627

Data: IC20627.TI
06/27/89 12:00:00
Sample: CLP,0627,,IC20627,L,W,,V,IC-050,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

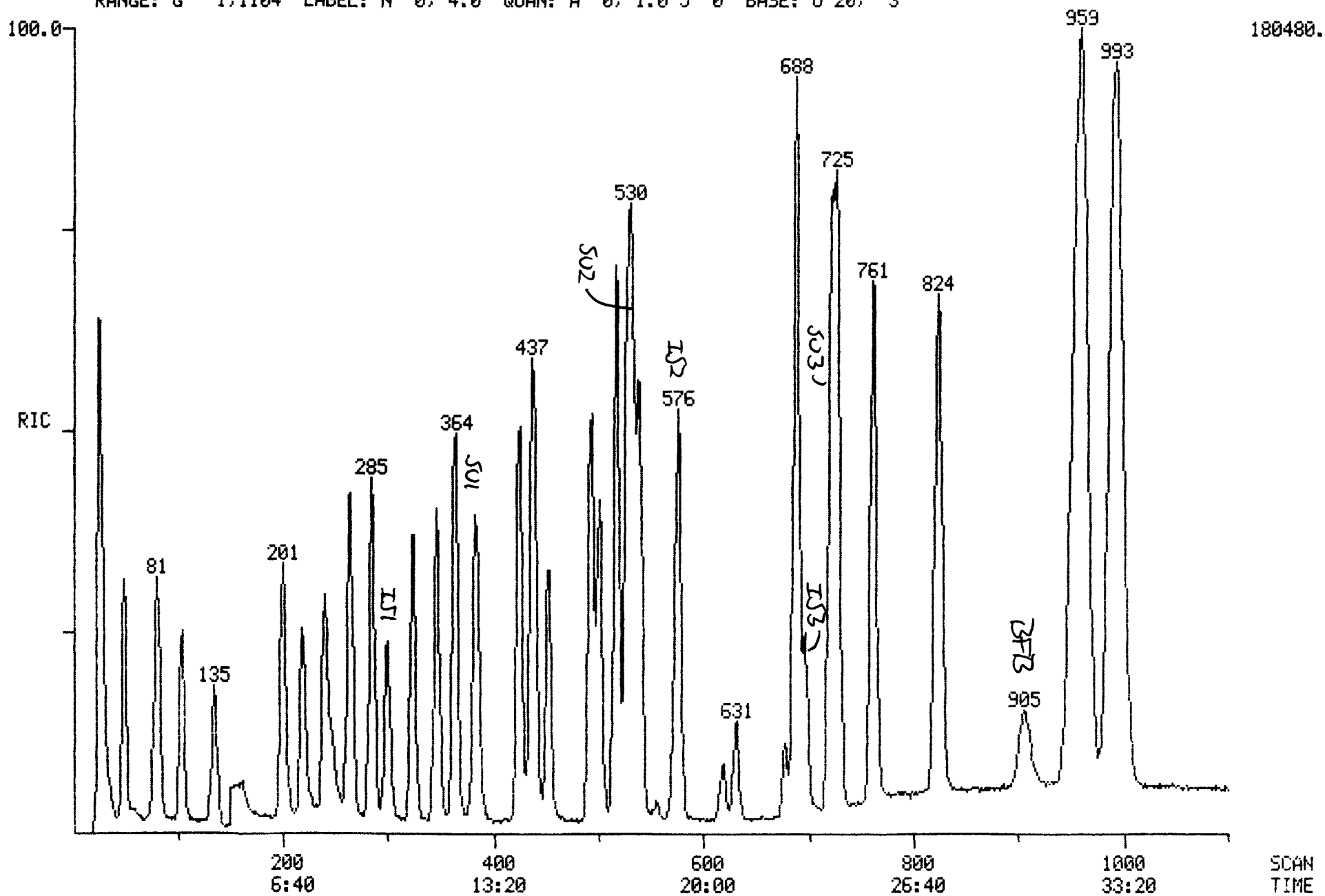
No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	VINYL CHLORIDE	
10	C025	CHLOROETHANE	
11	C030	METHYLENE CHLORIDE	
12	C035	ACETONE	
13	C040	CARBON DISULFIDE	
14	C043	ACRYLONITRILE	
15	C045	1,1-DICHLOROETHENE	
16	C050	1,1-DICHLOROETHANE	
17	C053	1,2-DICHLOROETHENE (TOTAL)	
18	C060	CHLOROFORM	
19	C065	1,2-DICHLOROETHANE	
20	C110	2-BUTANONE	
21	C115	1,1,1-TRICHLOROETHANE	
22	C120	CARBON TETRACHLORIDE	
23	C125	VINYL ACETATE	
24	C130	BROMODICHLOROMETHANE	
25	C140	1,2-DICHLOROPROPANE	
26	C143	CIS-1,3-DICHLOROPROPENE	
27	C150	TRICHLOROETHENE	
28	C155	DIBROMOCHLOROMETHANE	
29	C160	1,1,2-TRICHLOROETHANE	
30	C165	BENZENE	
31	C172	TRANS-1,3-DICHLOROPROPENE	
32	C175	2-CHLOROETHYLVINYLETHER	
33	C180	BROMOFORM	
34	C210	2-HEXANONE	
35	C205	4-METHYL-2-PENTANONE	
36	C220	TETRACHLOROETHENE	
37	C225	1,1,2,2-TETRACHLOROETHANE	
38	C230	TOLUENE	
39	C235	CHLOROBENZENE	
40	C240	ETHYL BENZENE	
41	C245	STYRENE	
42	C260	M-XYLENE	
43	C270	O-&/OR P-XYLENE	
44	C038	ACROLEIN	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	300	10:00	1	1.000	A BB	29713.	10.000	UG/L	0.35
2	77	576	19:12	2	1.000	A BB	130195.	10.000	UG/L	0.35
3	55	696	23:12	3	1.000	A BB	85527.	10.000	UG/L	0.35
4	65	382	12:44	1	1.273	A BB	69734.	10.421	UG/L	0.36
5	84	527	17:34	2	0.915	A BB	284004.	10.495	UG/L	0.36
6	98	720	24:00	3	1.034	A BB	270106.	16.232	UG/L	0.56
7	50	49	1:38	1	0.163	A BB	137968.	14.693	UG/L	0.51
8	94	81	2:42	1	0.270	A BB	118501.	12.589	UG/L	0.44
9	62	104	3:28	1	0.347	A BB	145534.	14.838	UG/L	0.51
10	64	135	4:30	1	0.450	A BB	93180.	13.615	UG/L	0.47
11	84	200	6:40	1	0.667	A BB	71269.	9.425	UG/L	0.33
12	43	219	7:18	1	0.730	A BB	148152.	597.170	UG/L	20.70
13	76	248	8:16	1	0.827	A BB	39737.	175.926	UG/L	6.10
14	53	240	8:00	1	0.800	A BB	135747.	514.186	UG/L	17.83
15	96	285	9:30	1	0.950	A BB	79380.	9.713	UG/L	0.34
16	63	324	10:48	1	1.080	A BB	182487.	9.893	UG/L	0.34
17	96	346	11:32	1	1.153	A BB	77804.	9.679	UG/L	0.34
18	83	364	12:08	1	1.213	A BB	177273.	9.627	UG/L	0.33
19	62	385	12:50	1	1.283	A BB	73103.	9.962	UG/L	0.35
20	72	382	12:44	2	0.663	A BB	15085.	117.818	UG/L	4.08
21	97	425	14:10	2	0.738	A BB	155618.	9.650	UG/L	0.33
22	117	436	14:32	2	0.757	A VB	133654.	9.350	UG/L	0.32
23	43	440	14:40	2	0.764	A BB	184738.	44.901	UG/L	1.56
24	83	452	15:04	2	0.785	A BB	105910.	9.460	UG/L	0.33
25	63	493	16:26	2	0.856	A BB	99439.	10.170	UG/L	0.35
26	75	500	16:40	2	0.868	A BB	118442.	11.916	UG/L	0.41
27	130	517	17:14	2	0.898	A BB	119509.	9.581	UG/L	0.33
28	129	537	17:54	2	0.932	A BB	54309.	8.937	UG/L	0.31
29	97	540	18:00	2	0.937	A BB	42589.	10.252	UG/L	0.36
30	78	532	17:44	2	0.924	A BB	253122.	9.684	UG/L	0.34
31	75	539	17:58	2	0.936	A BB	44837.	7.465	UG/L	0.26
32	63	572	19:04	2	0.993	A BB	20212.	10.500	UG/L	0.36
33	173	619	20:38	2	1.075	A BB	18350.	8.547	UG/L	0.30
34	43	631	21:02	3	0.907	A BB	57278.	18.635	UG/L	0.65
35	43	677	22:34	3	0.973	A BB	41032.	18.262	UG/L	0.63
36	164	687	22:54	3	0.987	A BB	101105.	8.621	UG/L	0.30
37	83	687	22:54	3	0.987	A BB	34370.	8.867	UG/L	0.31
38	92	726	24:12	3	1.043	A BB	176403.	9.207	UG/L	0.32
39	112	761	25:22	3	1.093	A BB	211305.	9.035	UG/L	0.31
40	106	824	27:28	3	1.184	A BB	107477.	8.772	UG/L	0.30
41	104	953	31:46	3	1.369	A BB	187674.	7.972	UG/L	0.28
42	106	960	32:00	3	1.379	A BB	254015.	15.565	UG/L	0.54
43	106	992	33:04	3	1.425	A BB	291966.	22.422	UG/L	0.78
44	56	220	7:20	1	0.733	A BV	26995.	1010.570	UG/L	35.03

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	10.42	10.00	2.347	2.252	1.04
5	17:26	1.01	0.917	1.00	10.49	10.00	2.181	2.079	1.05
6	23:52	1.01	1.038	1.00	16.23	10.00	3.158	1.946	1.62
7	1:38	1.00	0.181	0.90	14.69	15.00	3.096	3.160	0.98
8	2:36	1.04	0.285	0.95	12.59	15.00	2.659	3.168	0.84
9	3:22	1.03	0.361	0.96	14.84	15.00	3.265	3.301	0.99
10	4:22	1.03	0.462	0.97	13.62	15.00	2.091	2.303	0.91

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:30	1.03	0.681	0.98	9.42	10.00	2.399	2.545	0.94
12	7:06	1.03	0.757	0.96	597.17	300.00	0.166	0.083	1.99
13	8:06	1.02	0.833	0.99	175.93	10.00	1.337	0.076	17.59
14	7:48	1.03	0.826	0.97	514.19	300.00	0.152	0.089	1.71
15	9:22	1.01	0.955	0.99	9.71	10.00	2.672	2.751	0.97
16	10:40	1.01	1.090	0.99	9.89	10.00	6.142	6.208	0.99
17	11:24	1.01	1.170	0.99	9.68	10.00	2.619	2.705	0.97
18	12:02	1.01	1.229	0.99	9.63	10.00	5.966	6.197	0.96
19	12:44	1.01	1.312	0.98	9.96	10.00	2.460	2.470	1.00
20	12:36	1.01	0.664	1.00	117.82	100.00	0.012	0.010	1.18
21	14:02	1.01	0.731	1.01	9.65	10.00	1.195	1.239	0.97
22	14:26	1.01	0.752	1.01	9.35	10.00	1.027	1.098	0.93
23	14:34	1.01	0.764	1.00	44.90	30.00	0.473	0.316	1.50
24	15:00	1.00	0.780	1.01	9.46	10.00	0.813	0.860	0.95
25	16:20	1.01	0.854	1.00	10.17	10.00	0.764	0.751	1.02
26	16:34	1.01	0.868	1.00	11.92	12.00	0.758	0.763	0.99
27	17:06	1.01	0.898	1.00	9.58	10.00	0.918	0.958	0.96
28	17:48	1.01	0.930	1.00	8.94	10.00	0.417	0.467	0.89
29	17:54	1.01	0.937	1.00	10.25	10.00	0.327	0.319	1.03
30	17:36	1.01	0.924	1.00	9.68	10.00	1.944	2.008	0.97
31	17:52	1.01	0.937	1.00	7.46	8.00	0.430	0.461	0.93
32	18:56	1.01	0.995	1.00	10.50	10.00	0.155	0.148	1.05
33	20:30	1.01	1.076	1.00	8.55	10.00	0.141	0.165	0.85
34	20:56	1.00	0.907	1.00	18.63	20.00	0.335	0.359	0.93
35	22:28	1.00	0.974	1.00	18.26	20.00	0.240	0.263	0.91
36	22:48	1.00	0.990	1.00	8.62	10.00	1.182	1.371	0.86
37	22:48	1.00	0.988	1.00	8.87	10.00	0.402	0.453	0.89
38	24:04	1.01	1.046	1.00	9.21	10.00	2.063	2.240	0.92
39	25:14	1.01	1.097	1.00	9.04	10.00	2.471	2.734	0.90
40	27:16	1.01	1.186	1.00	8.77	10.00	1.257	1.433	0.88
41	31:24	1.01	1.367	1.00	7.97	10.00	2.194	2.752	0.80
42	31:42	1.01	1.378	1.00	15.56	20.00	1.485	1.908	0.78
43	32:44	1.01	1.425	1.00	22.42	25.10	1.360	1.522	0.89
44	7:06	1.03	0.757	0.97	1010.57	300.00	0.030	0.009	3.37

RIC DATA: IC20627 #1 SCANS 1 TO 1100
06/27/89 12:00:00 CALI: IC20627 #3
SAMPLE: CLP,0627,,IC20627,L,W,,V,IC-050,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: IC30627

Data: IC30627.TI
06/27/89 12:46:00
Sample: CLP,0627,,IC30627,L,W,,V,IC-100,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

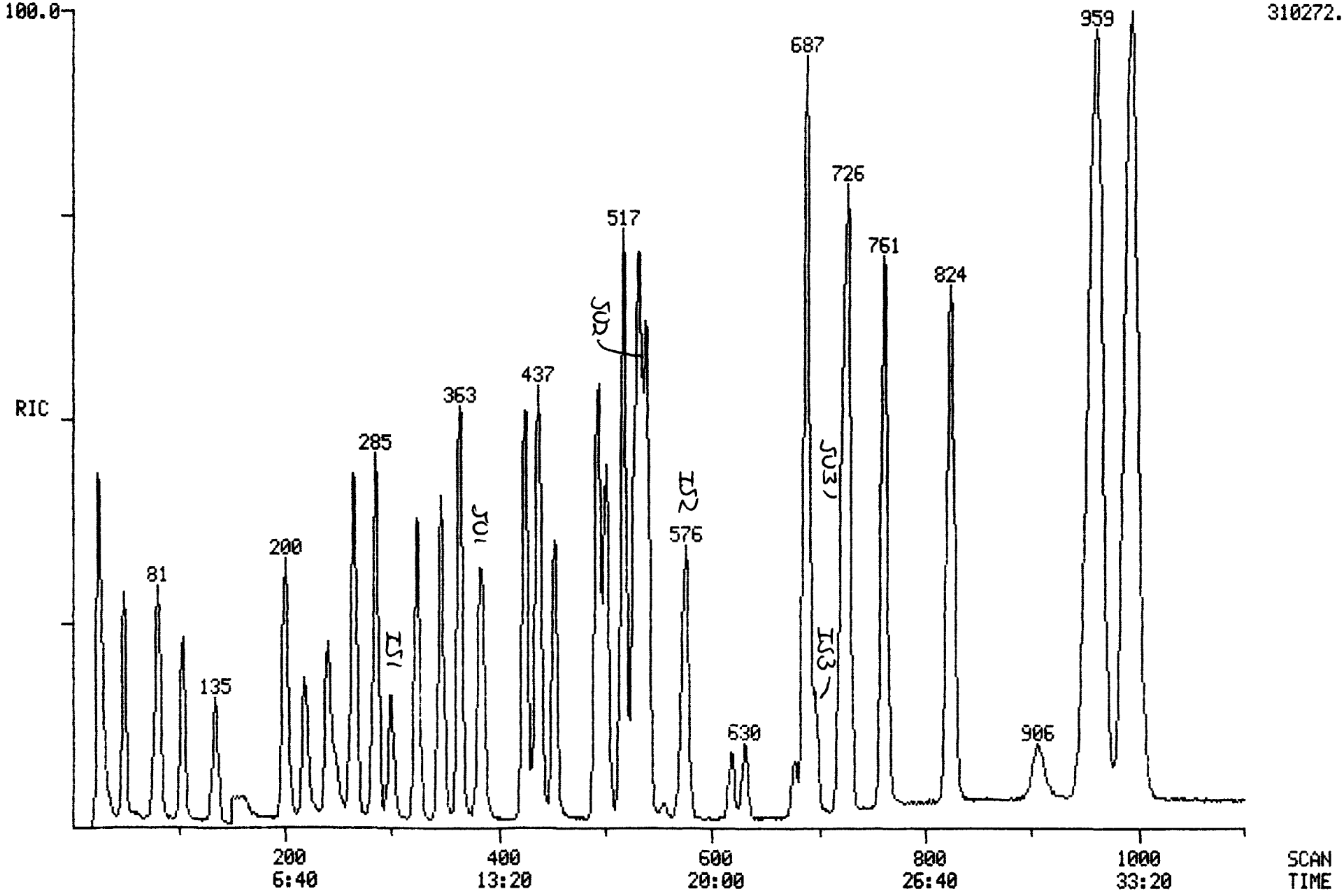
No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	VINYL CHLORIDE	
10	C025	CHLOROETHANE	
11	C030	METHYLENE CHLORIDE	
12	C035	ACETONE	
13	C038	ACROLEIN	
14	C040	CARBON DISULFIDE	
15	C043	ACRYLONITRILE	
16	C045	1,1-DICHLOROETHENE	
17	C050	1,1-DICHLOROETHANE	
18	C053	1,2-DICHLOROETHENE (TOTAL)	
19	C060	CHLOROFORM	
20	C065	1,2-DICHLOROETHANE	
21	C110	2-BUTANONE	
22	C115	1,1,1-TRICHLOROETHANE	
23	C120	CARBON TETRACHLORIDE	
24	C125	VINYL ACETATE	
25	C130	BROMODICHLOROMETHANE	
26	C140	1,2-DICHLOROPROPANE	
27	C143	CIS-1,3-DICHLOROPROPENE	
28	C150	TRICHLOROETHENE	
29	C155	DIBROMOCHLOROMETHANE	
30	C160	1,1,2-TRICHLOROETHANE	
31	C165	BENZENE	
32	C172	TRANS-1,3-DICHLOROPROPENE	
33	C175	2-CHLOROETHYLVINYLETHER	
34	C180	BROMOFORM	
35	C210	2-HEXANONE	
36	C205	4-METHYL-2-PENTANONE	
37	C220	TETRACHLOROETHENE	
38	C225	1,1,2,2-TETRACHLOROETHANE	
39	C230	TOLUENE	
40	C235	CHLOROBENZENE	
41	C240	ETHYL BENZENE	
42	C260	M-XYLENE	
43	C270	O-&/OR P-XYLENE	
44	C245	STYRENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	34928.	10.000 UG/L	0.32
2	77	576	19:12	2	1.000	A BB	152222.	10.000 UG/L	0.32
3	55	696	23:12	3	1.000	A BB	97256.	10.000 UG/L	0.32
4	65	382	12:44	1	1.278	A BB	81172.	10.319 UG/L	0.33
5	84	527	17:34	2	0.915	A VB	315182.	9.962 UG/L	0.32
6	98	721	24:02	3	1.036	A BB	299419.	15.823 UG/L	0.51
7	50	49	1:38	1	0.164	A BB	220722.	19.996 UG/L	0.64
8	94	81	2:42	1	0.271	A BB	193822.	17.516 UG/L	0.56
9	62	104	3:28	1	0.348	A BB	227319.	19.716 UG/L	0.63
10	64	135	4:30	1	0.452	A BB	144775.	17.996 UG/L	0.58
11	84	200	6:40	1	0.669	A BB	119458.	13.439 UG/L	0.43
12	43	219	7:18	1	0.732	A BB	193829.	664.631 UG/L	21.29
13	56	220	7:20	1	0.736	A BB	28880.	919.723 UG/L	29.46
14	76	248	8:16	1	0.829	A BB	53710.	202.283 UG/L	6.48
15	53	240	8:00	1	0.803	A BB	177000.	570.340 UG/L	18.27
16	96	284	9:28	1	0.950	A BB	136564.	14.214 UG/L	0.46
17	63	323	10:46	1	1.080	A BB	320041.	14.759 UG/L	0.47
18	96	345	11:30	1	1.154	A BB	136480.	14.443 UG/L	0.46
19	83	363	12:06	1	1.214	A BB	315586.	14.579 UG/L	0.47
20	62	385	12:50	1	1.288	A BB	132155.	15.320 UG/L	0.49
21	72	382	12:44	2	0.663	A BB	20637.	137.853 UG/L	4.42
22	97	424	14:08	2	0.736	A BB	276194.	14.649 UG/L	0.47
23	117	436	14:32	2	0.757	A VB	255508.	15.288 UG/L	0.49
24	43	440	14:40	2	0.764	A BV	118935.	24.724 UG/L	0.79
25	83	453	15:06	2	0.786	A BB	199864.	15.269 UG/L	0.49
26	63	493	16:26	2	0.856	A BB	179507.	15.703 UG/L	0.50
27	75	501	16:42	2	0.870	A BB	219903.	18.923 UG/L	0.61
28	130	517	17:14	2	0.898	A BB	218788.	15.002 UG/L	0.48
29	129	537	17:54	2	0.932	A BB	111926.	15.753 UG/L	0.50
30	97	539	17:58	2	0.936	A BB	75540.	15.553 UG/L	0.50
31	78	532	17:44	2	0.924	A BB	458119.	14.990 UG/L	0.48
32	75	539	17:58	2	0.936	A BB	88245.	12.566 UG/L	0.40
33	63	571	19:02	2	0.991	A BB	36558.	16.243 UG/L	0.52
34	173	618	20:36	2	1.073	A BB	41066.	16.359 UG/L	0.52
35	43	631	21:02	3	0.907	A BB	73088.	20.911 UG/L	0.67
36	43	677	22:34	3	0.973	A BB	56916.	22.276 UG/L	0.71
37	164	687	22:54	3	0.987	A BB	174940.	13.117 UG/L	0.42
38	83	687	22:54	3	0.987	A BB	65001.	14.747 UG/L	0.47
39	92	726	24:12	3	1.043	A BB	305877.	14.039 UG/L	0.45
40	112	761	25:22	3	1.093	A BB	386225.	14.523 UG/L	0.47
41	106	824	27:28	3	1.184	A BB	196673.	14.116 UG/L	0.45
42	106	961	32:02	3	1.381	A BB	473559.	25.518 UG/L	0.82
43	106	992	33:04	3	1.425	A BB	571461.	38.595 UG/L	1.24
44	104	951	31:42	3	1.366	A BB	263751.	9.853 UG/L	0.32

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	10.32	10.00	2.324	2.252	1.03
5	17:26	1.01	0.917	1.00	9.96	10.00	2.071	2.079	1.00
6	23:52	1.01	1.038	1.00	15.82	10.00	3.079	1.946	1.58
7	1:38	1.00	0.181	0.91	20.00	20.00	3.160	3.160	1.00
8	2:36	1.04	0.285	0.95	17.52	20.00	2.775	3.168	0.88
9	3:22	1.03	0.361	0.96	19.72	20.00	3.254	3.301	0.99
10	4:22	1.03	0.462	0.98	18.00	20.00	2.072	2.303	0.90

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:30	1.03	0.681	0.98	13.44	15.00	2.280	2.545	0.90
12	7:06	1.03	0.757	0.97	664.63	375.00	0.148	0.083	1.77
13	7:06	1.03	0.757	0.97	919.72	375.00	0.022	0.009	2.45
14	8:06	1.02	0.833	1.00	202.28	12.50	1.230	0.076	16.18
15	7:48	1.03	0.826	0.97	570.34	375.00	0.135	0.089	1.52
16	9:22	1.01	0.955	0.99	14.21	15.00	2.607	2.751	0.95
17	10:40	1.01	1.090	0.99	14.76	15.00	6.109	6.208	0.98
18	11:24	1.01	1.170	0.99	14.44	15.00	2.605	2.705	0.96
19	12:02	1.01	1.229	0.99	14.58	15.00	6.024	6.197	0.97
20	12:44	1.01	1.312	0.98	15.32	15.00	2.522	2.470	1.02
21	12:36	1.01	0.664	1.00	137.85	125.00	0.011	0.010	1.10
22	14:02	1.01	0.731	1.01	14.65	15.00	1.210	1.239	0.98
23	14:26	1.01	0.752	1.01	15.29	15.00	1.119	1.098	1.02
24	14:34	1.01	0.764	1.00	24.72	37.50	0.208	0.316	0.66
25	15:00	1.01	0.780	1.01	15.27	15.00	0.875	0.860	1.02
26	16:20	1.01	0.854	1.00	15.70	15.00	0.786	0.751	1.05
27	16:34	1.01	0.868	1.00	18.92	18.00	0.803	0.763	1.05
28	17:06	1.01	0.898	1.00	15.00	15.00	0.958	0.958	1.00
29	17:48	1.01	0.930	1.00	15.75	15.00	0.490	0.467	1.05
30	17:54	1.00	0.937	1.00	15.55	15.00	0.331	0.319	1.04
31	17:36	1.01	0.924	1.00	14.99	15.00	2.006	2.008	1.00
32	17:52	1.01	0.937	1.00	12.57	12.00	0.483	0.461	1.05
33	18:56	1.01	0.995	1.00	16.24	15.00	0.160	0.148	1.08
34	20:30	1.00	1.076	1.00	16.36	15.00	0.180	0.165	1.09
35	20:56	1.00	0.907	1.00	20.91	25.00	0.301	0.359	0.84
36	22:28	1.00	0.974	1.00	22.28	25.00	0.234	0.263	0.89
37	22:48	1.00	0.990	1.00	13.12	15.00	1.199	1.371	0.87
38	22:48	1.00	0.988	1.00	14.75	15.00	0.446	0.453	0.98
39	24:04	1.01	1.046	1.00	14.04	15.00	2.097	2.240	0.94
40	25:14	1.01	1.097	1.00	14.52	15.00	2.647	2.734	0.97
41	27:16	1.01	1.186	1.00	14.12	15.00	1.348	1.433	0.94
42	31:42	1.01	1.378	1.00	25.52	30.00	1.623	1.908	0.85
43	32:44	1.01	1.425	1.00	38.59	37.60	1.563	1.522	1.03
44	31:24	1.01	1.367	1.00	9.85	12.50	2.170	2.752	0.79

RIC DATA: IC30627 #1 SCANS 1 TO 1100
06/27/89 12:46:00 CALI: IC30627 #3
SAMPLE: CLP,0627,,IC30627,L,W,,V,IC-100,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: IC40627

Data: IC40627.TI
06/27/89 13:32:00
Sample: CLP,0627,,IC40627,L,W,,V,IC-150,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

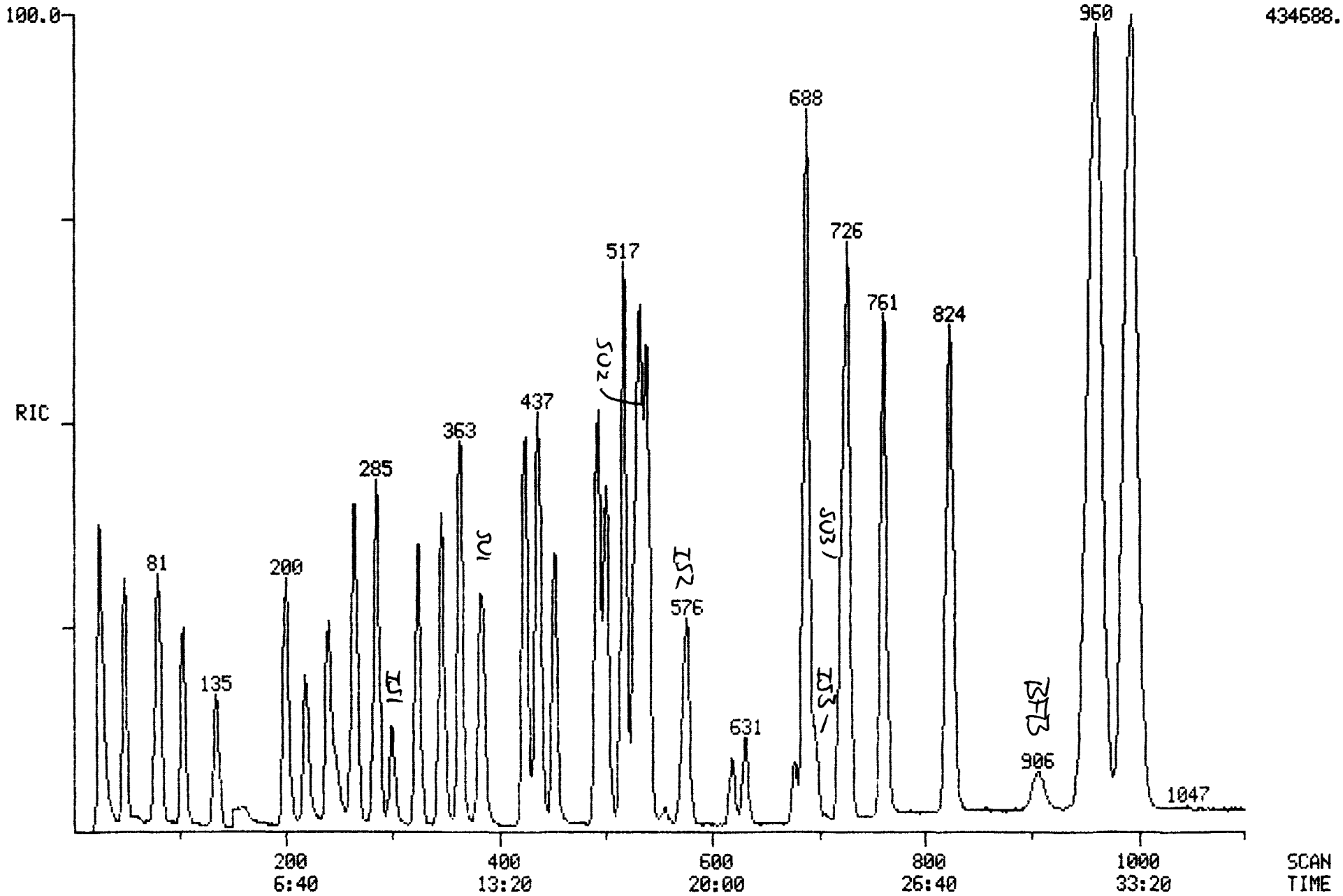
No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	VINYL CHLORIDE	
10	C025	CHLOROETHANE	
11	C030	METHYLENE CHLORIDE	
12	C035	ACETONE	
13	C038	ACROLEIN	
14	C040	CARBON DISULFIDE	
15	C043	ACRYLONITRILE	
16	C045	1,1-DICHLOROETHENE	
17	C050	1,1-DICHLOROETHANE	
18	C053	1,2-DICHLOROETHENE (TOTAL)	
19	C060	CHLOROFORM	
20	C065	1,2-DICHLOROETHANE	
21	C110	2-BUTANONE	
22	C115	1,1,1-TRICHLOROETHANE	
23	C120	CARBON TETRACHLORIDE	
24	C125	VINYL ACETATE	
25	C130	BROMODICHLOROMETHANE	
26	C140	1,2-DICHLOROPROPANE	
27	C143	CIS-1,3-DICHLOROPROPENE	
28	C150	TRICHLOROETHENE	
29	C155	DIBROMOCHLOROMETHANE	
30	C160	1,1,2-TRICHLOROETHANE	
31	C165	BENZENE	
32	C172	TRANS-1,3-DICHLOROPROPENE	
33	C175	2-CHLOROETHYLVINYLETHER	
34	C180	BROMOFORM	
35	C210	2-HEXANONE	
36	C205	4-METHYL-2-PENTANONE	
37	C220	TETRACHLOROETHENE	
38	C225	1,1,2,2-TETRACHLOROETHANE	
39	C230	TOLUENE	
40	C235	CHLOROBENZENE	
41	C240	ETHYL BENZENE	
42	C245	STYRENE	
43	C260	M-XYLENE	
44	C270	O-&/OR P-XYLENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	36674.	10.000 UG/L	0.25
2	77	576	19:12	2	1.000	A BB	160956.	10.000 UG/L	0.25
3	55	696	23:12	3	1.000	A BB	99774.	10.000 UG/L	0.25
4	65	382	12:44	1	1.278	A BB	90177.	10.918 UG/L	0.28
5	84	527	17:34	2	0.915	A BB	338650.	10.123 UG/L	0.26
6	98	721	24:02	3	1.036	A BB	310601.	16.000 UG/L	0.40
7	50	49	1:38	1	0.164	A BB	336310.	29.017 UG/L	0.73
8	94	80	2:40	1	0.268	A BB	295206.	25.407 UG/L	0.64
9	62	104	3:28	1	0.348	A BB	347645.	28.717 UG/L	0.72
10	64	135	4:30	1	0.452	A BB	217664.	25.768 UG/L	0.65
11	84	200	6:40	1	0.669	A BB	162596.	17.420 UG/L	0.44
12	43	219	7:18	1	0.732	A BB	293514.	958.516 UG/L	24.17
13	56	220	7:20	1	0.736	A BB	27887.	845.814 UG/L	21.33
14	76	248	8:16	1	0.829	A BB	79793.	286.203 UG/L	7.22
15	53	240	8:00	1	0.803	A BB	284219.	872.215 UG/L	21.99
16	96	285	9:30	1	0.953	A BB	188447.	18.680 UG/L	0.47
17	63	324	10:48	1	1.084	A BB	417952.	18.357 UG/L	0.46
18	96	345	11:30	1	1.154	A BB	183731.	18.518 UG/L	0.47
19	83	363	12:06	1	1.214	A BB	411432.	18.102 UG/L	0.46
20	62	385	12:50	1	1.288	A BB	174093.	19.220 UG/L	0.48
21	72	382	12:44	2	0.663	A BB	31184.	197.004 UG/L	4.97
22	97	425	14:10	2	0.738	A BB	367668.	18.443 UG/L	0.46
23	117	436	14:32	2	0.757	A VB	334926.	18.952 UG/L	0.48
24	43	440	14:40	2	0.764	A BB	119901.	23.573 UG/L	0.59
25	83	452	15:04	2	0.785	A BB	270665.	19.556 UG/L	0.49
26	63	493	16:26	2	0.856	A BB	238727.	19.750 UG/L	0.50
27	75	500	16:40	2	0.868	A BB	299322.	24.359 UG/L	0.61
28	130	517	17:14	2	0.898	A BB	286348.	18.568 UG/L	0.47
29	129	537	17:54	2	0.932	A BB	154445.	20.558 UG/L	0.52
30	97	539	17:58	2	0.936	A BB	101880.	19.838 UG/L	0.50
31	78	532	17:44	2	0.924	A BB	602249.	18.637 UG/L	0.47
32	75	539	17:58	2	0.936	A BB	120433.	16.219 UG/L	0.41
33	63	571	19:02	2	0.991	A BB	47116.	19.798 UG/L	0.50
34	173	618	20:36	2	1.073	A BB	55053.	20.741 UG/L	0.52
35	43	631	21:02	3	0.907	A BB	118454.	33.034 UG/L	0.83
36	43	677	22:34	3	0.973	A BB	89183.	34.024 UG/L	0.86
37	164	688	22:56	3	0.989	A BB	229855.	16.800 UG/L	0.42
38	83	687	22:54	3	0.987	A BB	85097.	18.819 UG/L	0.47
39	92	726	24:12	3	1.043	A BB	401975.	17.984 UG/L	0.45
40	112	761	25:22	3	1.093	A BB	482289.	17.678 UG/L	0.45
41	106	824	27:28	3	1.184	A BB	256780.	17.965 UG/L	0.45
42	104	952	31:44	3	1.368	A BB	429352.	15.634 UG/L	0.39
43	106	960	32:00	3	1.379	A BB	677624.	35.593 UG/L	0.90
44	106	992	33:04	3	1.425	A BB	814908.	53.647 UG/L	1.35

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	10.92	10.00	2.459	2.252	1.09
5	17:26	1.01	0.917	1.00	10.12	10.00	2.104	2.079	1.01
6	23:52	1.01	1.038	1.00	16.00	10.00	3.113	1.946	1.60
7	1:38	1.00	0.181	0.91	29.02	25.00	3.668	3.160	1.16
8	2:36	1.03	0.285	0.94	25.41	25.00	3.220	3.168	1.02
9	3:22	1.03	0.361	0.96	28.72	25.00	3.792	3.301	1.15
10	4:22	1.03	0.462	0.98	25.77	25.00	2.374	2.303	1.03

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:30	1.03	0.681	0.98	17.42	20.00	2.217	2.545	0.87
12	7:06	1.03	0.757	0.97	958.52	450.00	0.178	0.083	2.13
13	7:06	1.03	0.757	0.97	845.81	450.00	0.017	0.009	1.88
14	8:06	1.02	0.833	1.00	286.20	15.00	1.450	0.076	19.08
15	7:48	1.03	0.826	0.97	872.22	450.00	0.172	0.089	1.94
16	9:22	1.01	0.955	1.00	18.68	20.00	2.569	2.751	0.93
17	10:40	1.01	1.090	0.99	18.36	20.00	5.698	6.208	0.92
18	11:24	1.01	1.170	0.99	18.52	20.00	2.505	2.705	0.93
19	12:02	1.01	1.229	0.99	18.10	20.00	5.609	6.197	0.91
20	12:44	1.01	1.312	0.98	19.22	20.00	2.373	2.470	0.96
21	12:36	1.01	0.664	1.00	197.00	150.00	0.013	0.010	1.31
22	14:02	1.01	0.731	1.01	18.44	20.00	1.142	1.239	0.92
23	14:26	1.01	0.752	1.01	18.95	20.00	1.040	1.098	0.95
24	14:34	1.01	0.764	1.00	23.57	45.00	0.166	0.316	0.52
25	15:00	1.00	0.780	1.01	19.56	20.00	0.841	0.860	0.98
26	16:20	1.01	0.854	1.00	19.75	20.00	0.742	0.751	0.99
27	16:34	1.01	0.868	1.00	24.36	24.00	0.775	0.763	1.01
28	17:06	1.01	0.898	1.00	18.57	20.00	0.890	0.958	0.93
29	17:48	1.01	0.930	1.00	20.56	20.00	0.480	0.467	1.03
30	17:54	1.00	0.937	1.00	19.84	20.00	0.316	0.319	0.99
31	17:36	1.01	0.924	1.00	18.64	20.00	1.871	2.008	0.93
32	17:52	1.01	0.937	1.00	16.22	16.00	0.468	0.461	1.01
33	18:56	1.01	0.995	1.00	19.80	20.00	0.146	0.148	0.99
34	20:30	1.00	1.076	1.00	20.74	20.00	0.171	0.165	1.04
35	20:56	1.00	0.907	1.00	33.03	30.00	0.396	0.359	1.10
36	22:28	1.00	0.974	1.00	34.02	30.00	0.298	0.263	1.13
37	22:48	1.01	0.990	1.00	16.80	20.00	1.152	1.371	0.84
38	22:48	1.00	0.988	1.00	18.82	20.00	0.426	0.453	0.94
39	24:04	1.01	1.046	1.00	17.98	20.00	2.014	2.240	0.90
40	25:14	1.01	1.097	1.00	17.68	20.00	2.417	2.734	0.88
41	27:16	1.01	1.186	1.00	17.96	20.00	1.287	1.433	0.90
42	31:24	1.01	1.367	1.00	15.63	15.00	2.869	2.752	1.04
43	31:42	1.01	1.378	1.00	35.59	40.00	1.698	1.908	0.89
44	32:44	1.01	1.425	1.00	53.65	50.10	1.630	1.522	1.07

RIC DATA: IC40627 #1 SCANS 1 TO 1100
06/27/89 13:32:00 CALI: IC40627 #3
SAMPLE: CLP,0627,,IC40627,L,W,,V,IC-150,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: IC50627

Data: IC50627.TI
06/27/89 14:17:00
Sample: CLP,0627,,IC50627,L,W,,V,IC-200,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

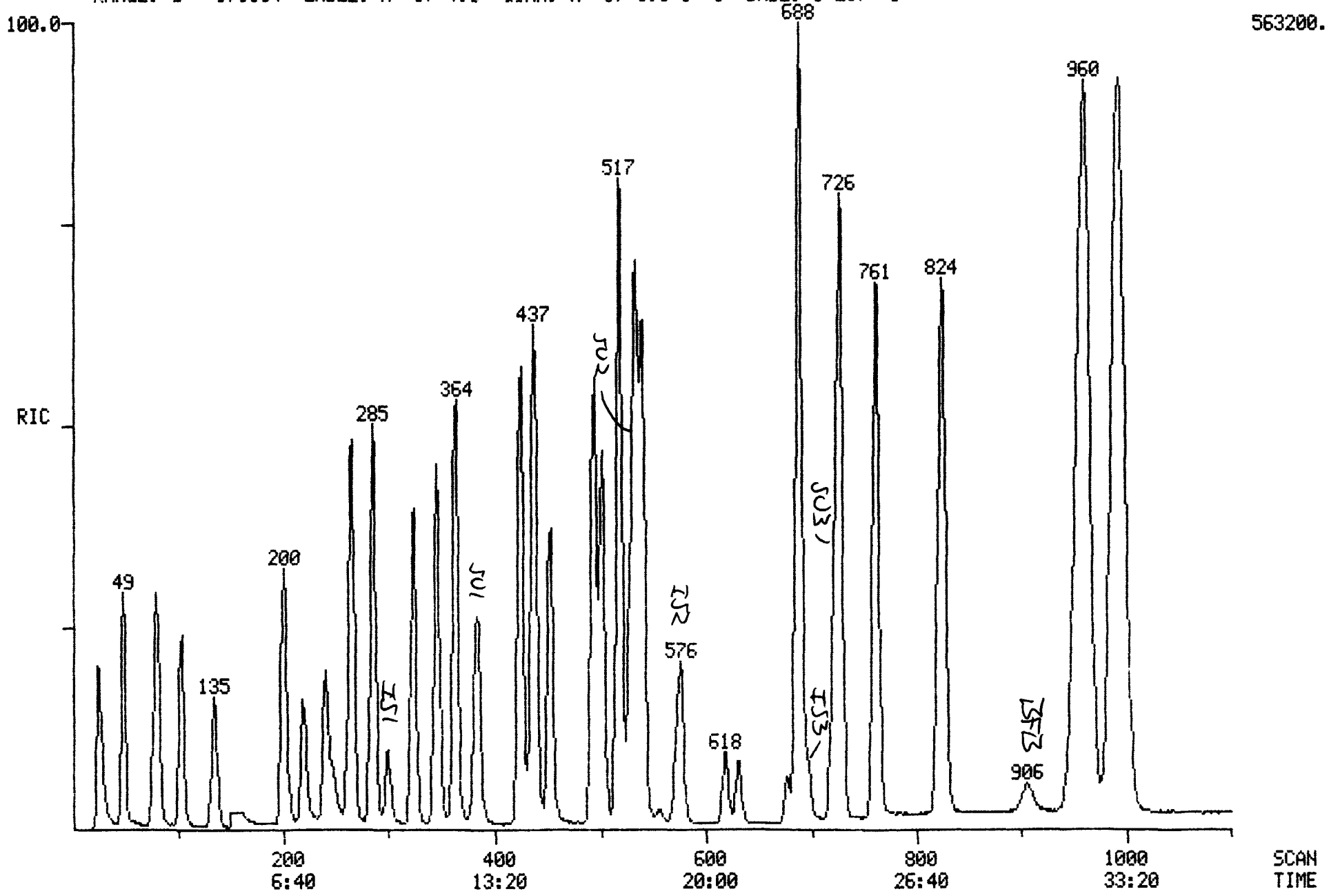
No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	VINYL CHLORIDE	
10	C025	CHLOROETHANE	
11	C030	METHYLENE CHLORIDE	
12	C035	ACETONE	
13	C038	ACROLEIN	
14	C040	CARBON DISULFIDE	
15	C043	ACRYLONITRILE	
16	C045	1,1-DICHLOROETHENE	
17	C050	1,1-DICHLOROETHANE	
18	C053	1,2-DICHLOROETHENE (TOTAL)	
19	C060	CHLOROFORM	
20	C065	1,2-DICHLOROETHANE	
21	C110	2-BUTANONE	
22	C115	1,1,1-TRICHLOROETHANE	
23	C120	CARBON TETRACHLORIDE	
24	C125	VINYL ACETATE	
25	C130	BROMODICHLOROMETHANE	
26	C140	1,2-DICHLOROPROPANE	
27	C143	CIS-1,3-DICHLOROPROPENE	
28	C150	TRICHLOROETHENE	
29	C155	DIBROMOCHLOROMETHANE	
30	C160	1,1,2-TRICHLOROETHANE	
31	C165	BENZENE	
32	C172	TRANS-1,3-DICHLOROPROPENE	
33	C175	2-CHLOROETHYLVINYLETHER	
34	C180	BROMOFORM	
35	C210	2-HEXANONE	
36	C205	4-METHYL-2-PENTANONE	
37	C220	TETRACHLOROETHENE	
38	C225	1,1,2,2-TETRACHLOROETHANE	
39	C230	TOLUENE	
40	C235	CHLOROBENZENE	
41	C240	ETHYL BENZENE	
42	C260	M-XYLENE	
43	C270	O-&/OR P-XYLENE	
44	C245	STYRENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	300	10:00	1	1.000	A BB	37381.	10.000 UG/L	0.21
2	77	576	19:12	2	1.000	A BB	161217.	10.000 UG/L	0.21
3	55	696	23:12	3	1.000	A BB	100402.	10.000 UG/L	0.21
4	65	383	12:46	1	1.277	A BB	87469.	10.390 UG/L	0.21
5	84	528	17:36	2	0.917	A VV	350493.	10.460 UG/L	0.22
6	98	721	24:02	3	1.036	A BB	320853.	16.425 UG/L	0.34
7	50	49	1:38	1	0.163	A BB	428380.	36.262 UG/L	0.75
8	94	80	2:40	1	0.267	A BB	357325.	30.172 UG/L	0.62
9	62	104	3:28	1	0.347	A BB	442131.	35.832 UG/L	0.74
10	64	135	4:30	1	0.450	A BB	285469.	33.156 UG/L	0.68
11	84	201	6:42	1	0.670	A BB	221208.	23.252 UG/L	0.48
12	43	219	7:18	1	0.730	A BB	288978.	925.867 UG/L	19.09
13	56	220	7:20	1	0.733	A BB	50558.	1504.430 UG/L	31.03
14	76	248	8:16	1	0.827	A BB	93244.	328.127 UG/L	6.77
15	53	240	8:00	1	0.800	A BB	278009.	837.033 UG/L	17.26
16	96	285	9:30	1	0.950	A BB	289945.	28.199 UG/L	0.58
17	63	324	10:48	1	1.080	A BB	619620.	26.700 UG/L	0.55
18	96	346	11:32	1	1.153	A BB	279678.	27.655 UG/L	0.57
19	83	364	12:08	1	1.213	A BB	594663.	25.669 UG/L	0.53
20	62	385	12:50	1	1.283	A BB	237089.	25.680 UG/L	0.53
21	72	382	12:44	2	0.663	A BB	31855.	200.914 UG/L	4.14
22	97	425	14:10	2	0.738	A BB	572362.	28.664 UG/L	0.59
23	117	437	14:34	2	0.759	A VB	531818.	30.044 UG/L	0.62
24	43	440	14:40	2	0.764	A BB	213660.	41.938 UG/L	0.86
25	83	453	15:06	2	0.786	A BB	393457.	28.381 UG/L	0.59
26	63	493	16:26	2	0.856	A BB	341055.	28.170 UG/L	0.58
27	75	501	16:42	2	0.870	A BB	433904.	35.255 UG/L	0.73
28	130	517	17:14	2	0.898	A BB	442708.	28.661 UG/L	0.59
29	129	537	17:54	2	0.932	A BB	209455.	27.835 UG/L	0.57
30	97	540	18:00	2	0.937	A BB	139301.	27.081 UG/L	0.56
31	78	532	17:44	2	0.924	A BB	870953.	26.909 UG/L	0.55
32	75	539	17:58	2	0.936	A BB	168404.	22.642 UG/L	0.47
33	63	571	19:02	2	0.991	A BB	64852.	27.207 UG/L	0.56
34	173	619	20:38	2	1.075	A BB	78105.	29.378 UG/L	0.61
35	43	631	21:02	3	0.907	A BB	113663.	31.500 UG/L	0.65
36	43	677	22:34	3	0.973	A BB	82880.	31.422 UG/L	0.65
37	164	688	22:56	3	0.989	A BB	355017.	25.785 UG/L	0.53
38	83	688	22:56	3	0.989	A BB	112955.	24.823 UG/L	0.51
39	92	726	24:12	3	1.043	A BB	580506.	25.809 UG/L	0.53
40	112	761	25:22	3	1.093	A BB	679848.	24.763 UG/L	0.51
41	106	824	27:28	3	1.184	A BB	375804.	26.127 UG/L	0.54
42	106	960	32:00	3	1.379	A BB	815076.	42.545 UG/L	0.88
43	106	993	33:06	3	1.427	A BB	968184.	63.339 UG/L	1.31
44	104	951	31:42	3	1.366	A BB	404496.	14.637 UG/L	0.30

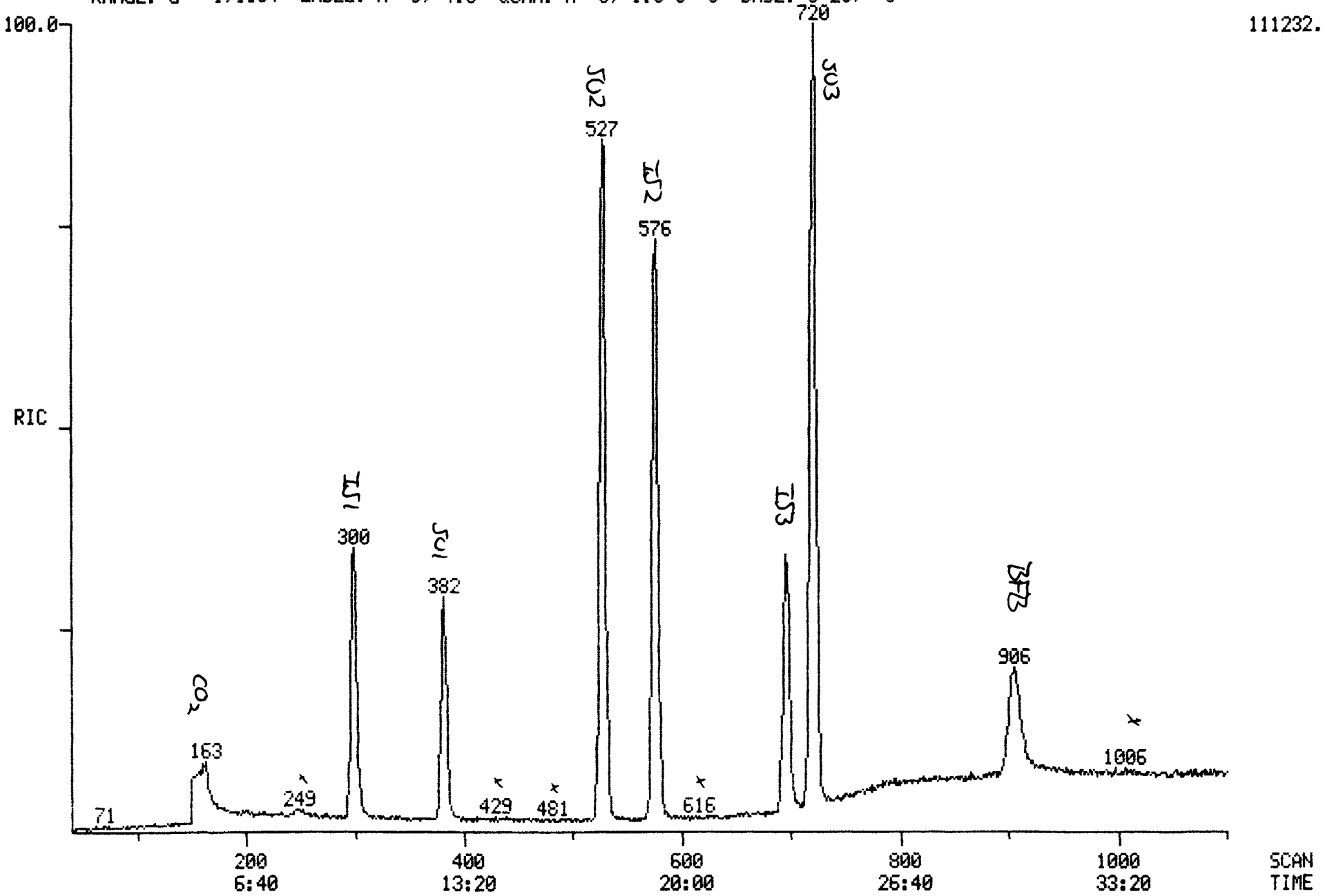
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	10.39	10.00	2.340	2.252	1.04
5	17:26	1.01	0.917	1.00	10.46	10.00	2.174	2.079	1.05
6	23:52	1.01	1.038	1.00	16.42	10.00	3.196	1.946	1.64
7	1:38	1.00	0.181	0.90	36.26	30.00	3.820	3.160	1.21
8	2:36	1.03	0.285	0.94	30.17	30.00	3.186	3.168	1.01
9	3:22	1.03	0.361	0.96	35.83	30.00	3.943	3.301	1.19
10	4:22	1.03	0.462	0.97	33.16	30.00	2.546	2.303	1.11

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:30	1.03	0.681	0.98	23.25	25.00	2.367	2.545	0.93
12	7:06	1.03	0.757	0.96	925.87	525.00	0.147	0.083	1.76
13	7:06	1.03	0.757	0.97	1504.43	525.00	0.026	0.009	2.87
14	8:06	1.02	0.833	0.99	328.13	17.50	1.425	0.076	18.75
15	7:48	1.03	0.826	0.97	837.03	525.00	0.142	0.089	1.59
16	9:22	1.01	0.955	0.99	28.20	25.00	3.103	2.751	1.13
17	10:40	1.01	1.090	0.99	26.70	25.00	6.630	6.208	1.07
18	11:24	1.01	1.170	0.99	27.66	25.00	2.993	2.705	1.11
19	12:02	1.01	1.229	0.99	25.67	25.00	6.363	6.197	1.03
20	12:44	1.01	1.312	0.98	25.68	25.00	2.537	2.470	1.03
21	12:36	1.01	0.664	1.00	200.91	175.00	0.011	0.010	1.15
22	14:02	1.01	0.731	1.01	28.66	25.00	1.420	1.239	1.15
23	14:26	1.01	0.752	1.01	30.04	25.00	1.320	1.098	1.20
24	14:34	1.01	0.764	1.00	41.94	52.50	0.252	0.316	0.80
25	15:00	1.01	0.780	1.01	28.38	25.00	0.976	0.860	1.14
26	16:20	1.01	0.854	1.00	28.17	25.00	0.846	0.751	1.13
27	16:34	1.01	0.868	1.00	35.25	30.00	0.897	0.763	1.18
28	17:06	1.01	0.898	1.00	28.66	25.00	1.098	0.958	1.15
29	17:48	1.01	0.930	1.00	27.83	25.00	0.520	0.467	1.11
30	17:54	1.01	0.937	1.00	27.08	25.00	0.346	0.319	1.08
31	17:36	1.01	0.924	1.00	26.91	25.00	2.161	2.008	1.08
32	17:52	1.01	0.937	1.00	22.64	20.00	0.522	0.461	1.13
33	18:56	1.01	0.995	1.00	27.21	25.00	0.161	0.148	1.09
34	20:30	1.01	1.076	1.00	29.38	25.00	0.194	0.165	1.18
35	20:56	1.00	0.907	1.00	31.50	35.00	0.323	0.359	0.90
36	22:28	1.00	0.974	1.00	31.42	35.00	0.236	0.263	0.90
37	22:48	1.01	0.990	1.00	25.79	25.00	1.414	1.371	1.03
38	22:48	1.01	0.988	1.00	24.82	25.00	0.450	0.453	0.99
39	24:04	1.01	1.046	1.00	25.81	25.00	2.313	2.240	1.03
40	25:14	1.01	1.097	1.00	24.76	25.00	2.708	2.734	0.99
41	27:16	1.01	1.186	1.00	26.13	25.00	1.497	1.433	1.05
42	31:42	1.01	1.378	1.00	42.54	50.00	1.624	1.908	0.85
43	32:44	1.01	1.425	1.00	63.34	62.70	1.538	1.522	1.01
44	31:24	1.01	1.367	1.00	14.64	17.50	2.302	2.752	0.84

RIC DATA: IC50627 #1 SCANS 1 TO 1100
06/27/89 14:17:00 CALI: IC50627 #3
SAMPLE: CLP,0627,,IC50627,L,W,,V,IC-200,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



RIC DATA: 0627BLK1 #1 SCANS 40 TO 1100
06/27/89 9:28:00 CALI: 0627BLK1 #3
SAMPLE: CLP,0627,,0627BLK1,L,W,,V,BLANK,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: 0627BLK1

Data: 0627BLK1.TI
06/27/89 9:28:00
Sample: CLP,0627,,0627BLK1,L,W,,V,BLANK,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

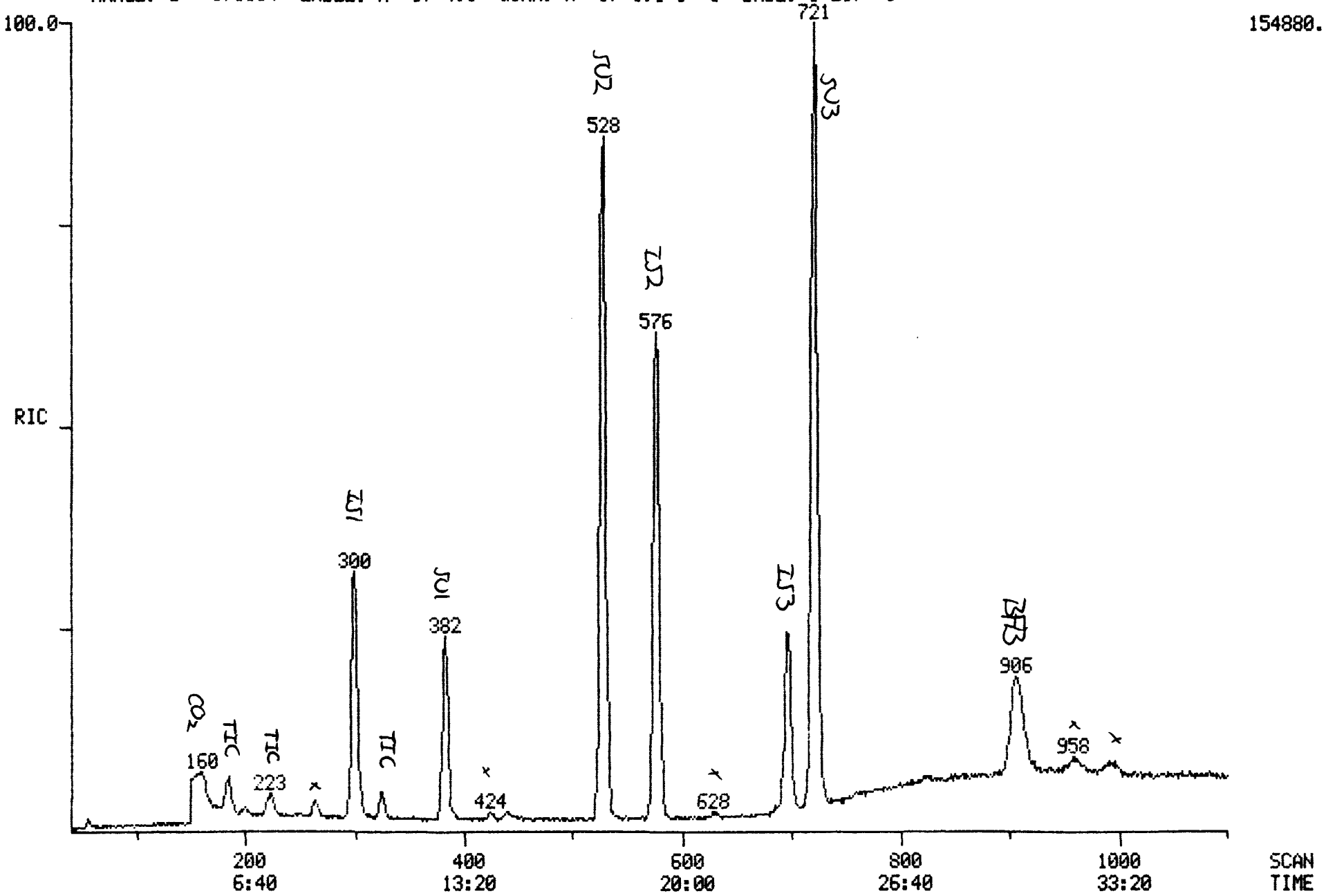
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	25178.	10.000 UG/L	16.69
2	77	576	19:12	2	1.000	A BB	120311.	10.000 UG/L	16.69
3	55	696	23:12	3	1.000	A BB	79753.	10.000 UG/L	16.69
4	65	382	12:44	1	1.278	A BB	64885.	10.925 UG/L	18.23
5	84	527	17:34	2	0.915	A BV	249424.	9.670 UG/L	16.14
6	98	721	24:02	3	1.036	A BB	234342.	9.330 UG/L	15.57

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	10.92	10.00	2.577	2.359	1.09
5	17:26	1.01	0.917	1.00	9.67	10.00	2.073	2.144	0.97
6	23:52	1.01	1.038	1.00	9.33	10.00	2.938	3.149	0.93

RIC DATA: 6231R17 #220 SCANS 40 TO 1100
06/27/89 15:29:00 CALI: 6231R17 #3
SAMPLE: CLP,6231,,89FS11R17,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: 6231R17

Data: 6231R17.TI
06/27/89 15:29:00
Sample: CLP,6231,,89FS11R17,L,W,,V,EPA,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	36105.	10.000 UG/L	16.07
2	77	576	19:12	2	1.000	A BB	141399.	10.000 UG/L	16.07
3	55	696	23:12	3	1.000	A BB	76939.	10.000 UG/L	16.07
4	65	383	12:46	1	1.281	A BB	74950.	8.800 UG/L	14.14
5	84	528	17:36	2	0.917	A BB	357173.	11.783 UG/L	18.93
6	98	721	24:02	3	1.036	A BB	282302.	11.651 UG/L	18.72

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	8.80	10.00	2.076	2.359	0.88
5	17:26	1.01	0.917	1.00	11.78	10.00	2.526	2.144	1.18
6	23:52	1.01	1.038	1.00	11.65	10.00	3.669	3.149	1.17

Quantitation Report File: 6231R17T

Data: 6231R17.TI
06/27/89 15:29:00
Sample: CLP,6231,,89FS11R17,L,W,,V,EPA,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

No	Name
1	CIO1 BROMOCHLOROMETHANE *INTERNAL STANDARD*
2	UNKNOWN
3	UNKNOWN
4	UNKNOWN

$$ISI = \frac{10\ \mu g/L}{292086} = 3.42 \times 10^{-5}$$

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	RIC	300	10:00	1	1.000	A BV	292086.	10.000 UG/L	21.25
2	RIC	185	6:10	1	0.617	A BB	42636.	14.597	31.02
3	RIC	223	7:26	1	0.743	A BB	34344.	11.758	24.99
4	RIC	324	10:48	1	1.080	A BB	31260.	10.702	22.74

1) $\frac{42636}{1} \times ISI = 1\ \mu g/L$

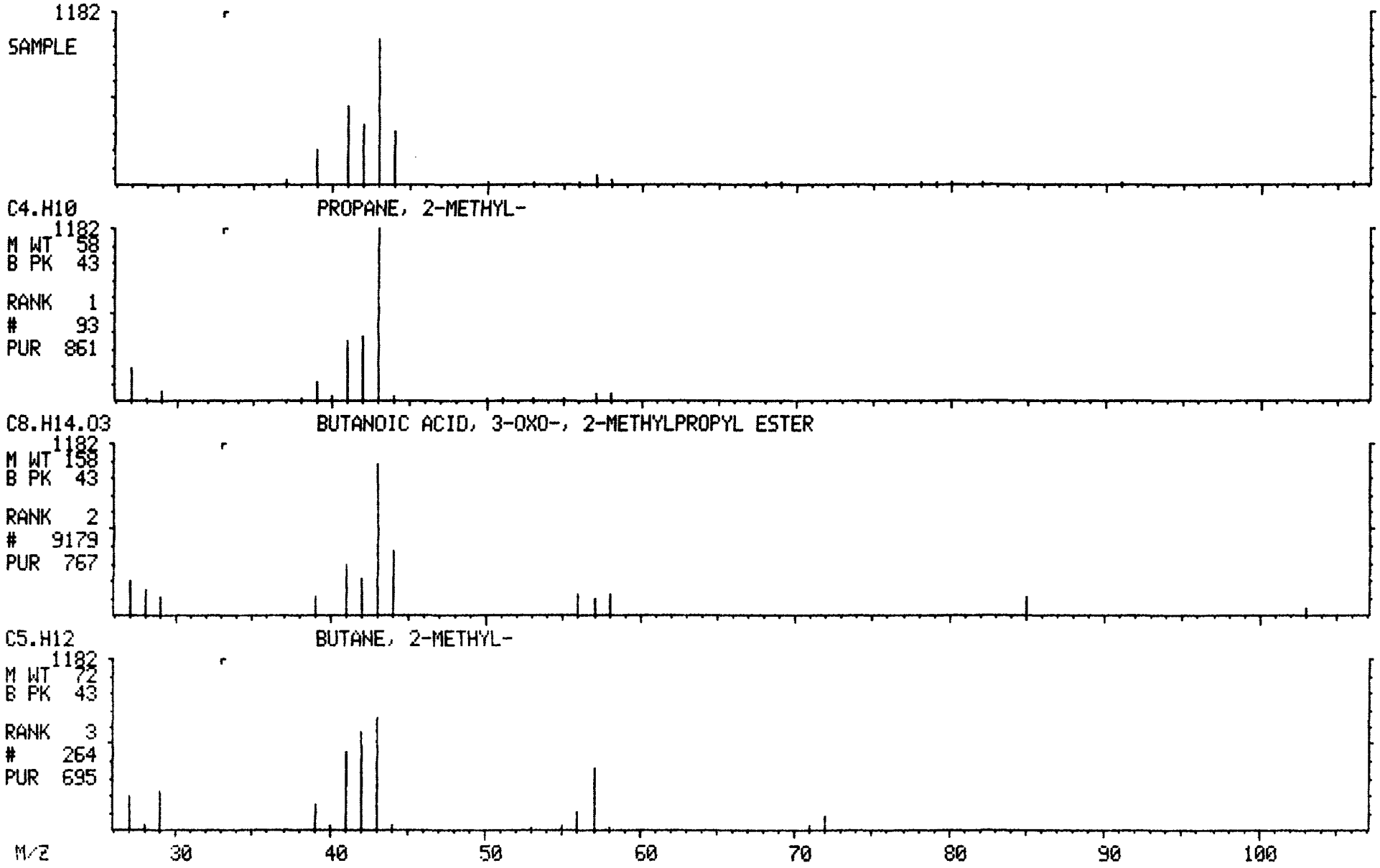
2) $\frac{34344}{1} \times ISI = 1\ \mu g/L$

3) $\frac{31260}{1} \times ISI = 1\ \mu g/L$

MID LIBRARY SEARCH (LIBRARYNB)
06/27/89 15:29:00 + 6:10
SAMPLE: CLP,6231.,89FS11R17,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
ENHANCED (S 15B 2N 0T)

DATA: 6231R17 # 185
CALI: 6231R17 # 3

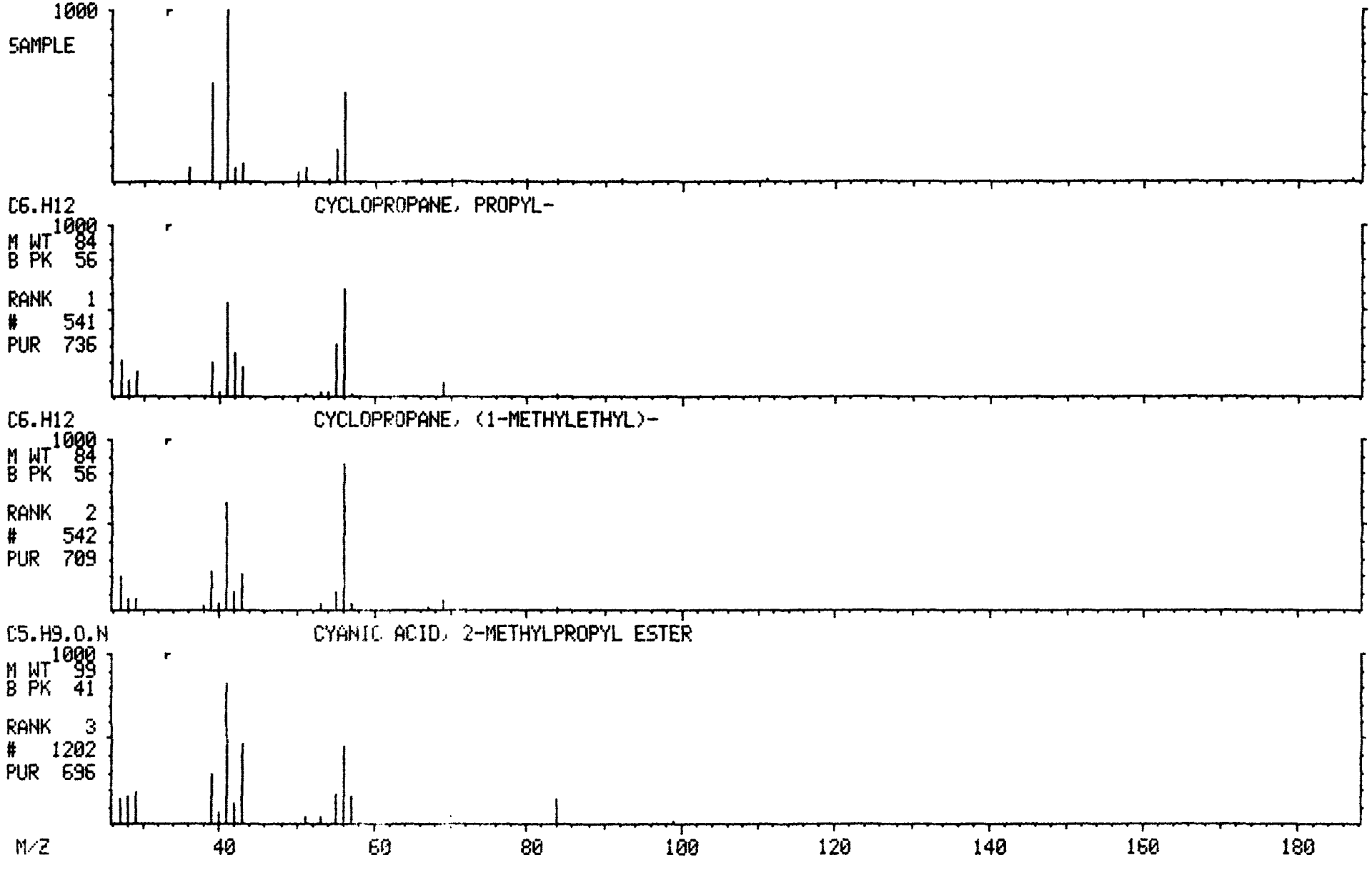
BASE M/Z: 43
RIC: 6024.



MID LIBRARY SEARCH (LIBRARYNB)
06/27/89 15:29:00 + 7:26
SAMPLE: CLP,6231,,83FS11R17,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
ENHANCED (S 15B 2N 0T)

DATA: 6231R17 # 223
CALI: 6231R17 # 3

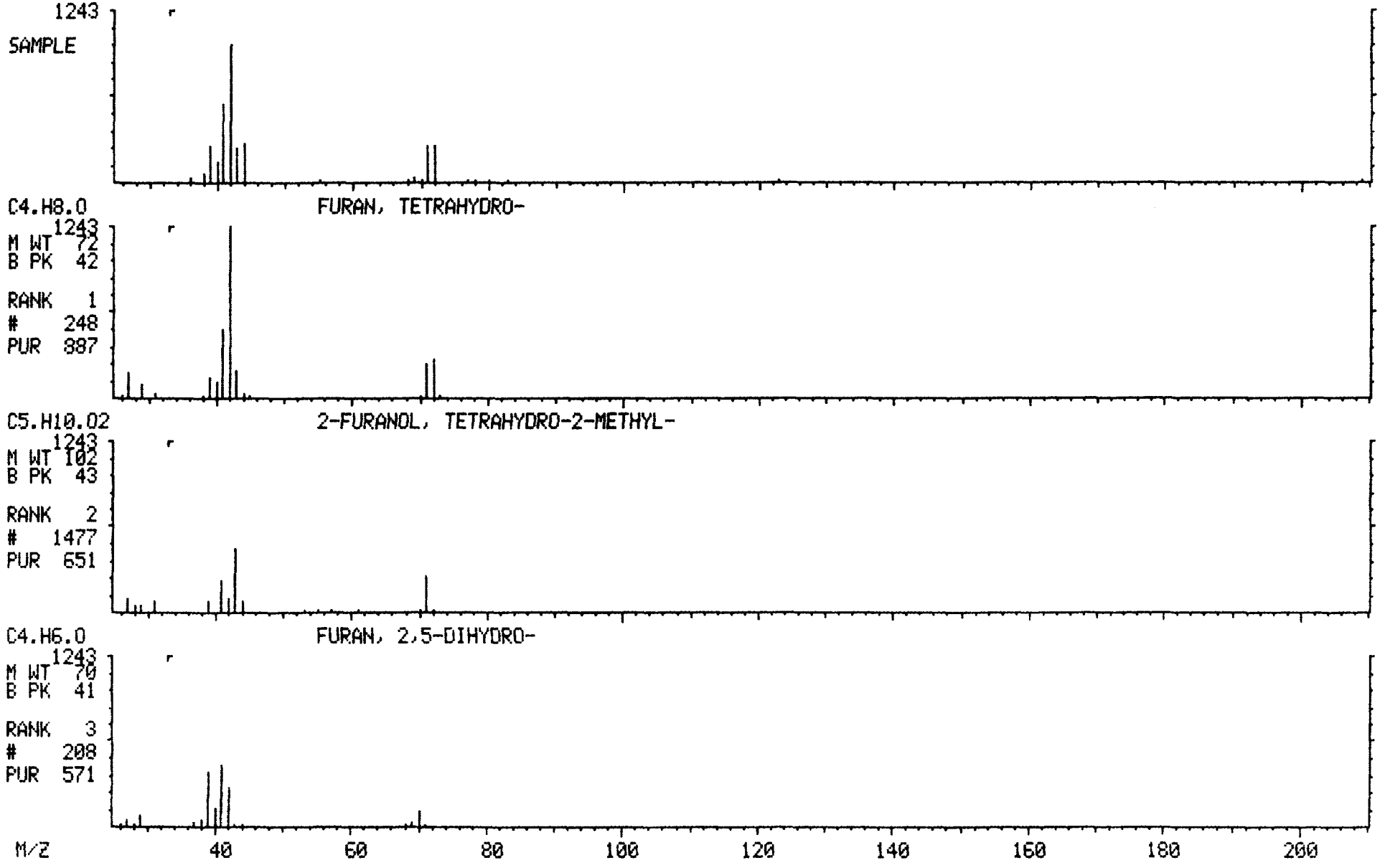
BASE M/Z: 41
RIC: 3164.



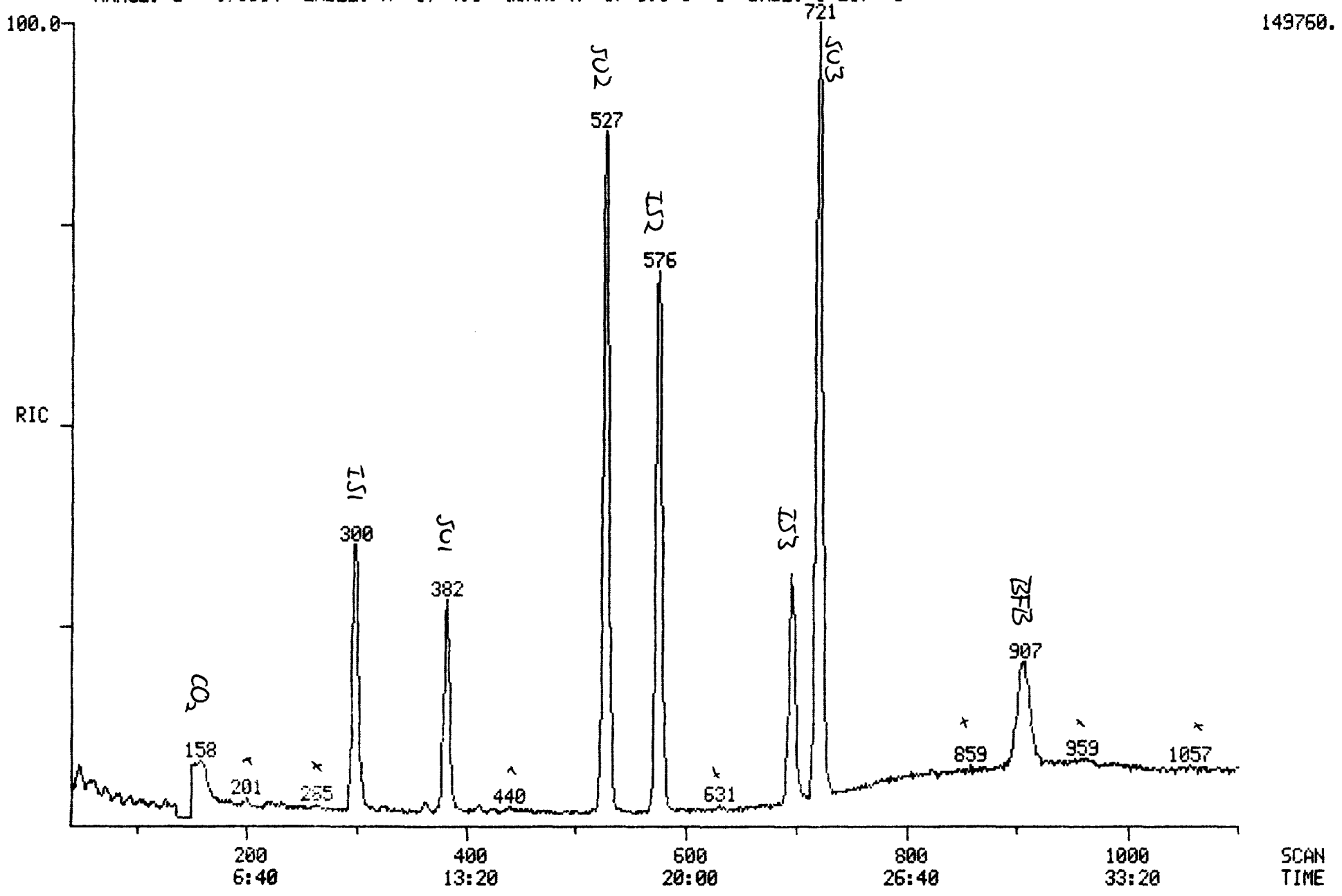
MID LIBRARY SEARCH (LIBRARYNB)
06/27/89 15:29:00 + 10:48
SAMPLE: CLP,6231,,89FS11R17,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
ENHANCED (S 15B 2N 0T)

DATA: 6231R17 # 324
CALI: 6231R17 # 3

BASE M/Z: 42
RIC: 5168.



RIC DATA: 6231S12 #220 SCANS 40 TO 1100
06/27/89 16:14:00 CALI: 6231S12 #3
SAMPLE: CLP,6231,,89FS22S12,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: 6231S12

Data: 6231S12.TI
06/27/89 16:14:00
Sample: CLP,6231,,89FS22S12,L,W,,V,EPA,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

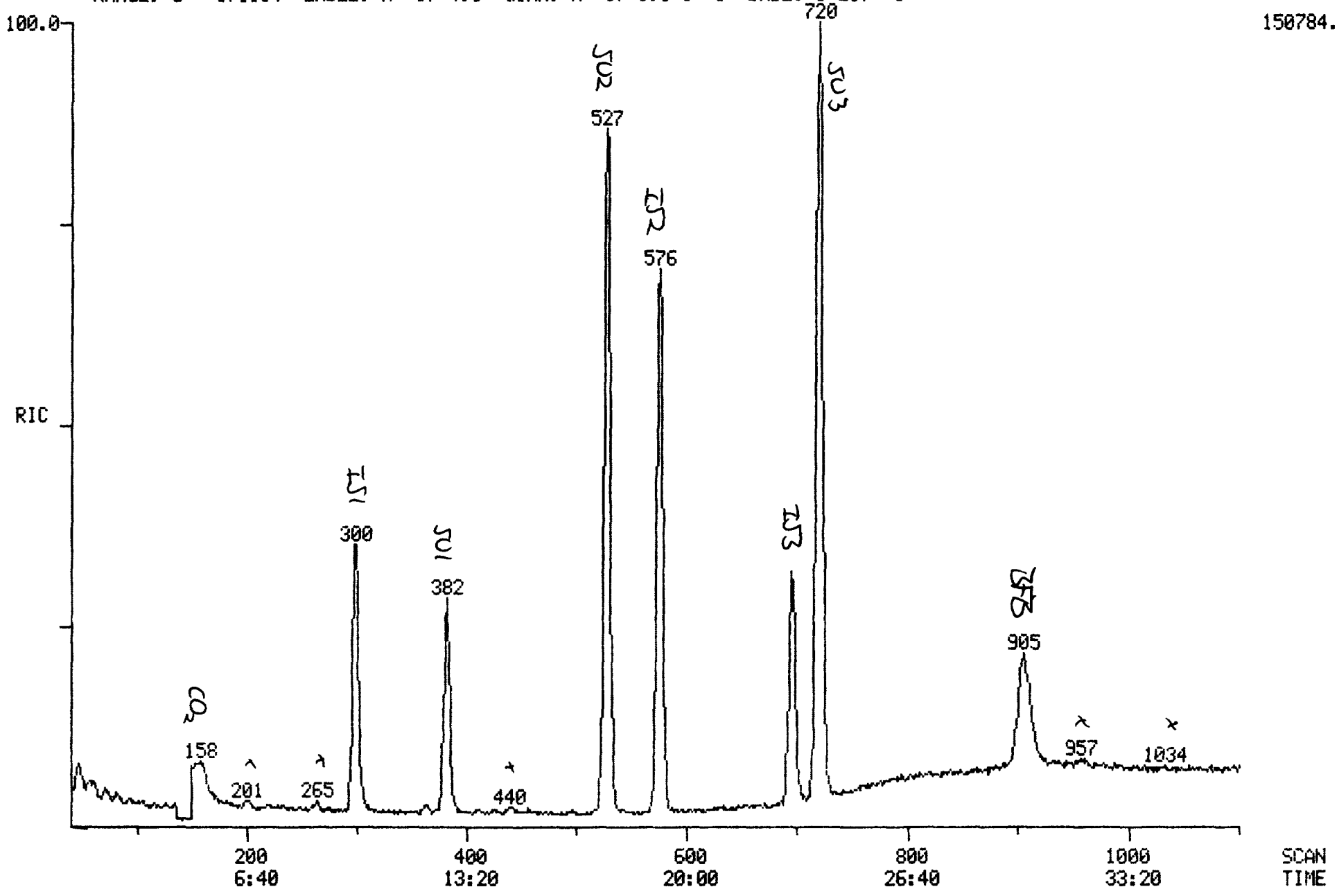
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	37574.	10.000 UG/L	16.29
2	77	576	19:12	2	1.000	A BB	146882.	10.000 UG/L	16.29
3	55	696	23:12	3	1.000	A BB	92121.	10.000 UG/L	16.29
4	65	382	12:44	1	1.278	A BB	84381.	9.520 UG/L	15.51
5	84	527	17:34	2	0.915	A BB	336855.	10.698 UG/L	17.43
6	98	720	24:00	3	1.034	A BB	323666.	11.156 UG/L	18.18

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	9.52	10.00	2.246	2.359	0.95
5	17:26	1.01	0.917	1.00	10.70	10.00	2.293	2.144	1.07
6	23:52	1.01	1.038	1.00	11.16	10.00	3.513	3.149	1.12

RIC DATA: 6231D12 #1 SCANS 40 TO 1100
06/27/89 16:58:00 CALI: 6231D12 #3
SAMPLE: CLP,6231,,89FS22D12,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: 6231D12

Data: 6231D12.TI
06/27/89 16:58:00
Sample: CLP,6231,,89FS22D12,L,W,,V,EPA,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*

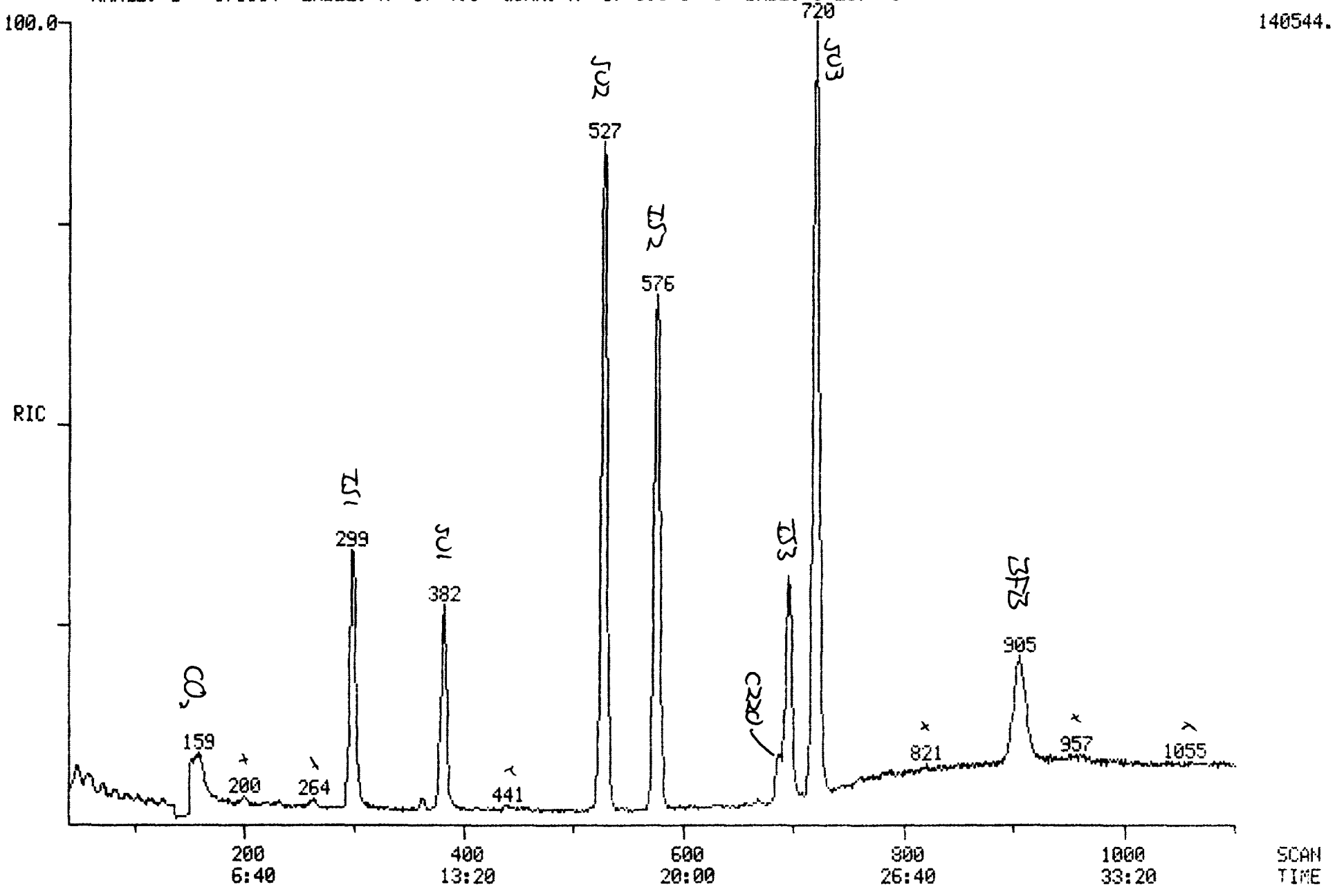
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	37906.	10.000 UG/L	16.39
2	77	575	19:10	2	1.000	A BB	148136.	10.000 UG/L	16.39
3	55	696	23:12	3	1.000	A BB	93136.	10.000 UG/L	16.39
4	65	382	12:44	1	1.278	A BB	83498.	9.338 UG/L	15.30
5	84	527	17:34	2	0.917	A BB	341942.	10.767 UG/L	17.65
6	98	720	24:00	3	1.034	A BB	320121.	10.914 UG/L	17.89

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	9.34	10.00	2.203	2.359	0.93
5	17:26	1.01	0.917	1.00	10.77	10.00	2.308	2.144	1.08
6	23:52	1.01	1.038	1.00	10.91	10.00	3.437	3.149	1.09

RIC
06/27/89 17:43:00
SAMPLE: CLP,6231,,89FS22S11,L,W,,V,EPA,
CONDS.: % RPD BASED ON % RECOVERY
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3

DATA: 6231S11 #687
CALI: 6231S11 #3

SCANS 40 TO 1100



Quantitation Report File: 6231S11

Data: 6231S11.TI
06/27/89 17:43:00
Sample: CLP,6231,,89FS22S11,L,W,,V,EPA,
Conds.: % RPD BASED ON % RECOVERY
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C220	TETRACHLOROETHENE	

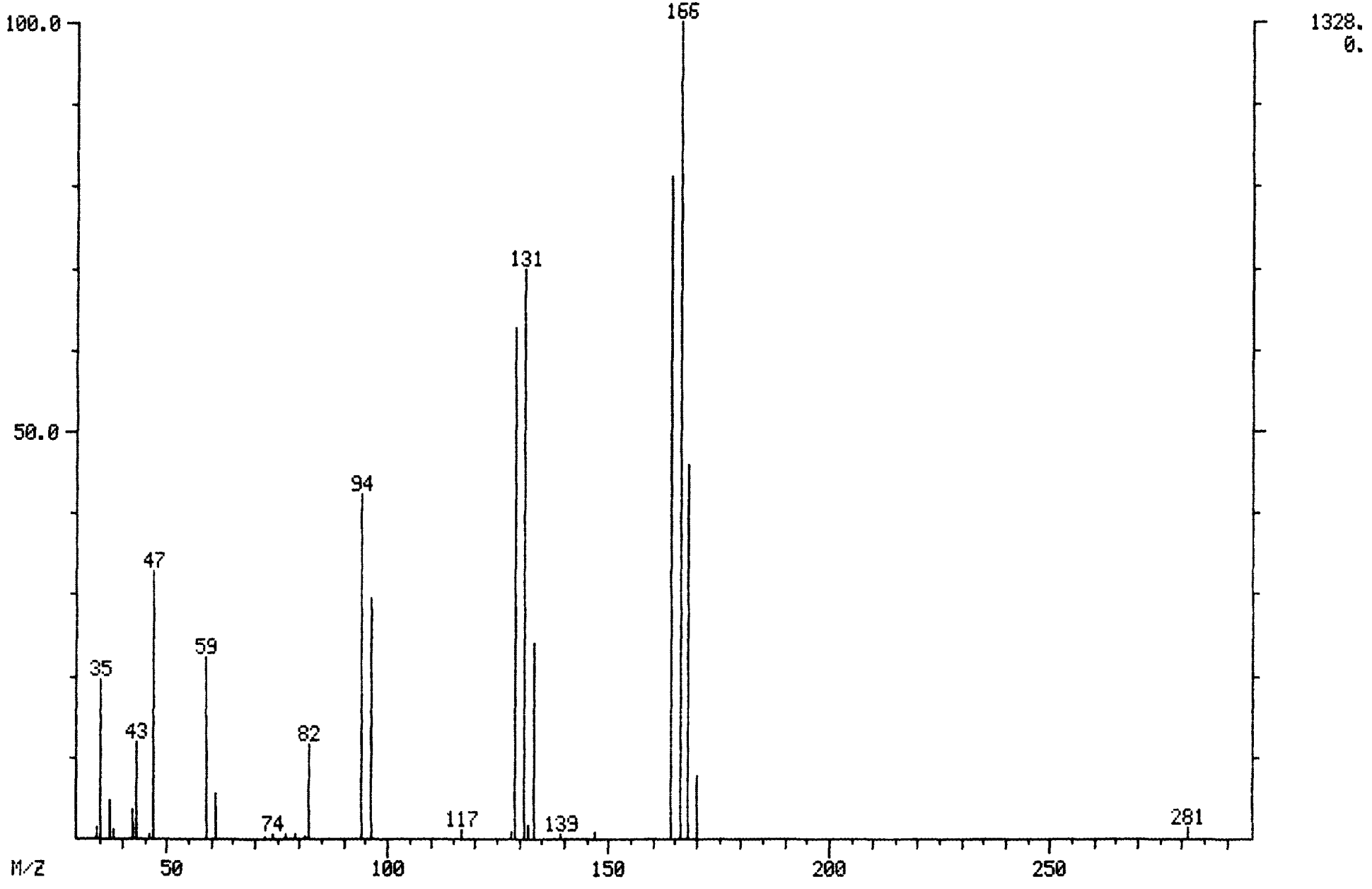
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	128	300	10:00	1	1.000	A BB	34843.	10.000	UG/L	16.11
2	77	576	19:12	2	1.000	A BB	131744.	10.000	UG/L	16.11
3	55	696	23:12	3	1.000	A BB	85074.	10.000	UG/L	16.11
4	65	382	12:44	1	1.273	A BB	75490.	9.184	UG/L	14.79
5	84	527	17:34	2	0.915	A BB	312611.	11.068	UG/L	17.83
6	98	720	24:00	3	1.034	A BB	300979.	11.234	UG/L	18.09
7	164	687	22:54	3	0.987	A BB	6106.	0.602	UG/L	0.97

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	9.18	10.00	2.167	2.359	0.92
5	17:26	1.01	0.917	1.00	11.07	10.00	2.373	2.144	1.11
6	23:52	1.01	1.038	1.00	11.23	10.00	3.538	3.149	1.12
7	22:48	1.00	0.990	1.00	0.60	25.00	0.029	1.192	0.02

MASS SPECTRUM
06/27/89 17:43:00 + 22:54
SAMPLE: CLP,6231,,89FS22S11,L,W,,V,EPA,
CONDS.: % RPD BASED ON % RECOVERY
TEMP: 203 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: 6231S11 #687
CALI: 6231S11 #3

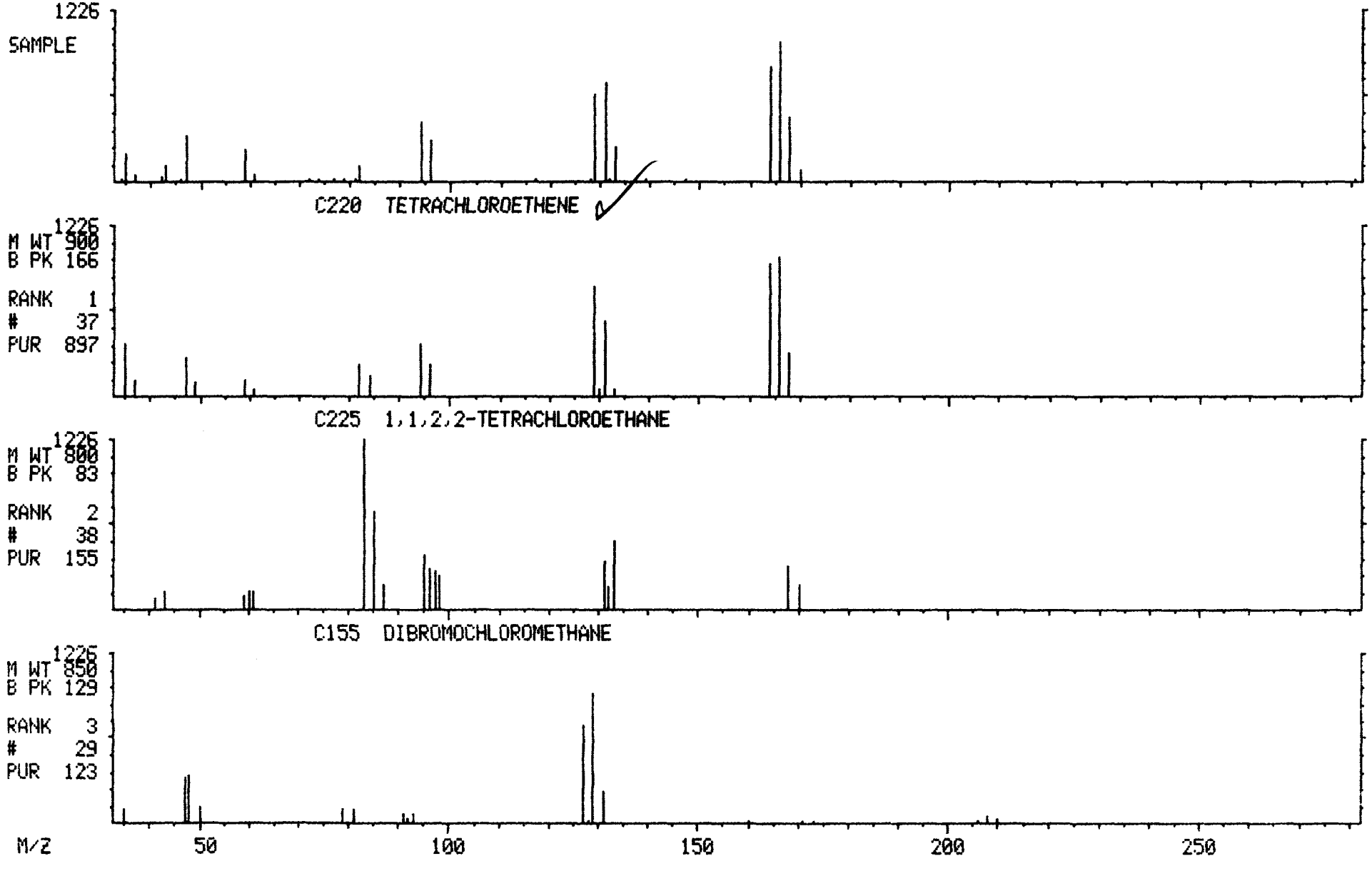
BASE M/Z: 166
RIC: 7816.



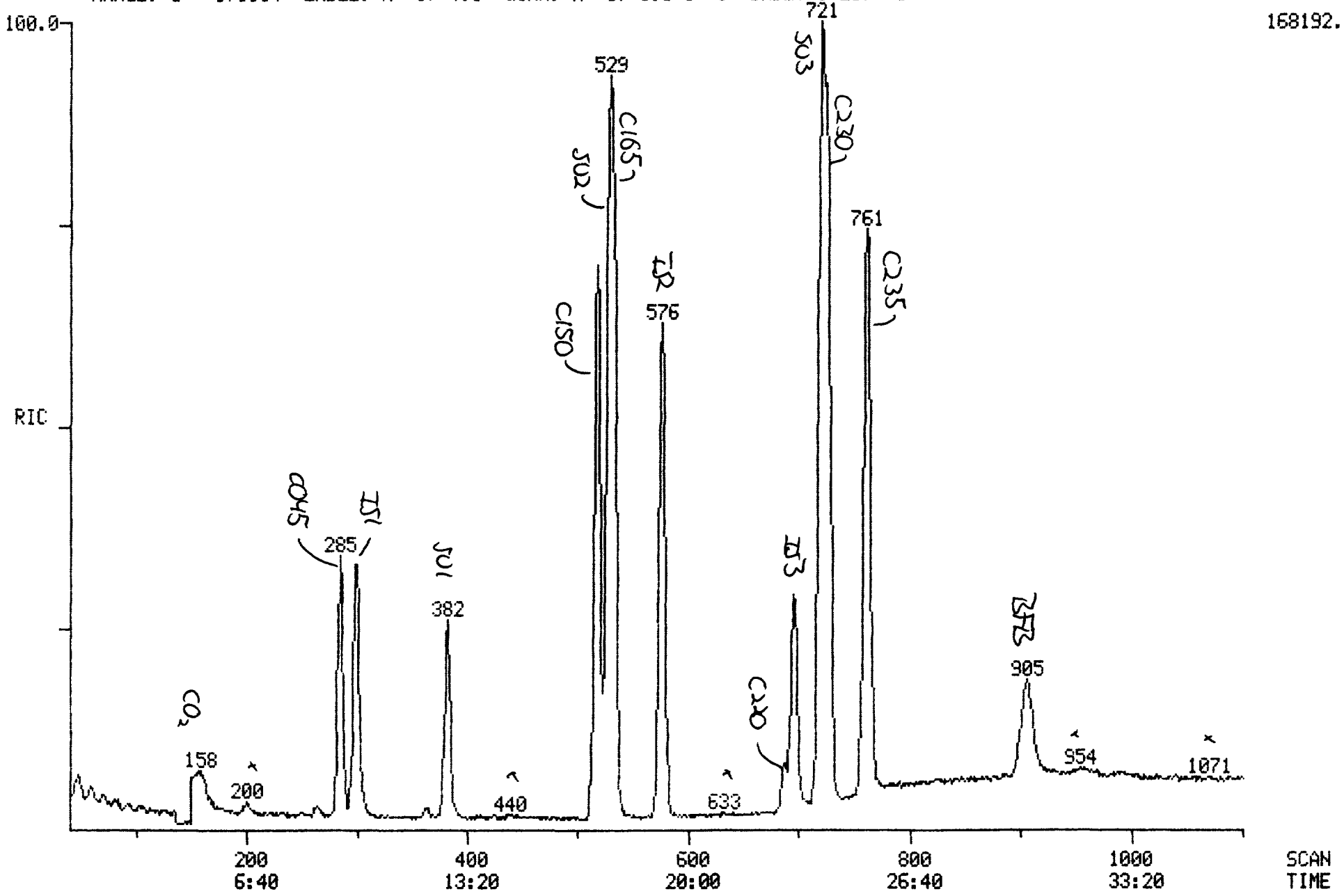
MID LIBRARY SEARCH (LIBRARYVP)
06/27/89 17:43:00 + 22:54
SAMPLE: CLP,6231,,89FS22S11,L,W,,V,EPA,
CONDS.: % RPD BASED ON % RECOVERY
ENHANCED (S 15B 2N 0T)

DATA: 6231S11 # 687
CALI: 6231S11 # 3

BASE M/Z: 166
RIC: 7800.



RIC DATA: 6231511M #1 SCANS 40 TO 1100
06/27/89 18:27:00 CALI: 6231511M #3
SAMPLE: CLP,6231,,89FS22511MS,L,W,,V,MS,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: 6231S11M

Data: 6231S11M.TI
06/27/89 18:27:00
Sample: CLP,6231,,89FS22S11MS,L,W,,V,MS,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

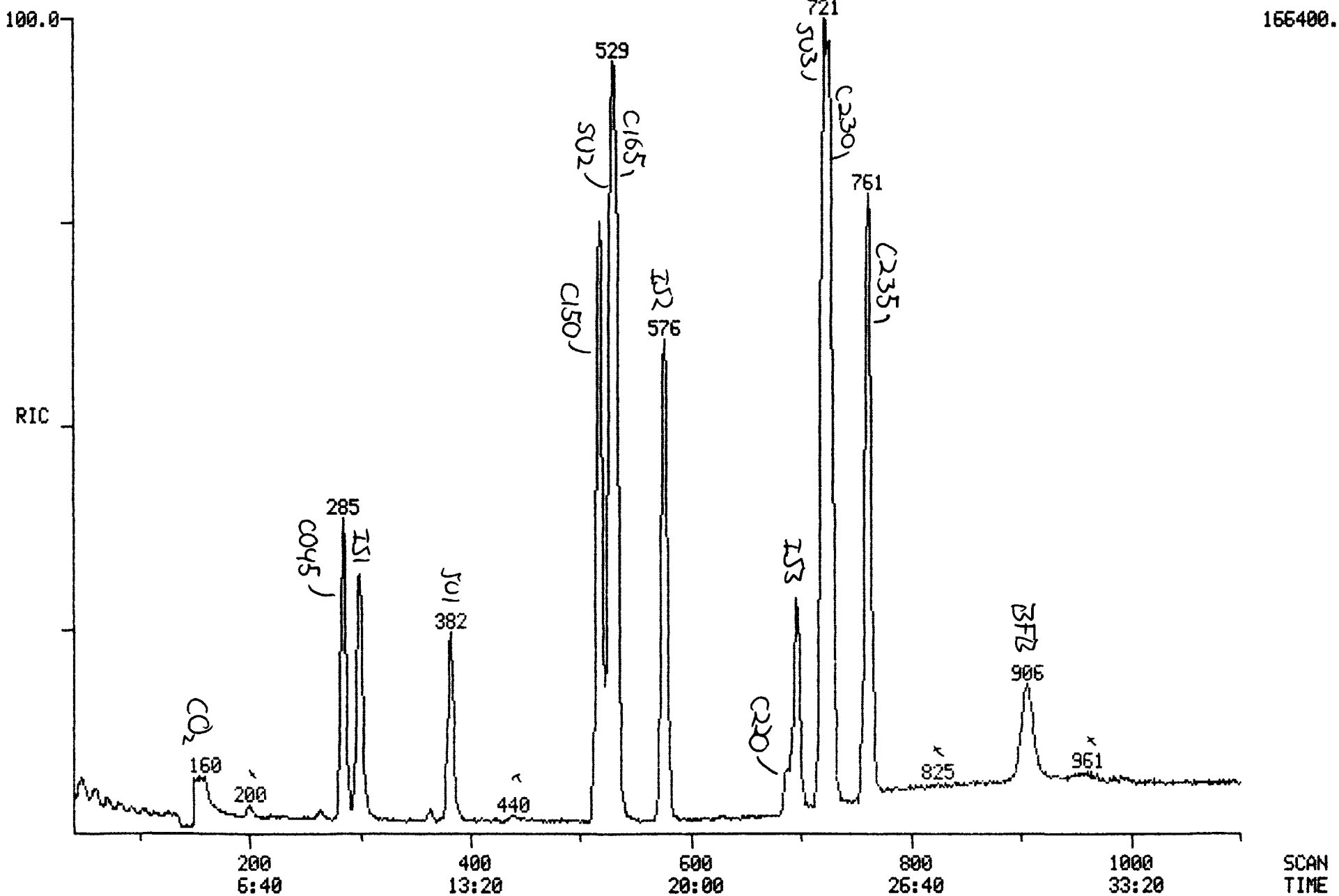
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C045	1,1-DICHLOROETHENE	
8	C150	TRICHLOROETHENE	
9	C165	BENZENE	
10	C220	TETRACHLOROETHENE	
11	C230	TOLUENE	
12	C235	CHLOROBENZENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	40149.	10.000 UG/L	9.84
2	77	576	19:12	2	1.000	A BB	149864.	10.000 UG/L	9.84
3	55	696	23:12	3	1.000	A BB	99729.	10.000 UG/L	9.84
4	65	382	12:44	1	1.278	A BB	84790.	8.953 UG/L	8.81
5	84	527	17:34	2	0.915	A BB	337700.	10.511 UG/L	10.34
6	98	721	24:02	3	1.036	A BB	324372.	10.328 UG/L	10.16
7	96	285	9:30	1	0.953	A BB	57471.	5.541 UG/L	5.45
8	130	517	17:14	2	0.898	A BB	117301.	8.504 UG/L	8.37
9	78	532	17:44	2	0.924	A BV	265246.	9.177 UG/L	9.03
10	164	688	22:56	3	0.989	A BB	7383.	0.621 UG/L	0.61
11	92	726	24:12	3	1.043	A BB	185352.	9.030 UG/L	8.88
12	112	761	25:22	3	1.093	A BB	220107.	8.979 UG/L	8.83

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	8.95	10.00	2.112	2.359	0.90
5	17:26	1.01	0.917	1.00	10.51	10.00	2.253	2.144	1.05
6	23:52	1.01	1.038	1.00	10.33	10.00	3.253	3.149	1.03
7	9:22	1.01	0.955	1.00	5.54	25.00	0.573	2.583	0.22
8	17:06	1.01	0.898	1.00	8.50	25.00	0.313	0.920	0.34
9	17:36	1.01	0.924	1.00	9.18	25.00	0.708	1.929	0.37
10	22:48	1.01	0.990	1.00	0.62	25.00	0.030	1.192	0.02
11	24:04	1.01	1.046	1.00	9.03	25.00	0.743	2.058	0.36
12	25:14	1.01	1.097	1.00	8.98	25.00	0.883	2.458	0.36

RIC DATA: 6231S11D #1 SCANS 40 TO 1100
06/27/89 19:12:00 CALI: 6231S11D #3
SAMPLE: CLP,6231,,89F522S11MSD,L,W,,V,MSD,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: 6231S11D

Data: 6231S11D.TI
06/27/89 19:12:00
Sample: CLP,6231,,89FS22S11MSD,L,W,,V,MSD,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

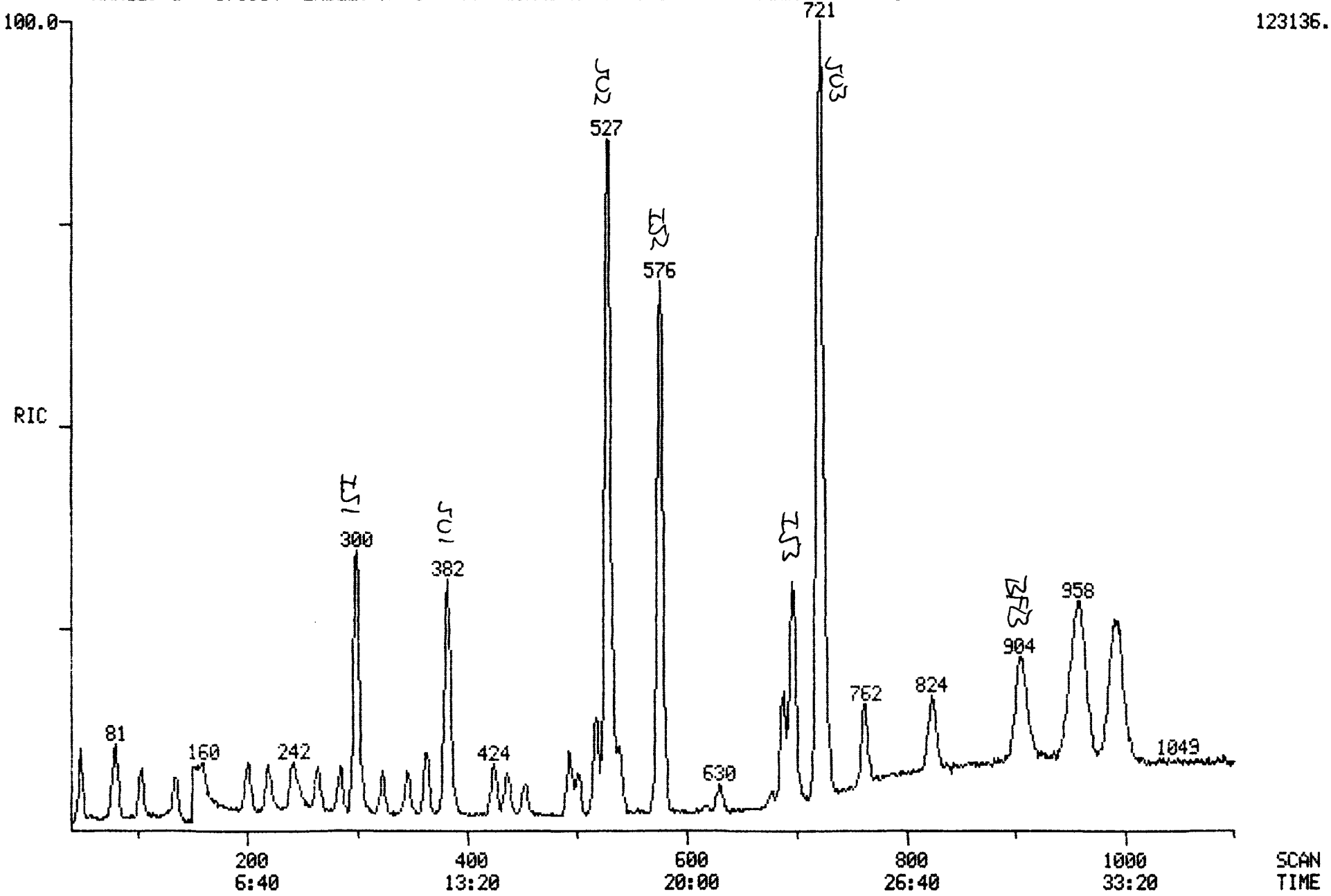
AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C045	1,1-DICHLOROETHENE	
8	C150	TRICHLOROETHENE	
9	C165	BENZENE	
10	C220	TETRACHLOROETHENE	
11	C230	TOLUENE	
12	C235	CHLOROBENZENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	300	10:00	1	1.000	A BB	39142.	10.000 UG/L	9.26
2	77	576	19:12	2	1.000	A BB	145659.	10.000 UG/L	9.26
3	55	696	23:12	3	1.000	A BB	93549.	10.000 UG/L	9.26
4	65	382	12:44	1	1.273	A BB	80907.	8.762 UG/L	8.12
5	84	527	17:34	2	0.915	A BB	338670.	10.845 UG/L	10.05
6	98	721	24:02	3	1.036	A BB	331513.	11.253 UG/L	10.42
7	96	285	9:30	1	0.950	A BB	64727.	6.401 UG/L	5.93
8	130	517	17:14	2	0.898	A BB	126579.	9.442 UG/L	8.75
9	78	532	17:44	2	0.924	A BB	283569.	10.095 UG/L	9.35
10	164	687	22:54	3	0.987	A BB	7662.	0.687 UG/L	0.64
11	92	726	24:12	3	1.043	A BB	200756.	10.426 UG/L	9.66
12	112	761	25:22	3	1.093	A BB	231116.	10.051 UG/L	9.31

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	8.76	10.00	2.067	2.359	0.88
5	17:26	1.01	0.917	1.00	10.85	10.00	2.325	2.144	1.08
6	23:52	1.01	1.038	1.00	11.25	10.00	3.544	3.149	1.13
7	9:22	1.01	0.955	0.99	6.40	25.00	0.661	2.583	0.26
8	17:06	1.01	0.898	1.00	9.44	25.00	0.348	0.920	0.38
9	17:36	1.01	0.924	1.00	10.09	25.00	0.779	1.929	0.40
10	22:48	1.00	0.990	1.00	0.69	25.00	0.033	1.192	0.03
11	24:04	1.01	1.046	1.00	10.43	25.00	0.858	2.058	0.42
12	25:14	1.01	1.097	1.00	10.05	25.00	0.988	2.458	0.40

RIC DATA: MDL6231 #1 SCANS 40 TO 1100
06/27/89 19:56:00 CALI: MDL6231 #3
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
RANGE: G 1,1104 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



Quantitation Report File: MDL6231

Data: MDL6231.TI
06/27/89 19:56:00
Sample: CLP,6231,,MDL6231,L,W,,V,EPA,
Conds.: 45' (3MIN) TO 220'@ 8'/MIN
Formula: Instrument: INCOS1 Weight: 1.000
Submitted by: CRL Analyst: DTK Acct. No.: TFA302

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

No	Name		
1	CI01	BROMOCHLOROMETHANE	*INTERNAL STANDARD*
2	CI10	2-BROMO-1-CHLOROPROPANE	*INTERNAL STANDARD*
3	CI20	1,4-DICHLOROBUTANE	*INTERNAL STANDARD*
4	CS15	1,2-DICHLOROETHANE-D4	*SURROGATE*
5	CS10	BENZENE-D6	*SURROGATE*
6	CS05	TOLUENE-D8	*SURROGATE*
7	C010	CHLOROMETHANE	
8	C015	BROMOMETHANE	
9	C020	VINYL CHLORIDE	
10	C025	CHLOROETHANE	
11	C030	METHYLENE CHLORIDE	
12	C035	ACETONE	
13	C038	ACROLEIN	
14	C040	CARBON DISULFIDE	
15	C043	ACRYLONITRILE	
16	C045	1,1-DICHLOROETHENE	
17	C050	1,1-DICHLOROETHANE	
18	C053	1,2-DICHLOROETHENE (TOTAL)	
19	C060	CHLOROFORM	
20	C065	1,2-DICHLOROETHANE	
21	C110	2-BUTANONE	
22	C115	1,1,1-TRICHLOROETHANE	
23	C120	CARBON TETRACHLORIDE	
24	C125	VINYL ACETATE	
25	C130	BROMODICHLOROMETHANE	
26	C140	1,2-DICHLOROPROPANE	
27	C143	CIS-1,3-DICHLOROPROPENE	
28	C150	TRICHLOROETHENE	
29	C155	DIBROMOCHLOROMETHANE	
30	C160	1,1,2-TRICHLOROETHANE	
31	C165	BENZENE	
32	C172	TRANS-1,3-DICHLOROPROPENE	
33	C175	2-CHLOROETHYLVINYLETHER	
34	C180	BROMOFORM	
35	C210	2-HEXANONE	
36	C205	4-METHYL-2-PENTANONE	
37	C220	TETRACHLOROETHENE	
38	C225	1,1,2,2-TETRACHLOROETHANE	
39	C230	TOLUENE	
40	C235	CHLOROBENZENE	
41	C240	ETHYL BENZENE	
42	C260	M-XYLENE	
43	C270	O-&/OR P-XYLENE	
44	C245	STYRENE	

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	128	299	9:58	1	1.000	A BB	30826.	10.000 UG/L	3.58
2	77	576	19:12	2	1.000	A BB	118635.	10.000 UG/L	3.58
3	55	696	23:12	3	1.000	A BB	71103.	10.000 UG/L	3.58
4	65	382	12:44	1	1.278	A BB	66277.	9.114 UG/L	3.26
5	84	528	17:36	2	0.917	A BB	274746.	10.803 UG/L	3.87
6	98	721	24:02	3	1.036	A BB	263247.	11.756 UG/L	4.21
7	50	49	1:38	1	0.164	A BB	27498.	2.473 UG/L	0.89
8	94	81	2:42	1	0.271	A BB	24622.	2.583 UG/L	0.93
9	62	104	3:28	1	0.348	A BB	24651.	2.163 UG/L	0.77
10	64	134	4:28	1	0.448	A BB	17341.	2.376 UG/L	0.85
11	84	201	6:42	1	0.672	A BB	9478.	1.366 UG/L	0.49
12	43	219	7:18	1	0.732	A BB	27312.	56.574 UG/L	20.27
13	56	220	7:20	1	0.736	A BV	2908.	38.441 UG/L	13.77
14	76	249	8:18	1	0.833	A BB	5810.	1.382 UG/L	0.49
15	53	242	8:04	1	0.809	A BB	21284.	47.414 UG/L	16.98
16	96	285	9:30	1	0.953	A BB	6814.	0.856 UG/L	0.31
17	63	323	10:46	1	1.080	A BB	17601.	0.969 UG/L	0.35
18	96	346	11:32	1	1.157	A BB	7131.	0.909 UG/L	0.33
19	83	364	12:08	1	1.217	A BB	18066.	1.018 UG/L	0.36
20	62	386	12:52	1	1.291	A BB	8898.	1.212 UG/L	0.43
21	72	382	12:44	2	0.663	A BB	2880.	21.249 UG/L	7.61
22	97	424	14:08	2	0.736	A BB	13744.	0.979 UG/L	0.35
23	117	436	14:32	2	0.757	A VB	9742.	0.784 UG/L	0.28
24	43	440	14:40	2	0.764	A BB	1936.	0.512 UG/L	0.18
25	83	453	15:06	2	0.786	A BB	8506.	0.869 UG/L	0.31
26	63	492	16:24	2	0.854	A BB	10285.	1.147 UG/L	0.41
27	75	501	16:42	2	0.870	A VB	10379.	1.139 UG/L	0.41
28	130	517	17:14	2	0.898	A BB	15366.	1.407 UG/L	0.50
29	129	537	17:54	2	0.932	A BB	4480.	0.849 UG/L	0.30
30	97	539	17:58	2	0.936	A BB	4816.	1.288 UG/L	0.46
31	78	531	17:42	2	0.922	A BB	27921.	1.220 UG/L	0.44
32	75	539	17:58	2	0.936	A BB	3356.	0.633 UG/L	0.23
33	63	572	19:04	2	0.993	A BB	3421.	1.901 UG/L	0.68
34	173	619	20:38	2	1.075	A BB	1710.	0.915 UG/L	0.33
35	43	630	21:00	3	0.905	A BB	9726.	4.171 UG/L	1.49
36	43	677	22:34	3	0.973	A BB	6483.	3.705 UG/L	1.33
37	164	688	22:56	3	0.989	A BB	11590.	1.368 UG/L	0.49
38	83	687	22:54	3	0.987	A BB	2857.	0.994 UG/L	0.36
39	92	726	24:12	3	1.043	A BB	19928.	1.362 UG/L	0.49
40	112	761	25:22	3	1.093	A BB	23683.	1.355 UG/L	0.49
41	106	824	27:28	3	1.184	A BB	10700.	1.160 UG/L	0.42
42	106	960	32:00	3	1.379	A BB	34795.	2.885 UG/L	1.03
43	106	994	33:08	3	1.428	A BB	43085.	3.828 UG/L	1.37
44	104	951	31:42	3	1.366	A BB	33536.	2.032 UG/L	0.73

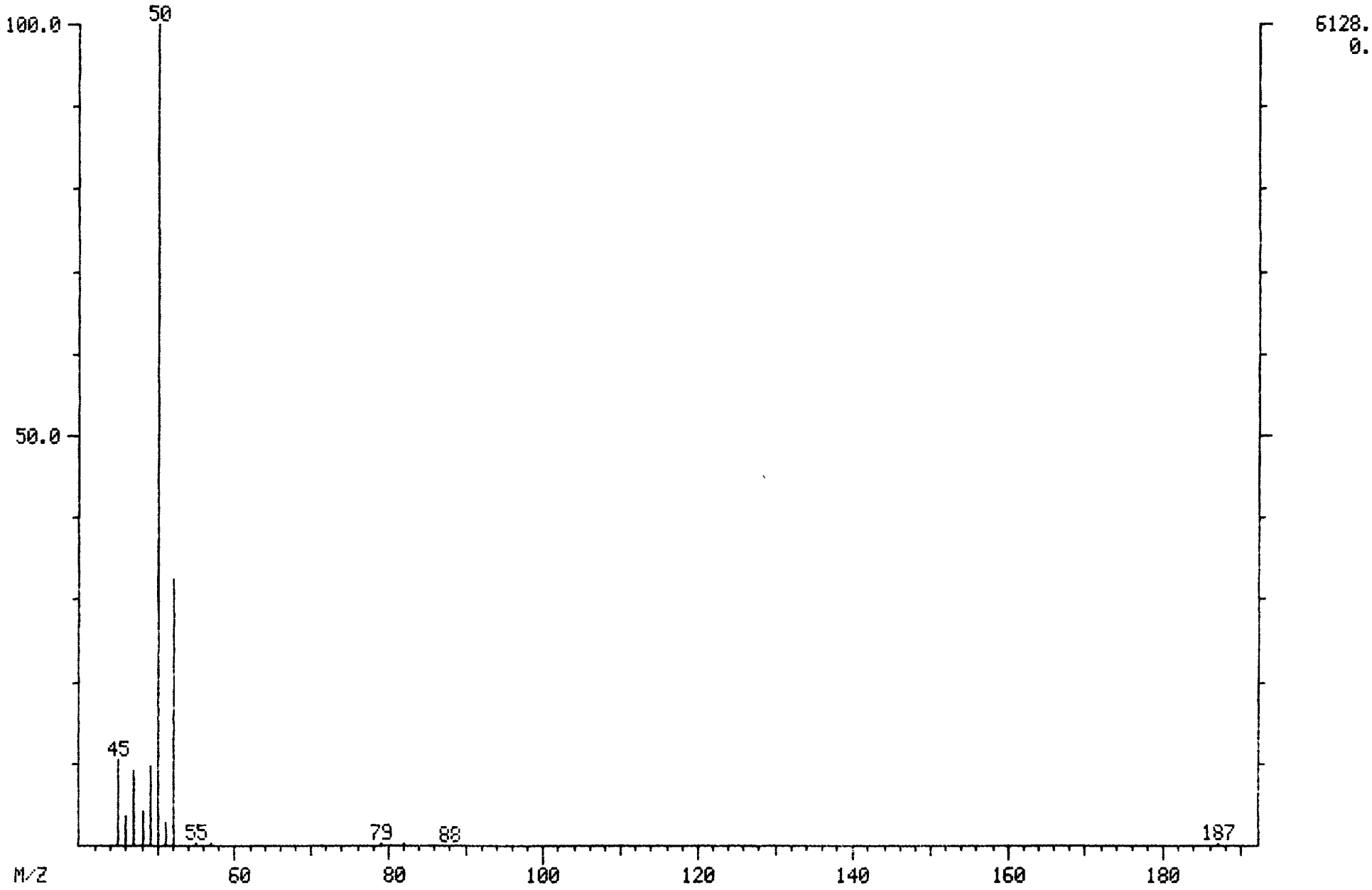
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:52	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
2	19:06	1.01	1.000	1.00	10.00	10.00	1.000	1.000	1.00
3	23:06	1.00	1.000	1.00	10.00	10.00	1.000	1.000	1.00
4	12:38	1.01	1.302	0.98	9.11	10.00	2.150	2.359	0.91
5	17:26	1.01	0.917	1.00	10.80	10.00	2.316	2.144	1.08
6	23:52	1.01	1.038	1.00	11.76	10.00	3.702	3.149	1.18
7	1:38	1.00	0.181	0.91	2.47	30.00	0.297	3.608	0.08
8	2:36	1.04	0.285	0.95	2.58	30.00	0.266	3.092	0.09
9	3:22	1.03	0.361	0.96	2.16	30.00	0.267	3.698	0.07
10	4:22	1.02	0.462	0.97	2.38	30.00	0.188	2.367	0.08

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
11	6:30	1.03	0.681	0.99	1.37	25.00	0.123	2.250	0.05
12	7:06	1.03	0.757	0.97	56.57	525.00	0.017	0.157	0.11
13	7:06	1.03	0.757	0.97	38.44	525.00	0.002	0.025	0.07
14	8:06	1.02	0.833	1.00	1.38	17.50	0.108	1.364	0.08
15	7:48	1.03	0.826	0.98	47.41	525.00	0.013	0.146	0.09
16	9:22	1.01	0.955	1.00	0.86	25.00	0.088	2.583	0.03
17	10:40	1.01	1.090	0.99	0.97	25.00	0.228	5.892	0.04
18	11:24	1.01	1.170	0.99	0.91	25.00	0.093	2.546	0.04
19	12:02	1.01	1.229	0.99	1.02	25.00	0.234	5.758	0.04
20	12:44	1.01	1.312	0.98	1.21	25.00	0.115	2.382	0.05
21	12:36	1.01	0.664	1.00	21.25	175.00	0.001	0.011	0.12
22	14:02	1.01	0.731	1.01	0.98	25.00	0.046	1.184	0.04
23	14:26	1.01	0.752	1.01	0.78	25.00	0.033	1.048	0.03
24	14:34	1.01	0.764	1.00	0.51	52.50	0.003	0.319	0.01
25	15:00	1.01	0.780	1.01	0.87	25.00	0.029	0.825	0.03
26	16:20	1.00	0.854	1.00	1.15	25.00	0.035	0.756	0.05
27	16:34	1.01	0.868	1.00	1.14	30.00	0.029	0.768	0.04
28	17:06	1.01	0.898	1.00	1.41	25.00	0.052	0.920	0.06
29	17:48	1.01	0.930	1.00	0.85	25.00	0.015	0.445	0.03
30	17:54	1.00	0.937	1.00	1.29	25.00	0.016	0.315	0.05
31	17:36	1.01	0.924	1.00	1.22	25.00	0.094	1.929	0.05
32	17:52	1.01	0.937	1.00	0.63	20.00	0.014	0.447	0.03
33	18:56	1.01	0.995	1.00	1.90	25.00	0.012	0.152	0.08
34	20:30	1.01	1.076	1.00	0.91	25.00	0.006	0.158	0.04
35	20:56	1.00	0.907	1.00	4.17	35.00	0.039	0.328	0.12
36	22:28	1.00	0.974	1.00	3.70	35.00	0.026	0.246	0.11
37	22:48	1.01	0.990	1.00	1.37	25.00	0.065	1.192	0.05
38	22:48	1.00	0.988	1.00	0.99	25.00	0.016	0.404	0.04
39	24:04	1.01	1.046	1.00	1.36	25.00	0.112	2.058	0.05
40	25:14	1.01	1.097	1.00	1.36	25.00	0.133	2.458	0.05
41	27:16	1.01	1.186	1.00	1.16	25.00	0.060	1.297	0.05
42	31:42	1.01	1.378	1.00	2.89	50.00	0.098	1.696	0.06
43	32:44	1.01	1.425	1.00	3.83	62.70	0.097	1.583	0.06
44	31:24	1.01	1.367	1.00	2.03	17.50	0.270	2.322	0.12

MASS SPECTRUM
06/27/89 19:56:00 + 1:38
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 45 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #49
CALI: MDL6231 #3

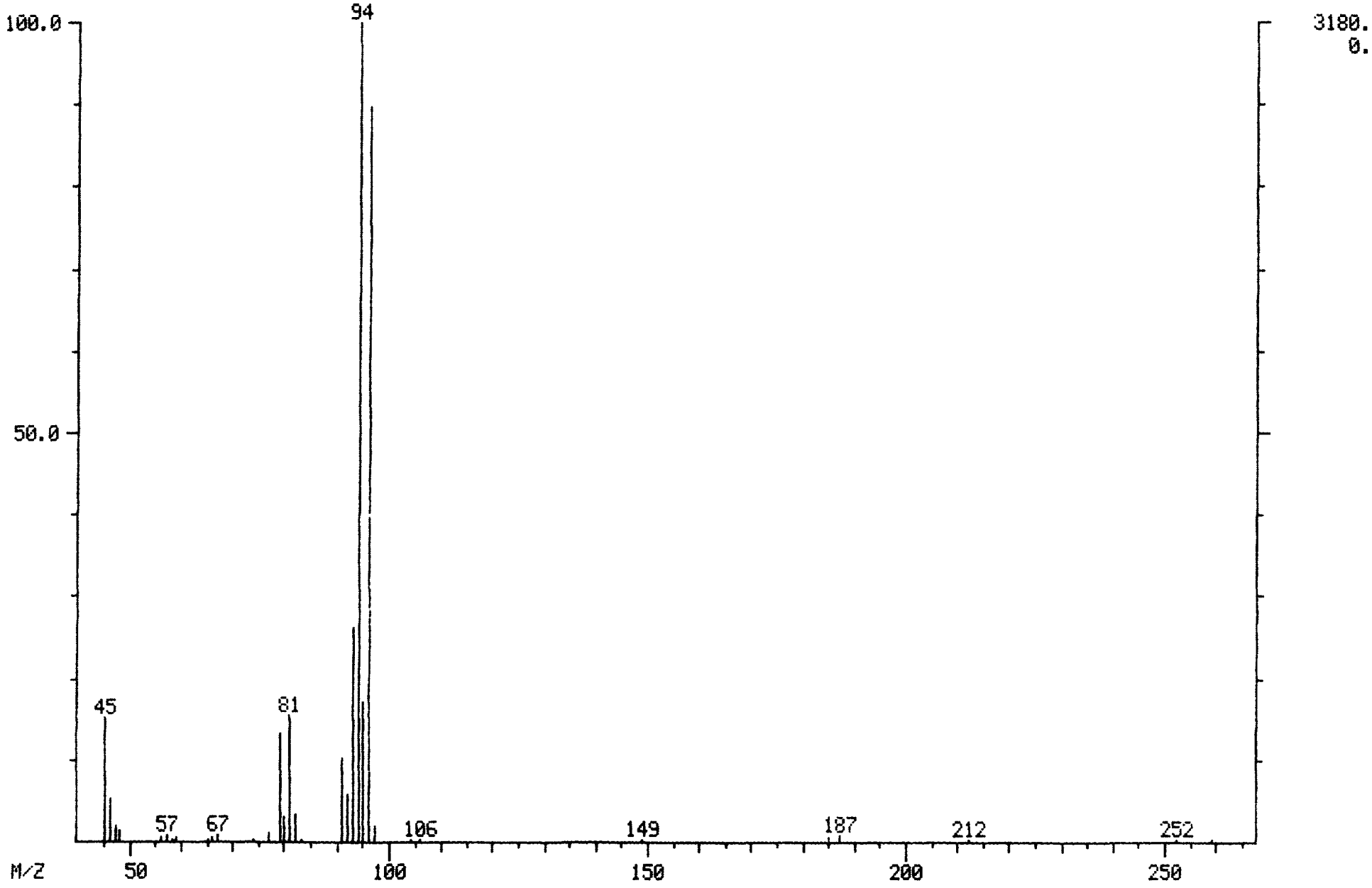
BASE M/Z: 50
RIC: 10672.



MASS SPECTRUM
06/27/89 19:56:00 + 2:42
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 45 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #81
CALI: MDL6231 #3

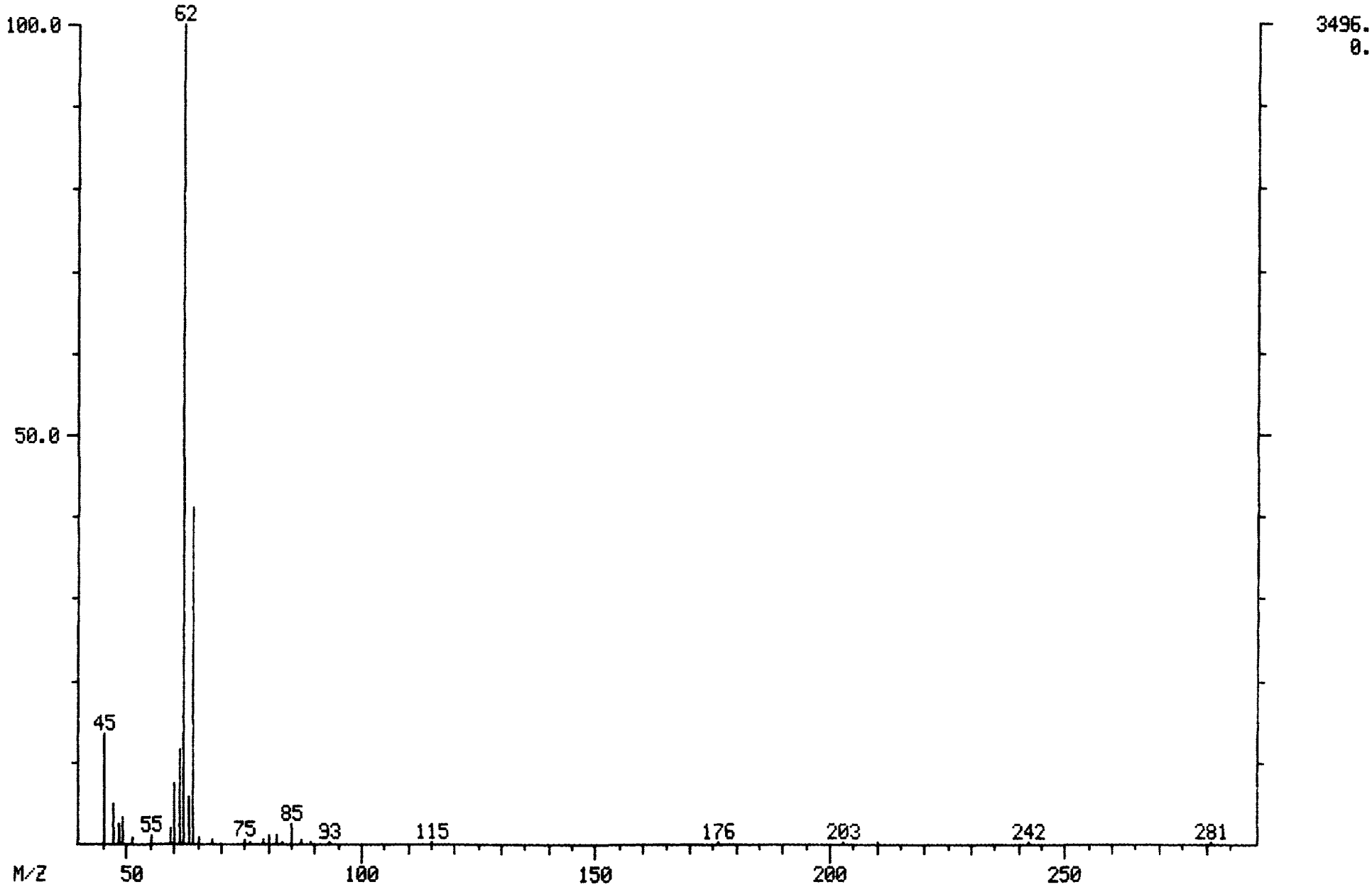
BASE M/Z: 94
RIC: 10112.



MASS SPECTRUM
06/27/89 19:56:00 + 3:28
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 48 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #104
CALI: MDL6231 #3

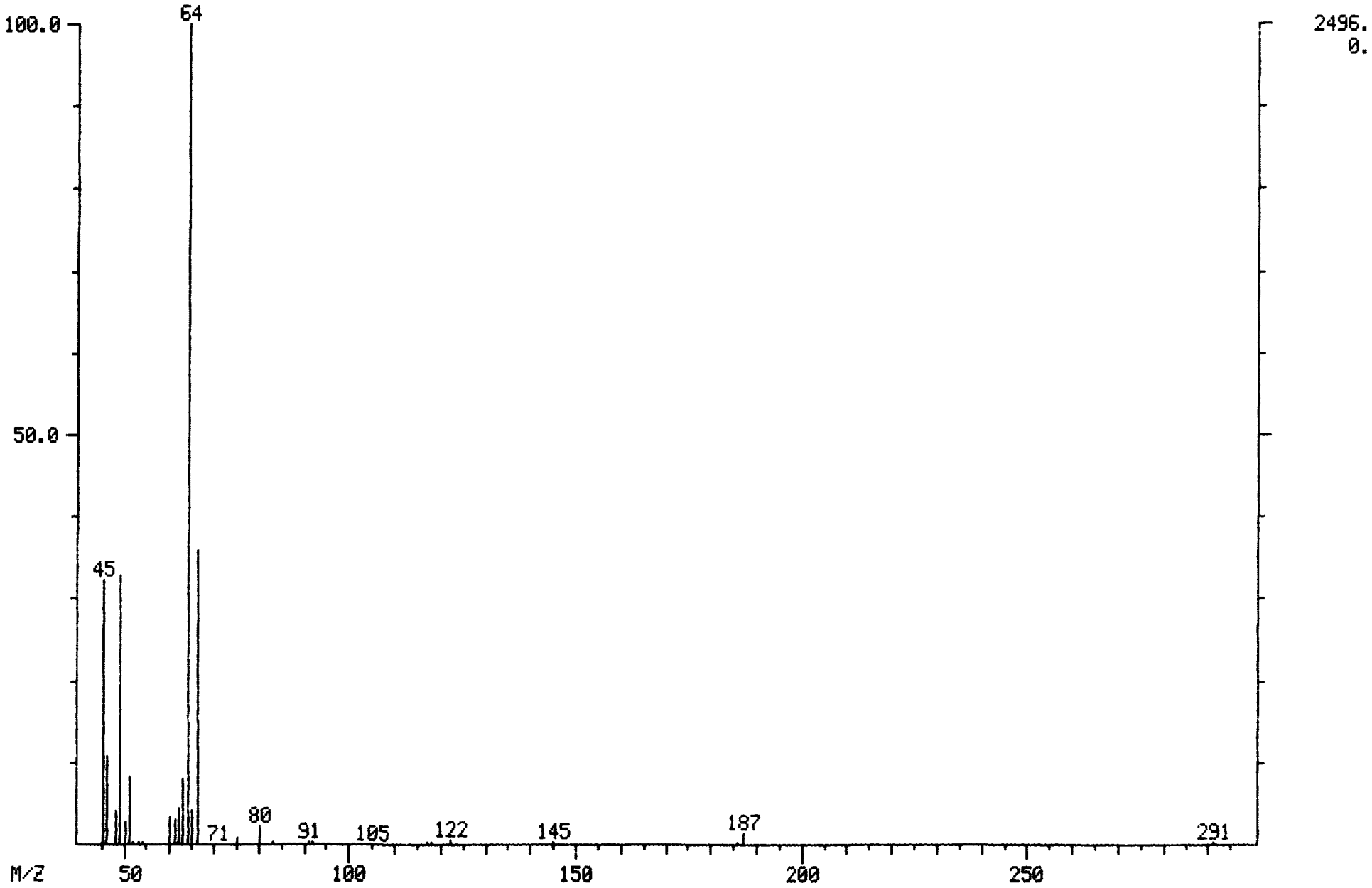
BASE M/Z: 62
RIC: 7144.



MASS SPECTRUM
06/27/89 19:56:00 + 4:28
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 56 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #134
CALI: MDL6231 #3

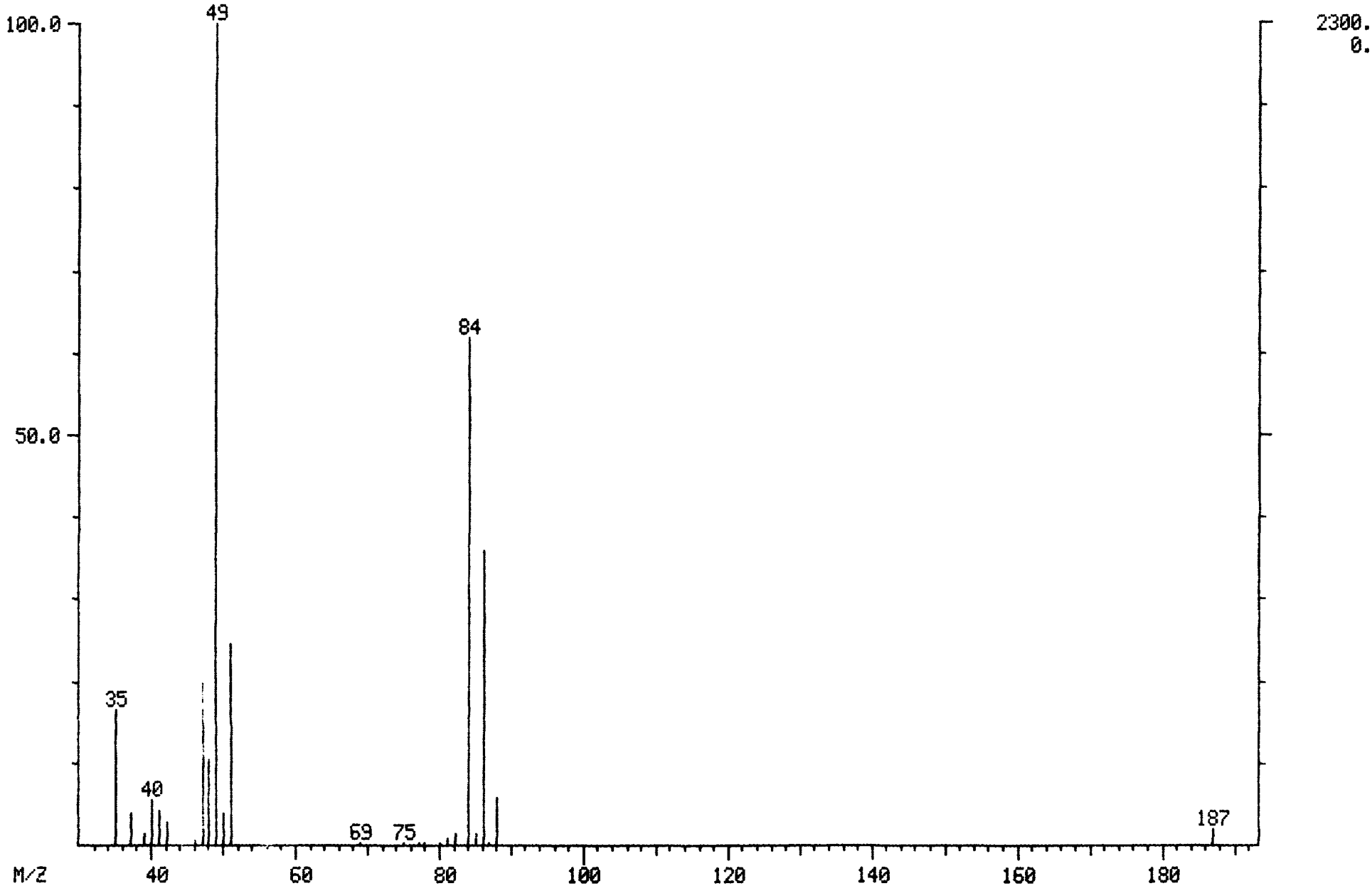
BASE M/Z: 64
RIC: 6432.



MASS SPECTRUM
06/27/89 19:56:00 + 6:42
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 74 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #201
CALI: MDL6231 #3

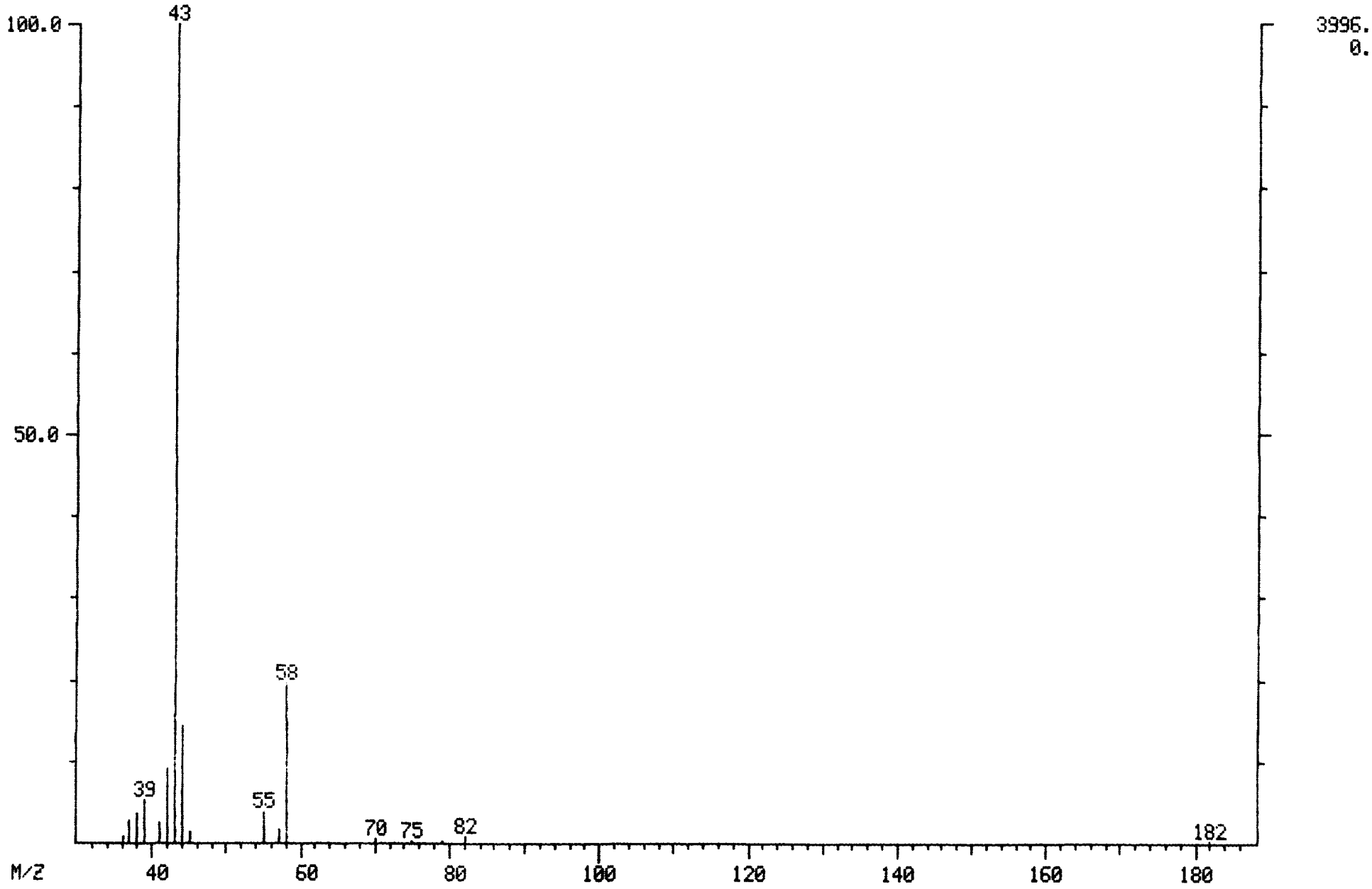
BASE M/Z: 49
RIC: 7008.



MASS SPECTRUM
06/27/89 19:56:00 + 7:18
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #219
CALI: MDL6231 #3

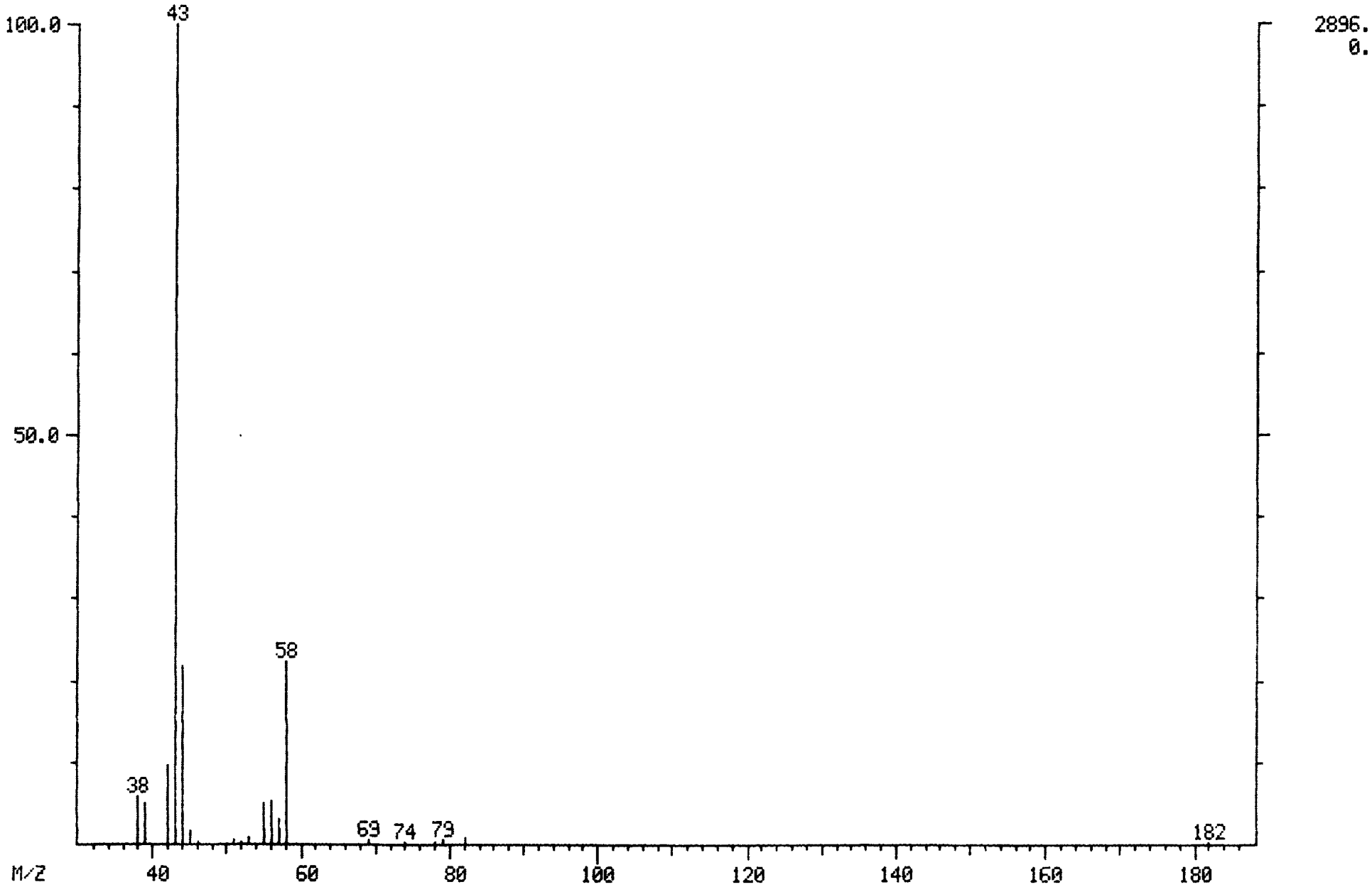
BASE M/Z: 43
RIC: 6720.



MASS SPECTRUM
06/27/89 19:56:00 + 7:20
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 79 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #220
CALI: MDL6231 #3

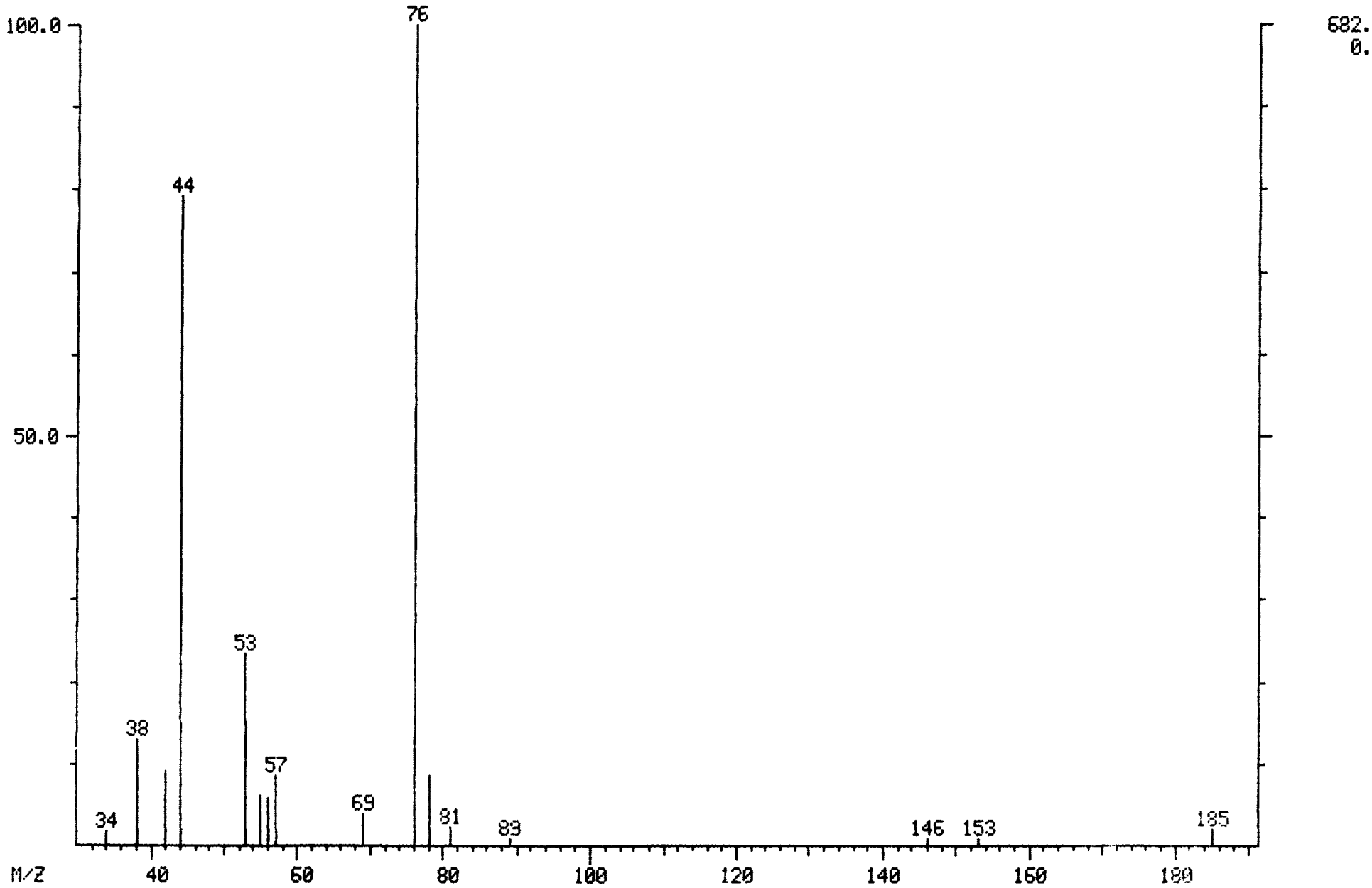
BASE M/Z: 43
RIC: 5352.



MASS SPECTRUM
06/27/89 19:56:00 + 8:18
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 86 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #249
CALI: MDL6231 #3

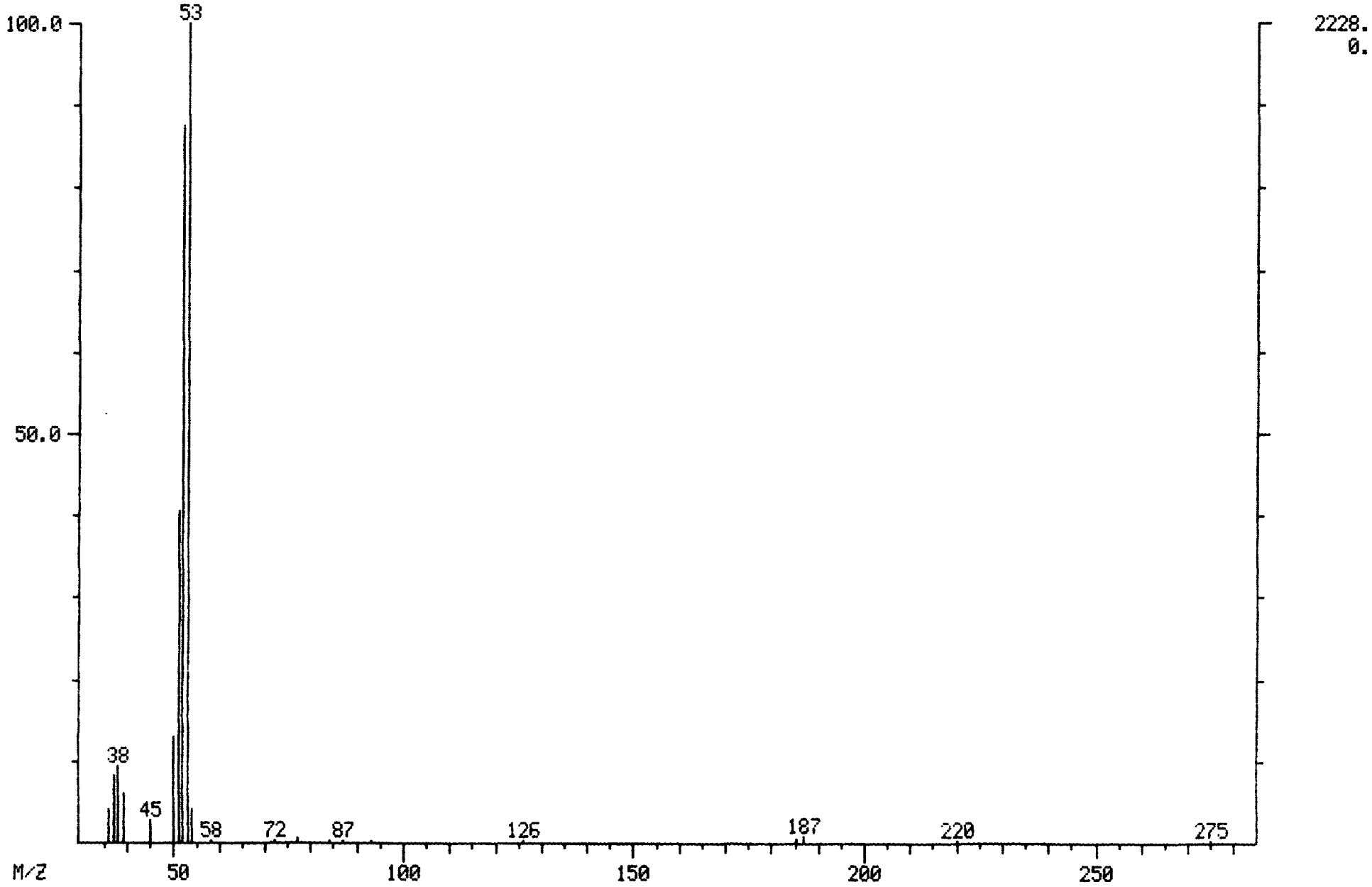
BASE M/Z: 76
RIC: 1818.



MASS SPECTRUM
06/27/89 19:56:00 + 8:04
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 85 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #242
CALI: MDL6231 #3

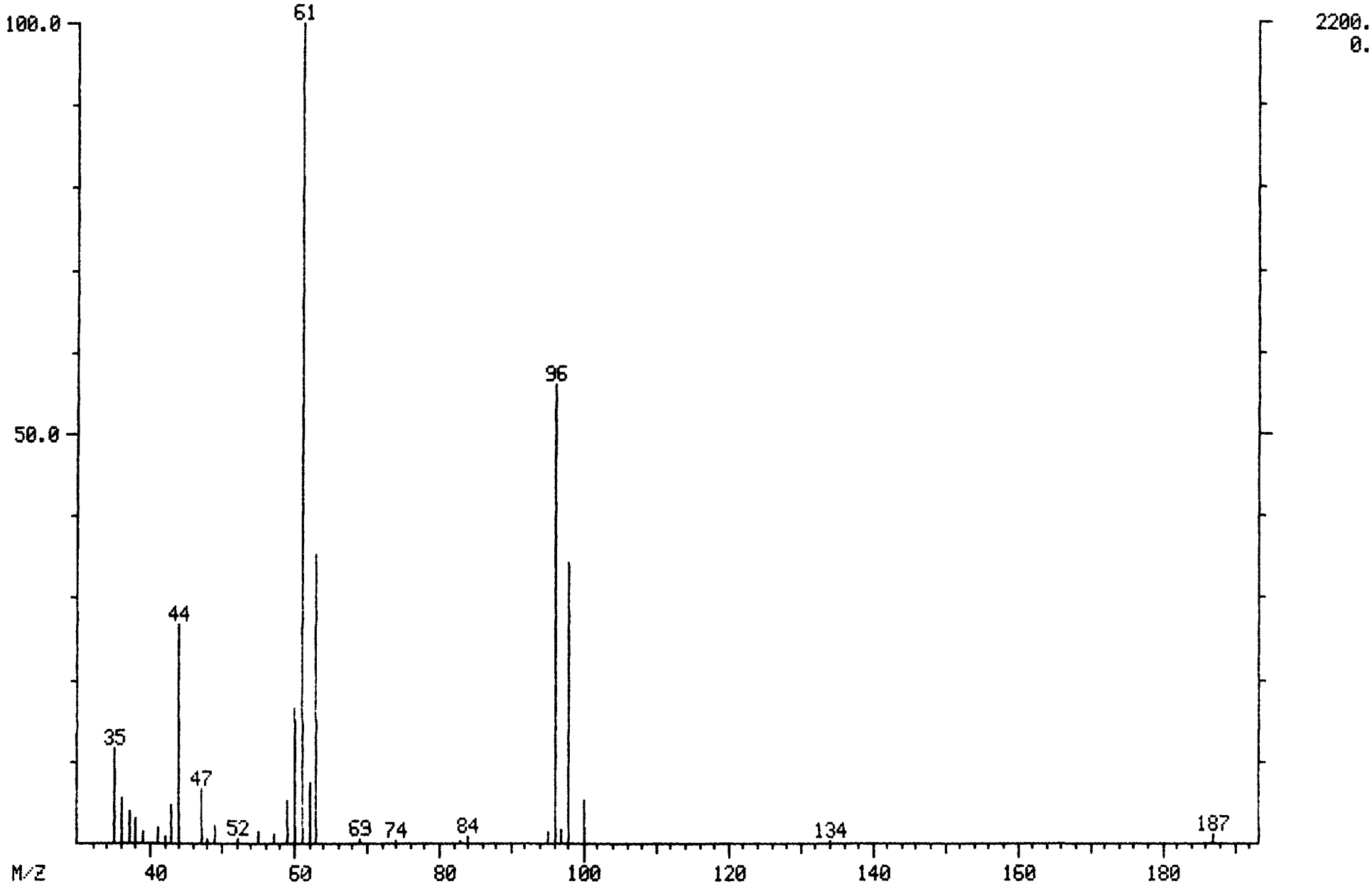
BASE M/Z: 53
RIC: 6264.



MASS SPECTRUM
06/27/89 19:56:00 + 9:30
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 96 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #285
CALI: MDL6231 #3

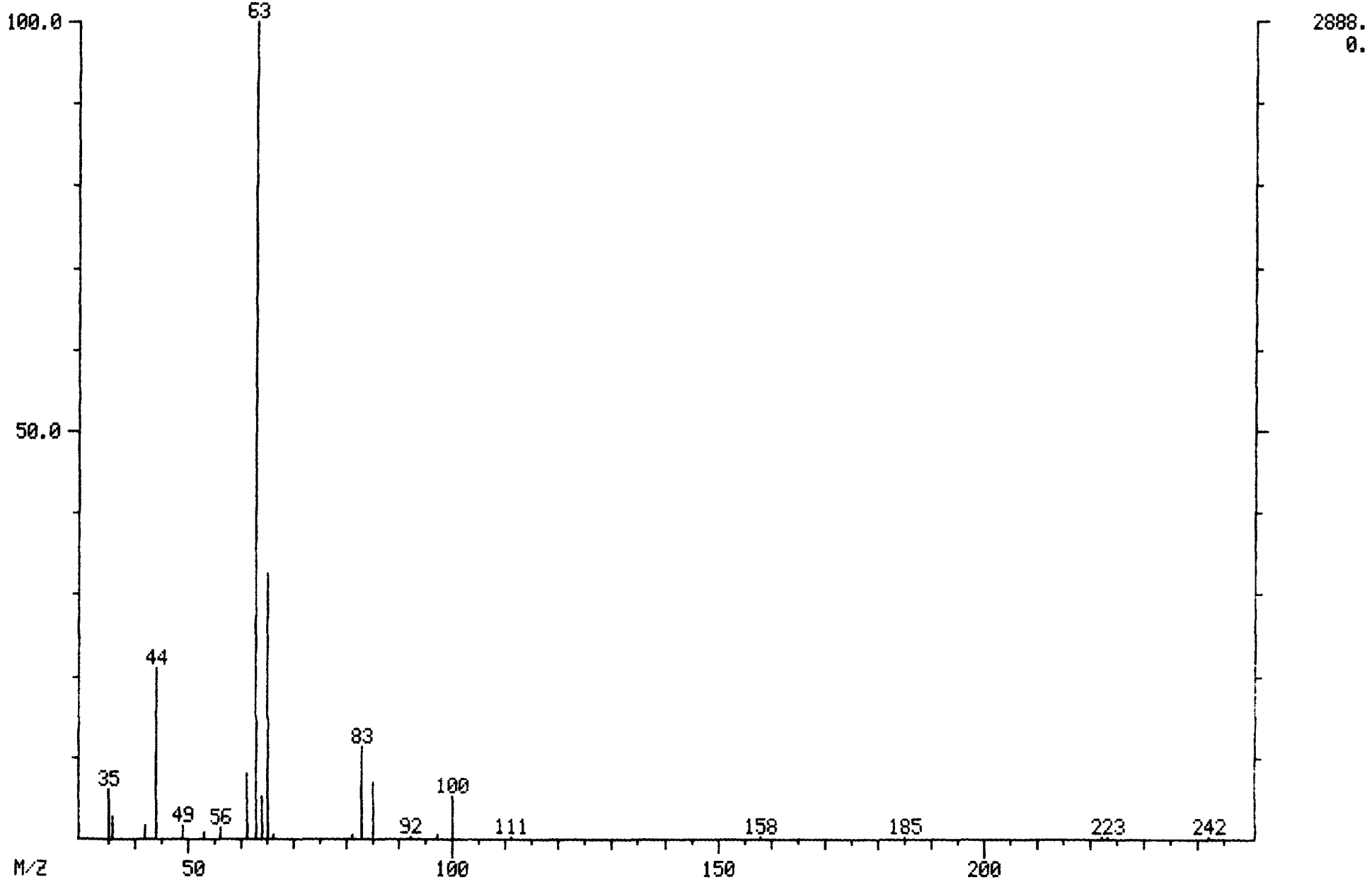
BASE M/Z: 61
RIC: 7456.



MASS SPECTRUM
06/27/89 19:56:00 + 10:46
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 106 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #323
CALI: MDL6231 #3

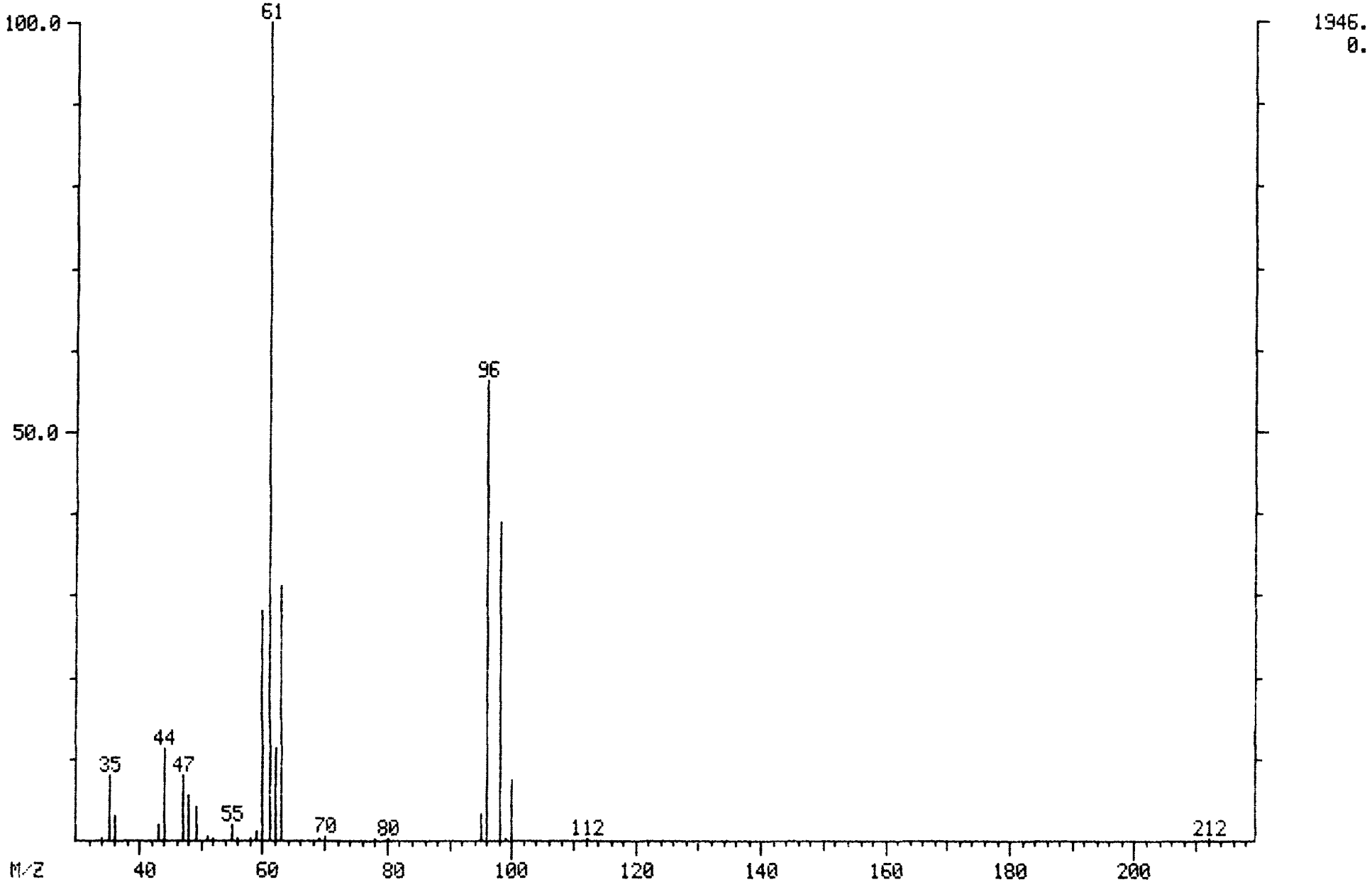
BASE M/Z: 63
RIC: 6024.



MASS SPECTRUM
06/27/89 19:56:00 + 11:32
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 112 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #346
CALI: MDL6231 #3

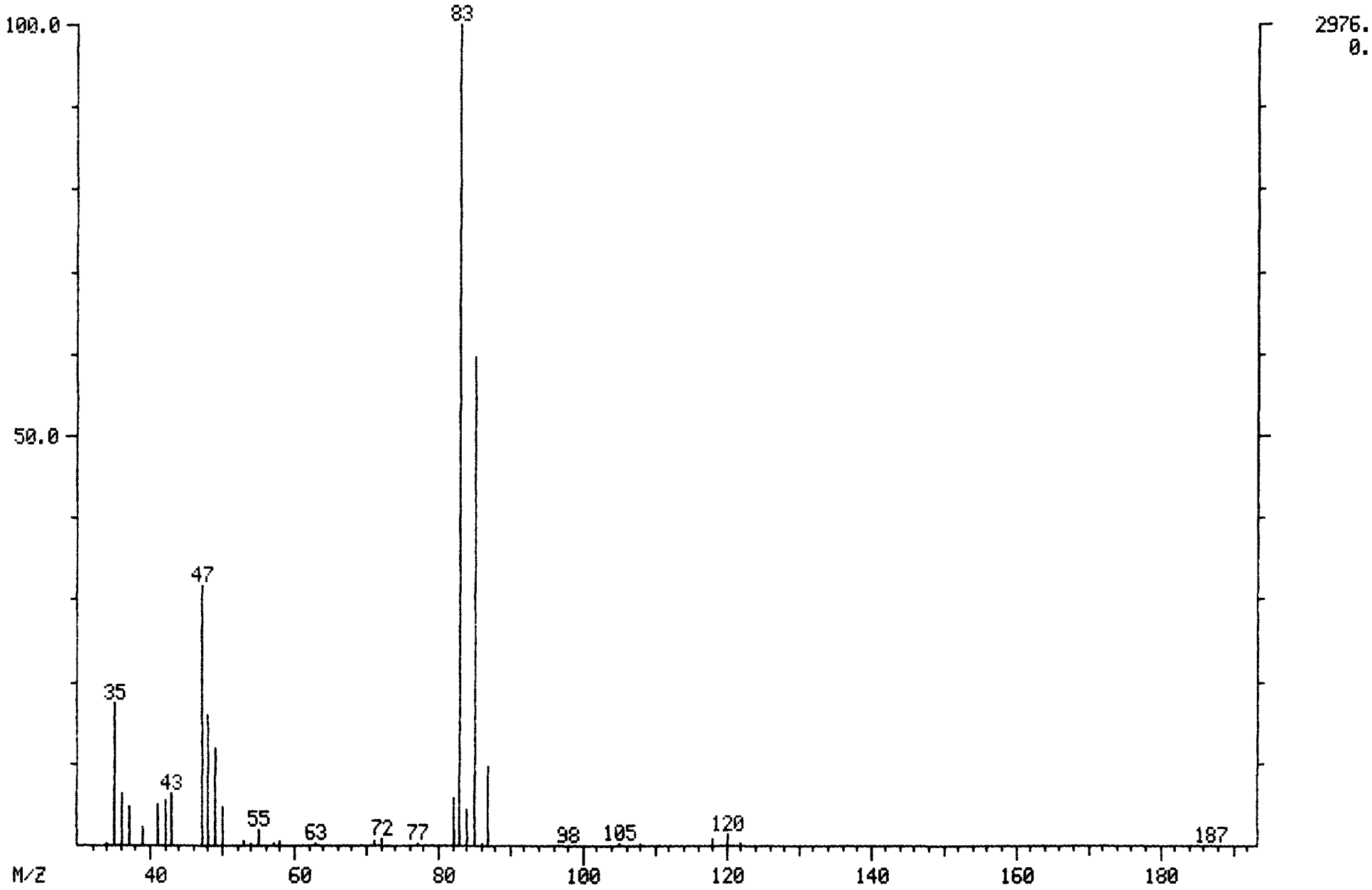
BASE M/Z: 61
RIC: 6360.



MASS SPECTRUM
06/27/89 19:56:00 + 12:08
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 117 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #364
CALI: MDL6231 #3

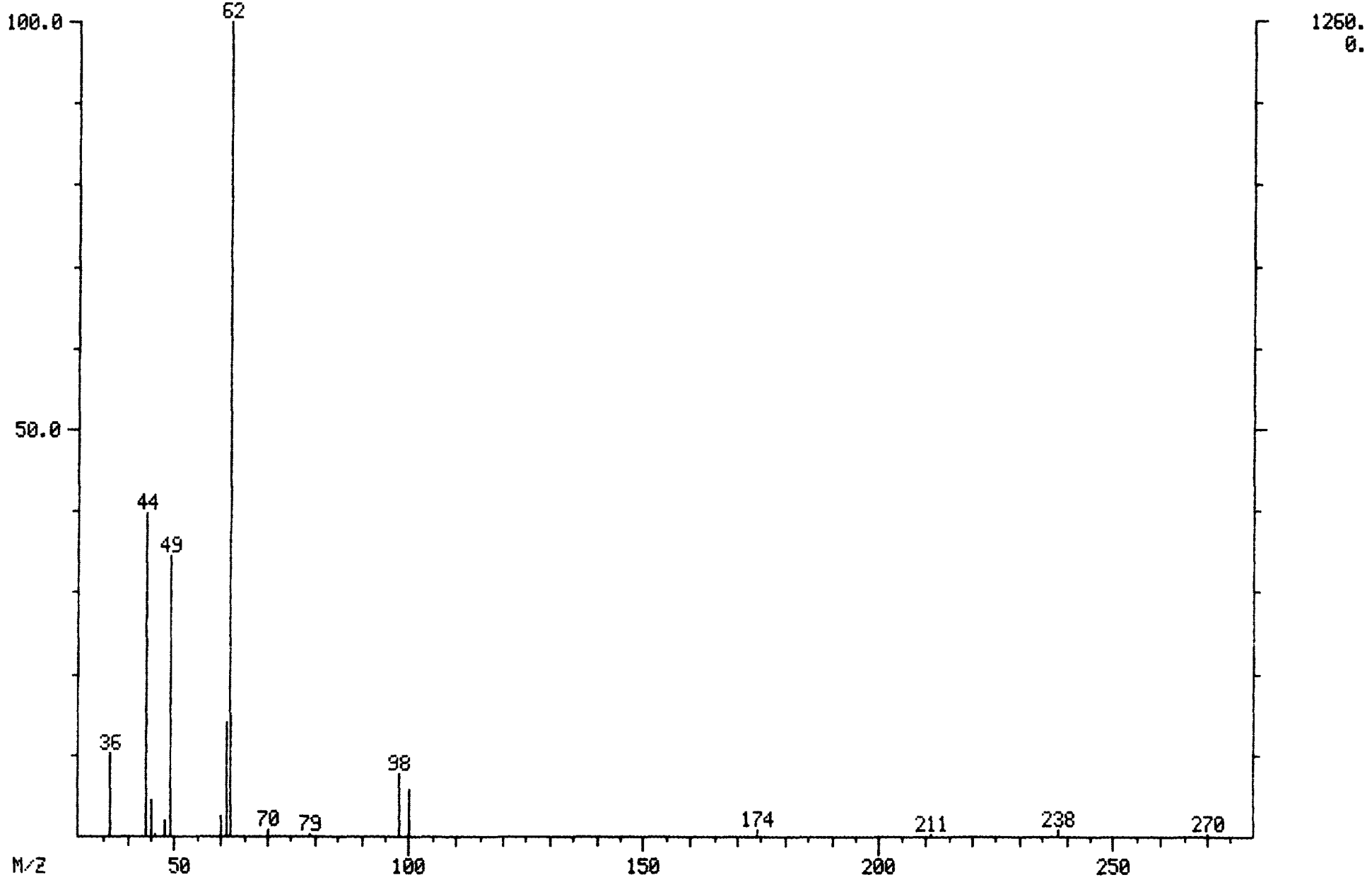
BASE M/Z: 83
RIC: 8928.



MASS SPECTRUM
06/27/89 19:56:00 + 12:52
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 123 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #386
CALI: MDL6231 #3

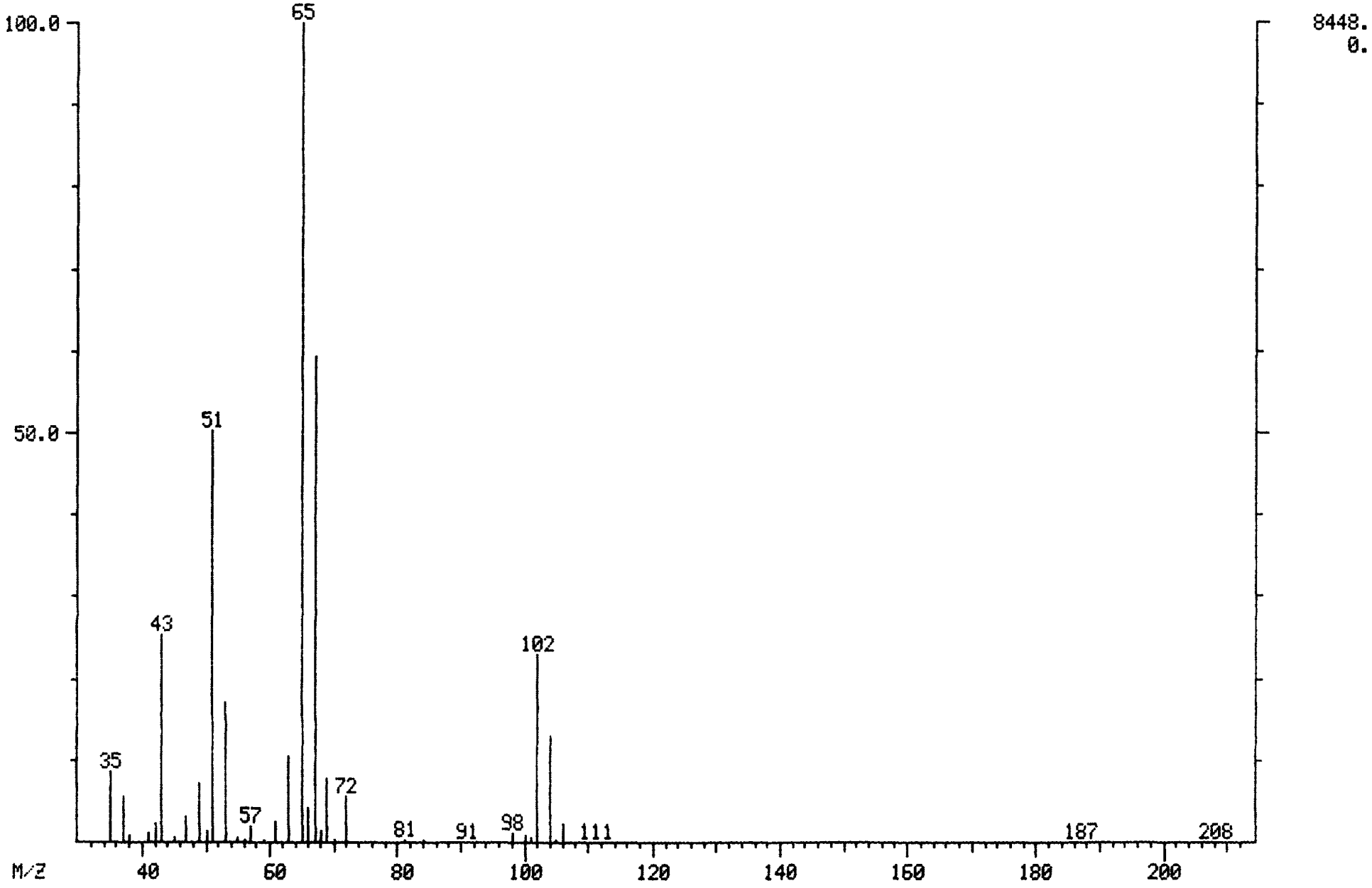
BASE M/Z: 62
RIC: 2832.



MASS SPECTRUM
06/27/89 19:56:00 + 12:44
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 122 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #382
CALI: MDL6231 #3

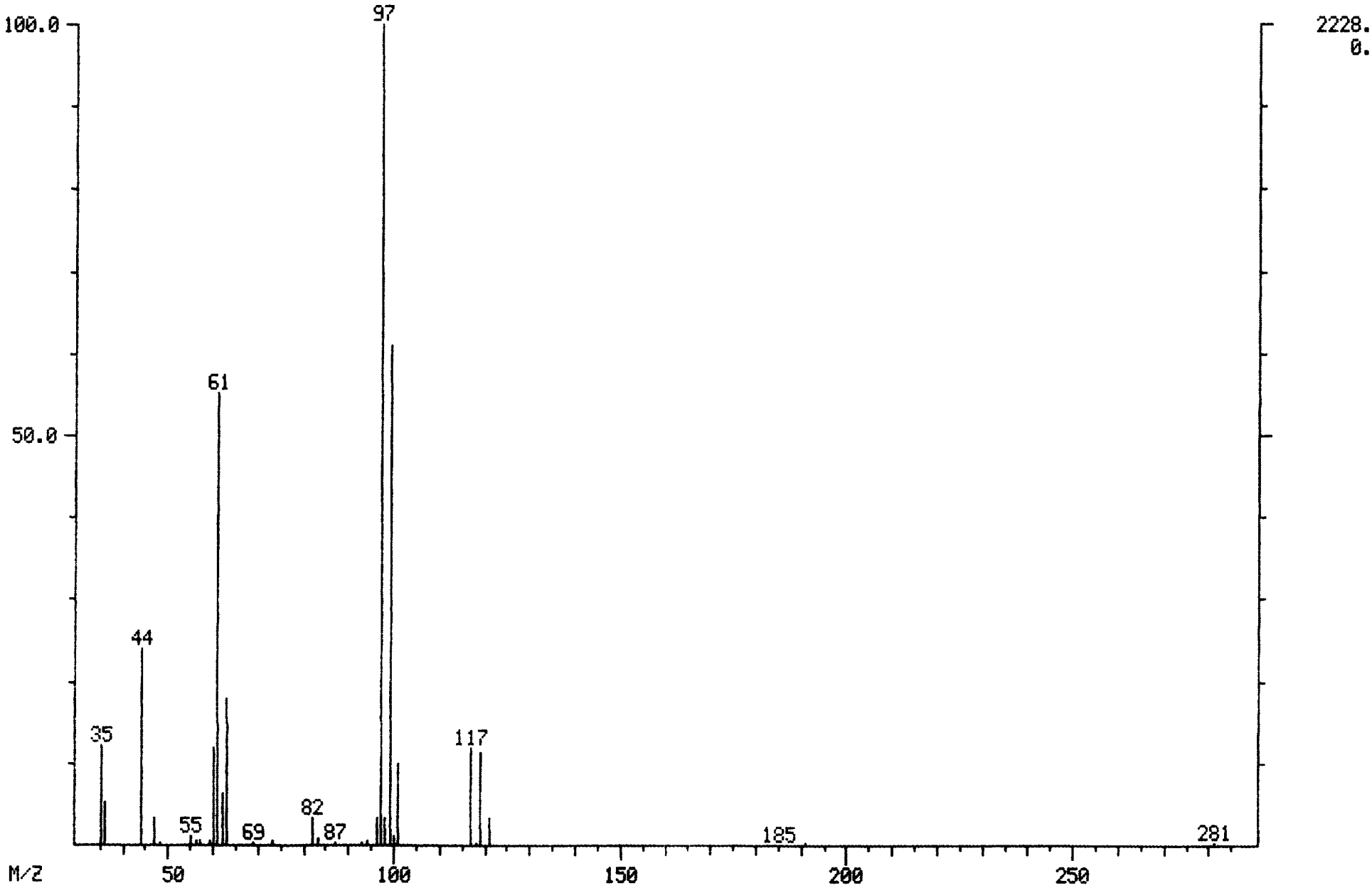
BASE M/Z: 65
RIC: 30368.



MASS SPECTRUM
06/27/89 19:56:00 + 14:08
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 133 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #424
CALI: MDL6231 #3

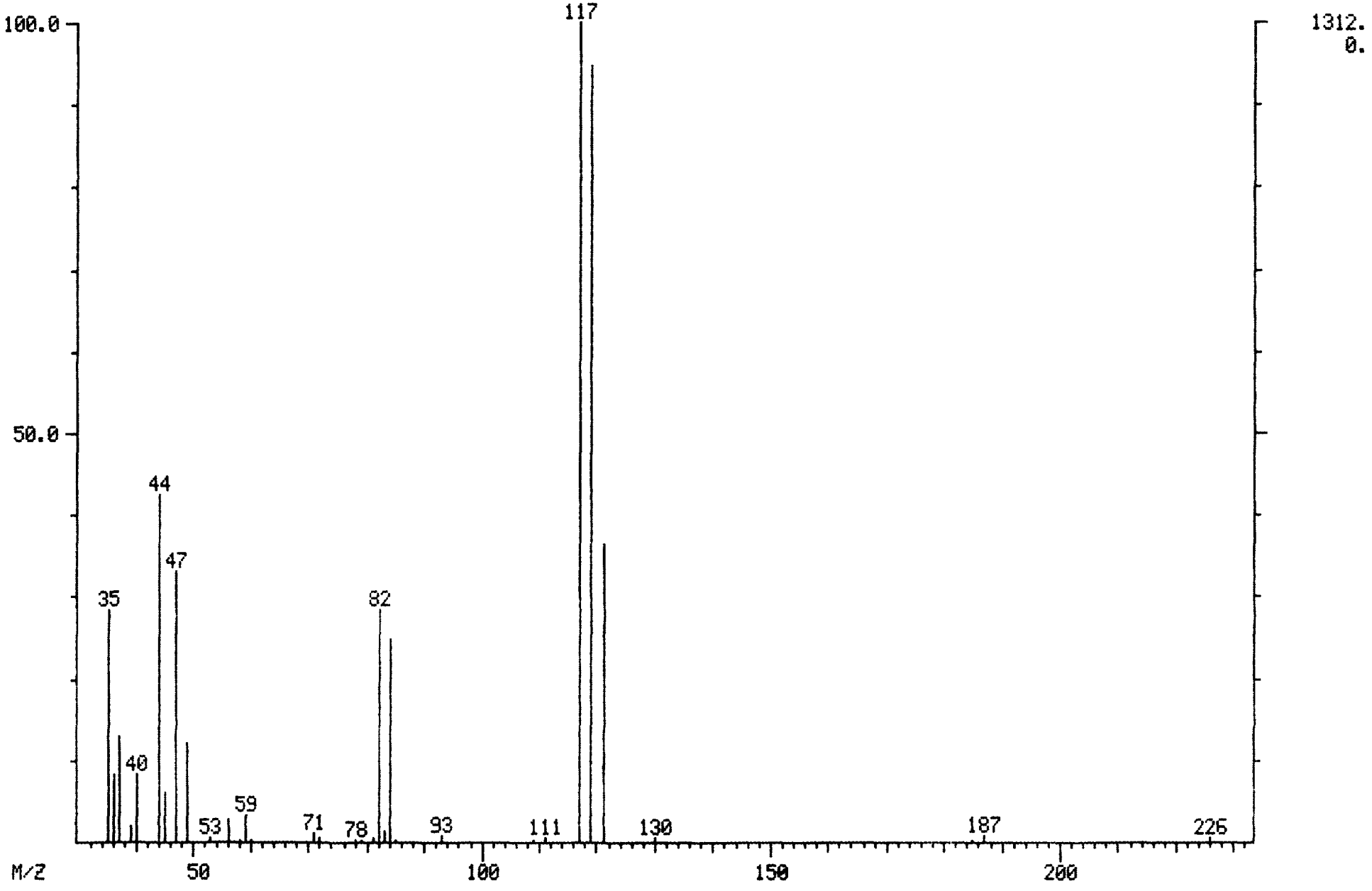
BASE M/Z: 97
RIC: 7848.



MASS SPECTRUM
06/27/89 19:56:00 + 14:32
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 136 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #436
CALI: MDL6231 #3

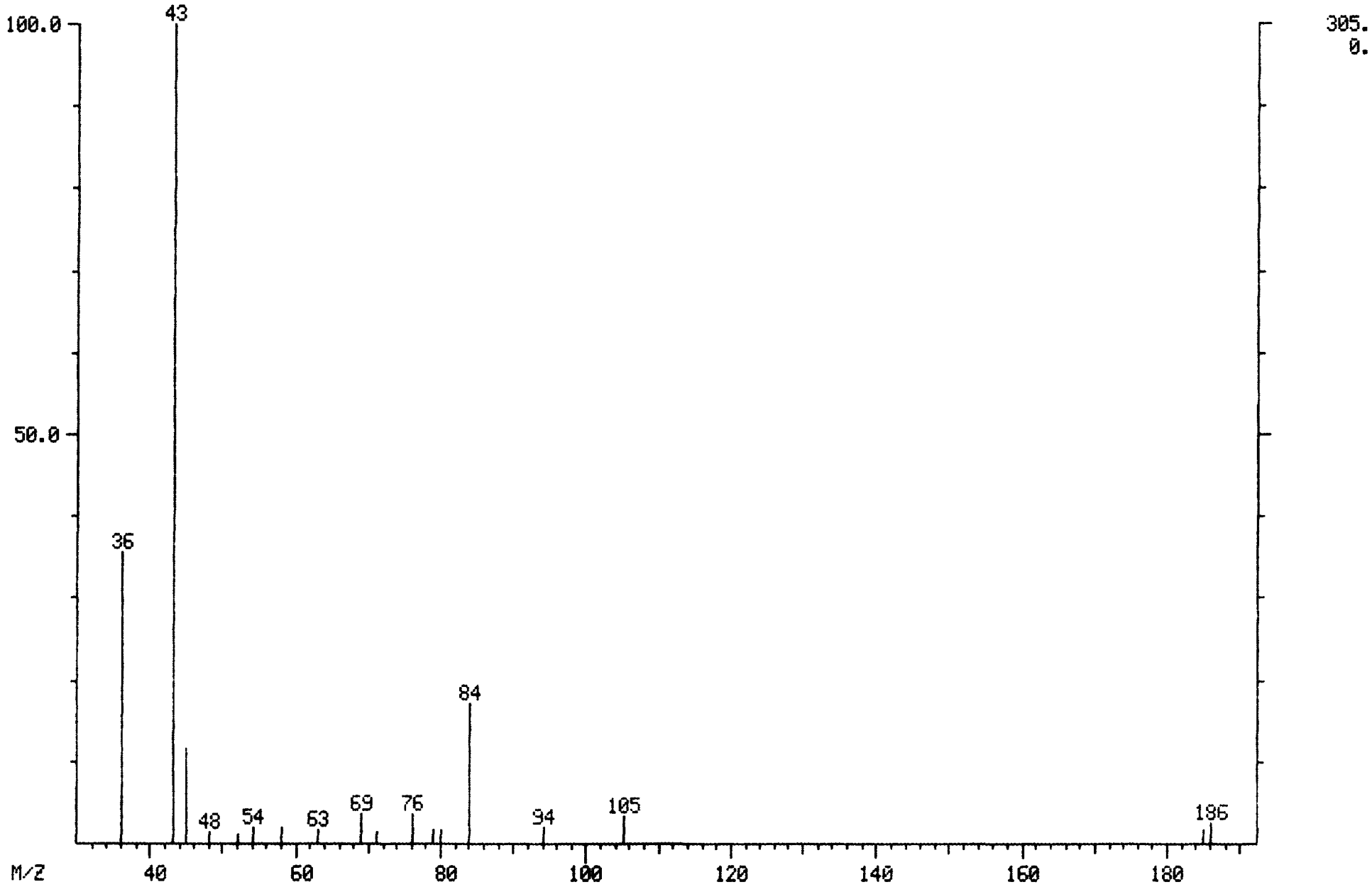
BASE M/Z: 117
RIC: 5960.



MASS SPECTRUM
06/27/89 19:56:00 + 14:40
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 137 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #440
CALI: MDL6231 #3

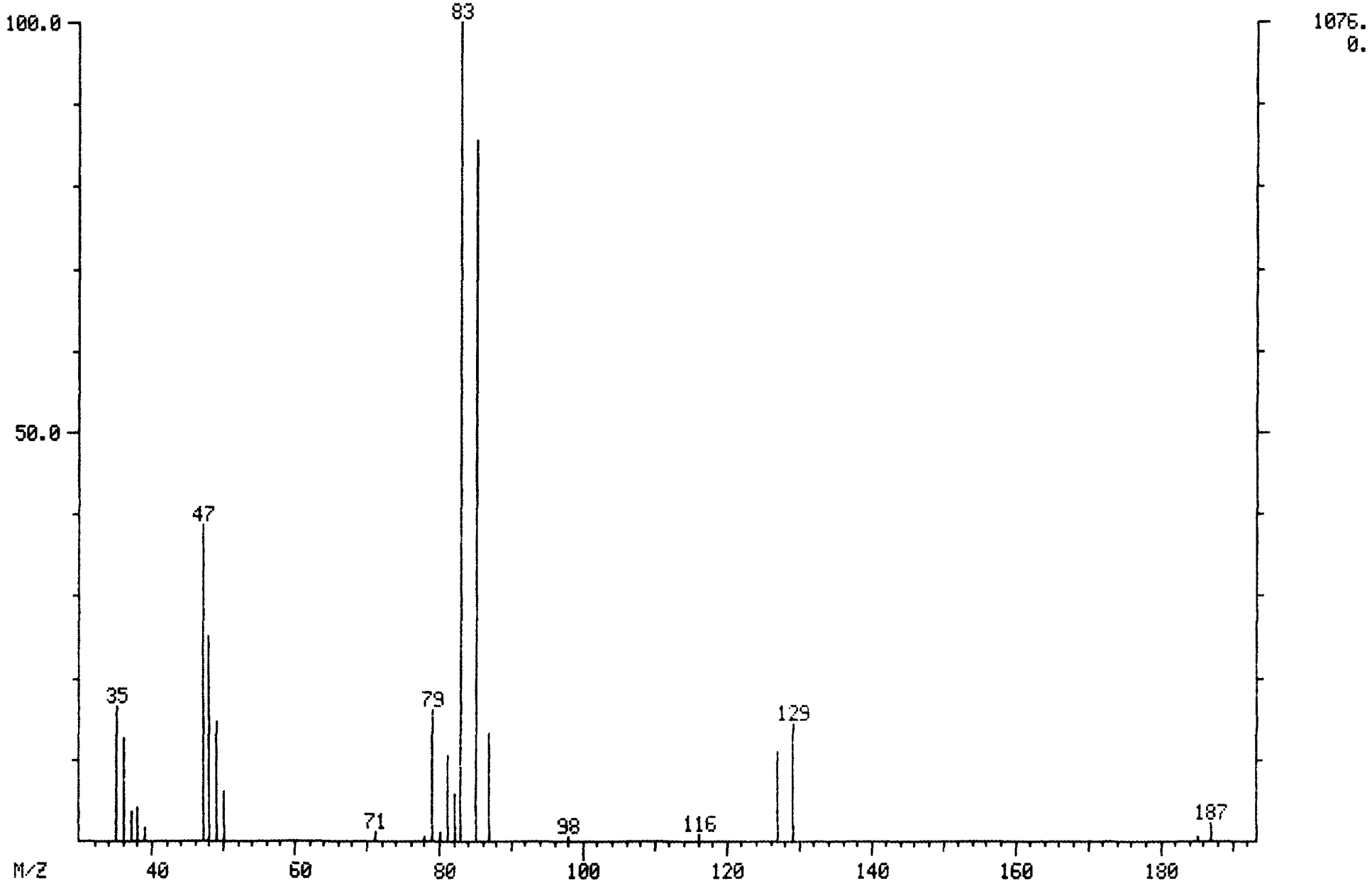
BASE M/Z: 43
RIC: 590.



MASS SPECTRUM
06/27/89 19:56:00 + 15:06
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 141 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #453
CALI: MDL6231 #3

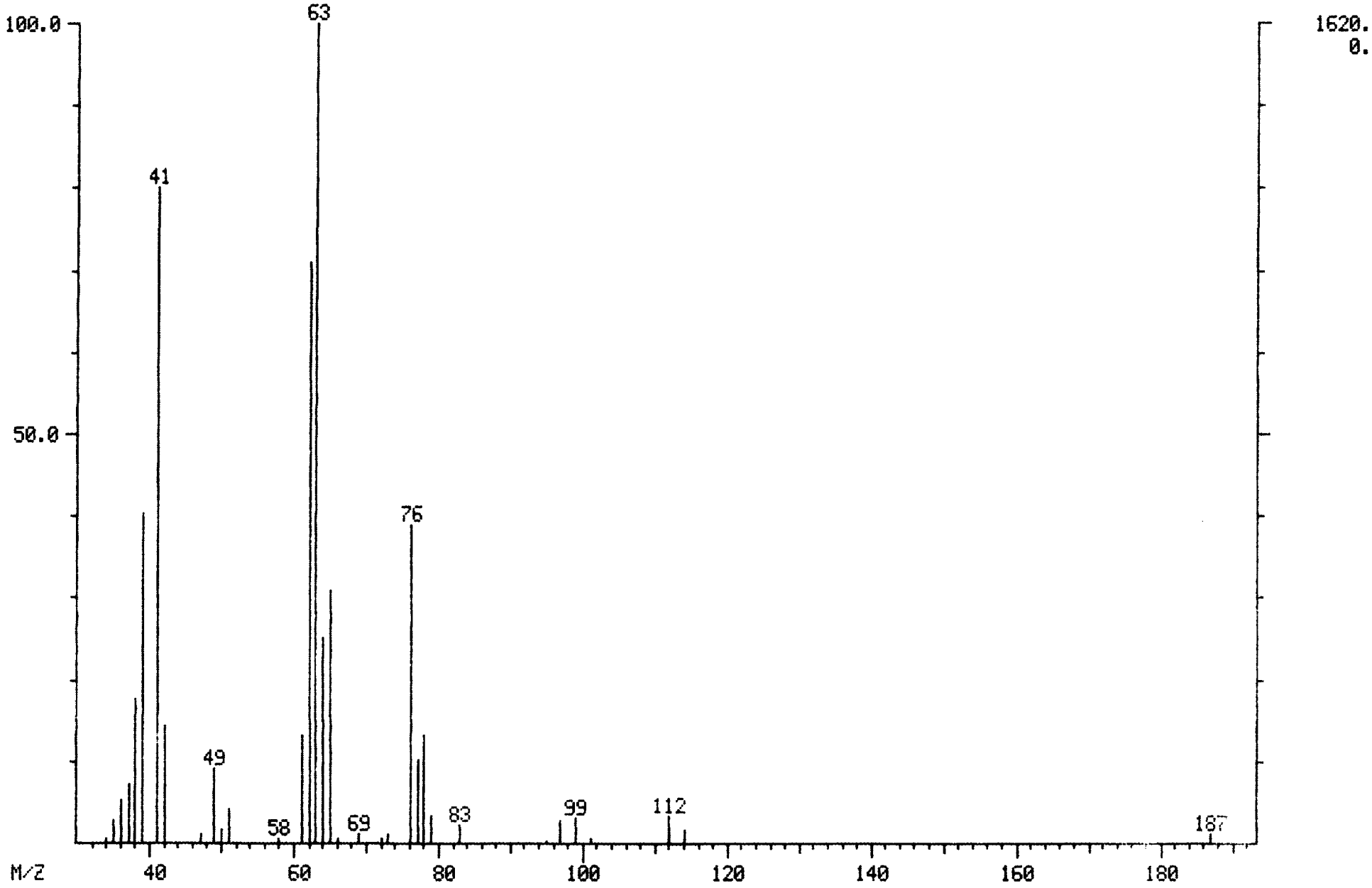
BASE M/Z: 83
RIC: 4184.



MASS SPECTRUM
06/27/89 19:56:00 + 16:24
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 151 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #492
CALI: MDL6231 #3

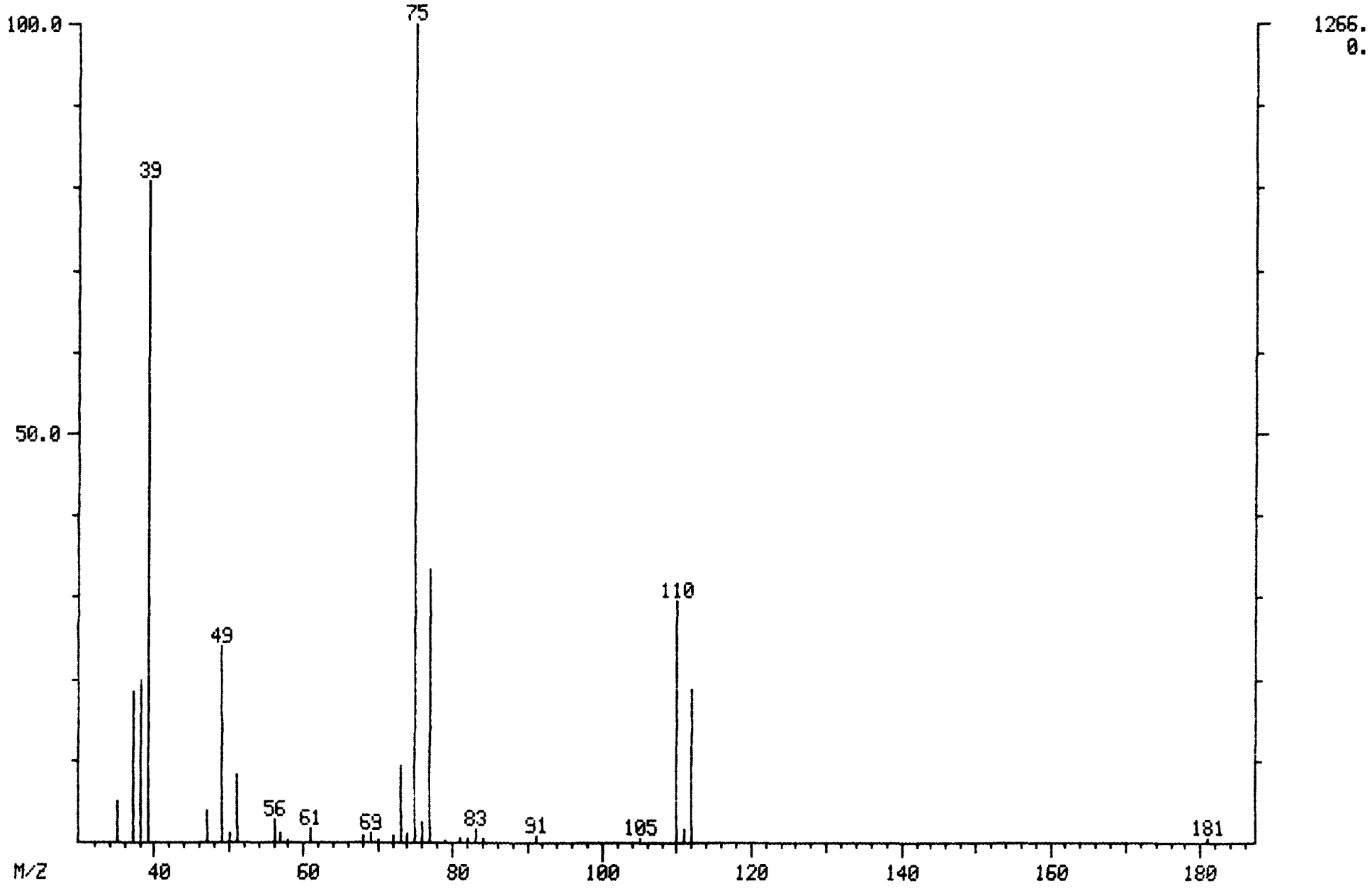
BASE M/Z: 63
RIC: 8272.



MASS SPECTRUM
06/27/89 19:56:00 + 16:42
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 154 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #501
CALI: MDL6231 #3

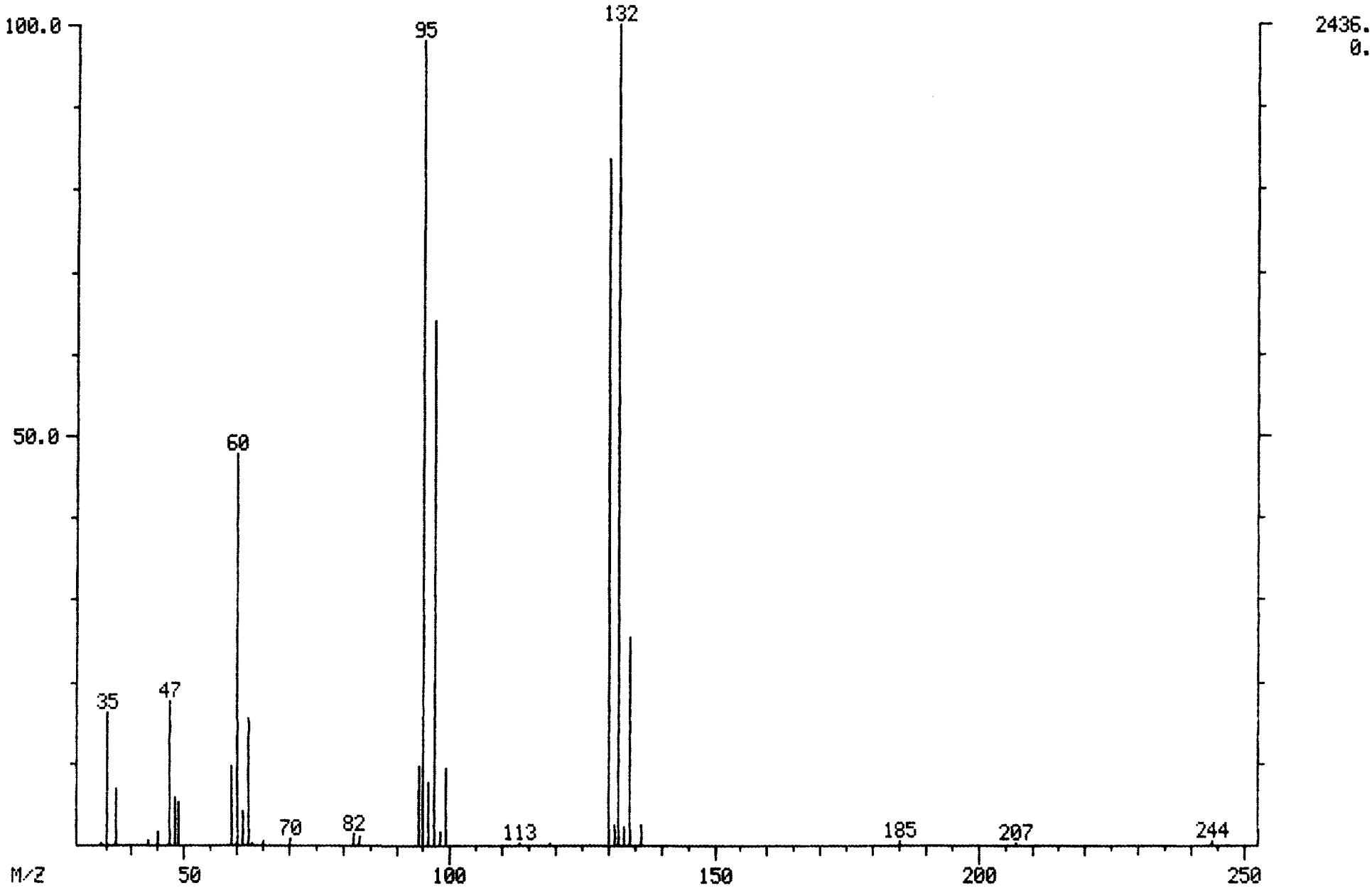
BASE M/Z: 75
RIC: 4736.



MASS SPECTRUM
06/27/89 19:56:00 + 17:14
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 158 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #517
CALI: MDL6231 #3

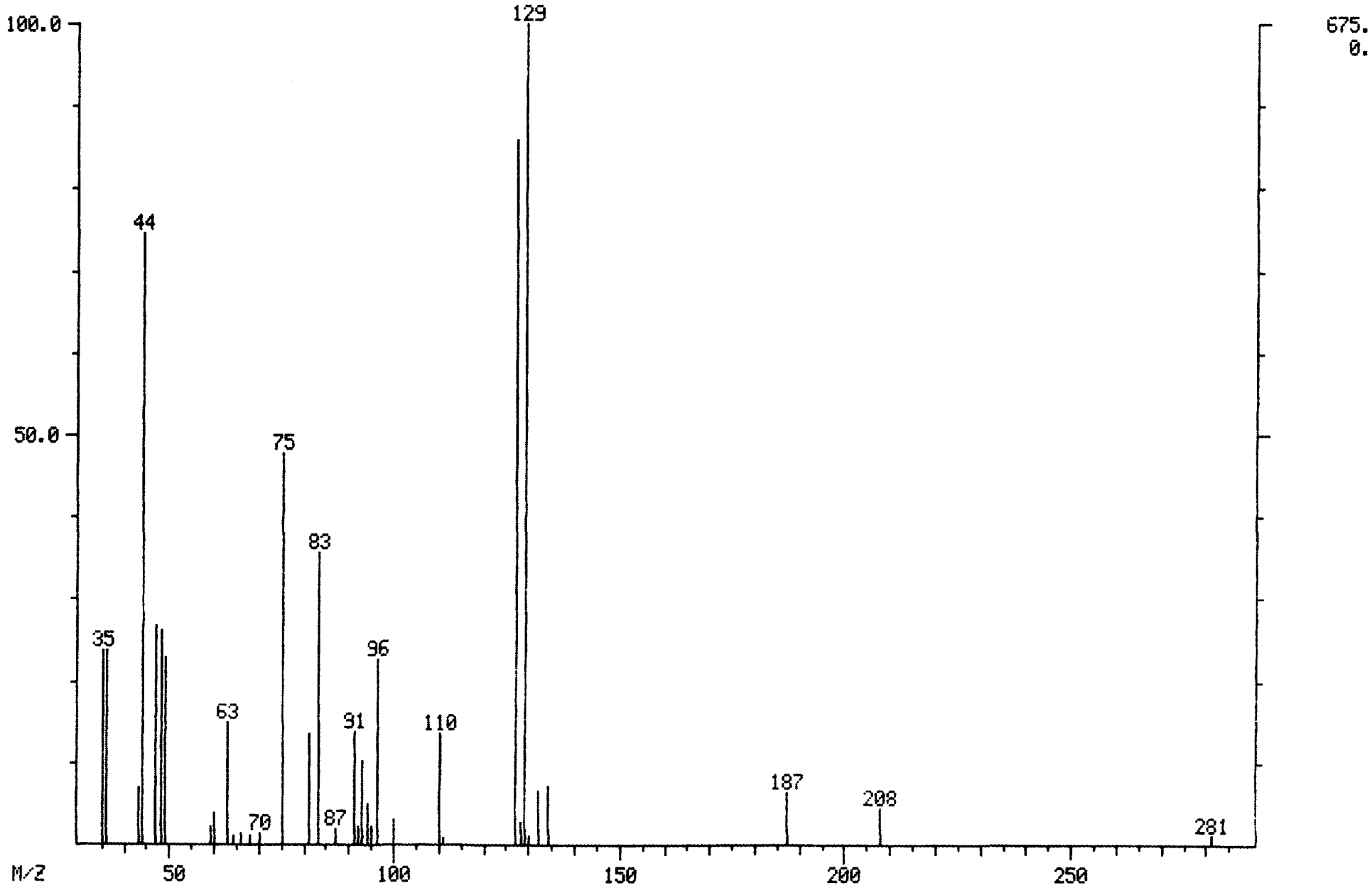
BASE M/Z: 132
RIC: 13296.



MASS SPECTRUM
06/27/89 19:56:00 + 17:54
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 163 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #537
CALI: MDL6231 #3

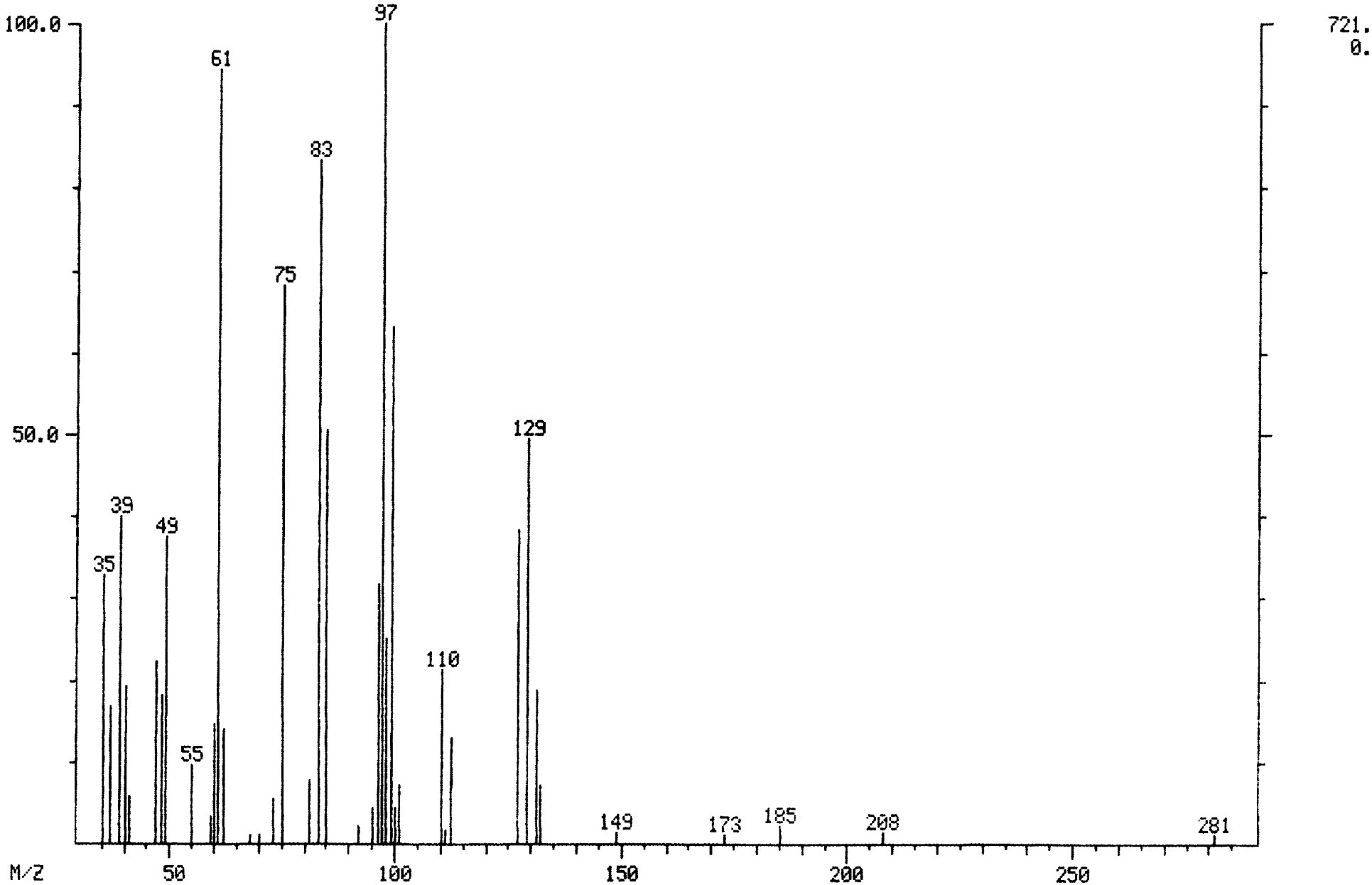
BASE M/Z: 129
RIC: 4184.



MASS SPECTRUM
06/27/89 19:56:00 + 17:58
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 164 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #539
CALI: MDL6231 #3

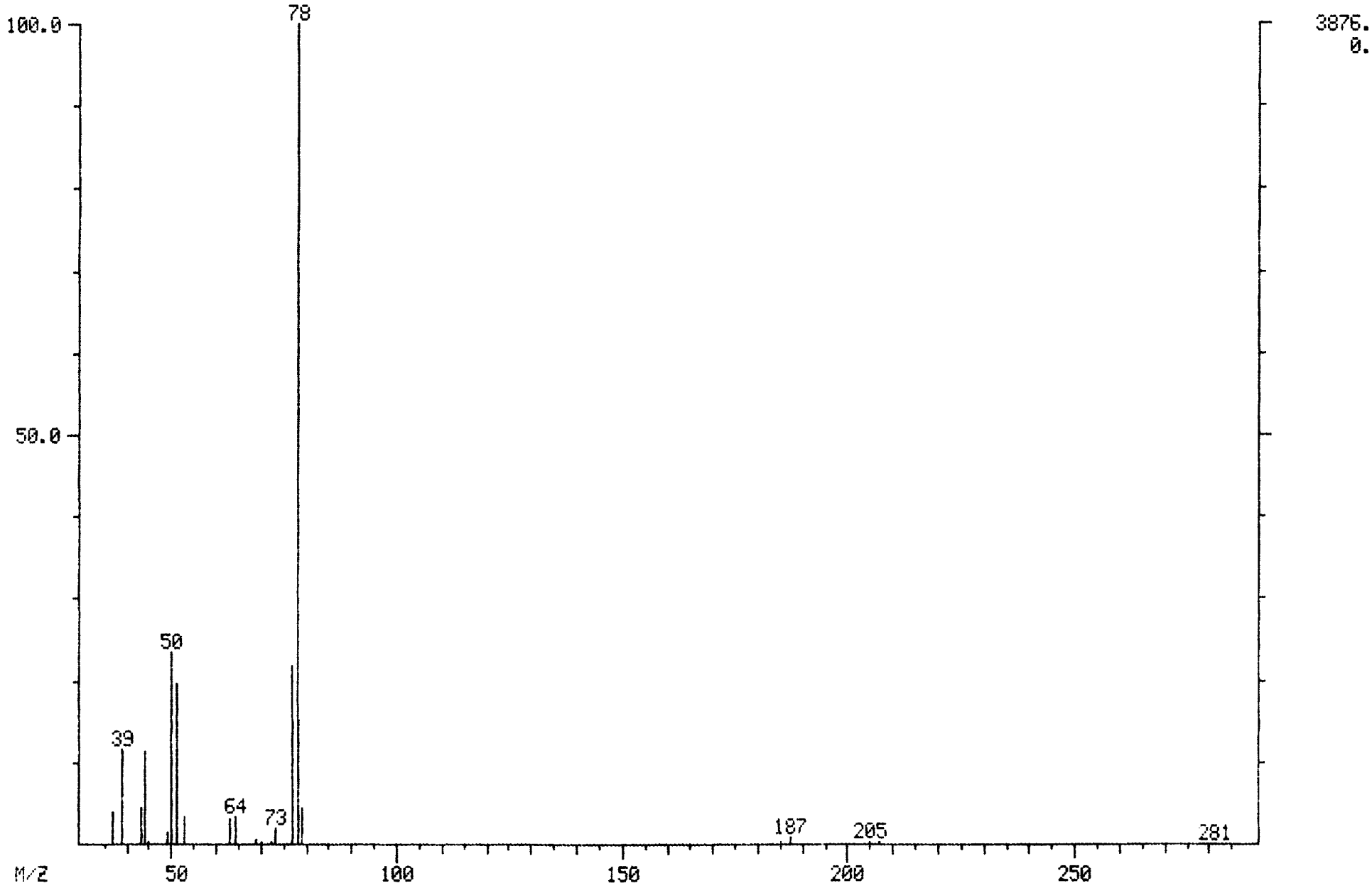
BASE M/Z: 97
RIC: 6816.



MASS SPECTRUM
06/27/89 19:56:00 + 17:42
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 162 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #531
CALI: MDL6231 #3

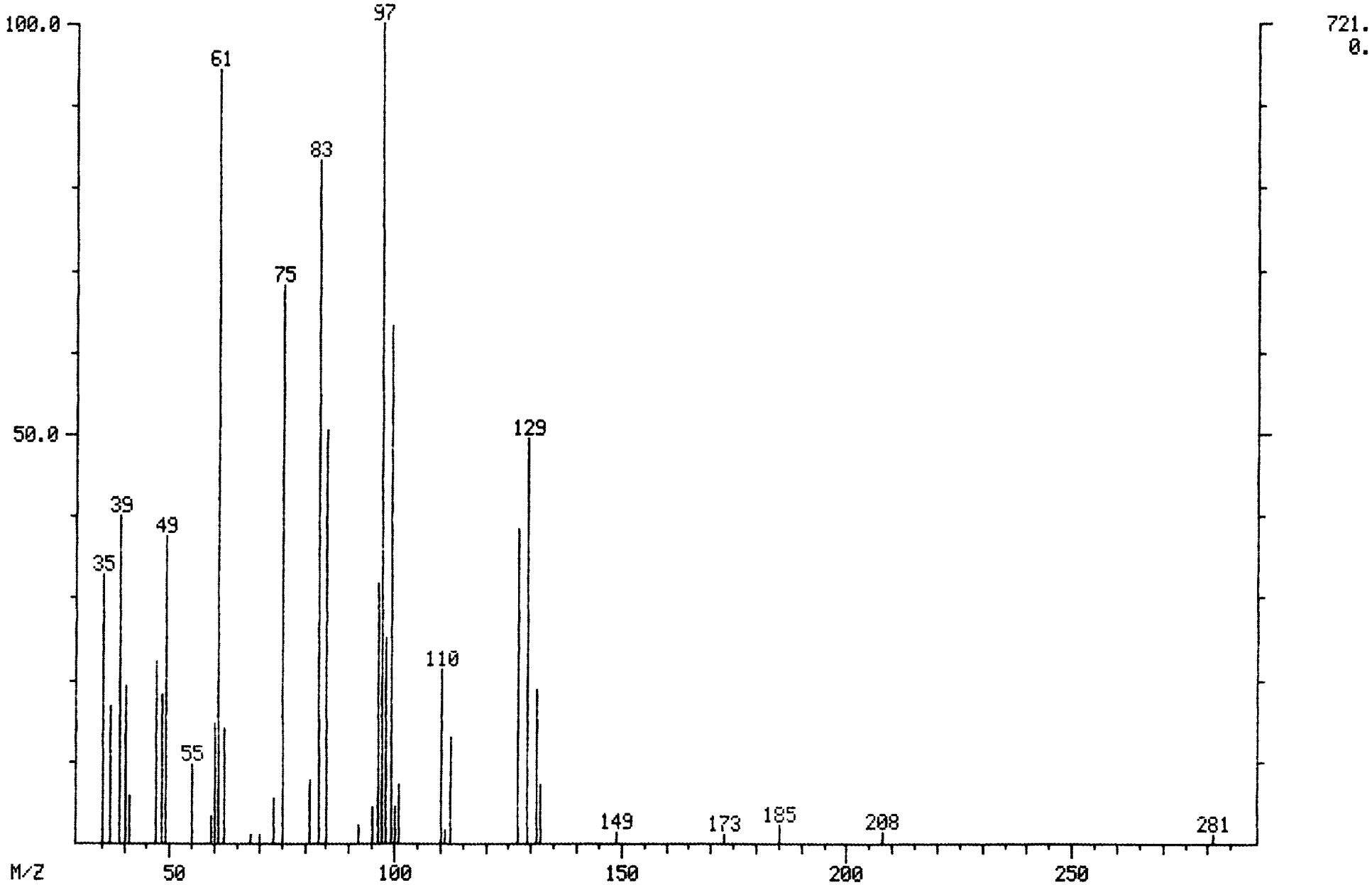
BASE M/Z: 78
RIC: 8416.



MASS SPECTRUM
06/27/89 19:56:00 + 17:58
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 164 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #539
CALI: MDL6231 #3

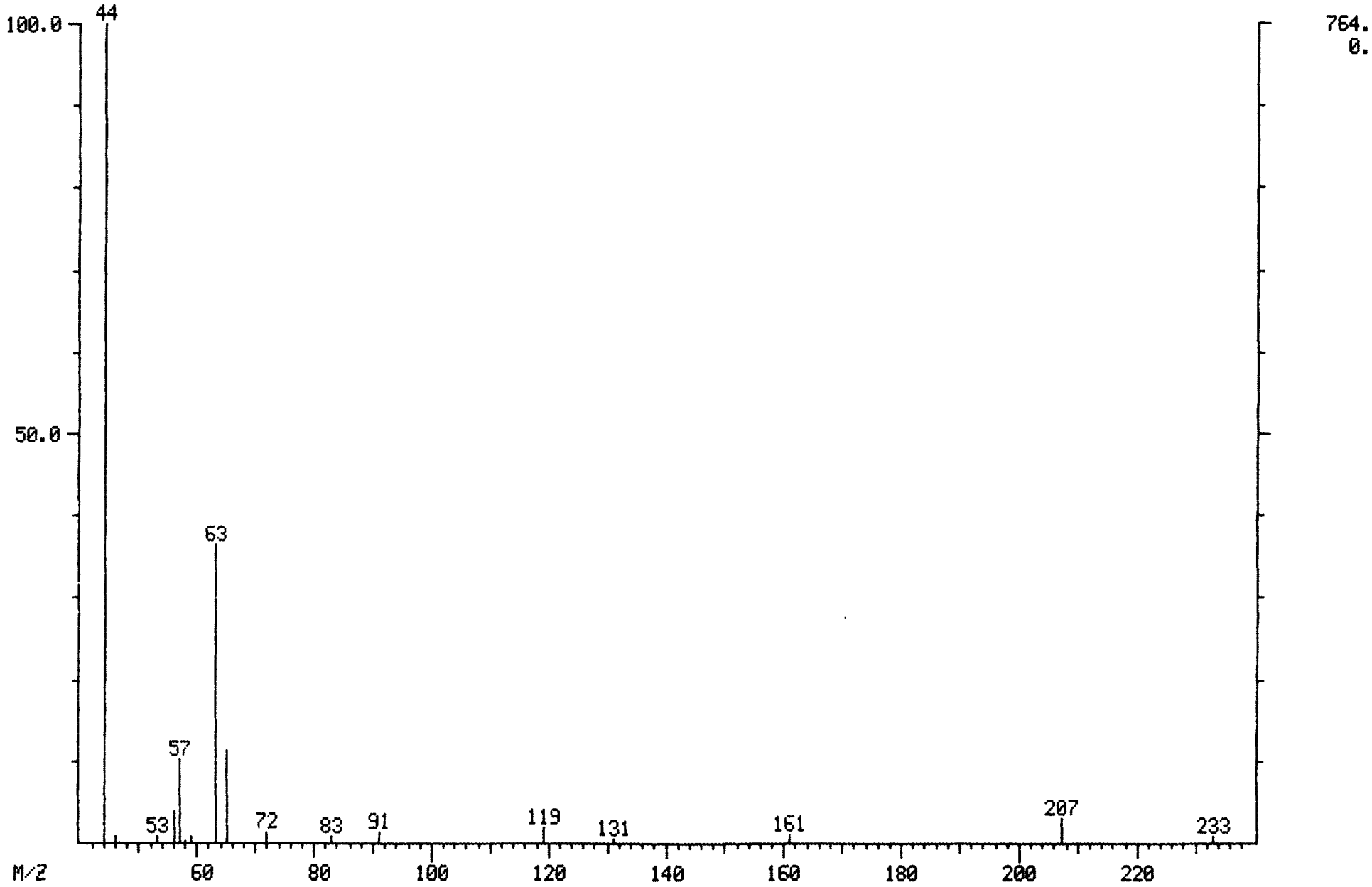
BASE M/Z: 97
RIC: 6816.



MASS SPECTRUM
06/27/89 19:56:00 + 19:04
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 173 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #572
CALI: MDL6231 #3

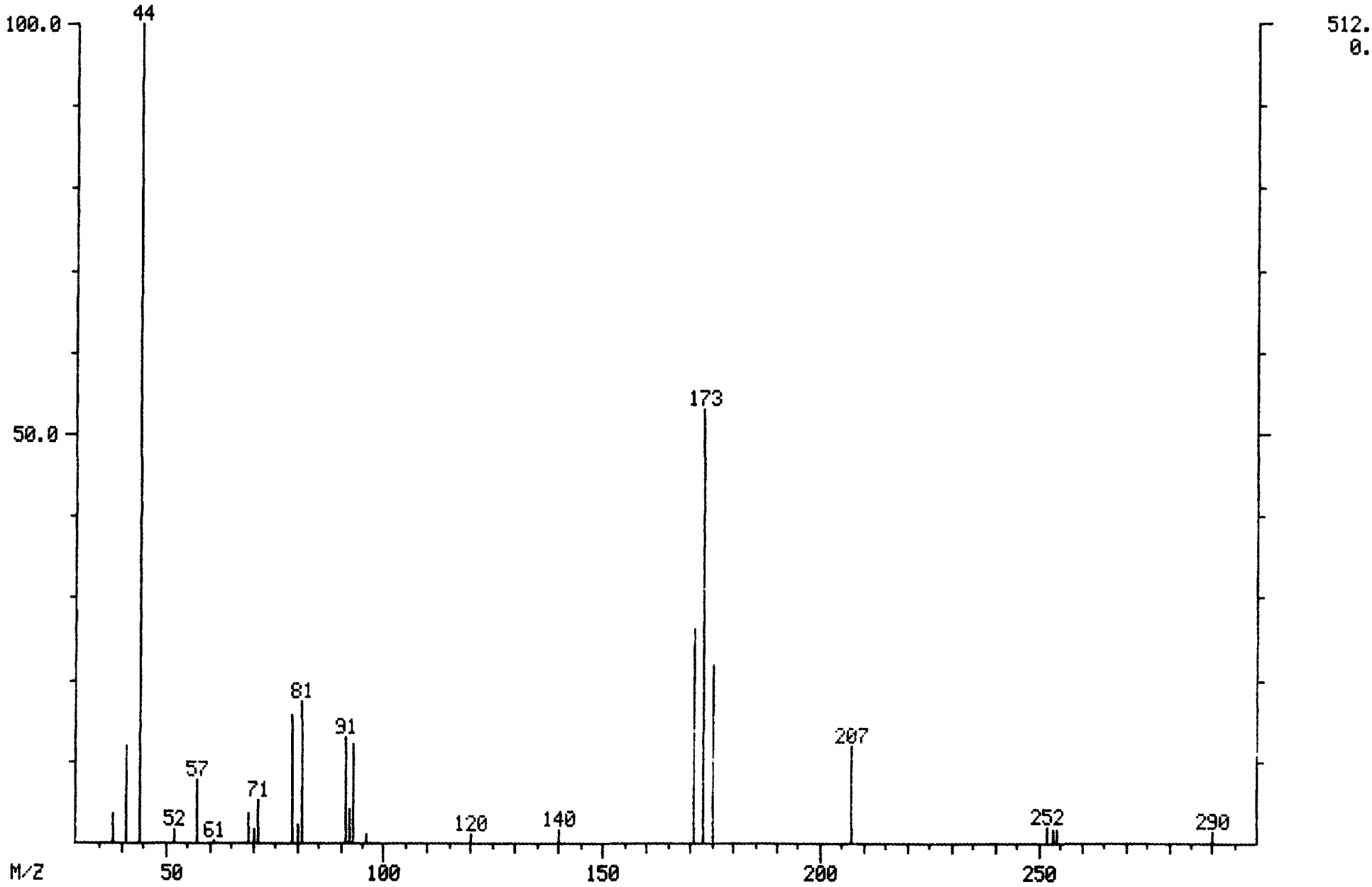
BASE M/Z: 44
RIC: 1346.



MASS SPECTRUM
06/27/89 19:56:00 + 20:38
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 185 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #619
CALI: MDL6231 #3

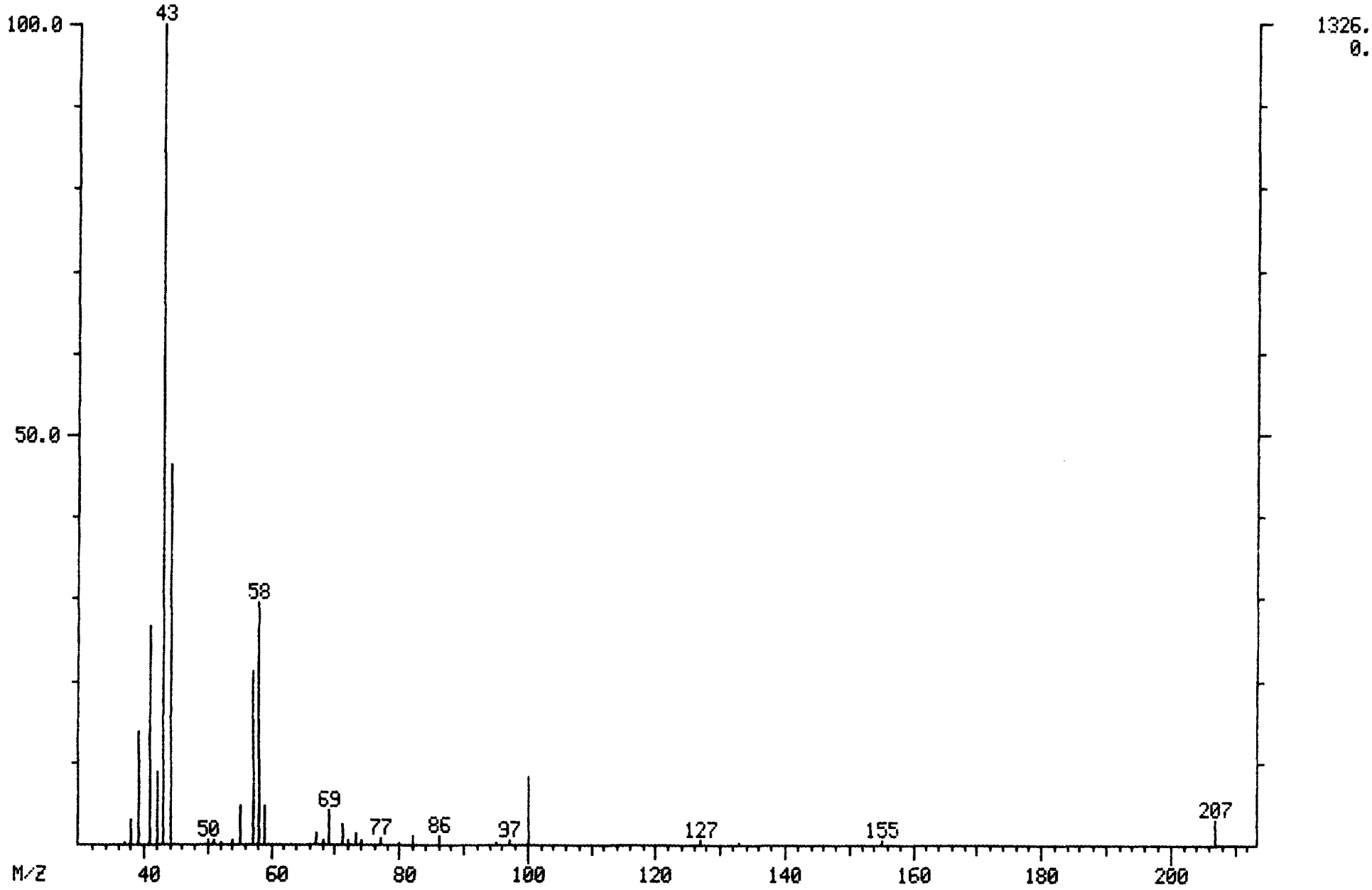
BASE M/Z: 44
RIC: 1658.



MASS SPECTRUM
06/27/89 19:56:00 + 21:00
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 188 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #630
CALI: MDL6231 #3

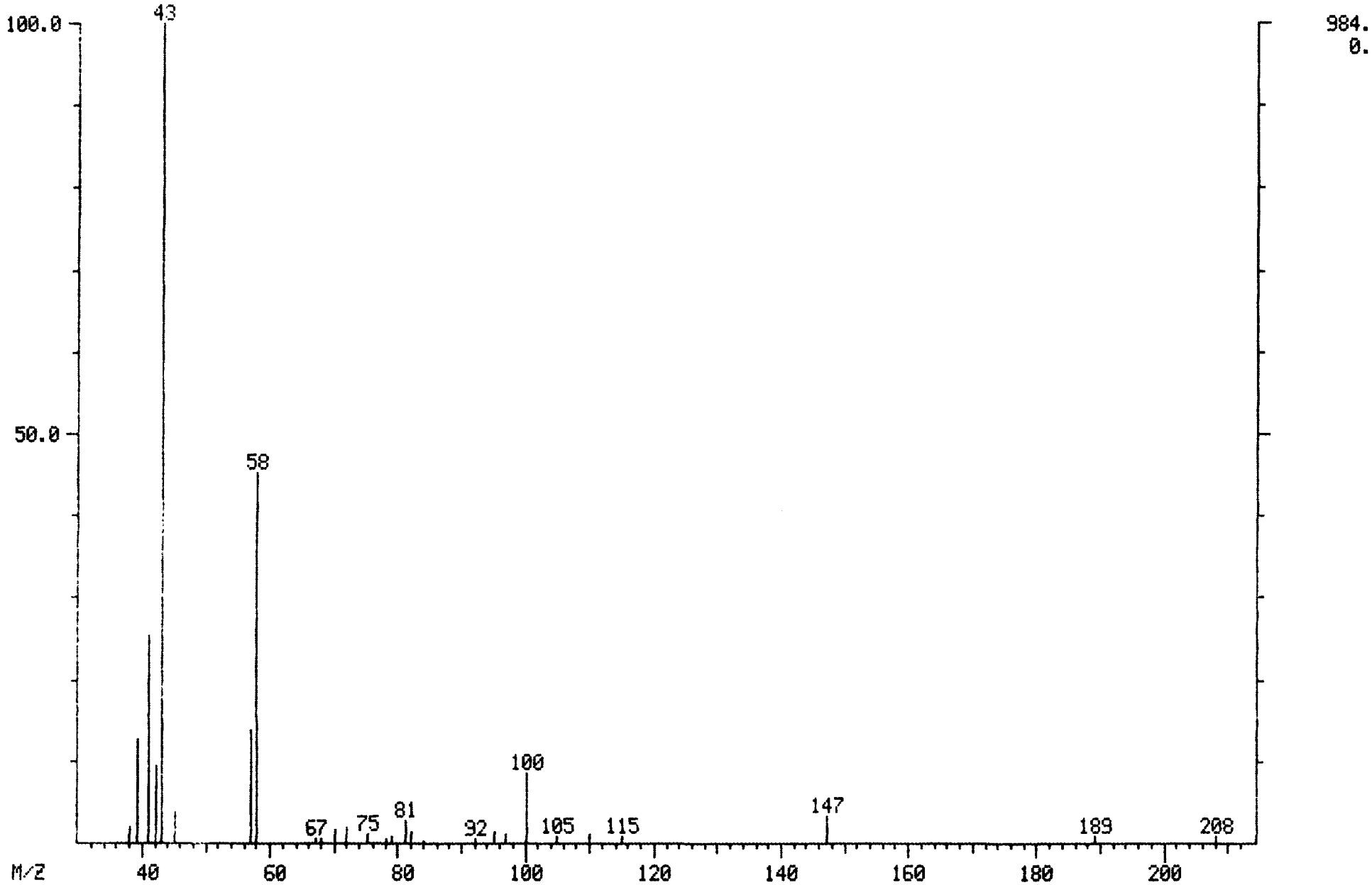
BASE M/Z: 43
RIC: 3856.



MASS SPECTRUM
06/27/89 19:56:00 + 22:34
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 200 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #677
CALI: MDL6231 #3

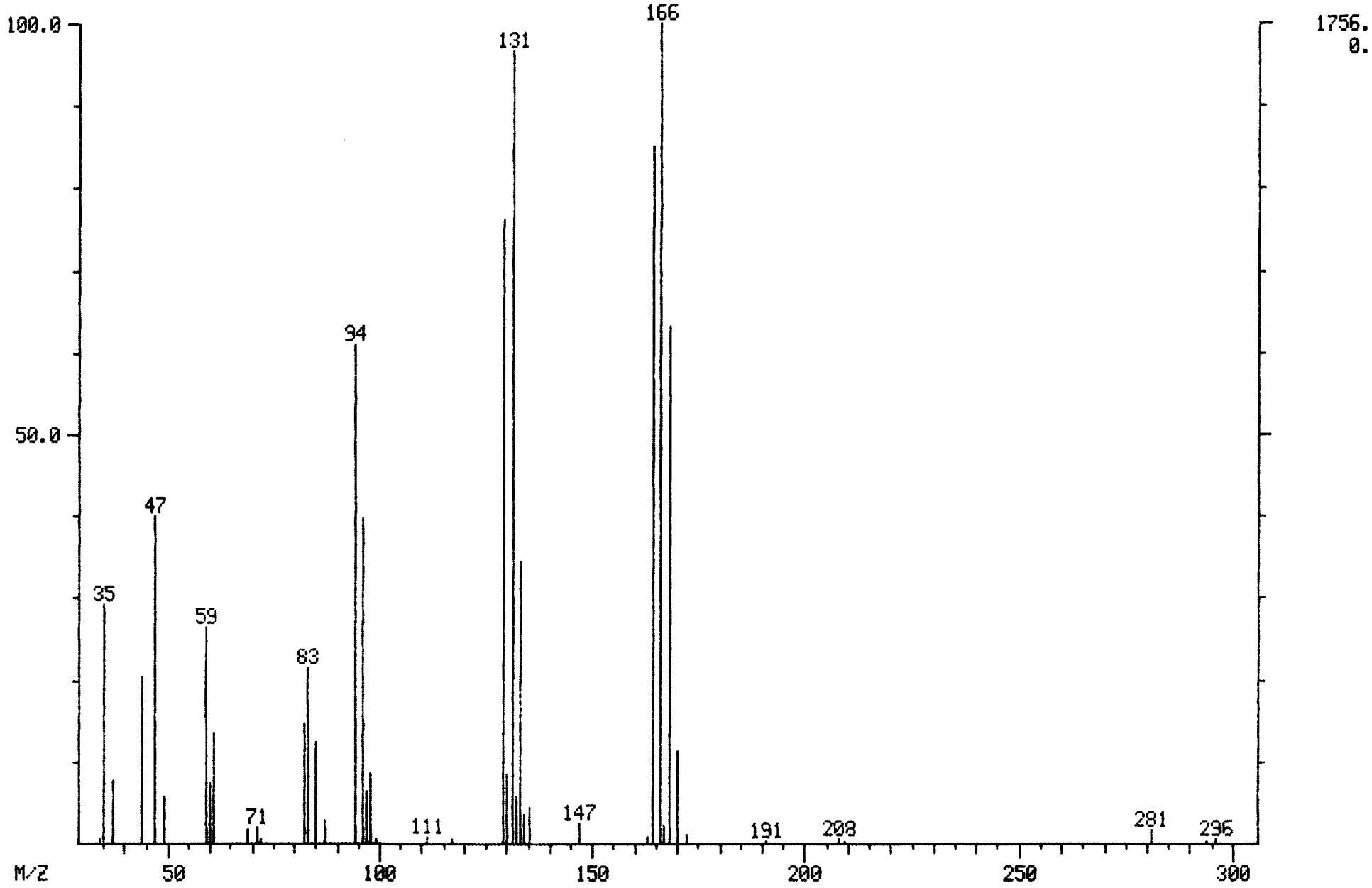
BASE M/Z: 43
RIC: 2404.



MASS SPECTRUM
06/27/89 19:56:00 + 22:56
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 203 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #688
CALI: MDL6231 #3

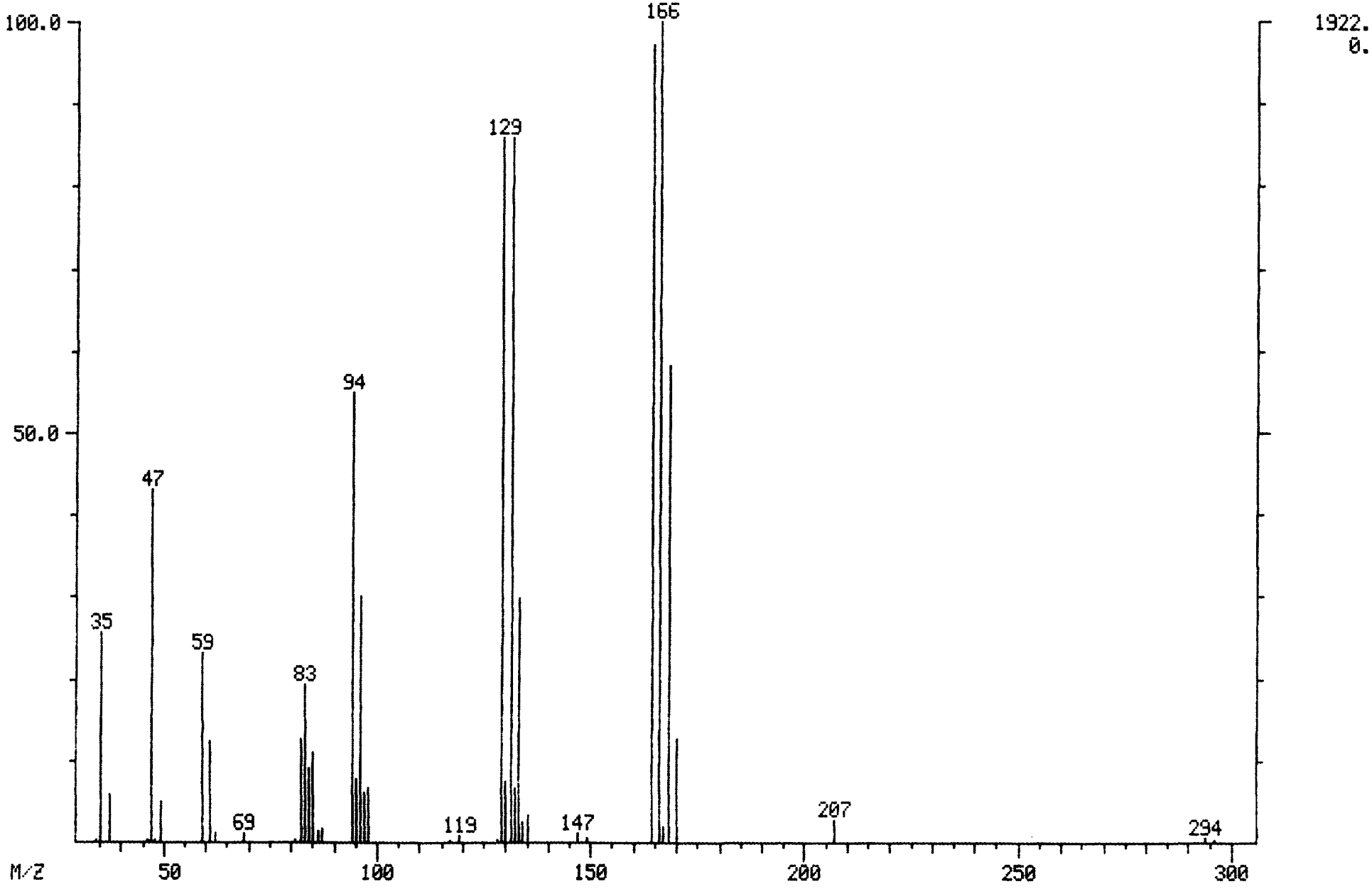
BASE M/Z: 166
RIC: 14480.



MASS SPECTRUM
06/27/89 19:56:00 + 22:54
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 203 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #687
CALI: MDL6231 #3

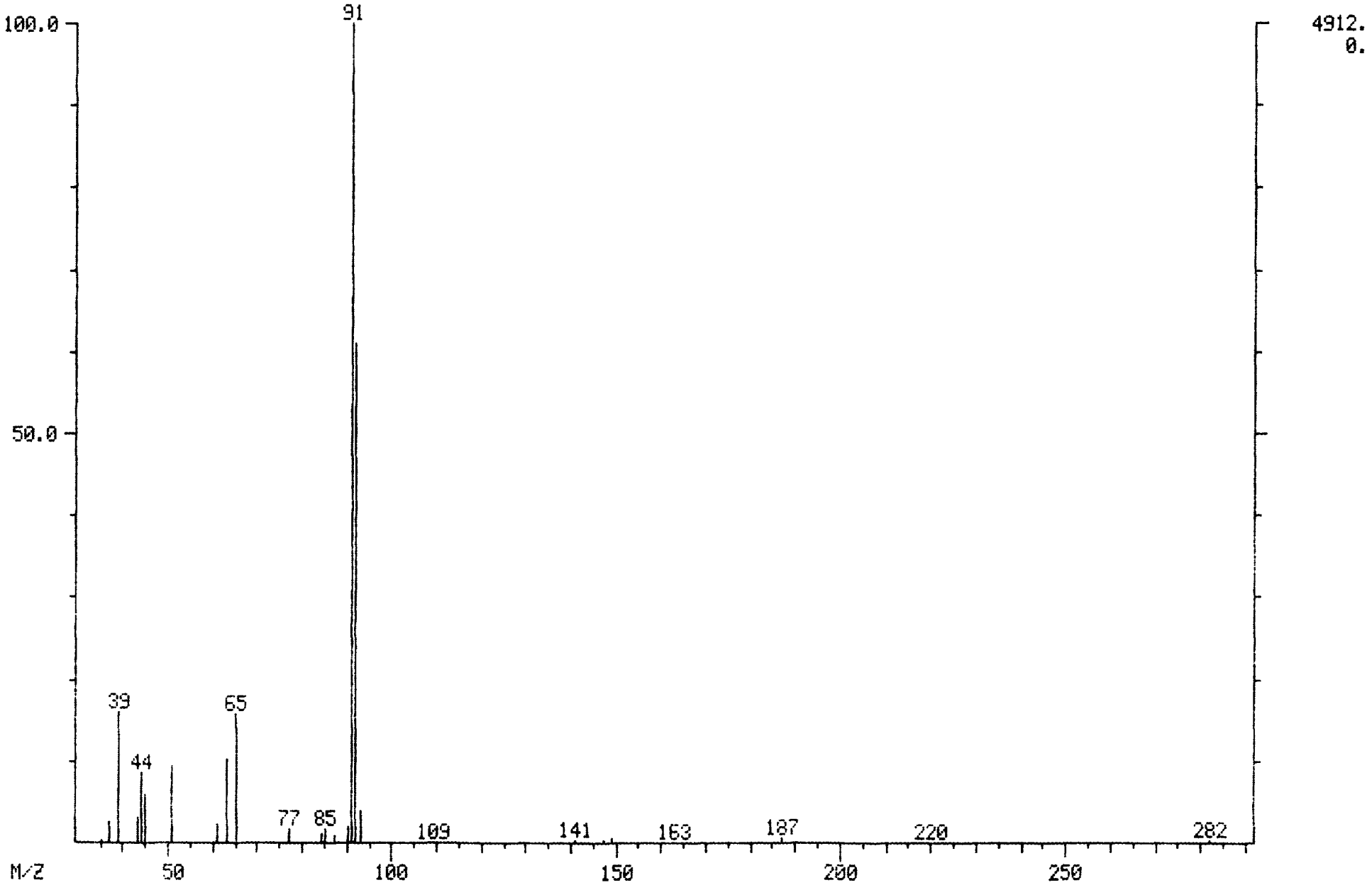
BASE M/Z: 166
RIC: 14960.



MASS SPECTRUM
06/27/89 19:56:00 + 24:12
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 214 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #726
CALI: MDL6231 #3

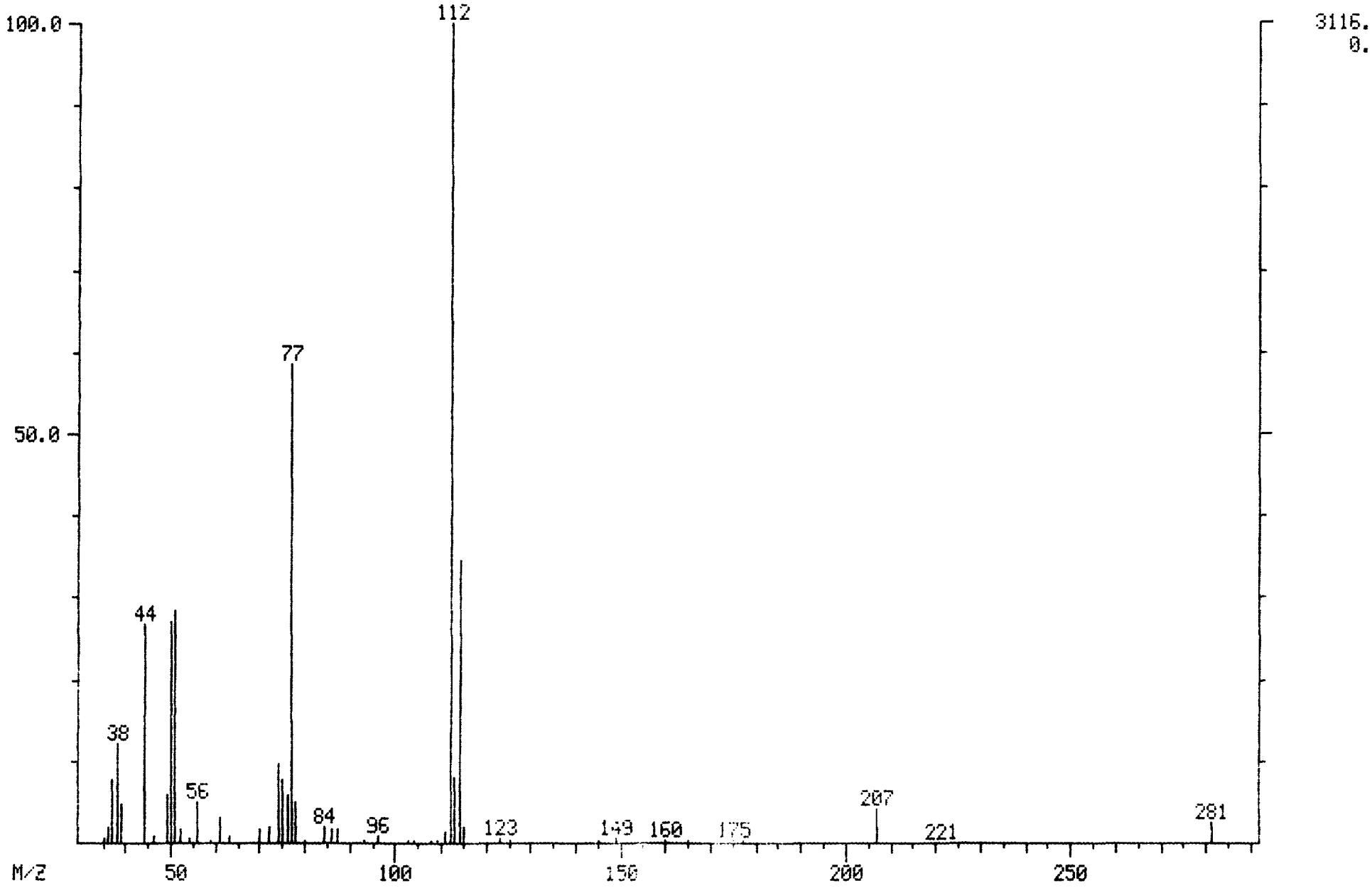
BASE M/Z: 91
RIC: 12192.



MASS SPECTRUM
06/27/89 19:56:00 + 25:22
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 220 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #761
CALI: MDL6231 #3

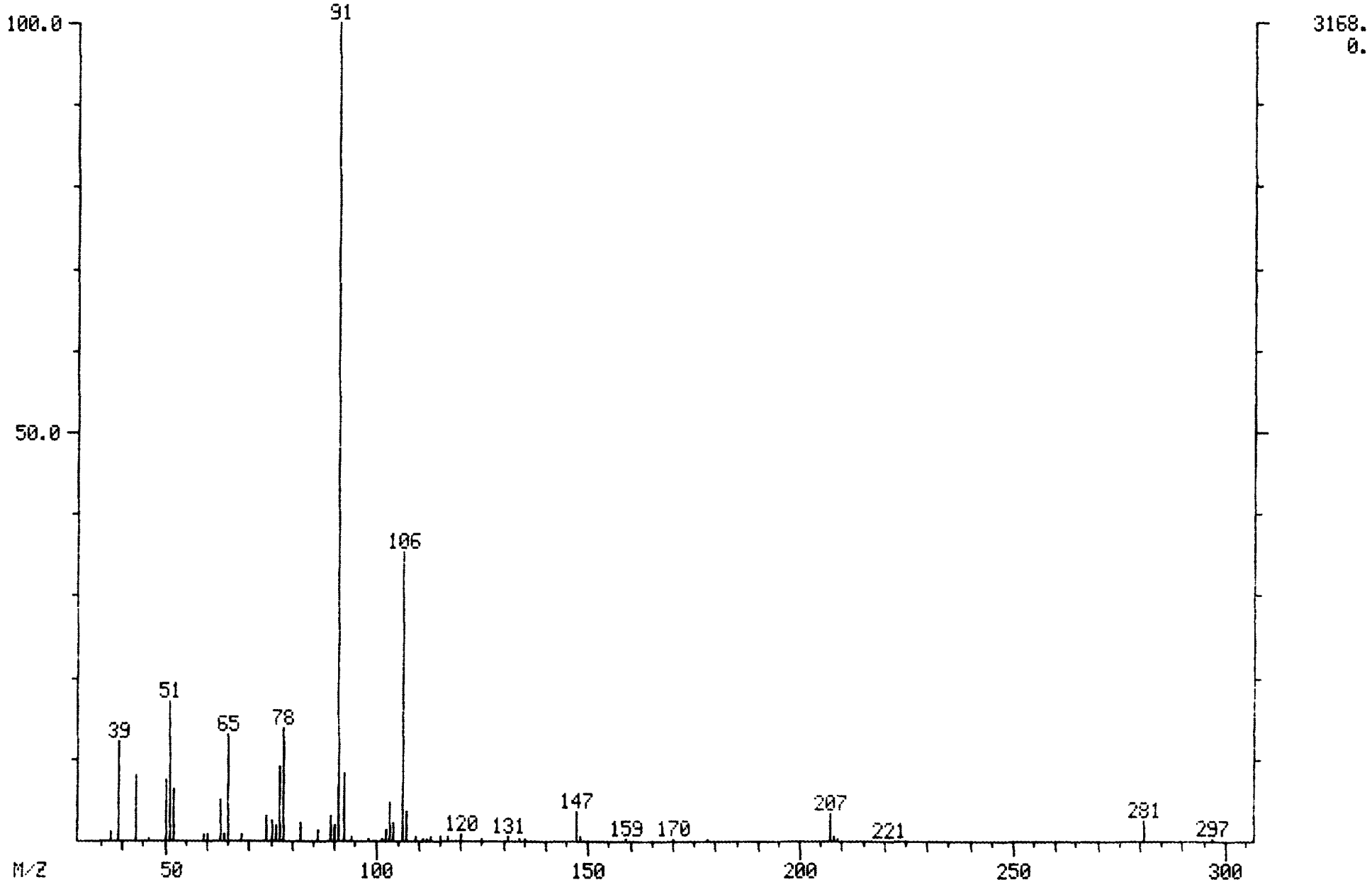
BASE M/Z: 112
RIC: 11856.



MASS SPECTRUM
06/27/89 19:56:00 + 27:28
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #824
CALI: MDL6231 #3

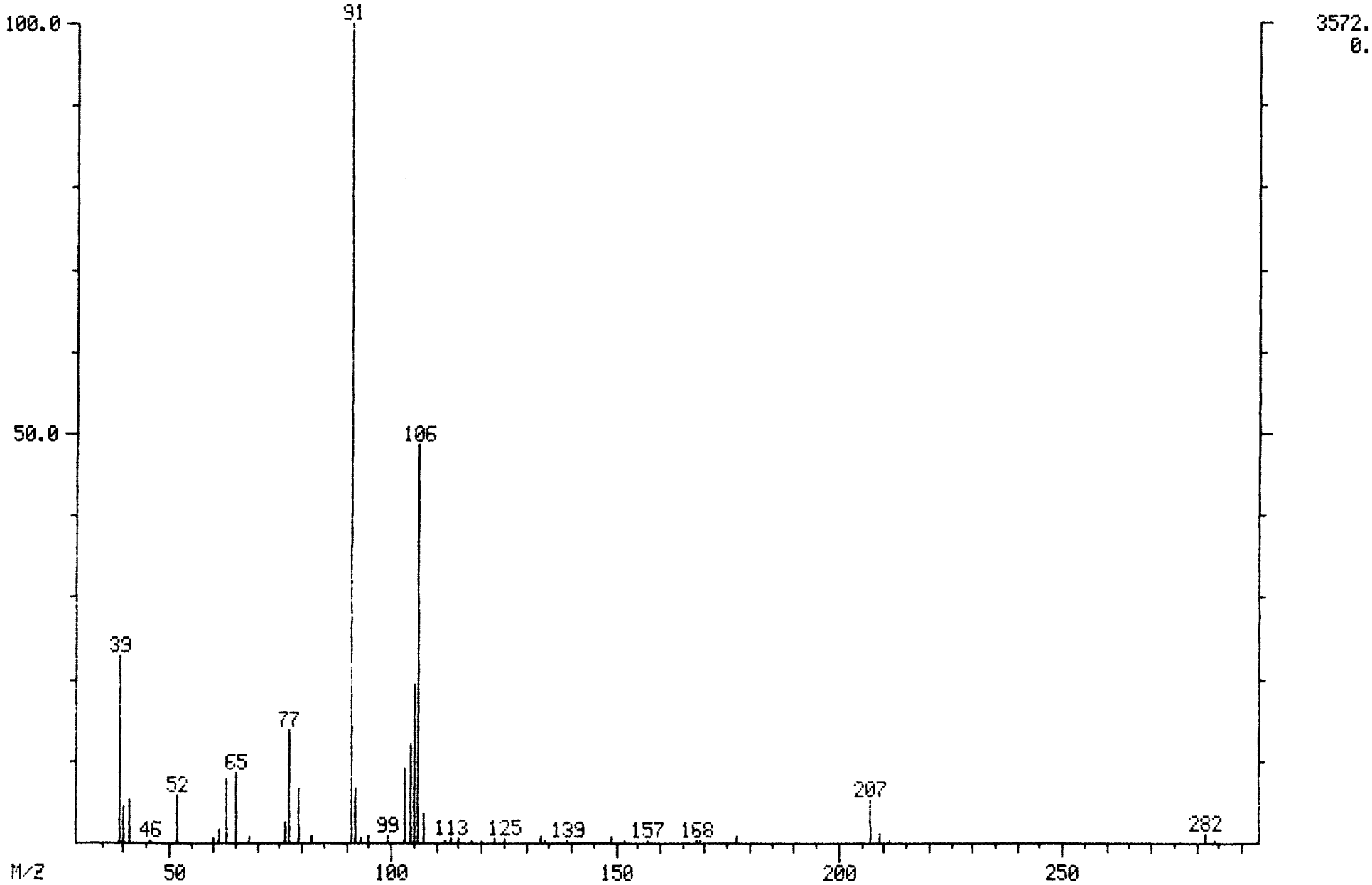
BASE M/Z: 91
RIC: 9024.



MASS SPECTRUM
06/27/89 19:56:00 + 32:00
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #960
CALI: MDL6231 #3

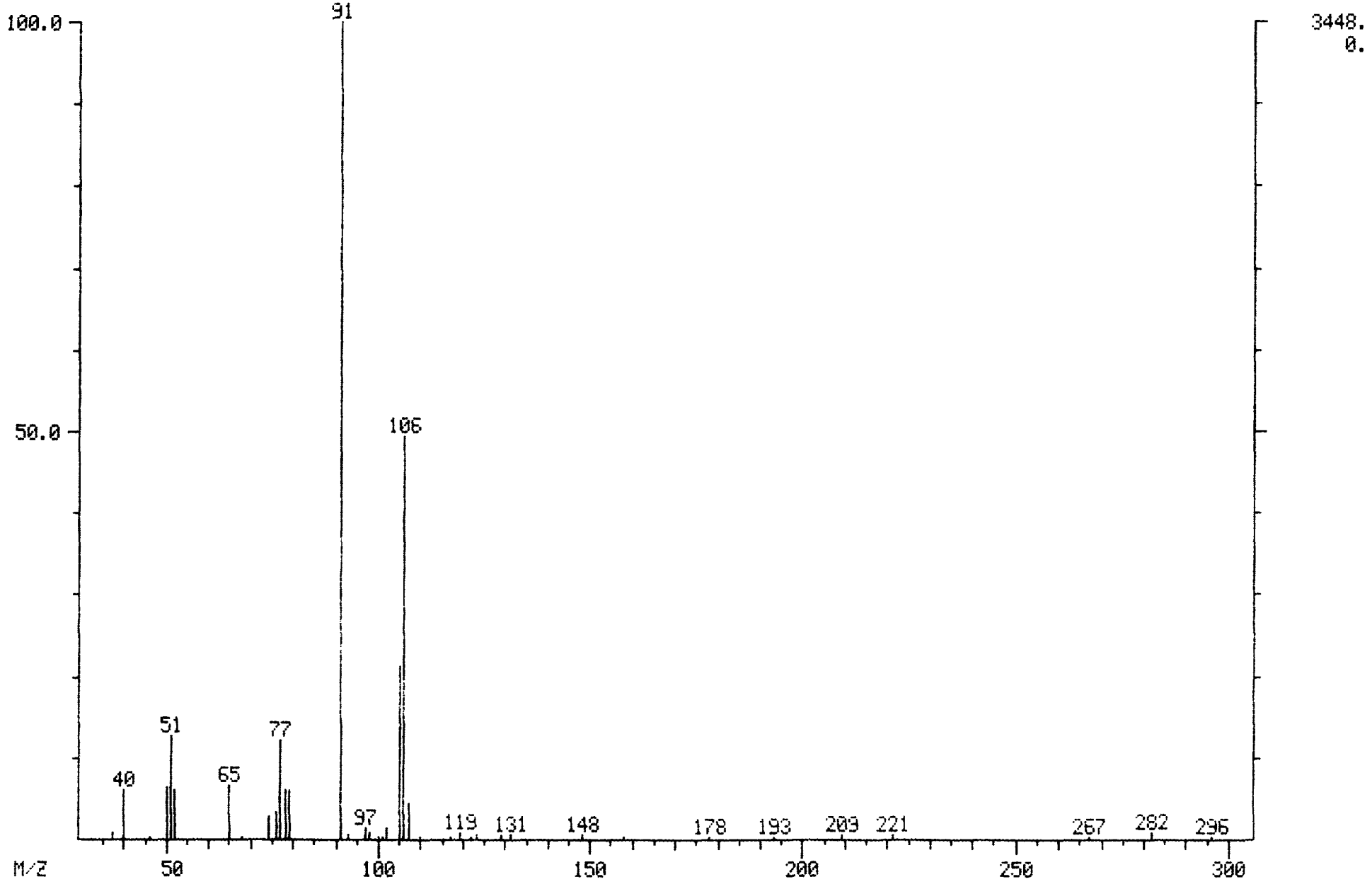
BASE M/Z: 91
RIC: 10656.



MASS SPECTRUM
06/27/89 19:56:00 + 33:08
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #994
CALI: MDL6231 #3

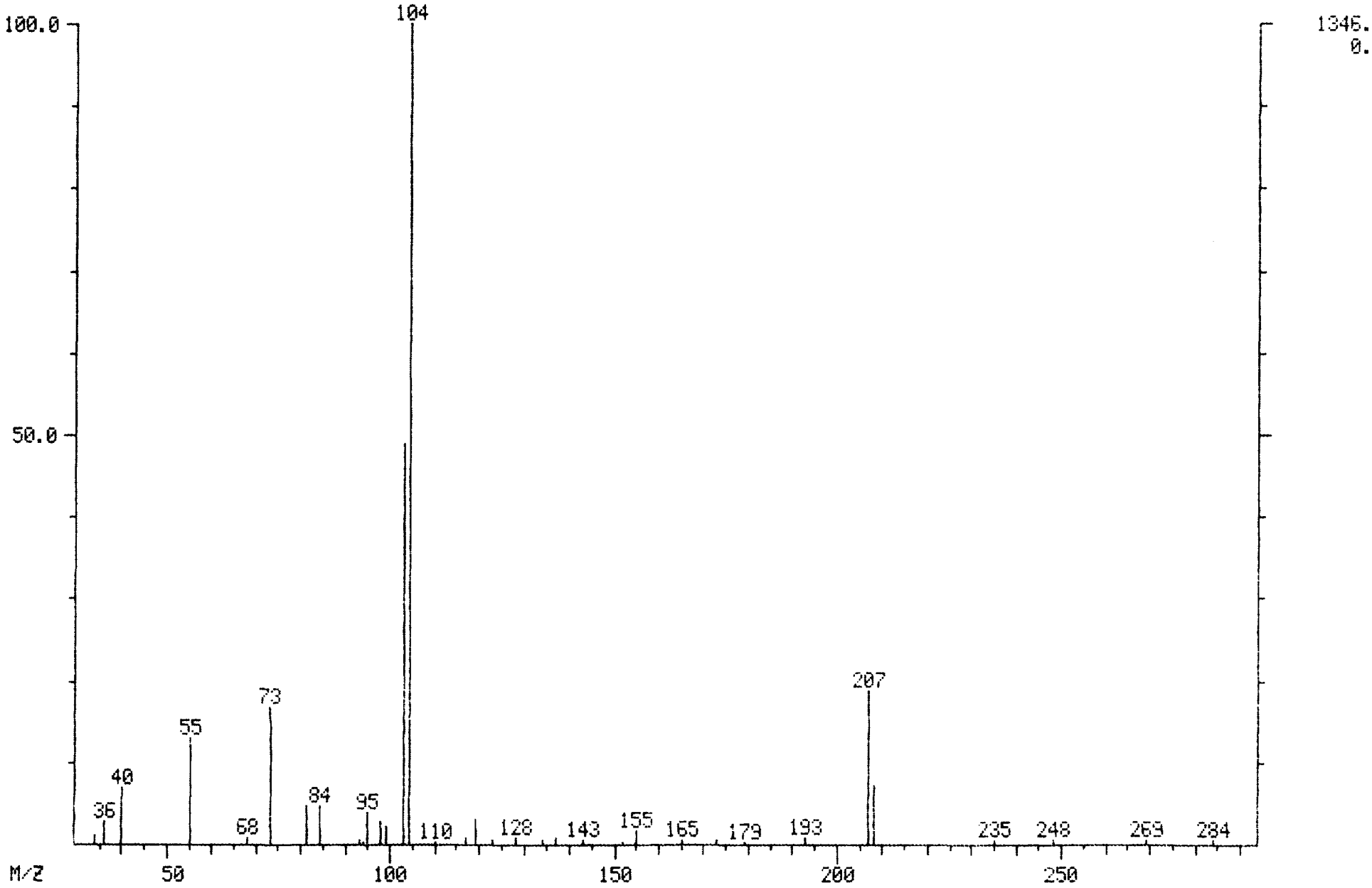
BASE M/Z: 91
RIC: 8832.



MASS SPECTRUM
06/27/89 19:56:00 + 31:42
SAMPLE: CLP,6231,,MDL6231,L,W,,V,EPA,
CONDS.: 45' (3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: MDL6231 #951
CALI: MDL6231 #3

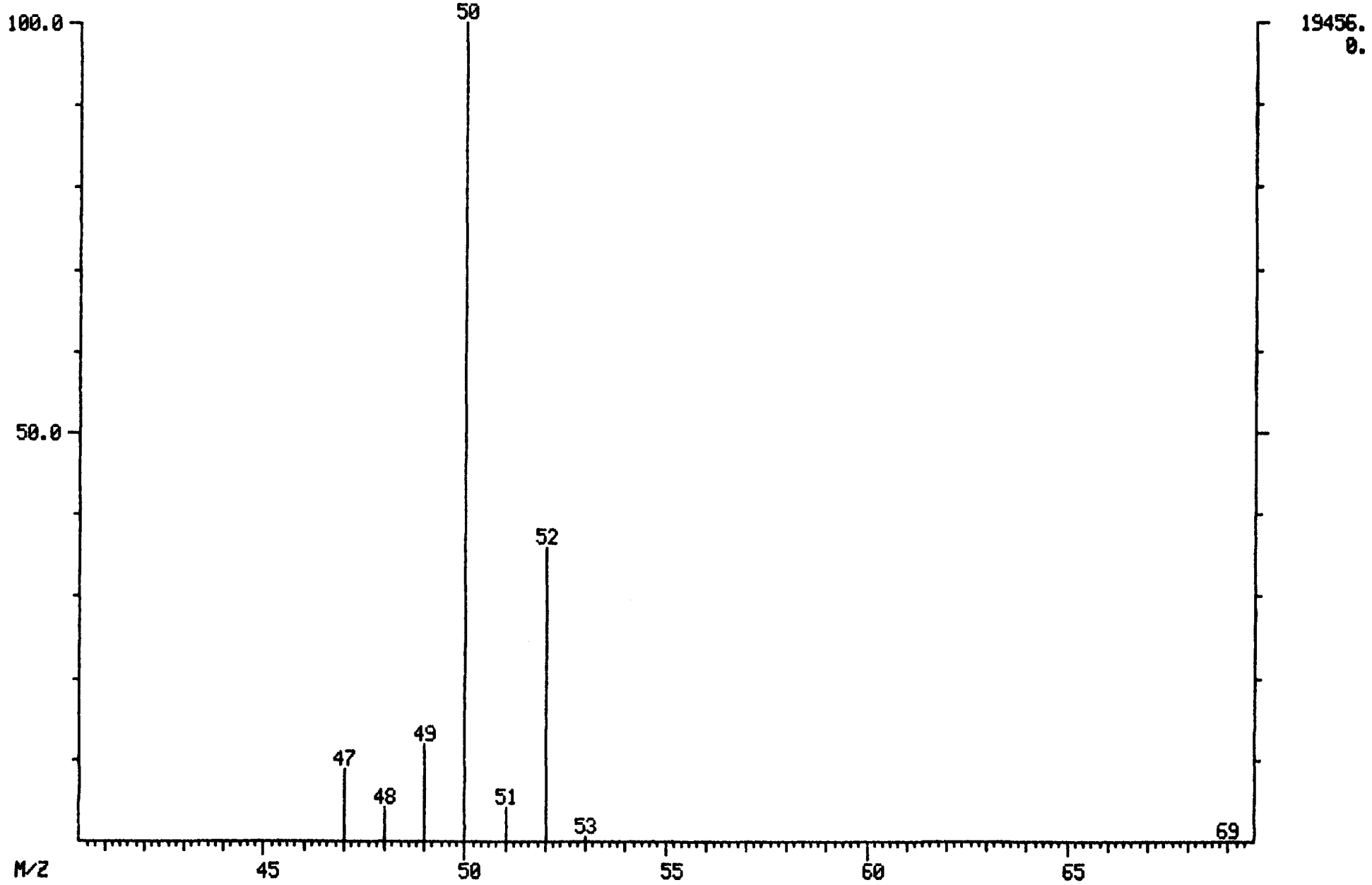
BASE M/Z: 104
RIC: 3372.



MASS SPECTRUM
05/04/89 12:56:00 + 1:36
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 44 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #48
CALI: IC30504 #3

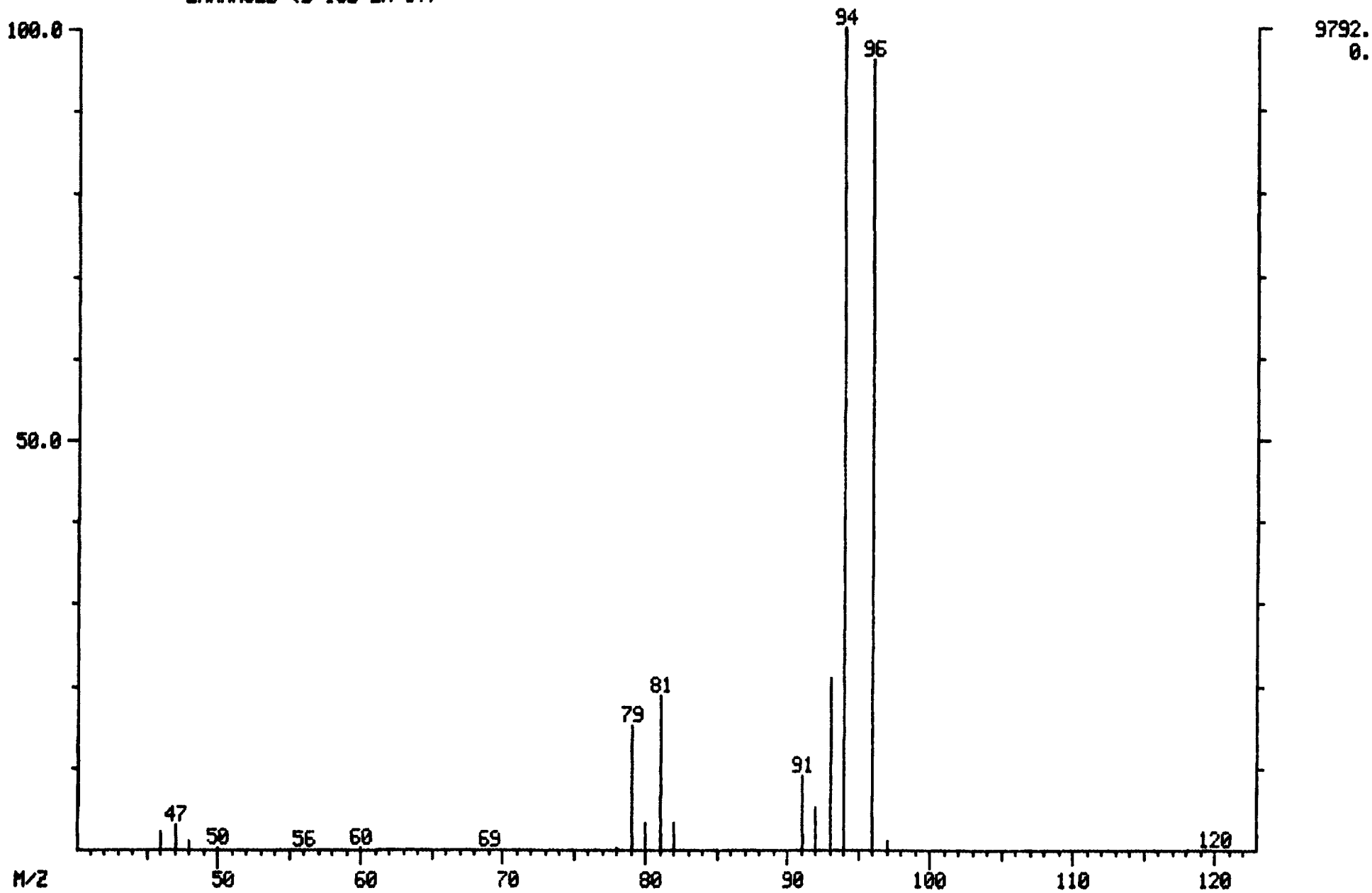
BASE M/Z: 50
RIC: 32256.



MASS SPECTRUM
05/04/89 12:56:00 + 2:38
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 45 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #79
CALI: IC30504 #3

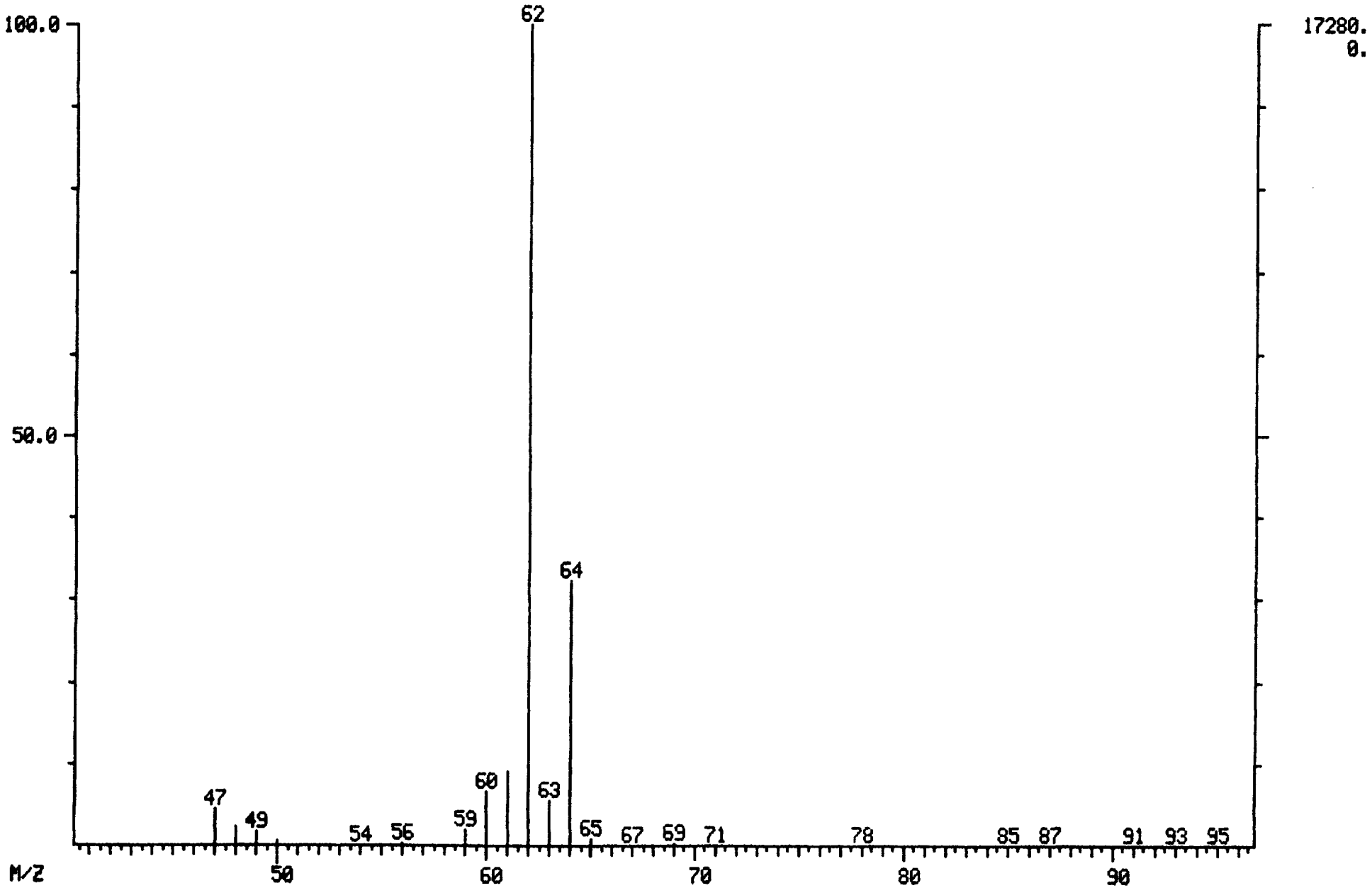
BASE M/Z: 94
RIC: 27488.



MASS SPECTRUM
05/04/89 12:56:00 + 3:24
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 47 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #102
CALI: IC30504 #3

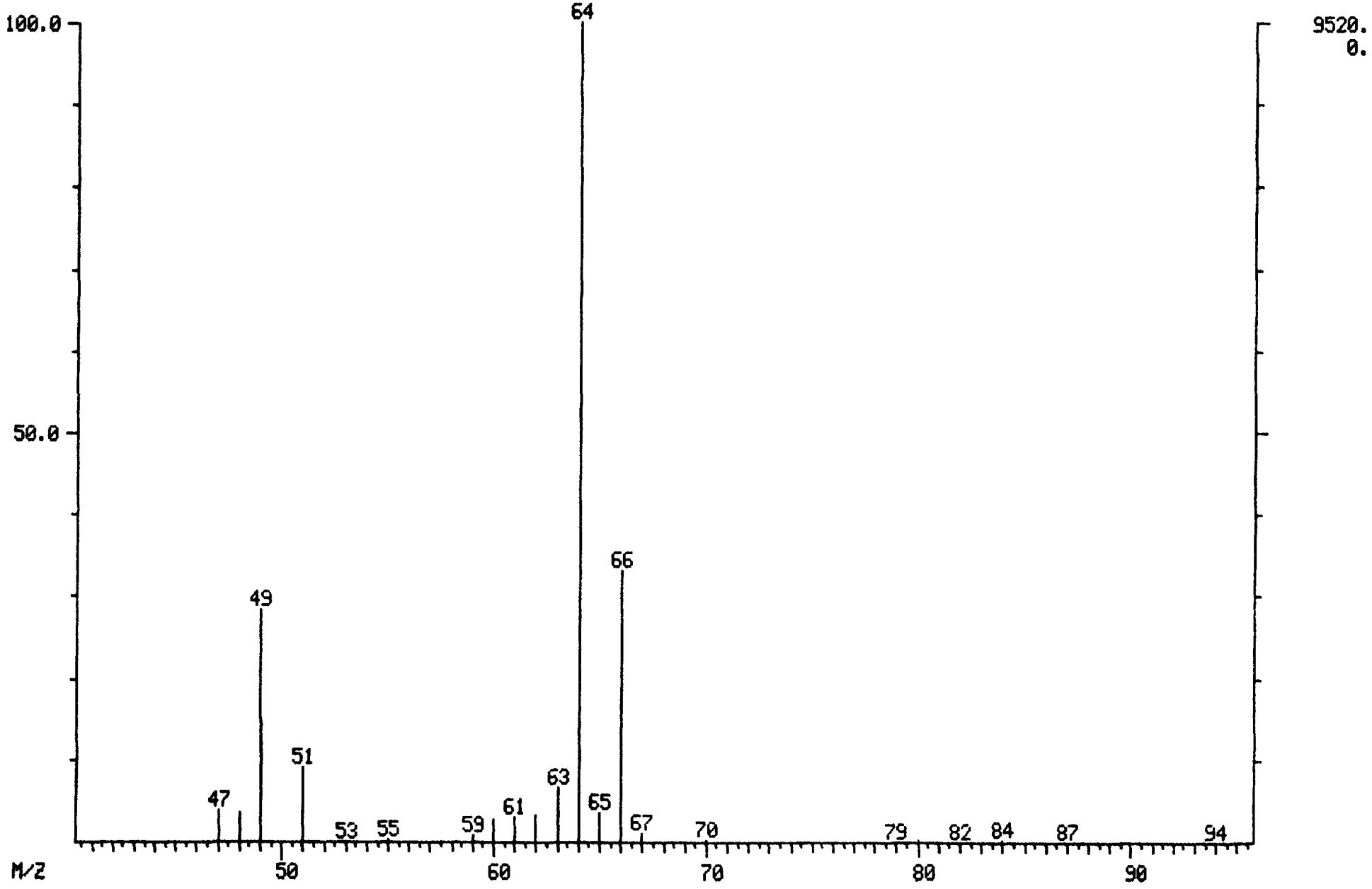
BASE M/Z: 62
RIC: 28672.



MASS SPECTRUM
05/04/89 12:56:00 + 4:26
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 55 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #133
CALI: IC30504 #3

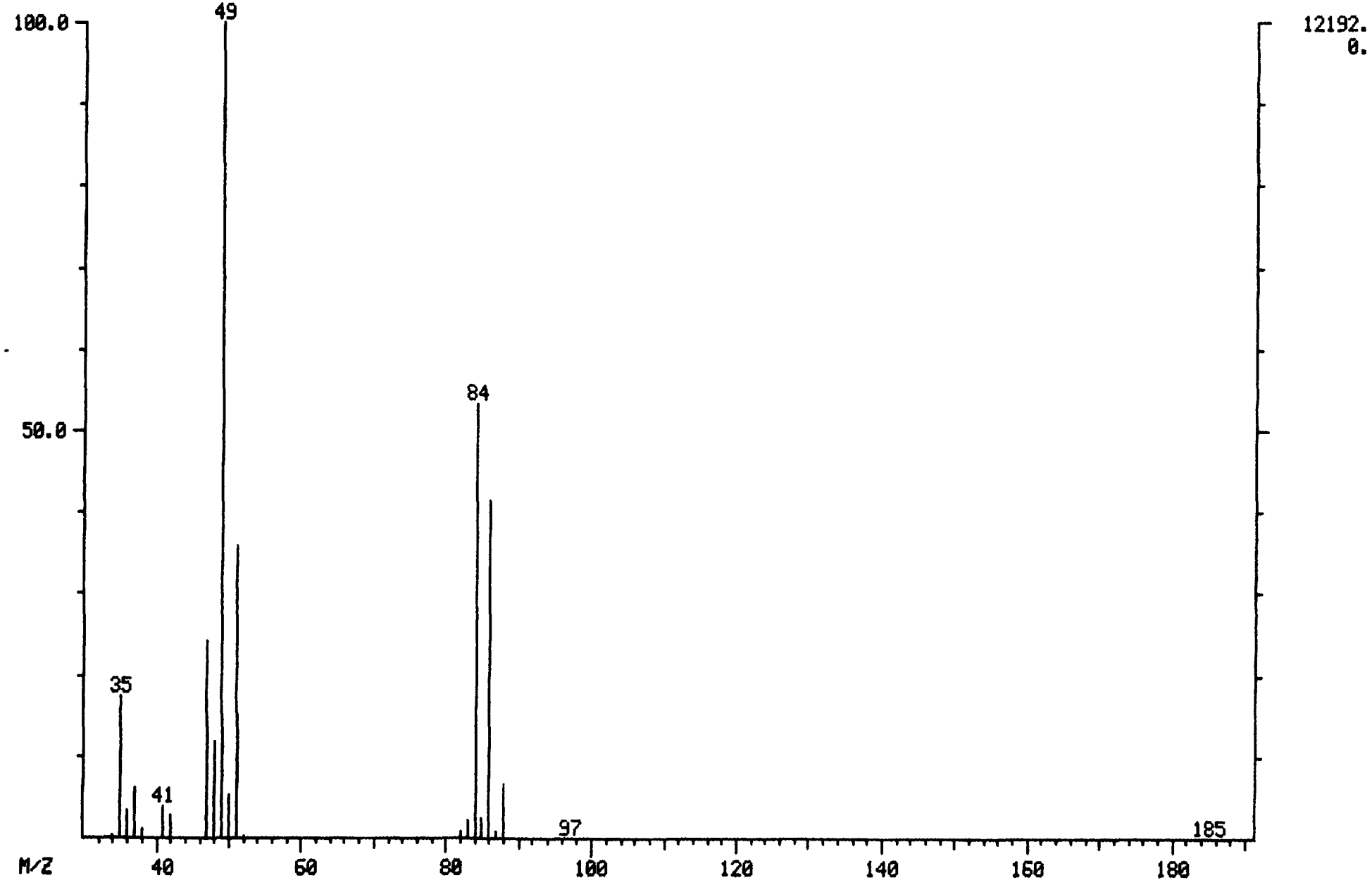
BASE M/Z: 64
RIC: 19136.



MASS SPECTRUM
05/04/89 12:56:00 + 6:36
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 73 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #198
CALI: IC30504 #3

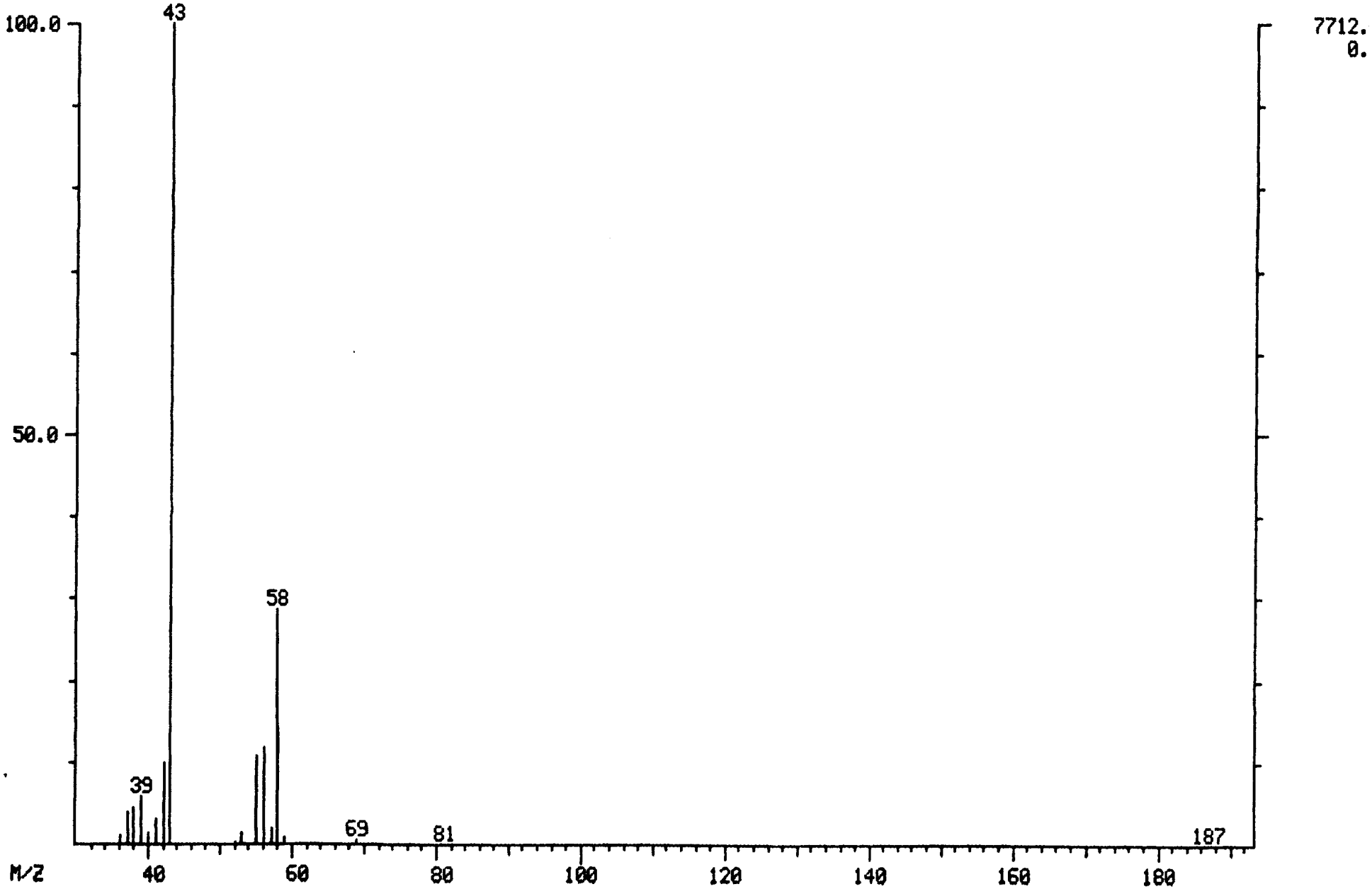
BASE M/Z: 49
RIC: 39104.



MASS SPECTRUM
05/04/89 12:56:00 + 7:10
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 77 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #215
CALI: IC30504 #3

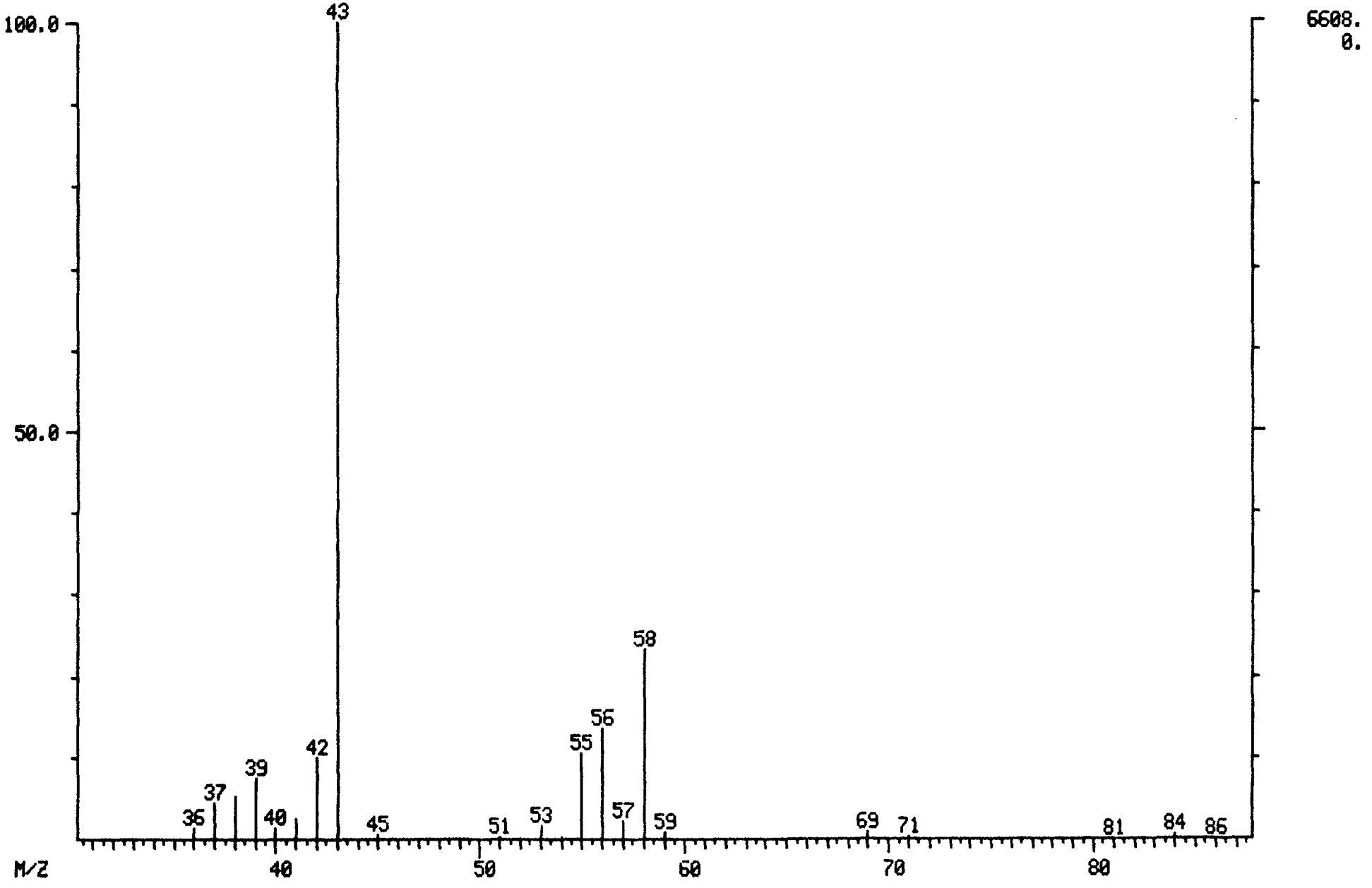
BASE M/Z: 43
RIC: 14352.



MASS SPECTRUM
05/04/89 12:56:00 + 7:12
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 78 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #216
CALI: IC30504 #3

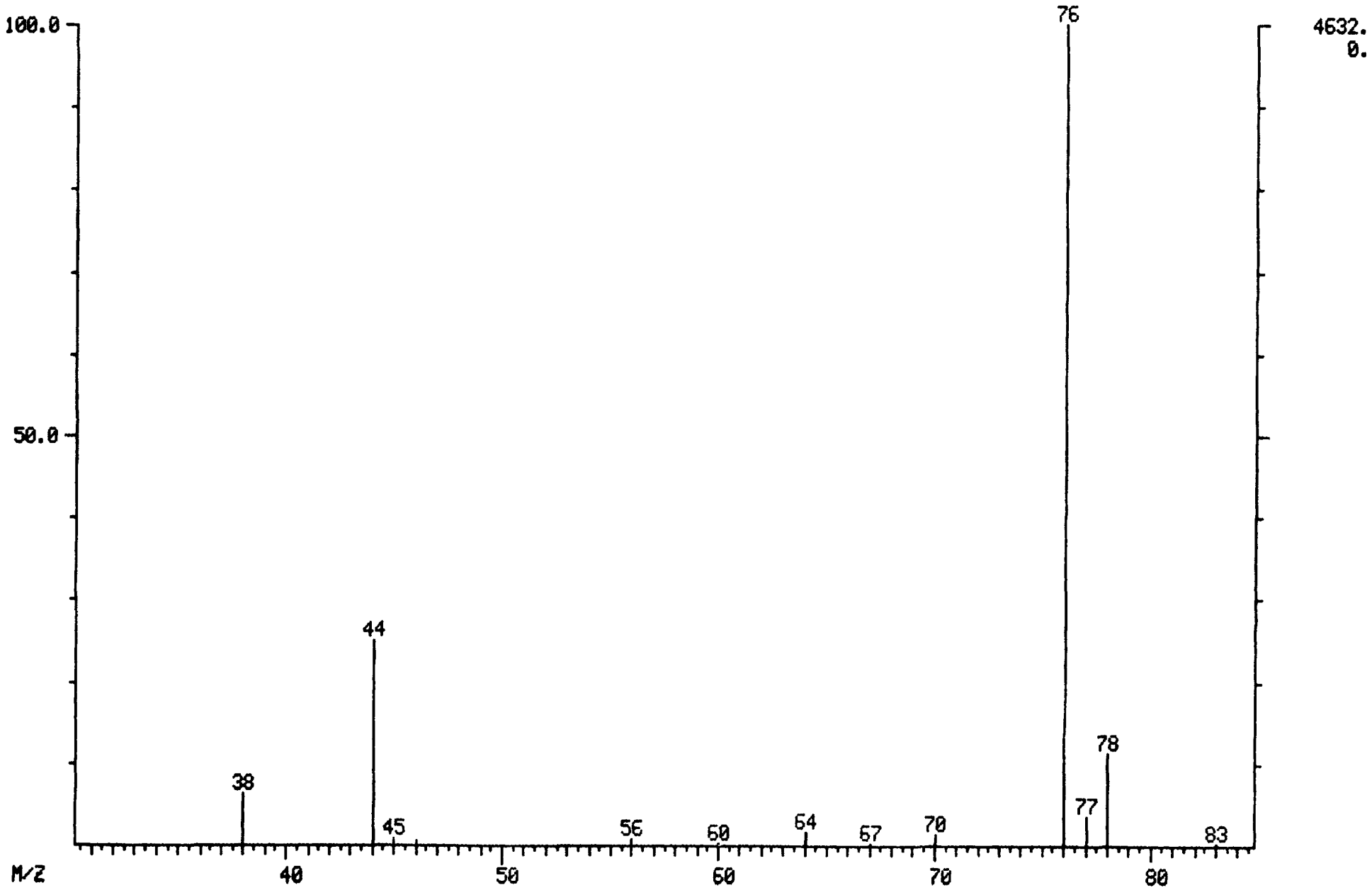
BASE M/Z: 43
RIC: 12400.



MASS SPECTRUM
05/04/89 12:56:00 + 8:10
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 85 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #245
CALI: IC30504 #3

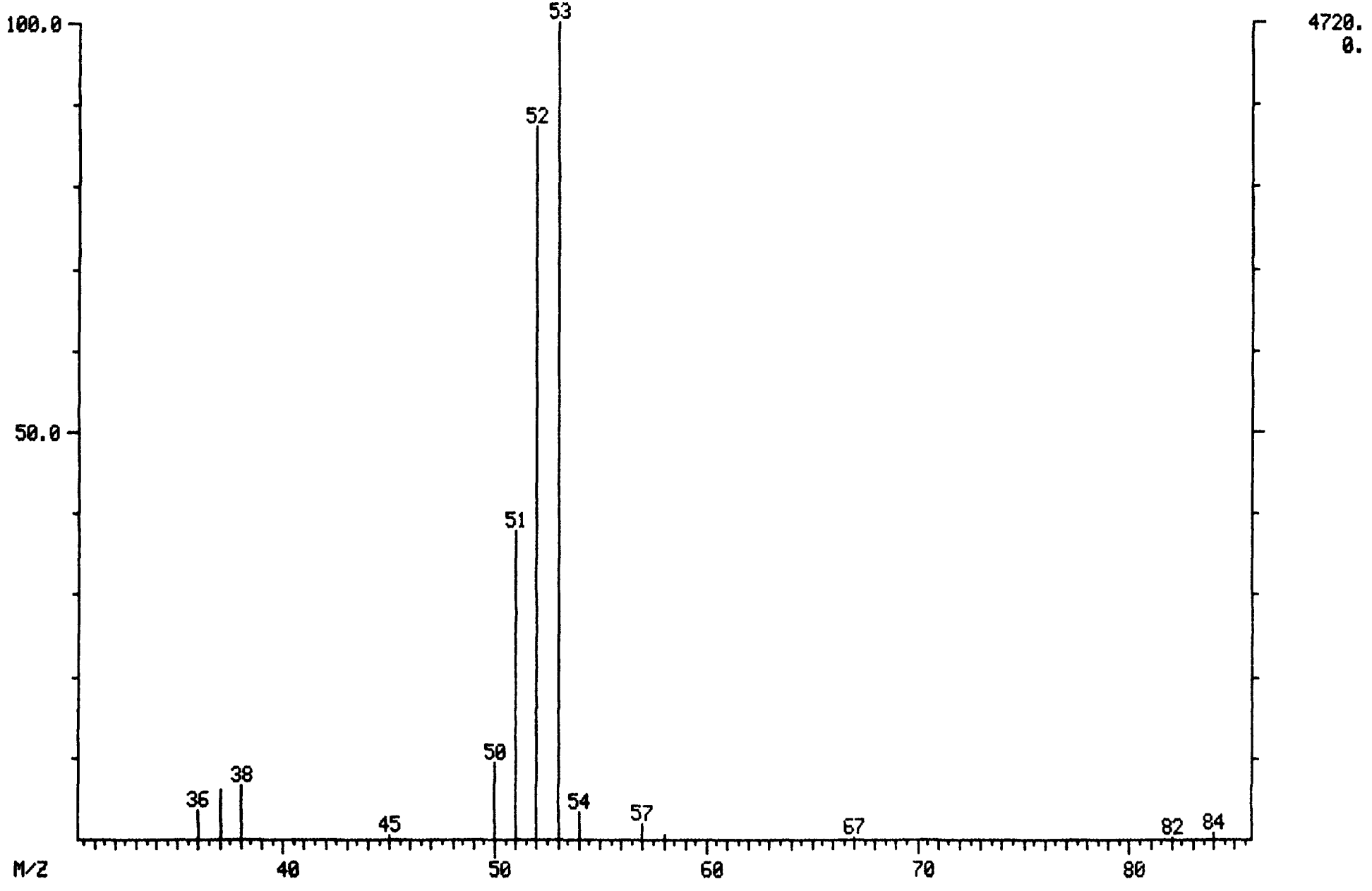
BASE M/Z: 76
RIC: 7048.



MASS SPECTRUM
05/04/89 12:56:00 + 7:54
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 83 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #237
CALI: IC30504 #3

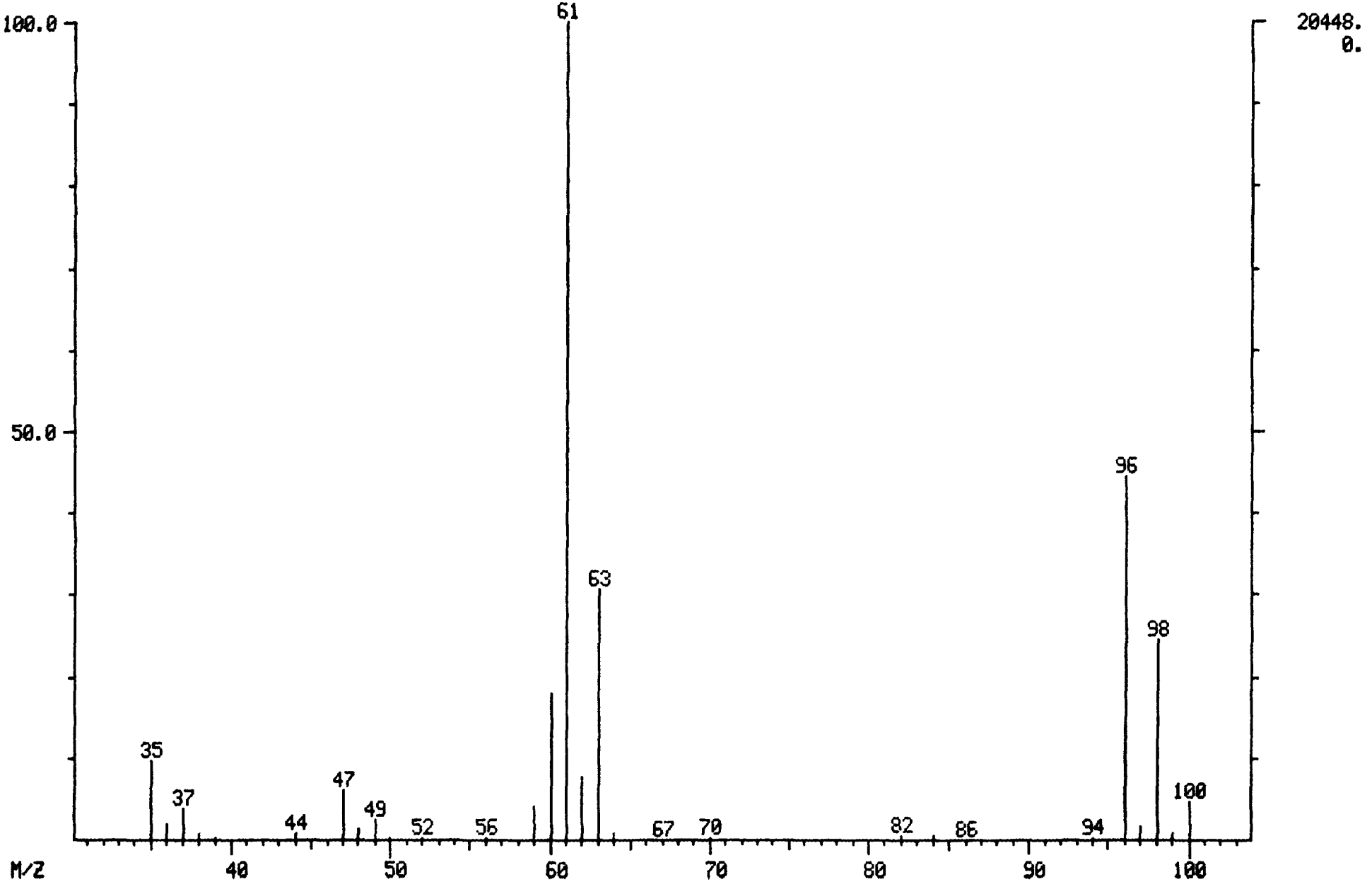
BASE M/Z: 53
RIC: 12224.



MASS SPECTRUM
05/04/89 12:56:00 + 9:24
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 95 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #282
CALI: IC30504 #3

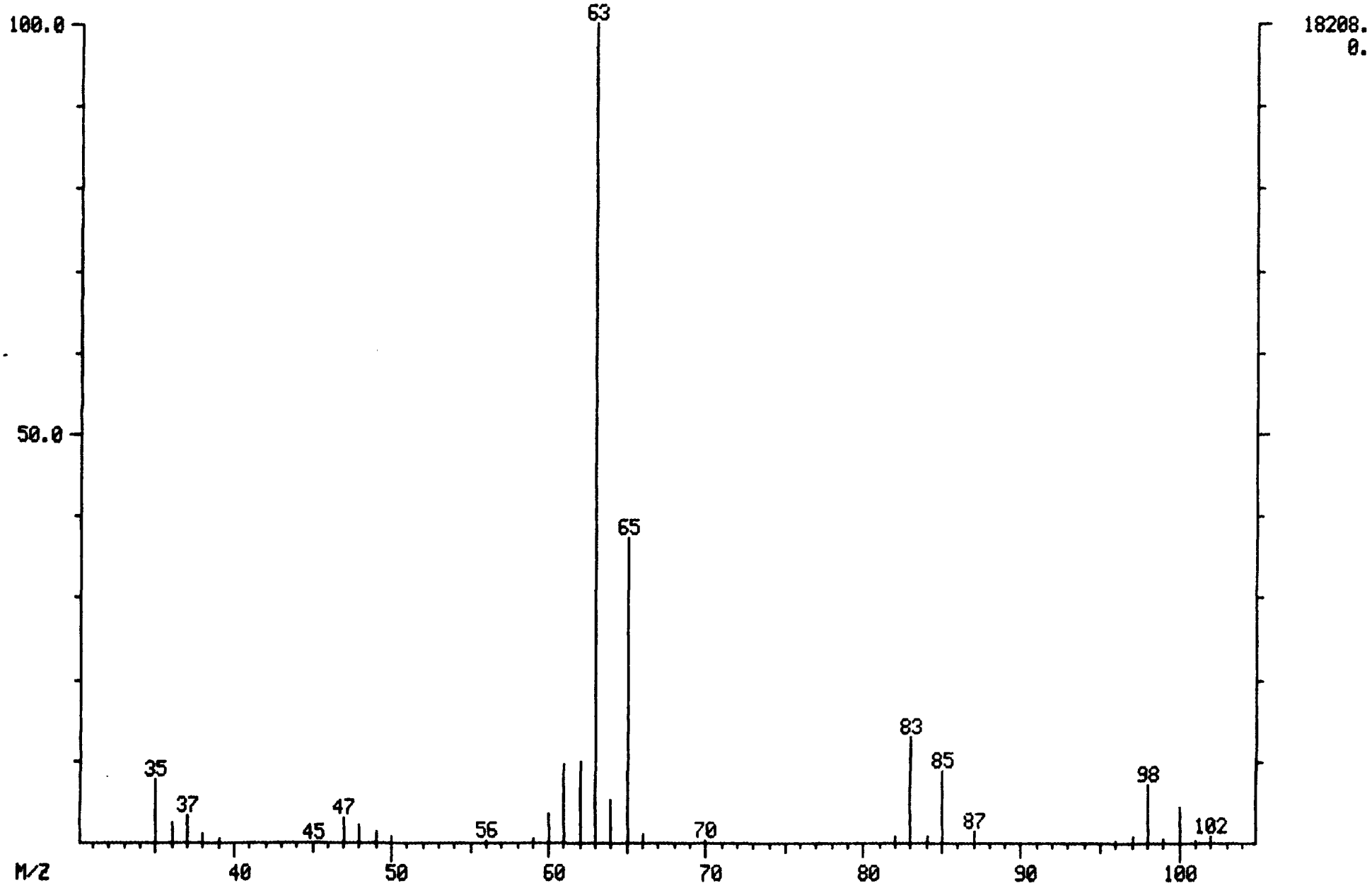
BASE M/Z: 61
RIC: 54720.



MASS SPECTRUM
05/04/89 12:56:00 + 10:42
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 106 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #321
CALI: IC30504 #3

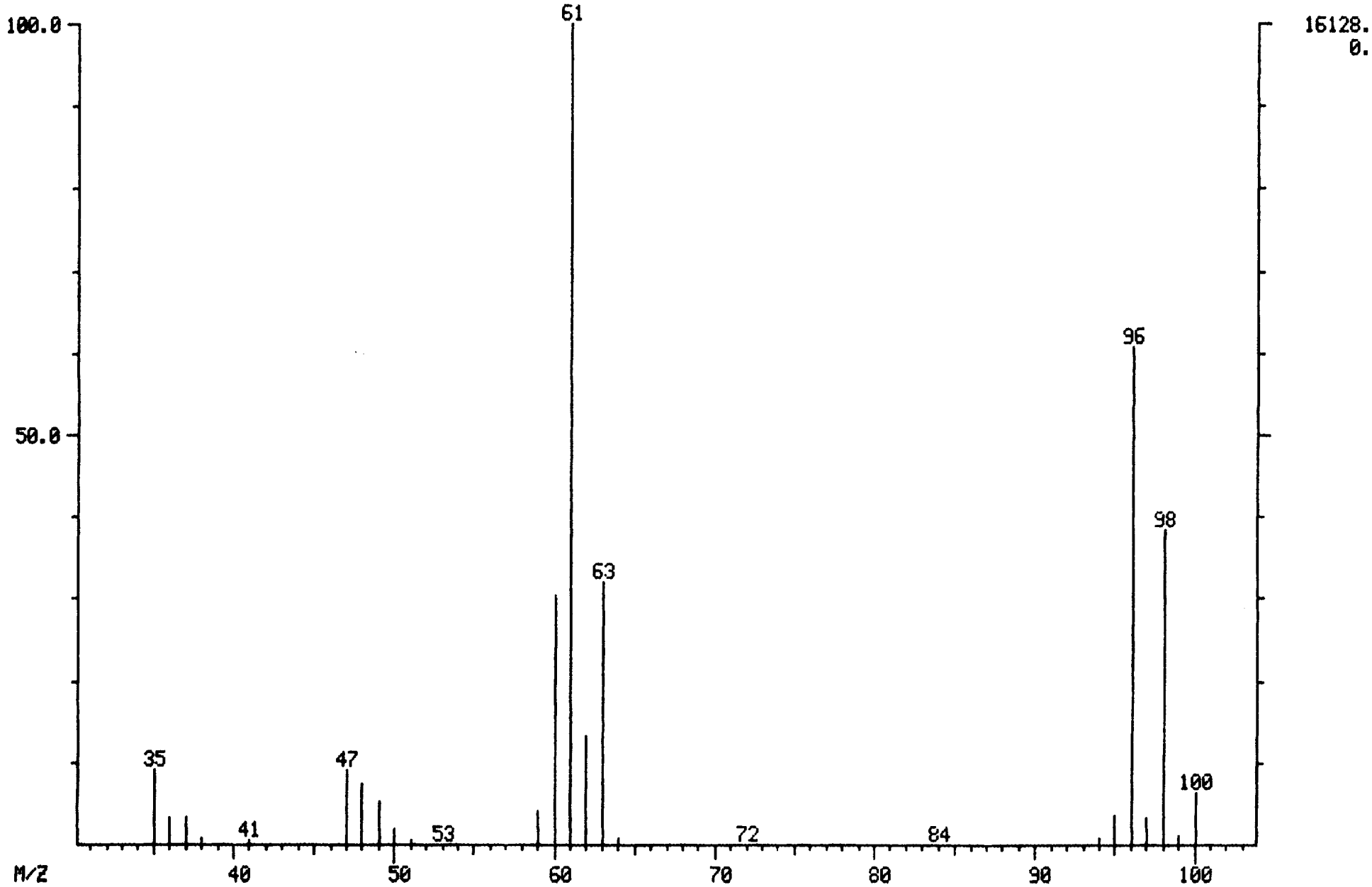
BASE M/Z: 63
RIC: 41792.



MASS SPECTRUM
05/04/89 12:56:00 + 11:26
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 111 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #343
CALI: IC30504 #3

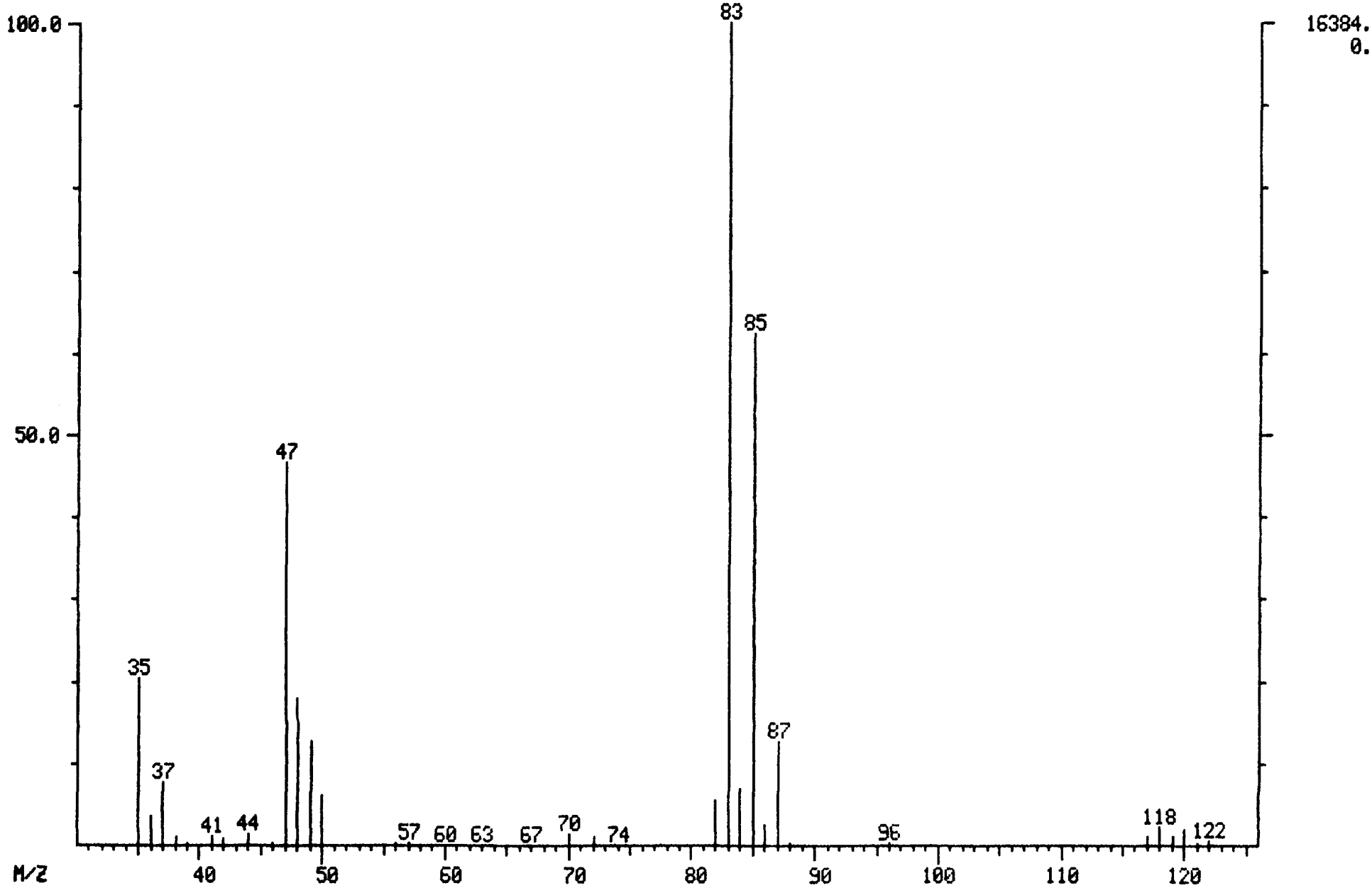
BASE M/Z: 61
RIC: 54336.



MASS SPECTRUM
05/04/89 12:56:00 + 12:04
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 116 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #362
CALI: IC30504 #3

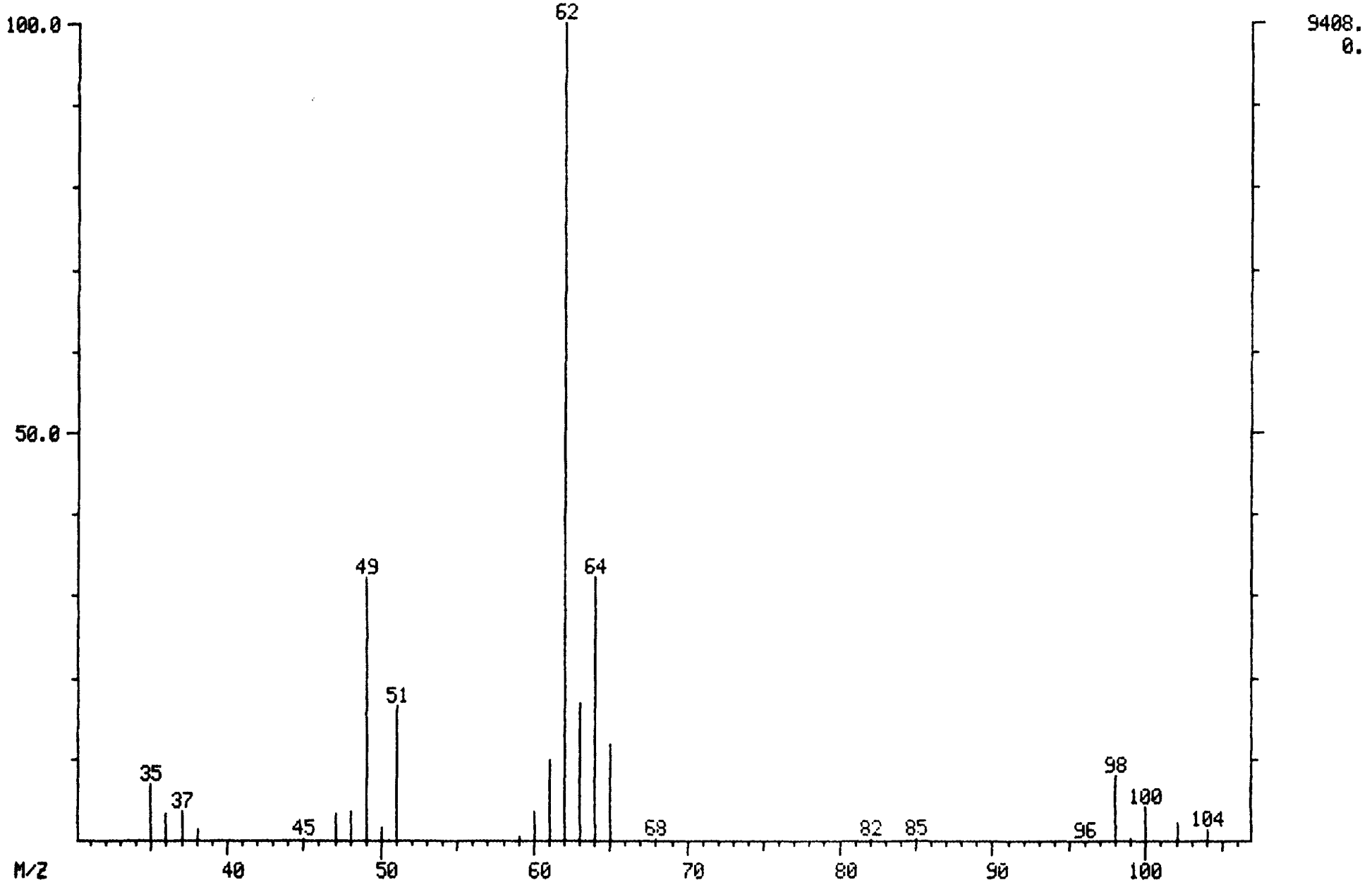
BASE M/Z: 83
RIC: 52672.



MASS SPECTRUM
05/04/89 12:56:00 + 12:46
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 122 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #383
CALI: IC30504 #3

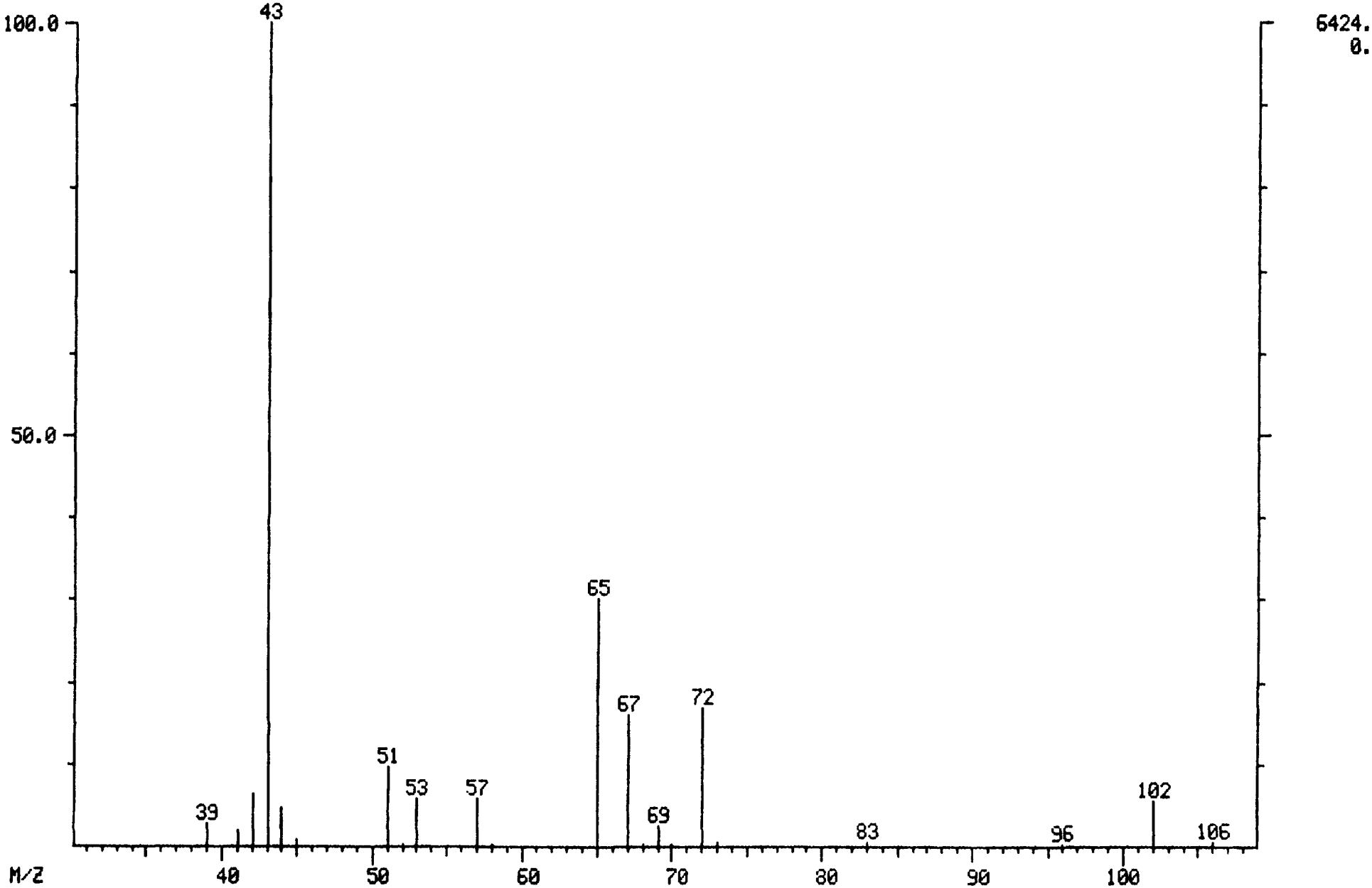
BASE M/Z: 62
RIC: 24896.



MASS SPECTRUM
05/04/89 12:56:00 + 12:36
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 121 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #378
CALI: IC30504 #3

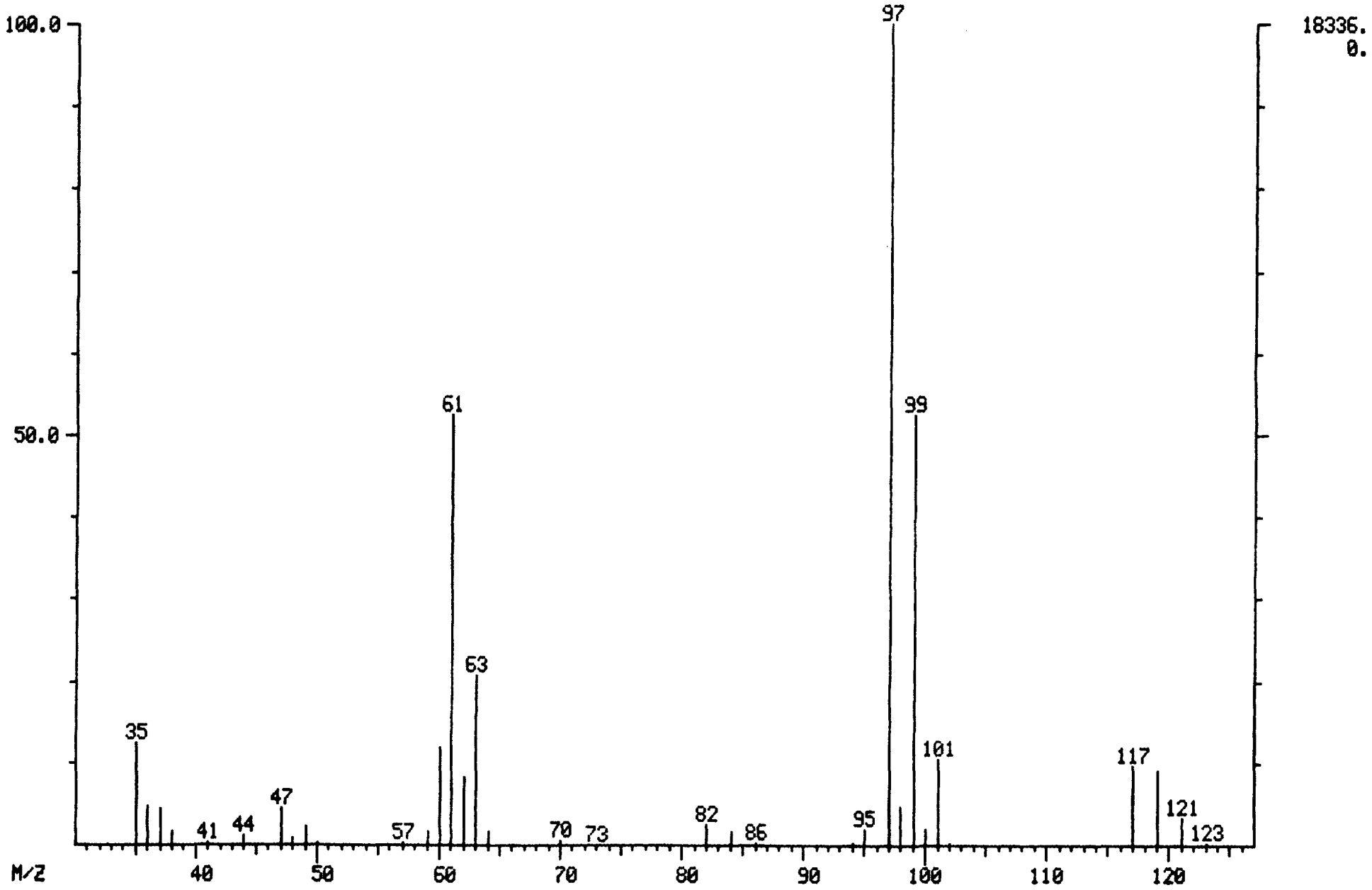
BASE M/Z: 43
RIC: 13632.



MASS SPECTRUM
05/04/89 12:56:00 + 14:04
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 132 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #422
CALI: IC30504 #3

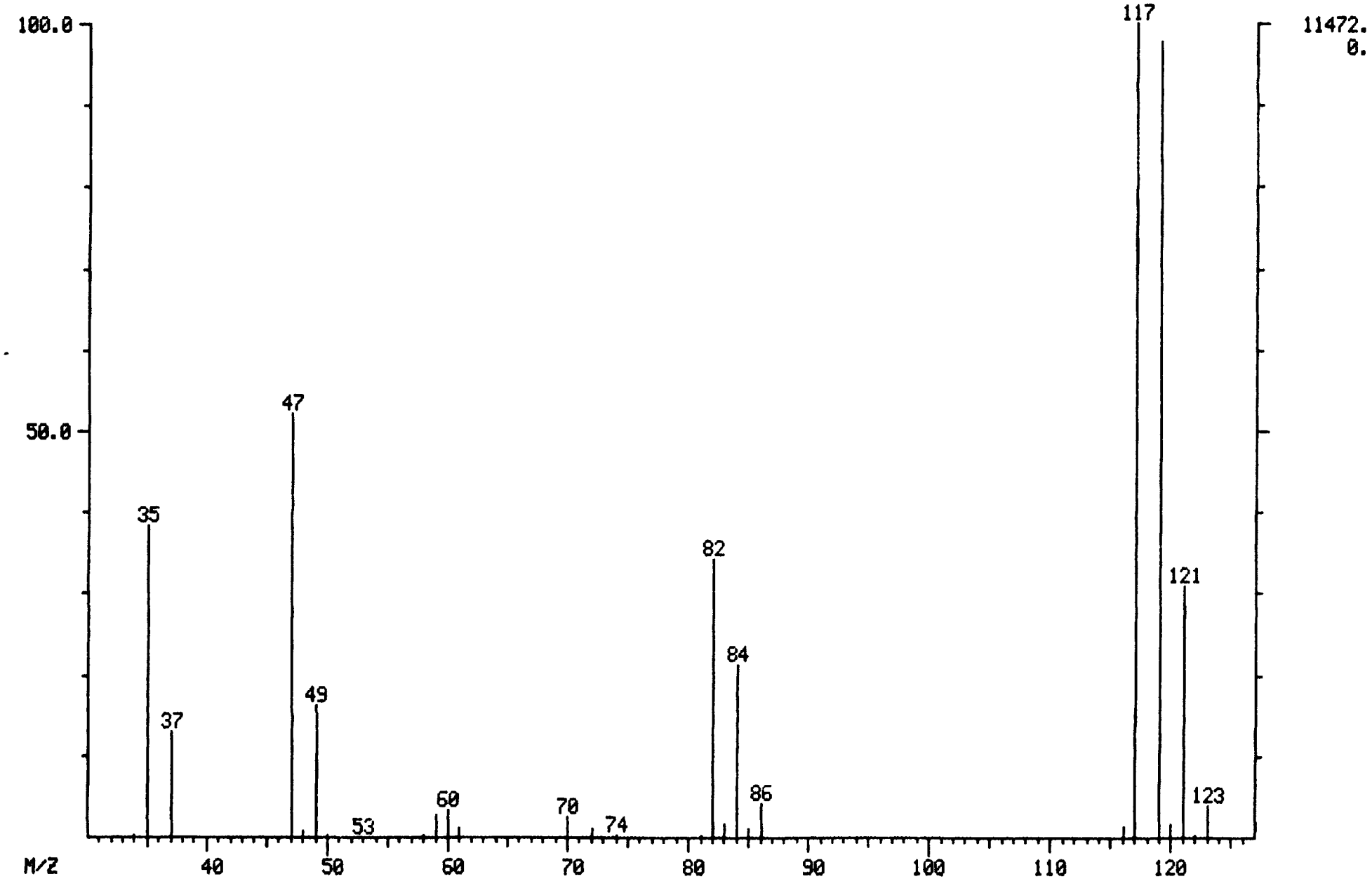
BASE M/Z: 97
RIC: 60352.



MASS SPECTRUM
05/04/89 12:56:00 + 14:28
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 136 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #434
CALI: IC30504 #3

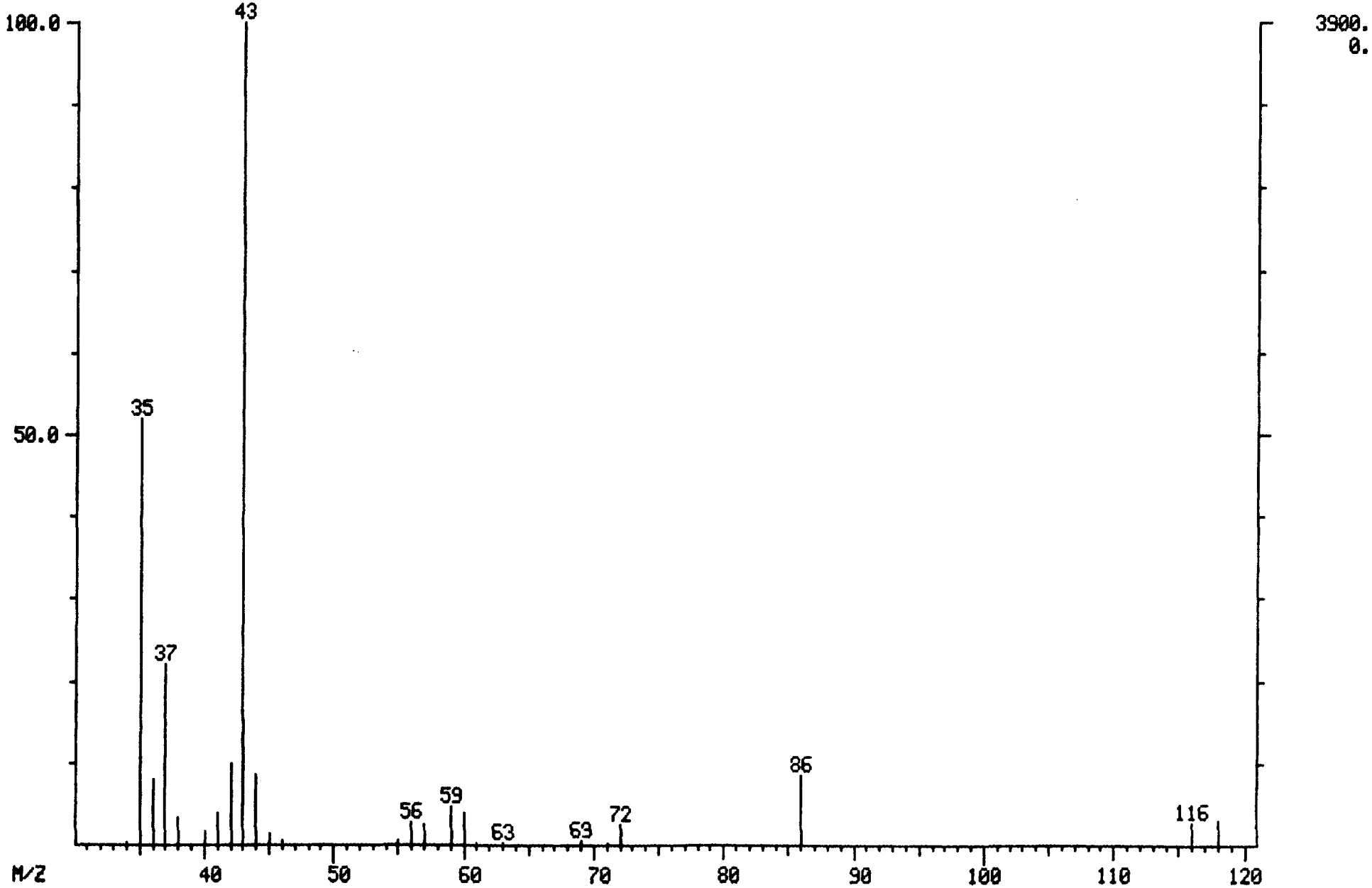
BASE M/Z: 117
RIC: 49408.



MASS SPECTRUM
05/04/89 12:56:00 + 14:34
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 137 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #437
CALI: IC30504 #3

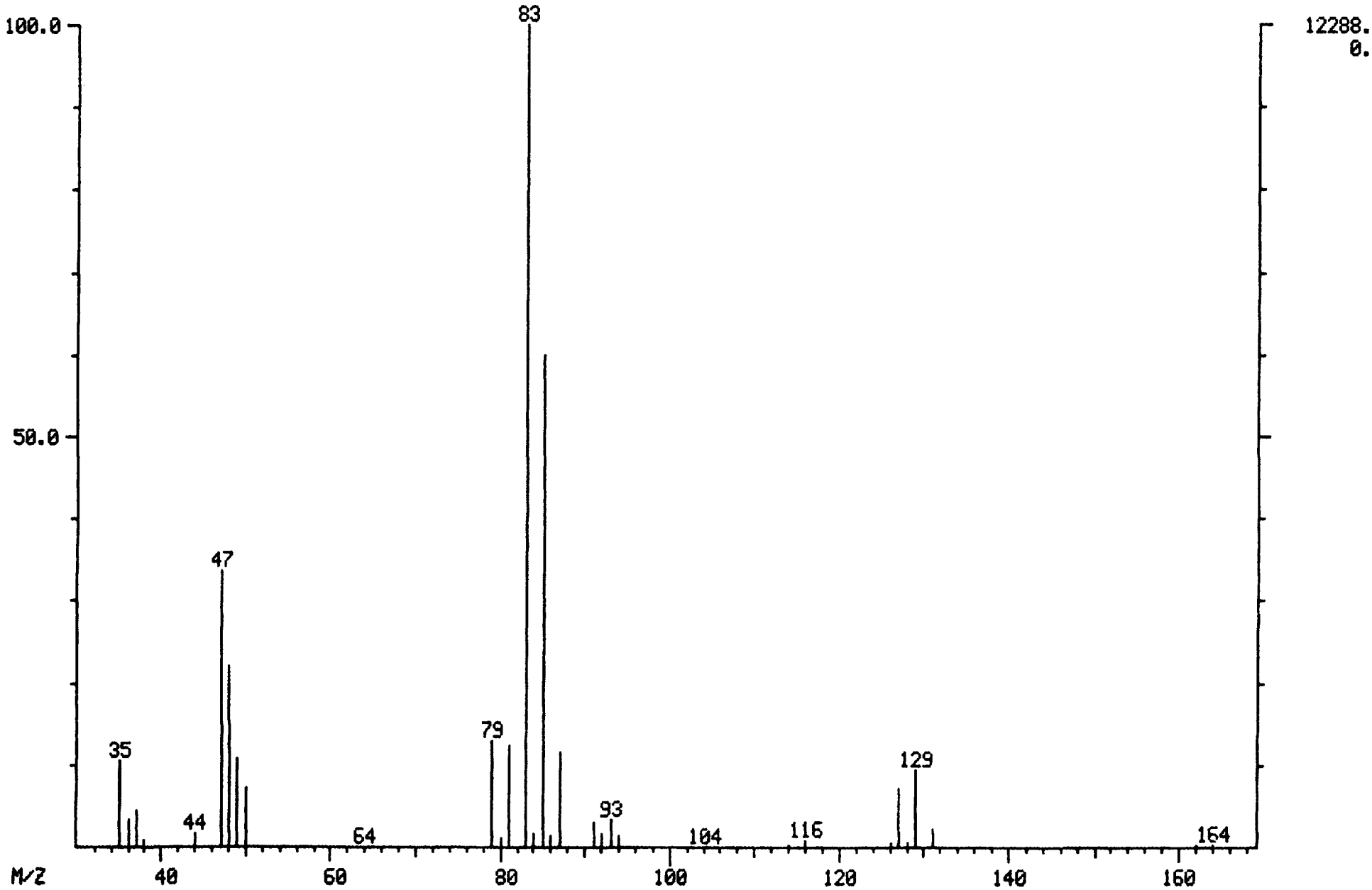
BASE M/Z: 43
RIC: 9552.



MASS SPECTRUM
05/04/89 12:56:00 + 15:00
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 140 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #450
CALI: IC30504 #3

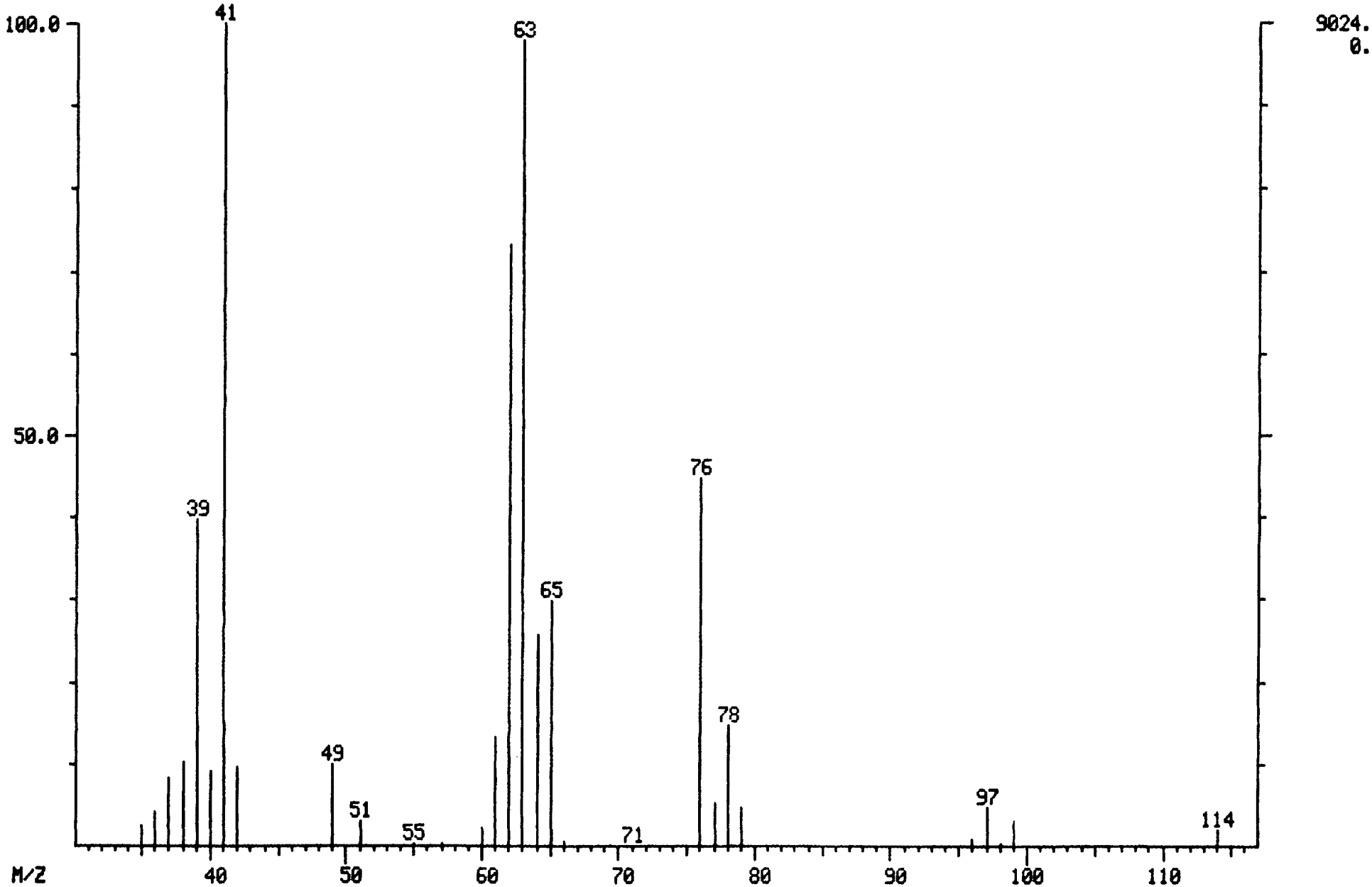
BASE M/Z: 83
RIC: 40000.



MASS SPECTRUM
05/04/89 12:56:00 + 16:22
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 151 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #491
CALI: IC30504 #3

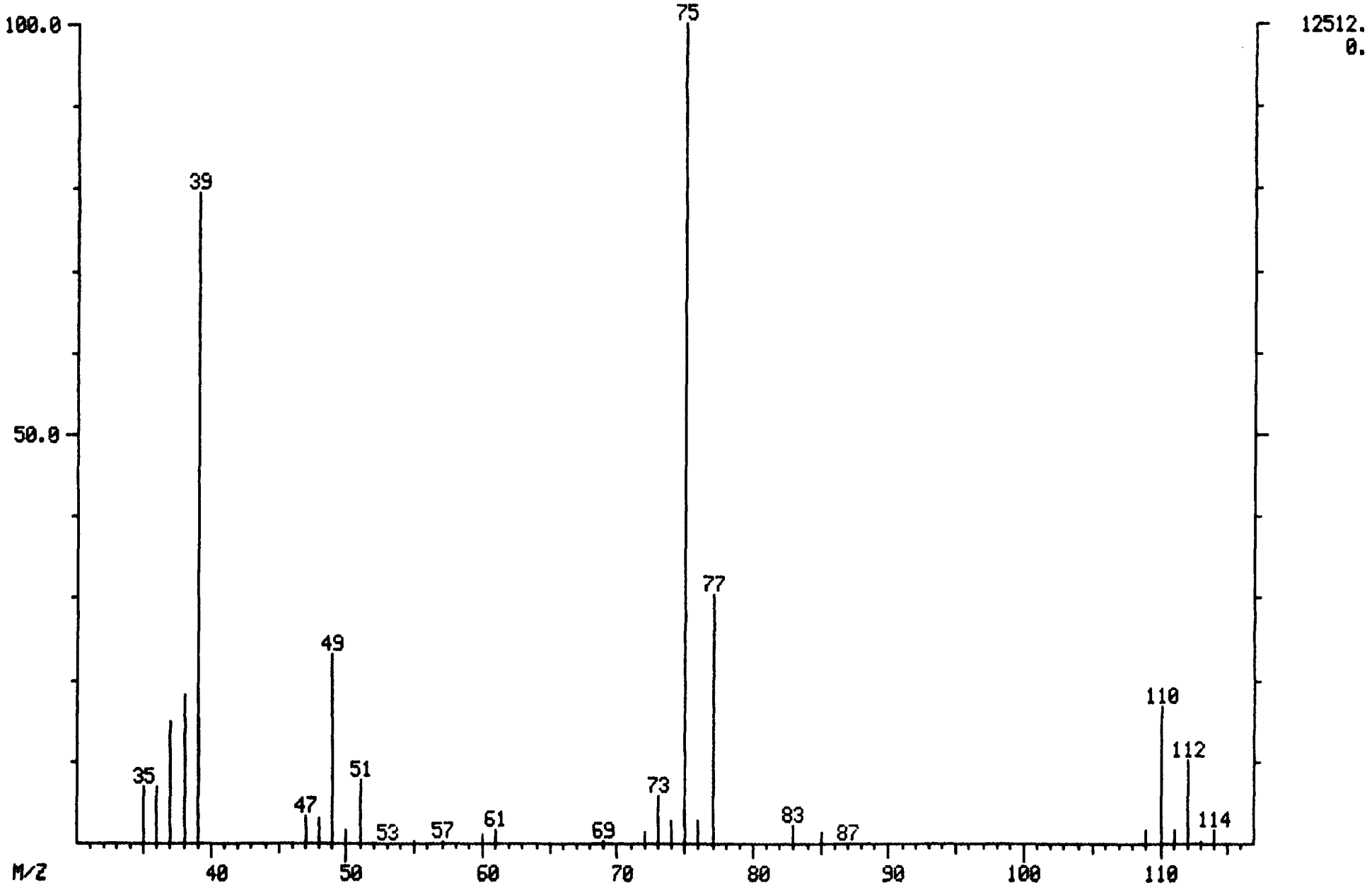
BASE M/Z: 41
RIC: 46976.



MASS SPECTRUM
05/04/89 12:56:00 + 16:38
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 153 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #499
CALI: IC30504 #3

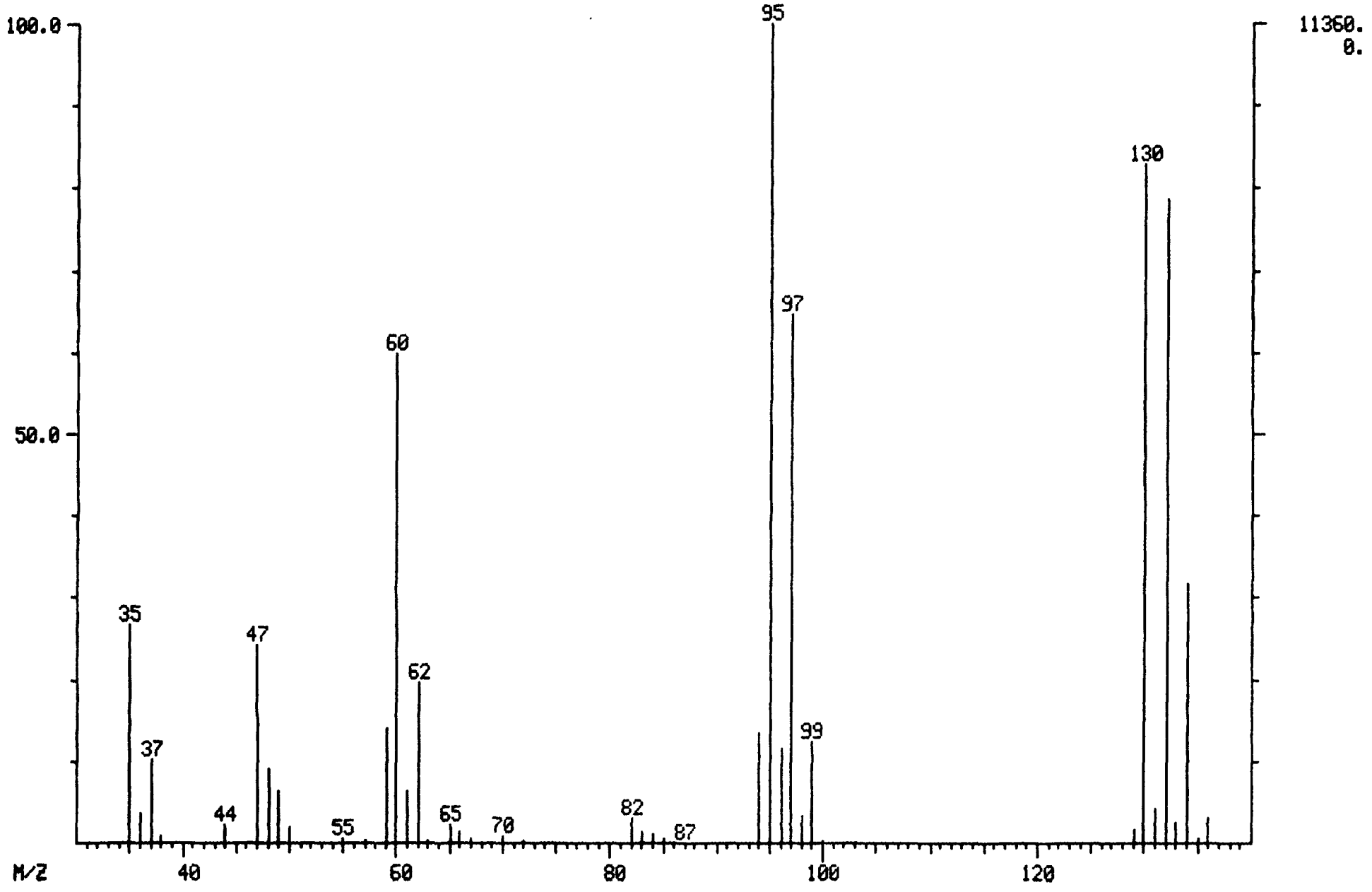
BASE M/Z: 75
RIC: 43712.



MASS SPECTRUM
05/04/89 12:56:00 + 17:10
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 157 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #515
CALI: IC30504 #3

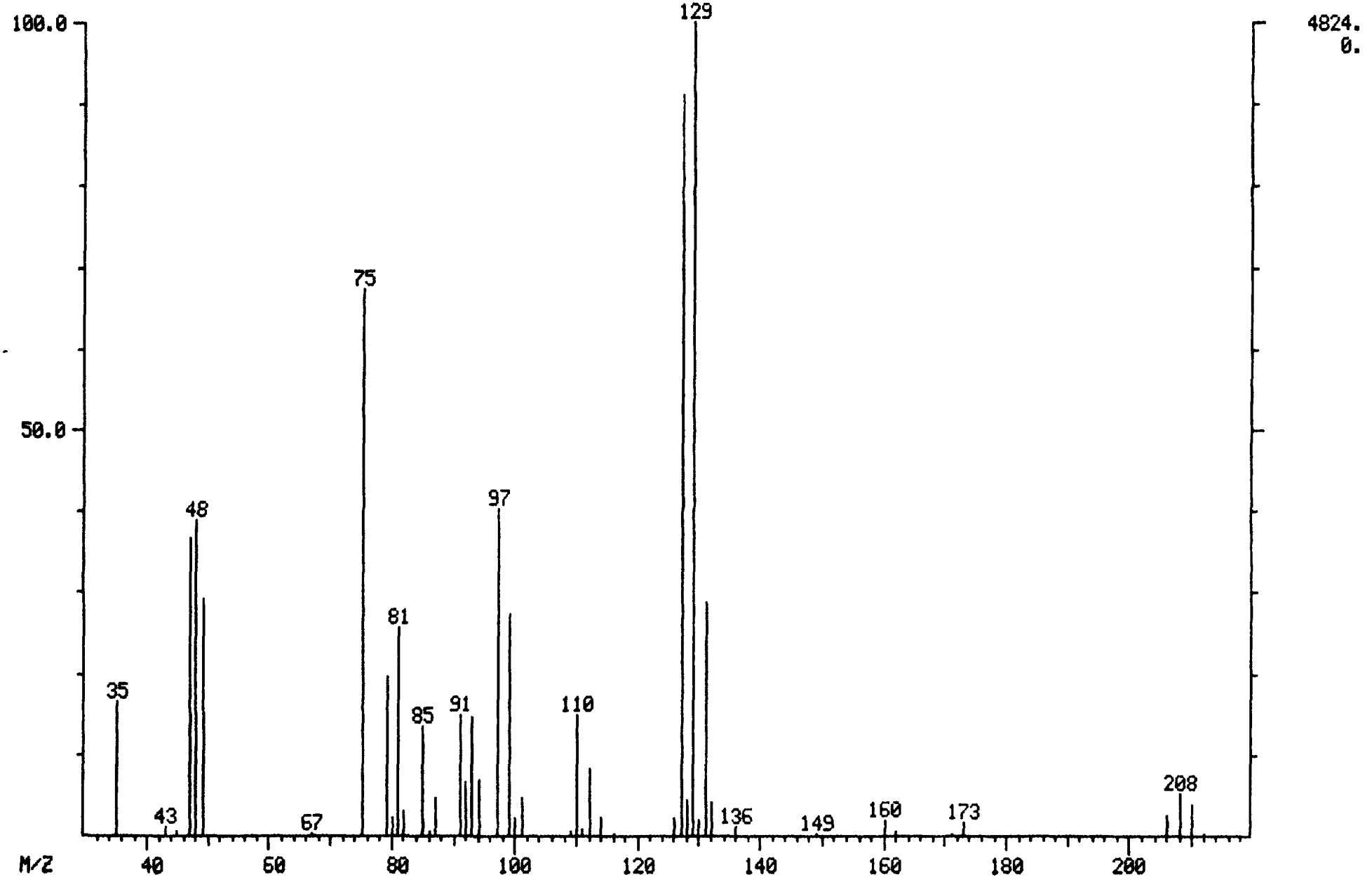
BASE M/Z: 95
RIC: 69248.



MASS SPECTRUM
05/04/89 12:56:00 + 17:50
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 163 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #535
CALI: IC30504 #3

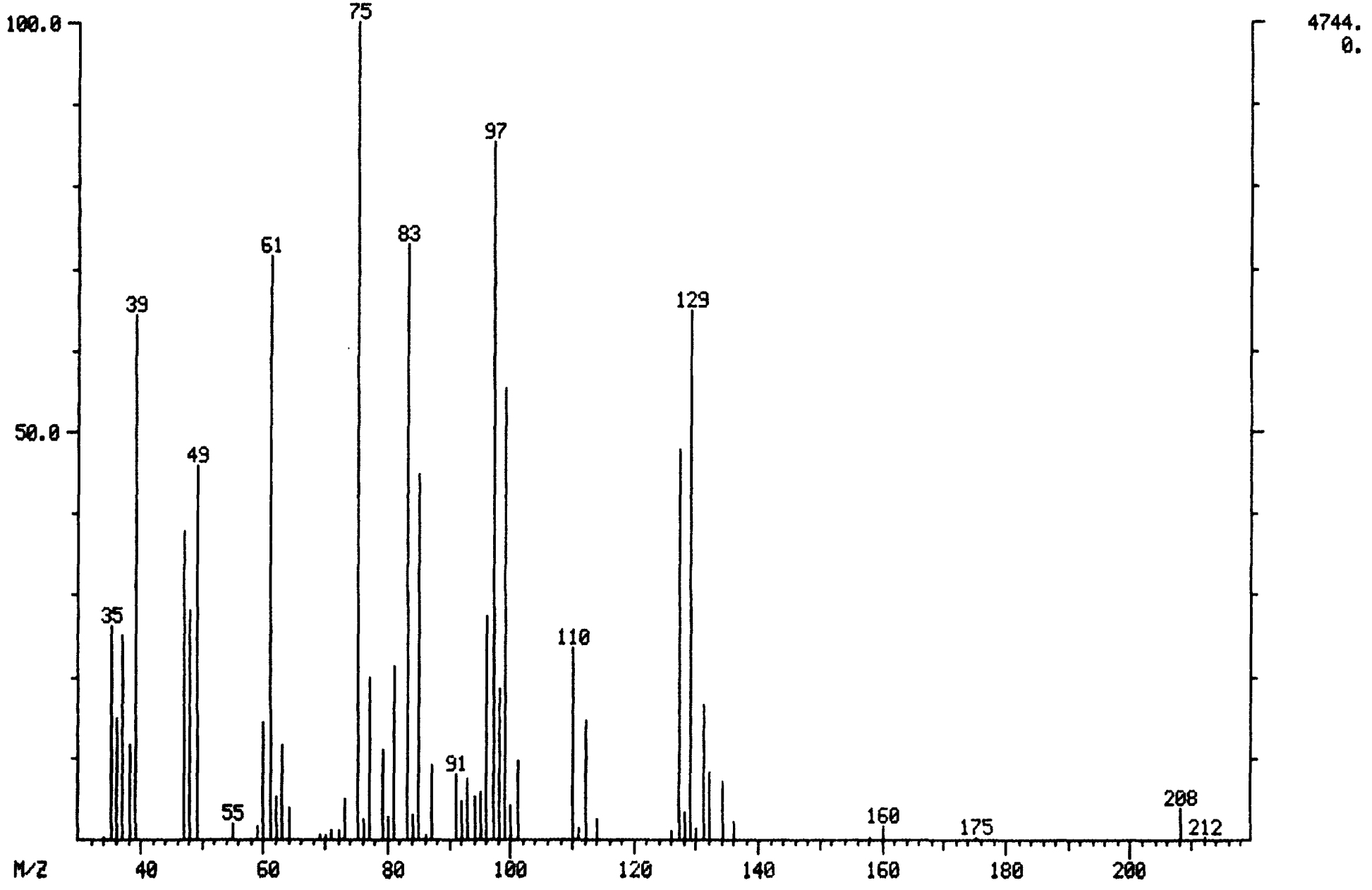
BASE M/Z: 129
RIC: 31648.



MASS SPECTRUM
05/04/89 12:56:00 + 17:54
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 163 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #537
CALI: IC30504 #3

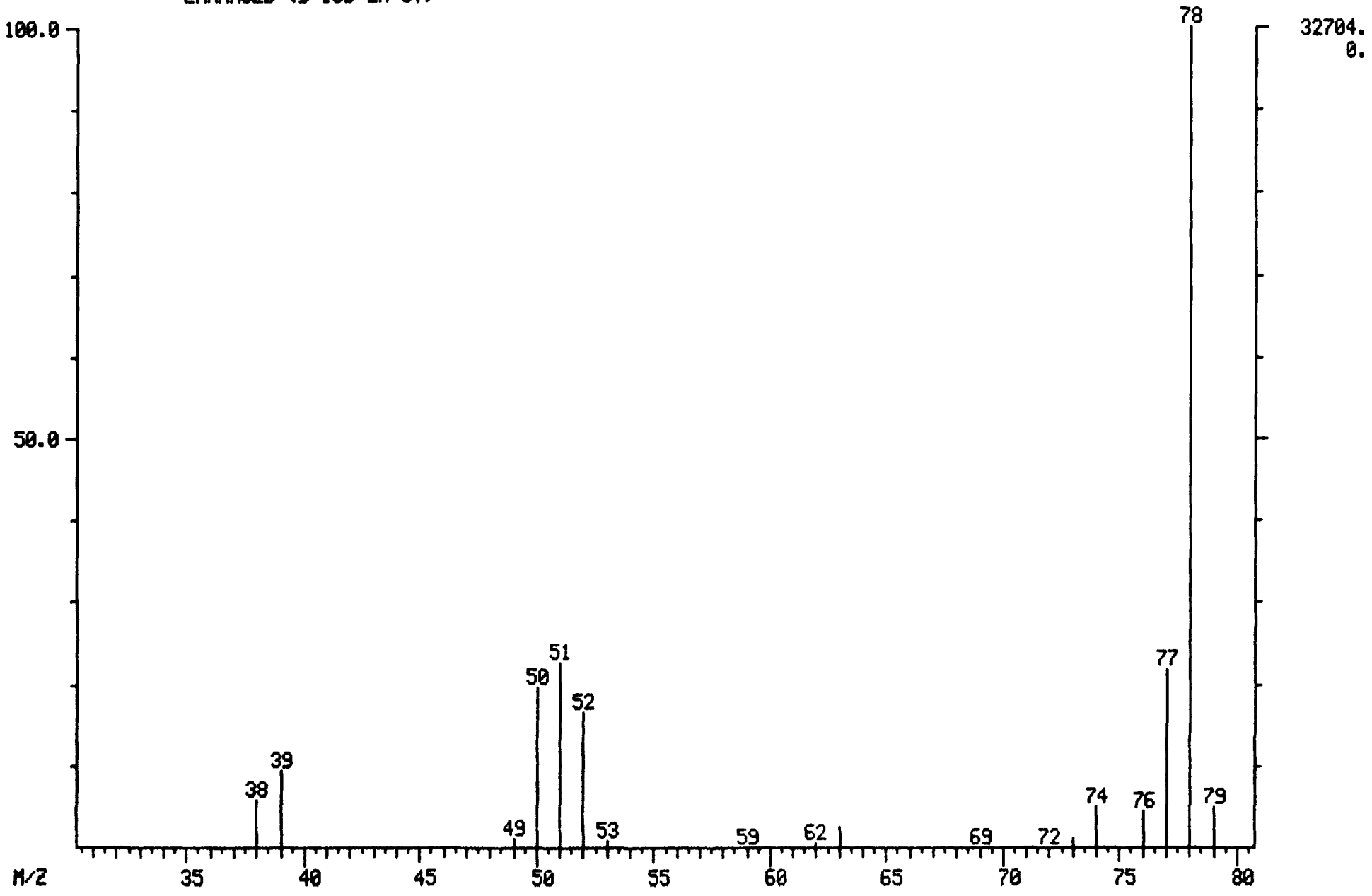
BASE M/Z: 75
RIC: 51840.



MASS SPECTRUM
05/04/89 12:56:00 + 17:40
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 161 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #530
CALI: IC30504 #3

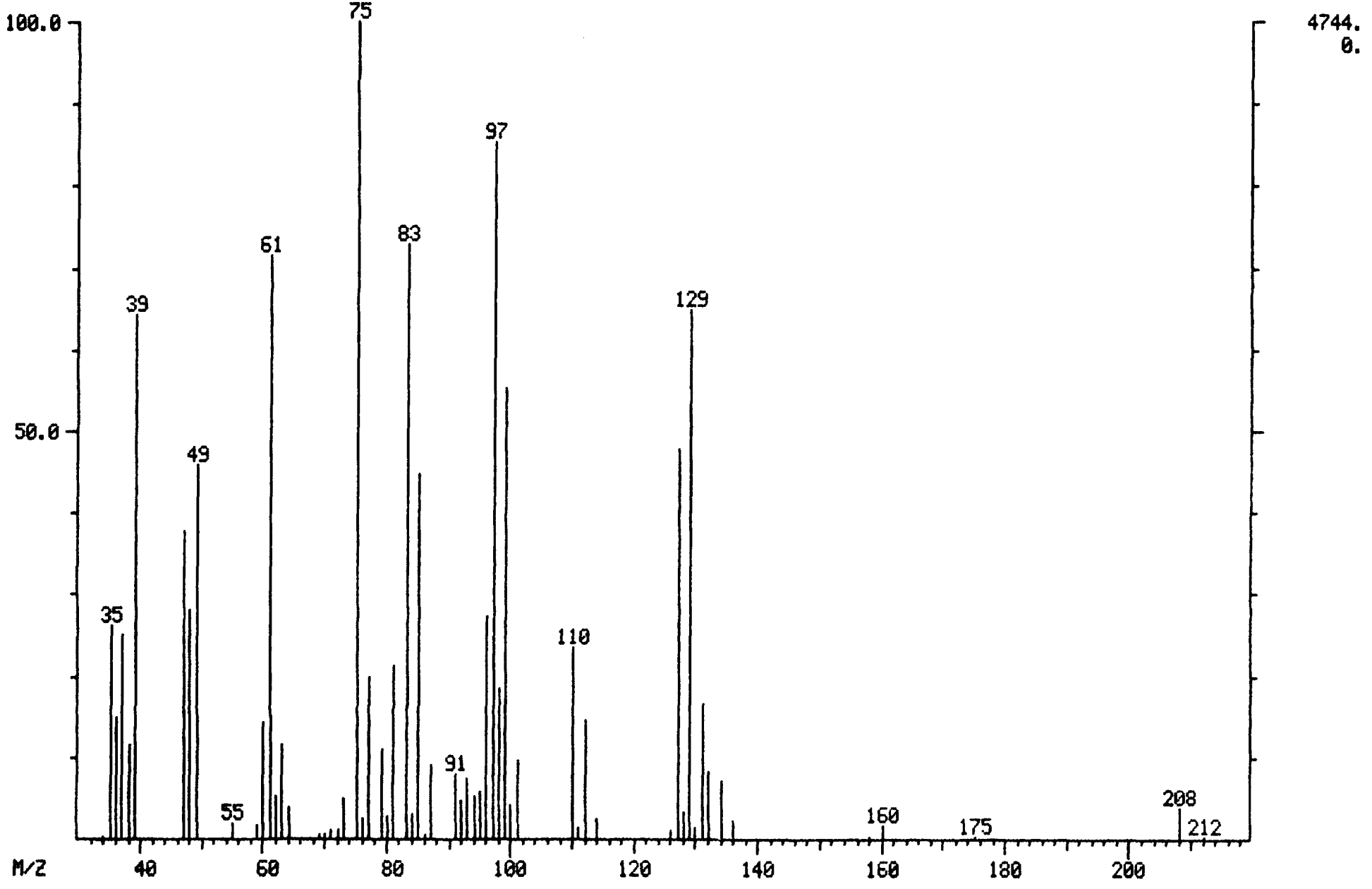
BASE M/Z: 78
RIC: 70912.



MASS SPECTRUM
05/04/89 12:56:00 + 17:54
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 163 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #537
CALI: IC30504 #3

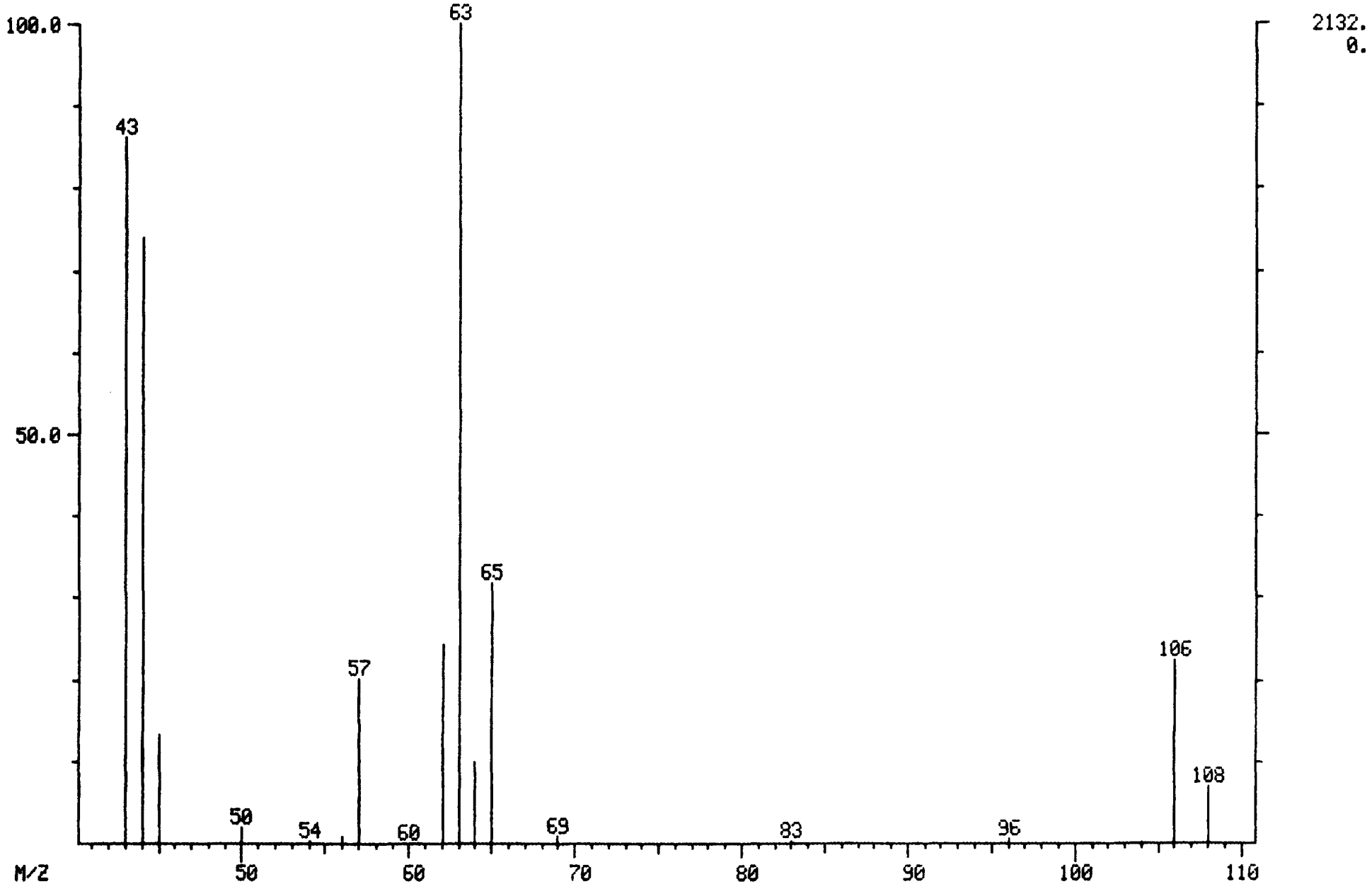
BASE M/Z: 75
RIC: 51840.



MASS SPECTRUM
05/04/89 12:56:00 + 18:58
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 172 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #569
CALI: IC30504 #3

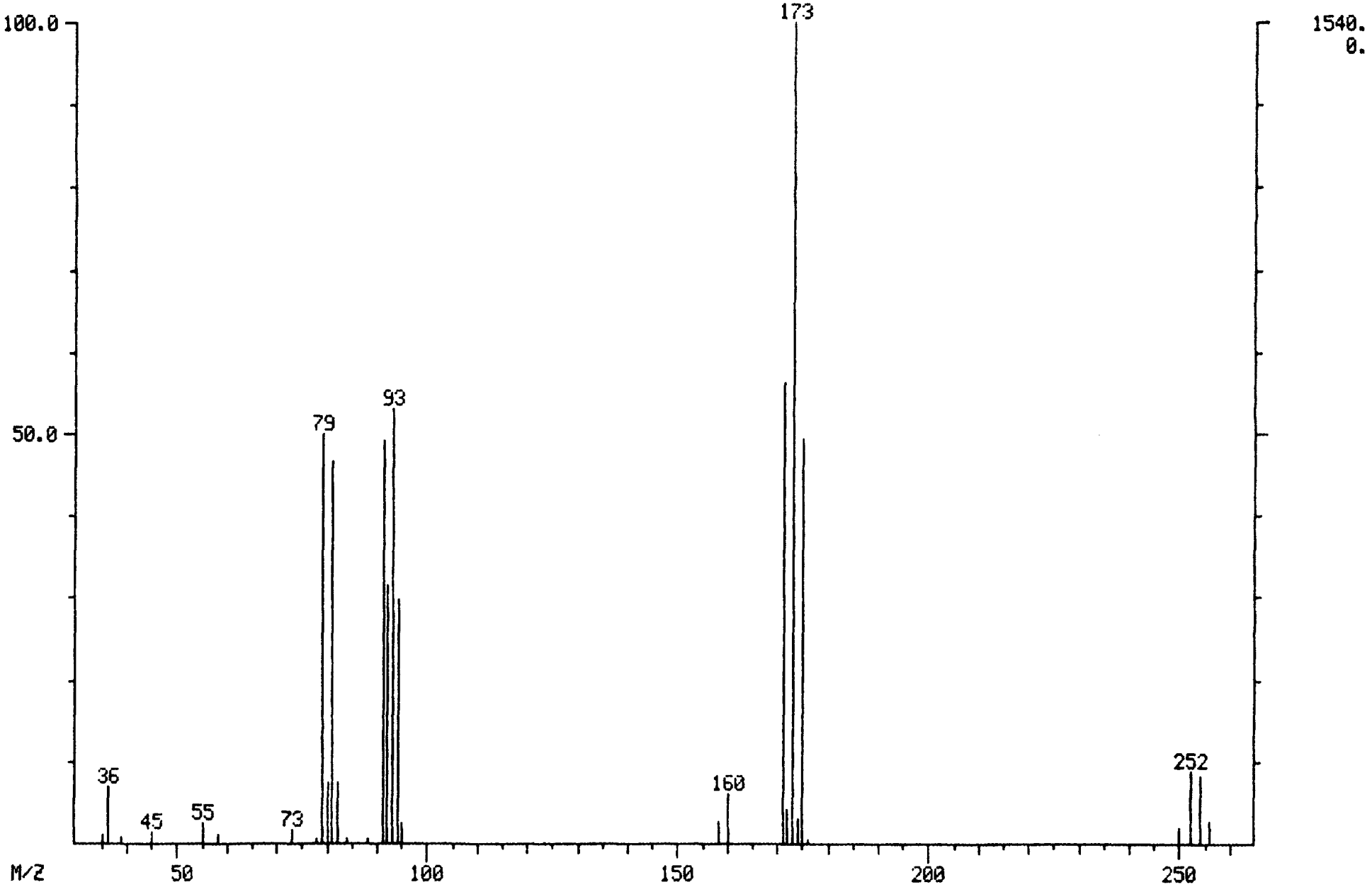
BASE M/Z: 63
RIC: 8400.



MASS SPECTRUM
05/04/89 12:56:00 + 20:34
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 184 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #617
CALI: IC30504 #3

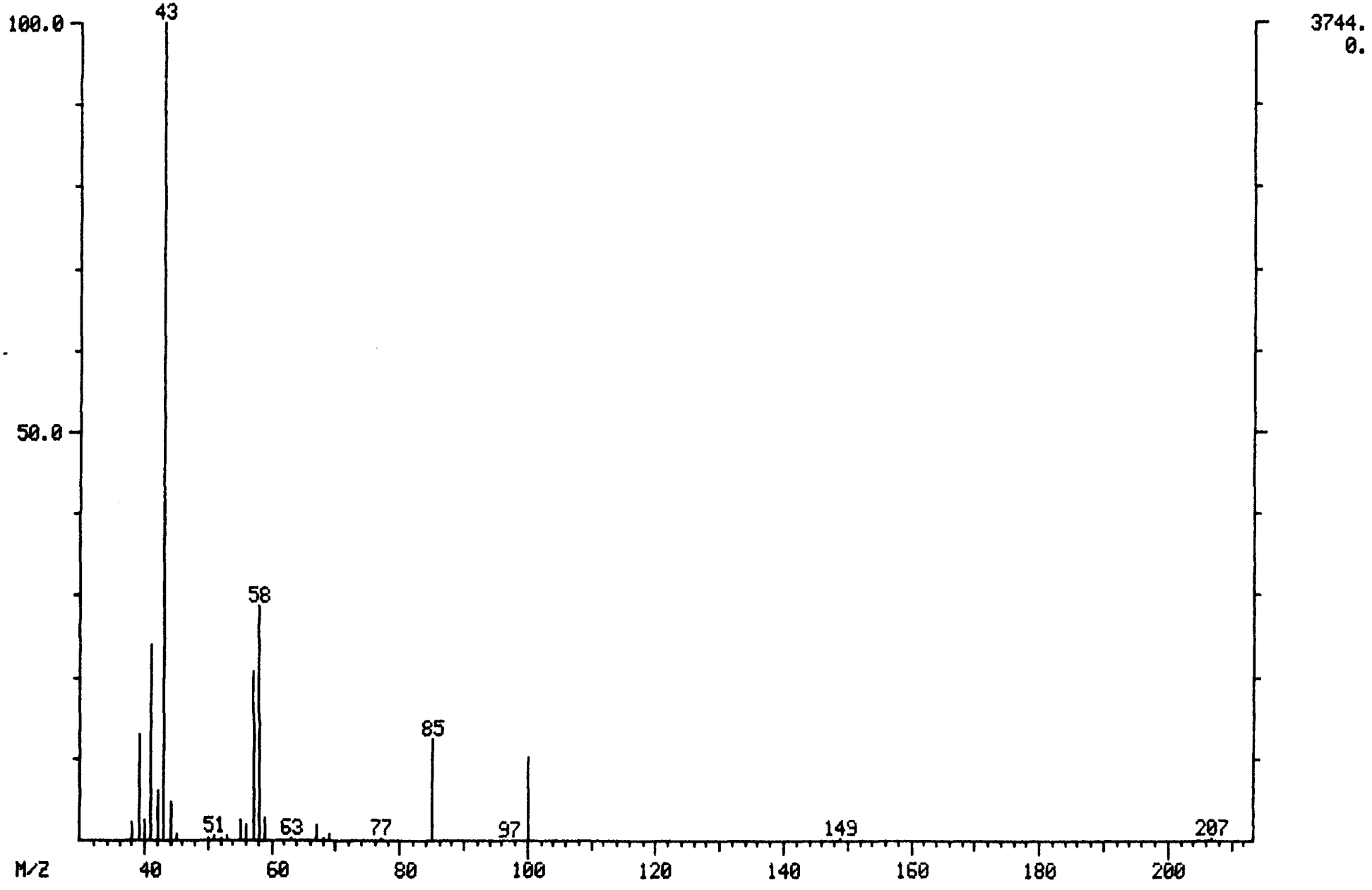
BASE M/Z: 173
RIC: 8304.



MASS SPECTRUM
05/04/89 12:56:00 + 20:58
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 188 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #629
CALI: IC30504 #3

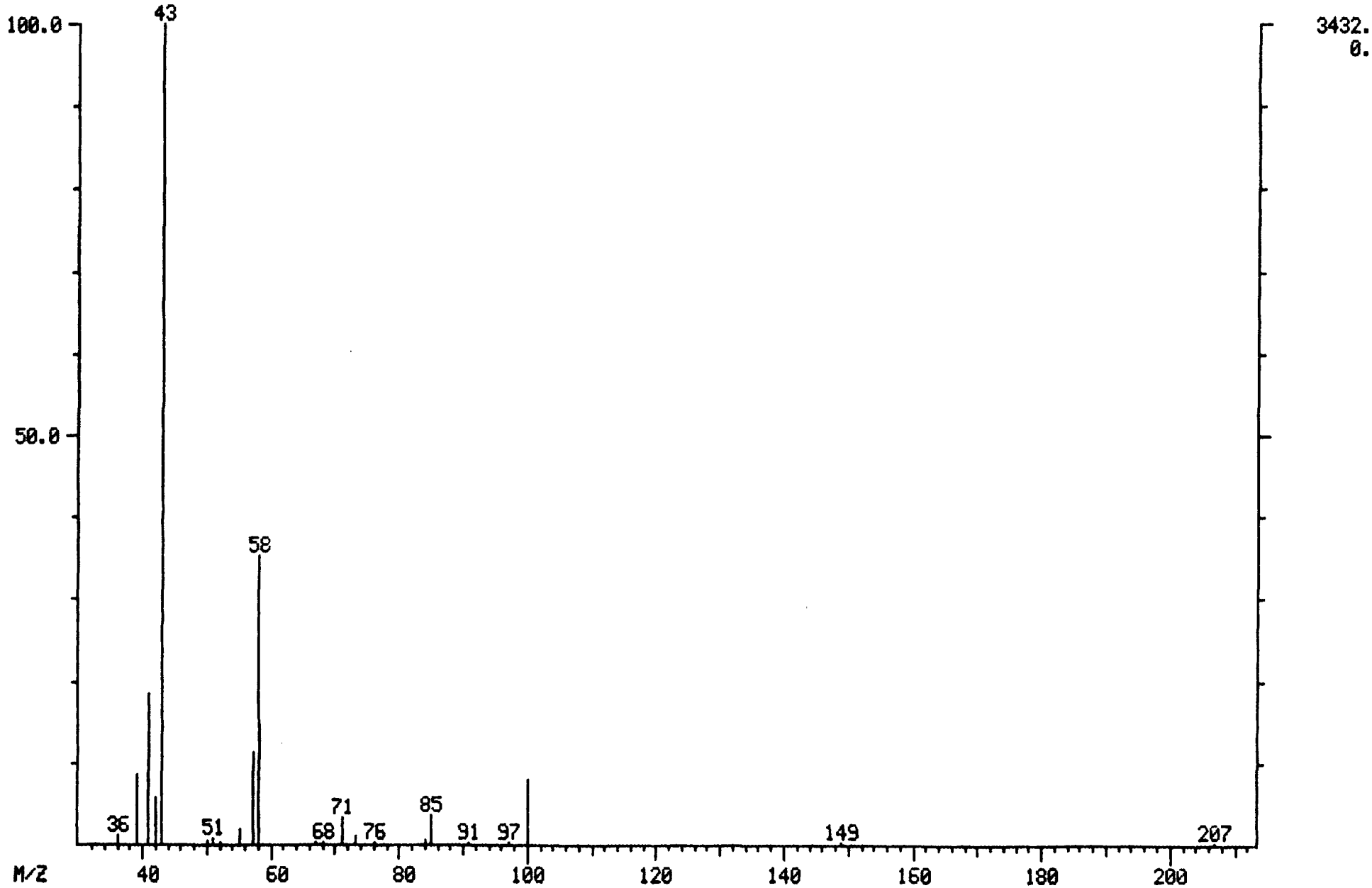
BASE M/Z: 43
RIC: 8976.



MASS SPECTRUM
05/04/89 12:56:00 + 22:30
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 200 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #675
CALI: IC30504 #3

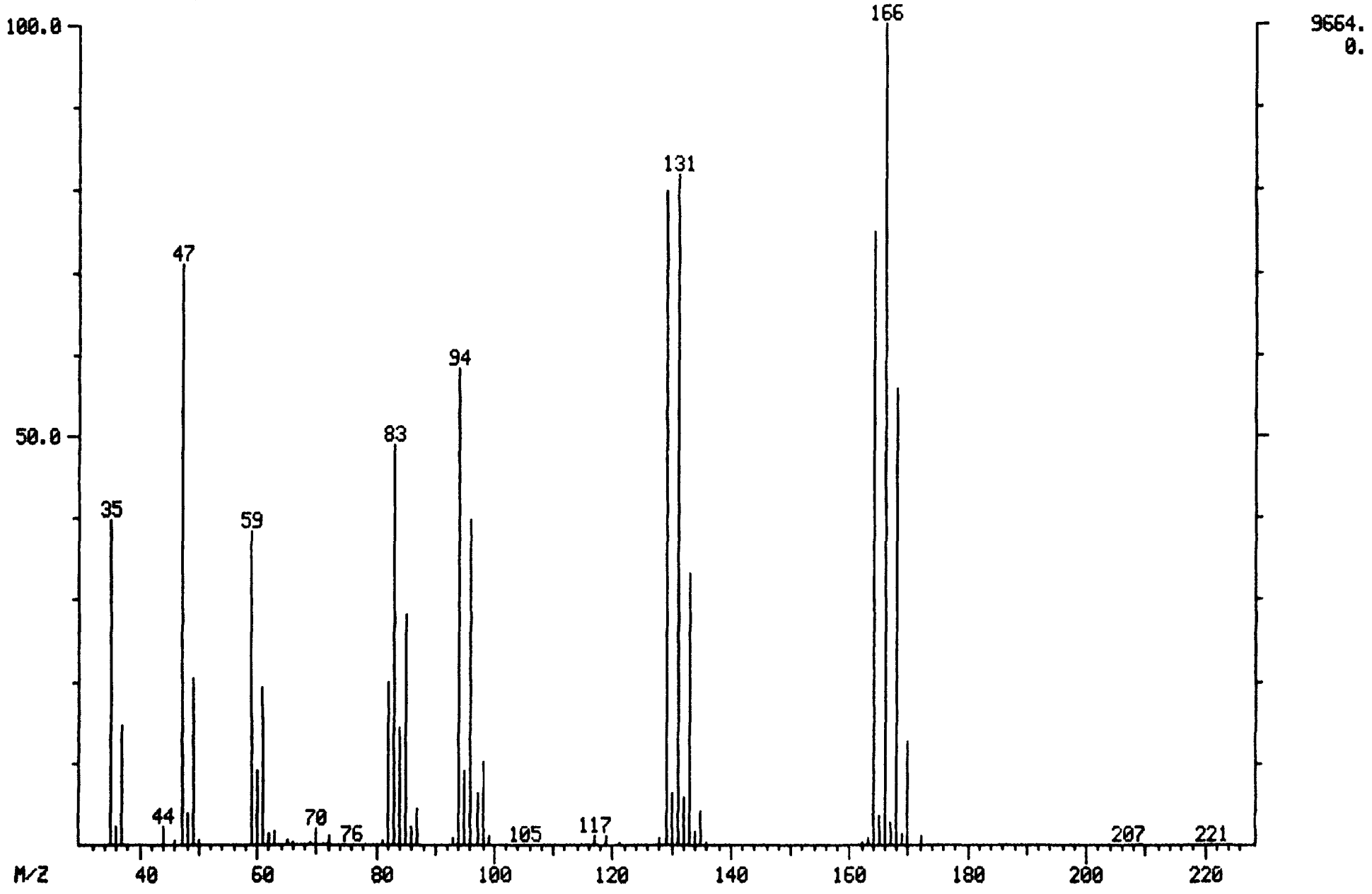
BASE M/Z: 43
RIC: 6960.



MASS SPECTRUM
05/04/89 12:56:00 + 22:50
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 203 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #685
CALI: IC30504 #3

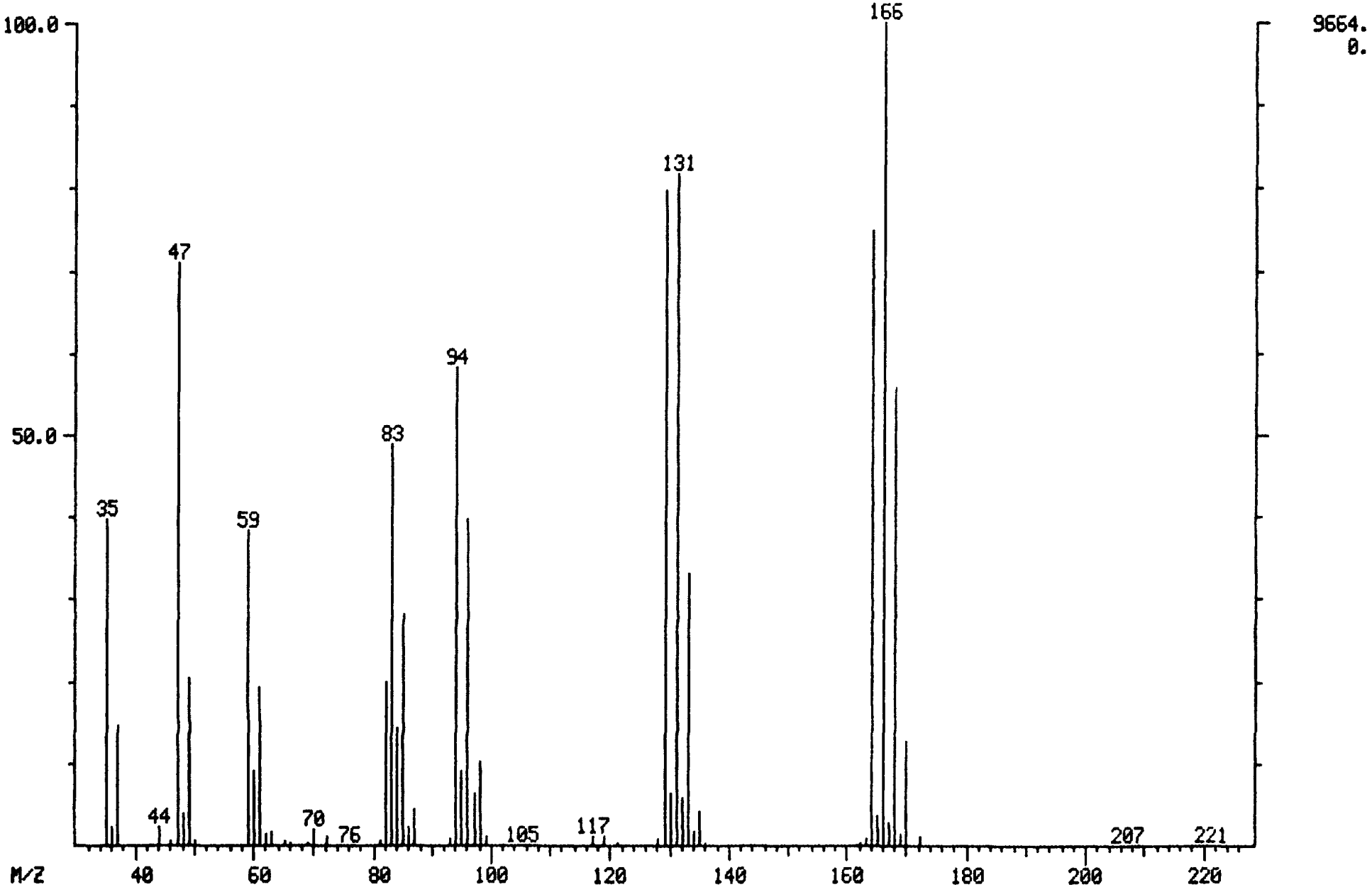
BASE M/Z: 166
RIC: 91264.



MASS SPECTRUM
05/04/89 12:56:00 + 22:50
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 203 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #685
CALI: IC30504 #3

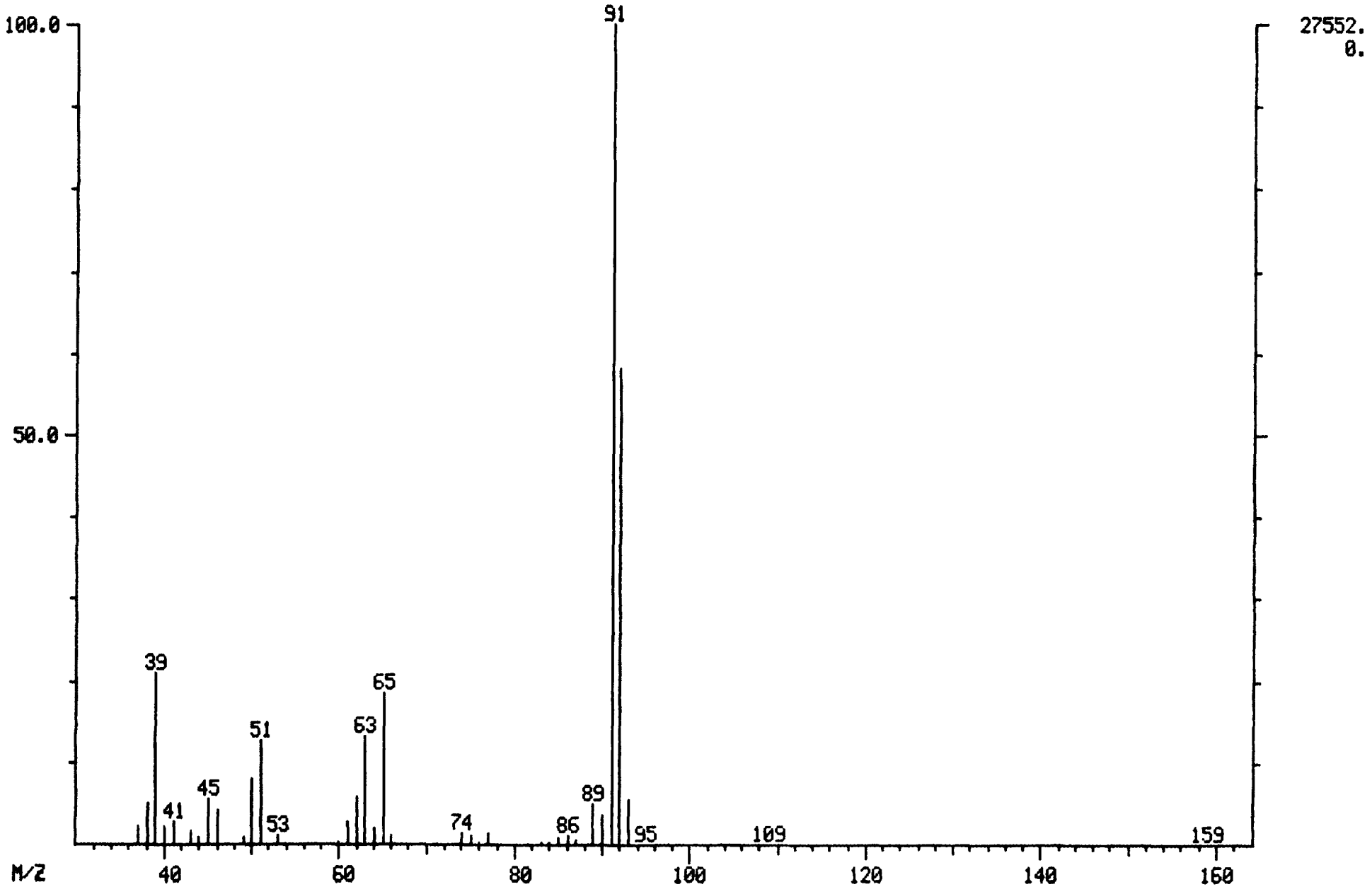
BASE M/Z: 166
RIC: 91264.



MASS SPECTRUM
05/04/89 12:56:00 + 24:08
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 213 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #724
CALI: IC30504 #3

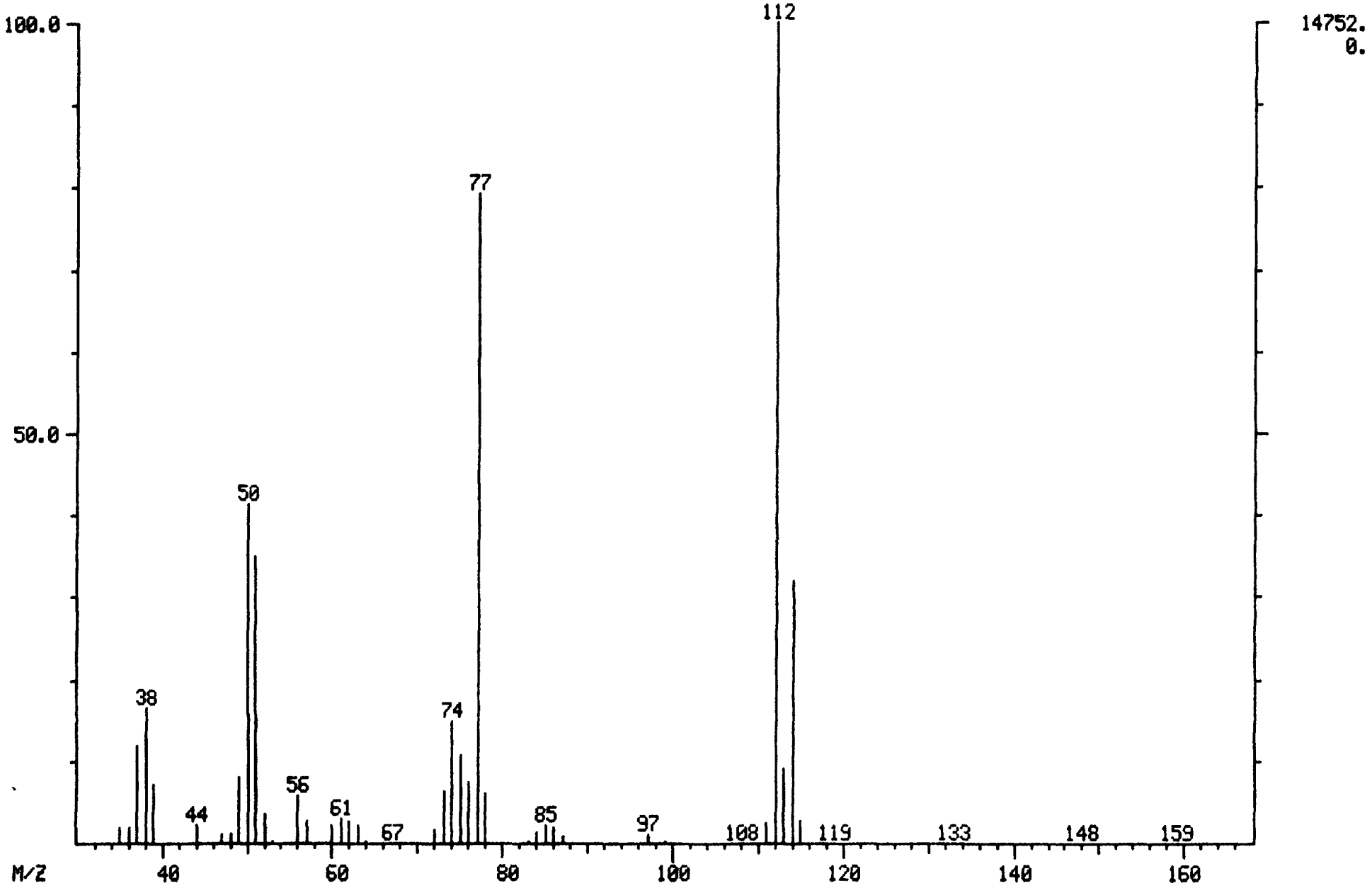
BASE M/Z: 91
RIC: 80384.



MASS SPECTRUM
05/04/89 12:56:00 + 25:18
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 220 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #759
CALI: IC30504 #3

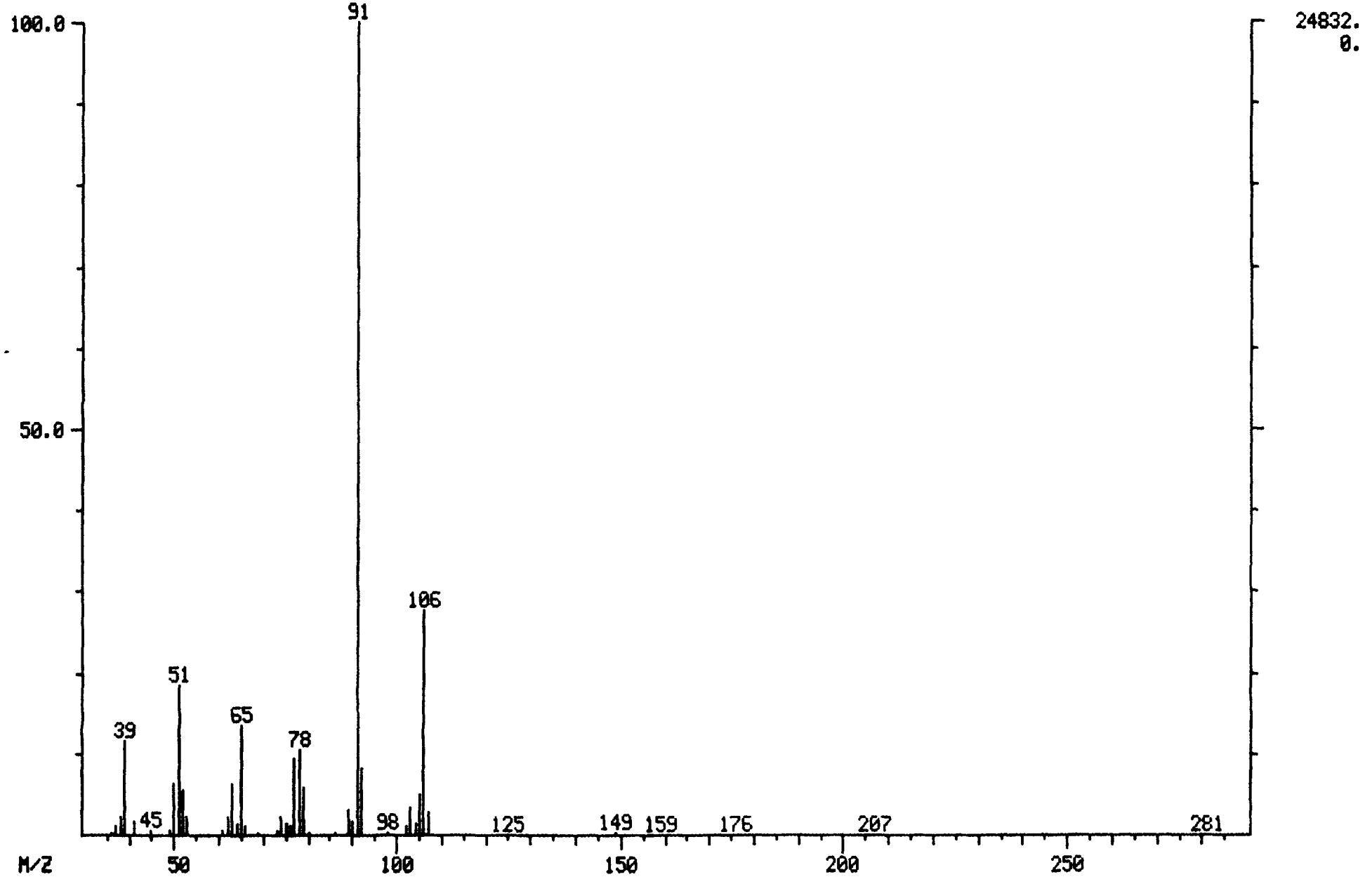
BASE M/Z: 112
RIC: 63808.



MASS SPECTRUM
05/04/89 12:56:00 + 27:20
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #820
CALI: IC30504 #3

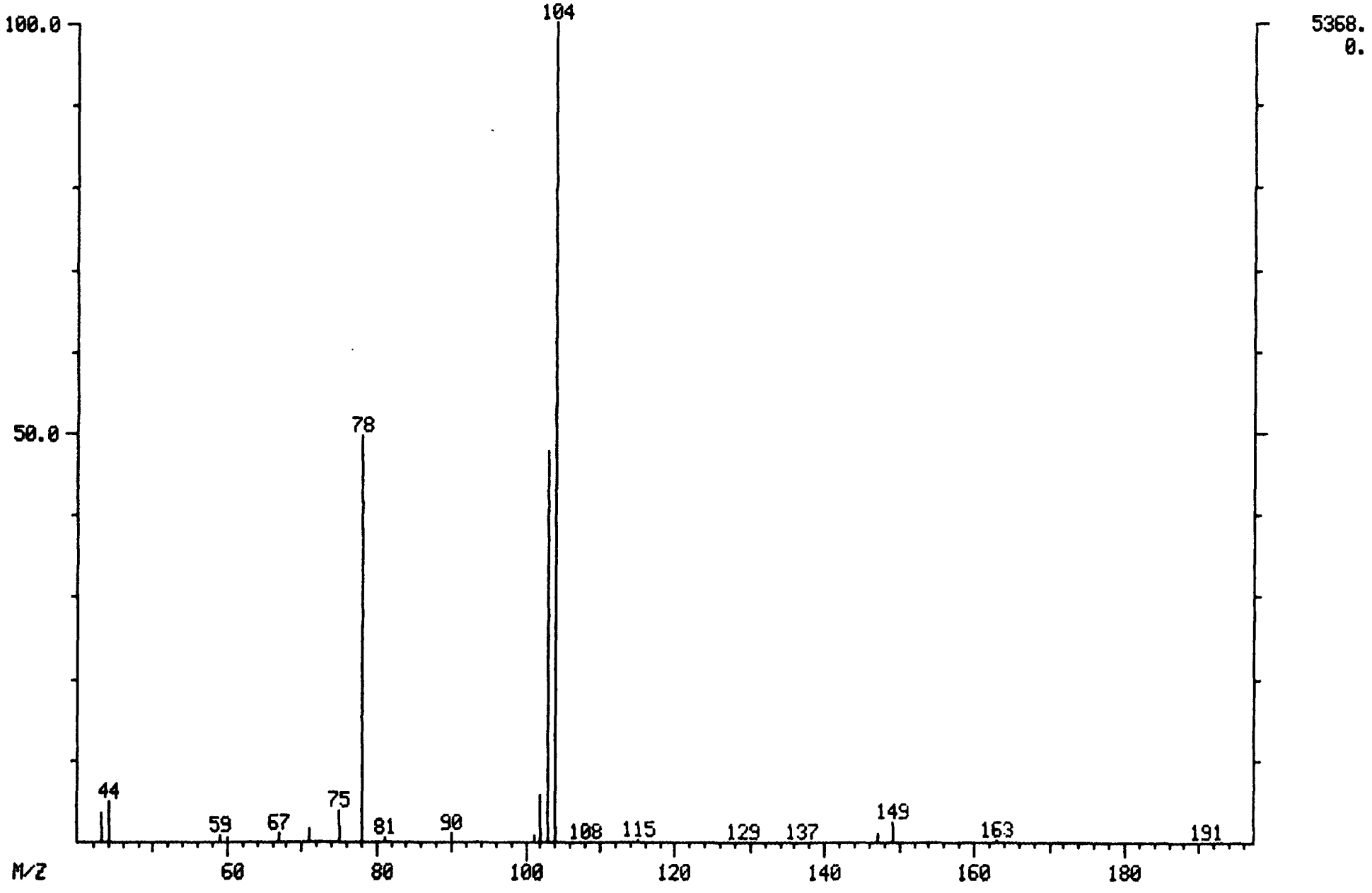
BASE M/Z: 91
RIC: 65280.



MASS SPECTRUM
05/04/89 12:56:00 + 31:32
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #346
CALI: IC30504 #3

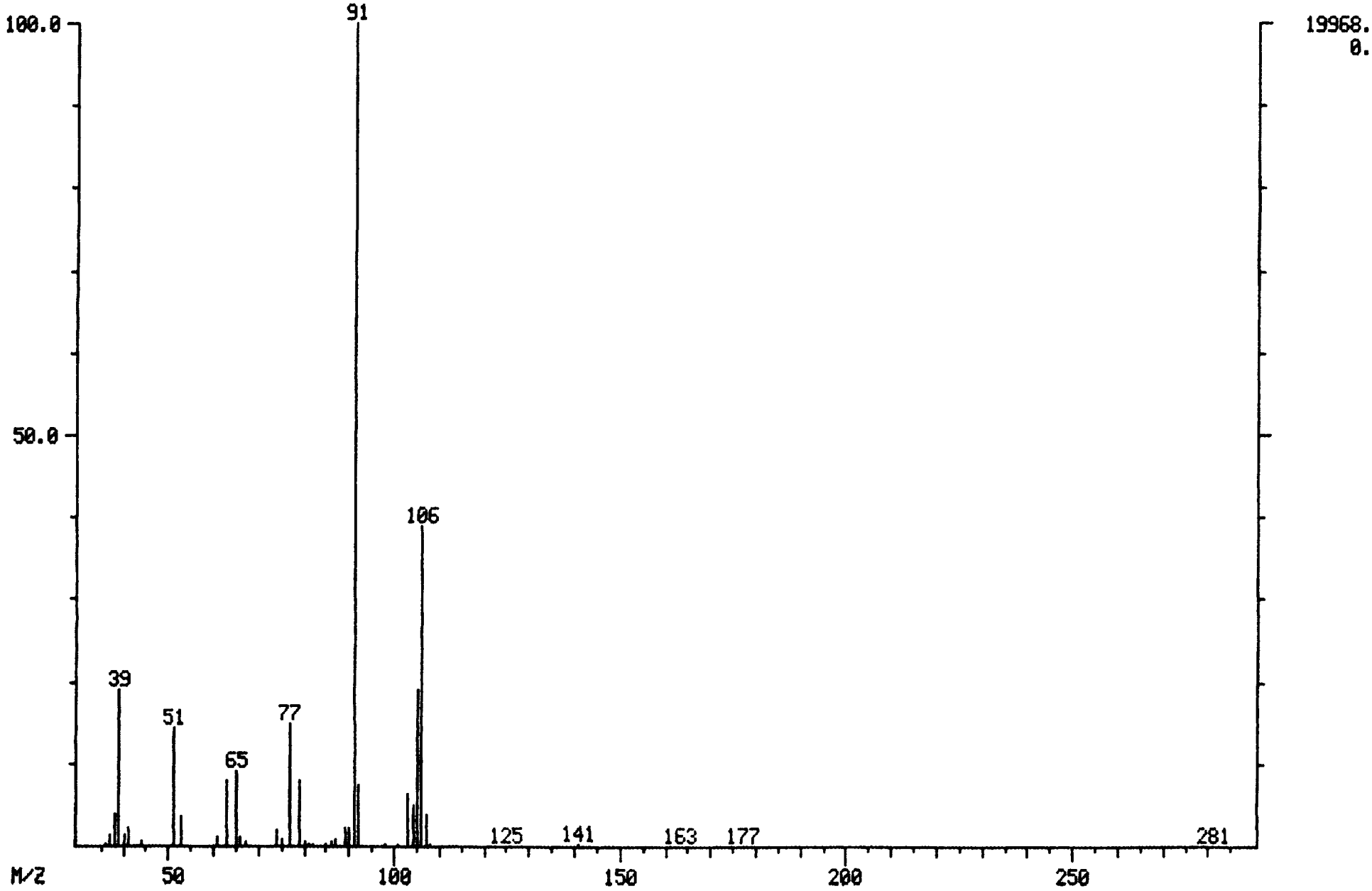
BASE M/Z: 104
RIC: 12144.



MASS SPECTRUM
05/04/89 12:56:00 + 31:50
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #955
CALI: IC30504 #3

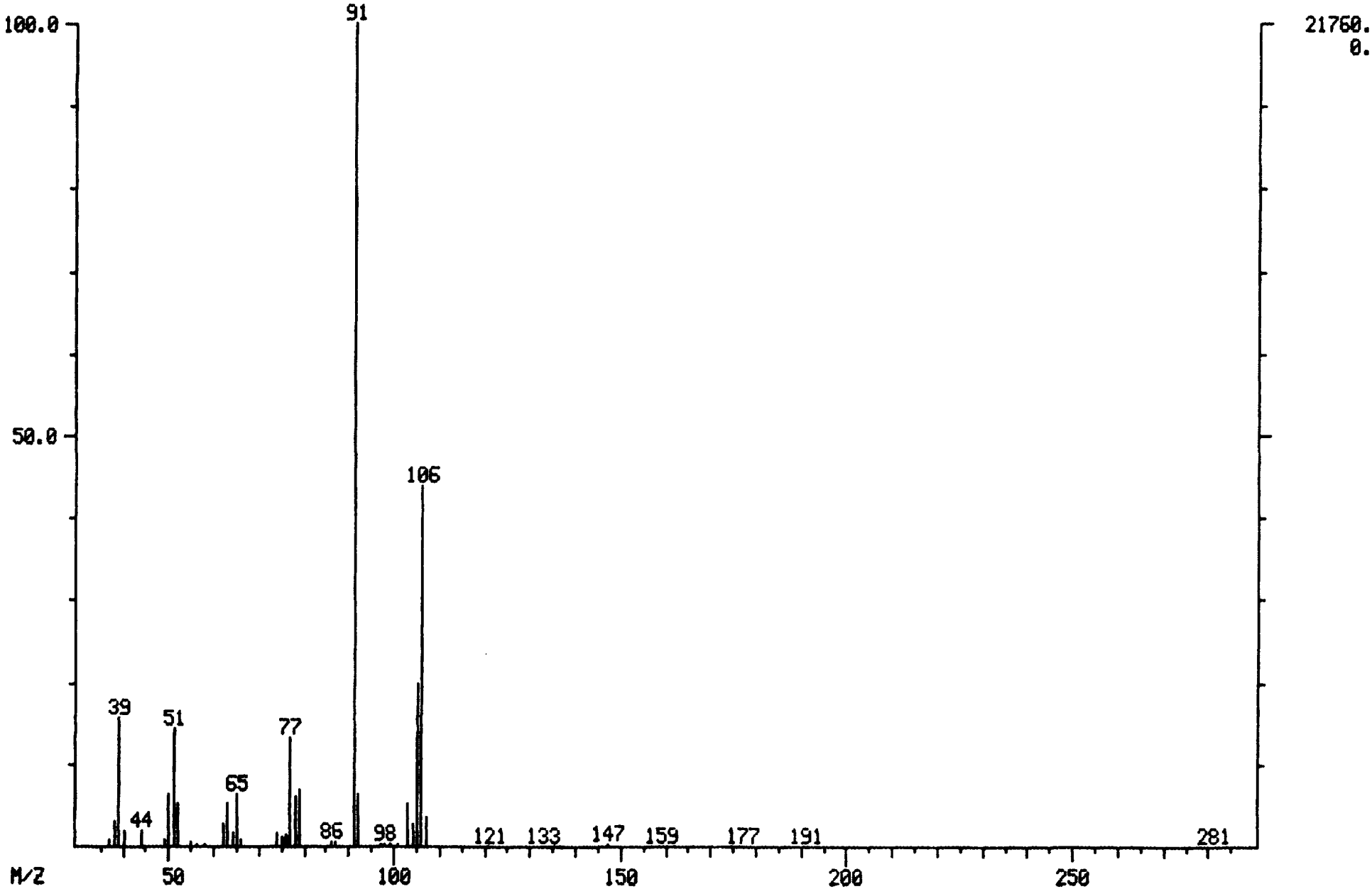
BASE M/Z: 91
RIC: 56192.



MASS SPECTRUM
05/04/89 12:56:00 + 32:54
SAMPLE: CLP,0504,,IC30504,L,W,,V,IC-100,
CONDS.: 45'(3MIN) TO 220'@ 8'/MIN
TEMP: 219 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: IC30504 #987
CALI: IC30504 #3

BASE M/Z: 91
RIC: 61696.



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JUL 20 1989

SUBJECT: Review of Region 5 data for T.O. Plastics

FROM: Curtis Ross, Director JVM for CR
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF 6231
Sample Numbers: 89F5222 S11 - S12 - R17 / P12
Parameter(s): CN
Laboratory: CRL / ESAT

Results Status:

(X) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

RECEIVED
S. Griffin
JUL 21 1989
U.S. EPA CENTRAL
REGIONAL LAB

If there are any questions regarding the data, refer them to David Payne, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE:

Comments:

DATA SET	SITE	DU/ACT.
SF 6231	T.O. plastic	TFA

SAMPLES	PARAMETER(S)
89PS22 S11-S12 D12/R17	CN

SAMPLED	RECEIVED	DUE	LAB
6/20/89	6/21/89	7/12/89	CRL/ESAT

SHIPPED	DATA RECEIVED	CONTRACT
—	N/A	—

Comments By Reviewer:

(✓) REVIEWED ( ) UNREVIEWED RP 7/18/89 TEAM LEADER/DATE

( ) REVIEWED (✓) UNREVIEWED SECTION CHIEF/DATE JVM for CMT 19 July 89

( ) REVIEWED ( ) UNREVIEWED QC COORDINATOR/DATE

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 7/20/89 TRANSMITTED 7/20/89 DATA MANAGEMENT COORDINATOR Sylvia Griffin

ESAT CONTRACT TID NO: 06-06
TASK NO: 3092

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on 6/27, 1989 for:

DATASET NO: SF6231 SITE NAME: T.O. Plastics

PARAMETER : CN

MATRIX : Water SF DU/ACT NO: TFA 302 Y____ /C____

SAMPLE NUMBERS: 89FS22S11-S12, 89FS22D12, 89FS11R17

NUMBER OF SAMPLES: 4

ESAT APPROVALS:

(ANALYST 6/27/89 DATE)	(TEAM LEADER 7/10/89 DATE)
(QC COORDINATOR 7/11/89 DATE)	(ESAT TEAM MANAGER 7/12/89 DATE)

COMMENTS: Samples run by method 335.3 ns

The subject dataset was transferred to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the date indicated below.

(DELIVERED BY 7/12/89 DATE)	(RECEIVED BY 7/12/89 DATE)

EPA APPROVALS:

(EPA TASK MONITOR 7/18/89 DATE)

[X] Reviewed
[ ] Unreviewed
[X] Accepted
[ ] Rejected
[ ] Returned/_____ (Date)

COMMENTS:

(SECTION CHIEF 19 July 89 DATE)

[ ] Reviewed [X] Unreviewed

(ESAT DPO DATE)

(DATA COORD'R REC'D 7-20-89, TRANSMTD 7-20-89)

DOC.NO.: ESAT-05-0003-FORM
REVISION NO.: 05 (04/05/89) FILE LOCATION NUMBER: 5.6.1

012-88
7/18/89

TFA302

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/[illegible]

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER Cr^{+6} UG Cr^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
89FS22S11	RW1 5188327		✓ 5u			
S12	RW2 5188331		✓ 5u			
D12	Dup 5188335		✓ 5u			
89FS11R17	Blk 5188343		✓ 5u			
			M. Fletcher 6/28/89 Method # 335.3 Auto UV Screen			

SF 6231

M. Fletcher
6/30/89

* REGRESSION ANALYSIS * CSC VERSION 2.00 +

NAME OF ANALYST ---: M. FLETCHER
PARAMETER NAME ----: CN
DATE OF ANALYSIS --: 06-28-1989

DATA SET NUMBER ---: SF6231, SF6232
DU NUMBER ---------: Y305

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = -3.87543E-01
+5.96998E-01 * SIGNAL

COEFFICIENT OF DETERMINATION : .9998794

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION	CALCULATED
1	+0.200	+0.000	-0.269
2	+9.600	+5.000	+5.343
3	+17.400	+10.000	+10.000
4	+42.400	+25.000	+24.925
5	+84.400	+50.000	+49.999

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	CONCENTRATION	
BLK	+0.500	-0.090	LIMIT = 0 ± 5ug/l
BLK	+0.400	-0.149	LIMIT = 0 ± 5ug/l
BLK	+1.000	+0.209	LIMIT = 0 ± 5 ug/l
BLK	+0.500	-0.090	LIMIT = 0 ± 5 ug/l
LOW AQC 5	+8.900	+4.925	positive result req
HIGH AQC 20	+37.300	+21.880	LIMIT = 20 ± 5 ug/l
BLK	+0.500	-0.090	LIMIT = 0 ± 5 ug/l
89FS22S11 SF6231	+0.600	-0.030	5u
89FS22S12	+0.600	-0.030	5u
89FS22D12	+0.500	-0.090	5u
89FS11R17	+0.500	-0.090	5u
89FM22S01 SF6232	+0.000	-0.388	5u
89FM22S02	+0.500	-0.090	5u
89FM22S03	+0.200	-0.269	5u
89FM22S05	+0.500	-0.090	5u
89FM22D01	+0.500	-0.090	5u
89FM11R15	+0.600	-0.030	5u
89FM22S03 LABDU	+0.500	-0.090	5u
89FM22S03 LABSP	+41.600	+24.447	LIMIT = 20 ug/l ± 5ug/l ; RPC = 24
BLK	+1.500	+0.507	LIMIT = 0 ± 5ug/l
BLK	+1.000	+0.209	LIMIT = 0 ± 5 ug/l
LOW AQC 5	+10.100	+5.642	LIMIT = 0 ± 5 ug/l
HIGH AQC 20	+35.800	+20.984	LIMIT = 20 ± 5ug/l
BLK	+2.000	+0.806	LIMIT = 0 ± 5ug/l

COMPUTATION SHEET

5231

OFFICE		FILE NO. N A.
SUBJECT CN screening SF6231, SF6232		M. Fletcher 6/30/84
COMPUTATION		
COMPUTED BY M. Fletcher	CHECKED BY	DATE 6/27/84 PAGE 1 OF 1 PAGES

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				READING	CONC ug/l (N)		LIMITS QC	Cl2 screen starch iodine paper	S2- screen Pb acetate paper
BLK				.50	-0.09		0 ± 5 ug/l		
BLK				.40	-.15		0 ± 5 ug/l		
Standards	0			0.20	-0.27				
	5			9.60	5.34				
	10			17.40	10.00				
	25			42.40	24.92				
	50			84.40	50.00				
BLK				1.00	.21		0 ± 5 ug/l		
BLK				.50	-.09		0 ± 5 ug/l		
LOW PQC	5 (units)			8.50	4.92		positive result		
HIGH PQC	20 (units)			37.30	21.88		20 ± 5 ug/l		
BLK				0.50	-0.09		0 ± 5 ug/l		
SF6231	89FS22S11			0.60	-0.03			neg	neg
	S12			0.60	-0.03			neg.	neg
	D12			0.50	-0.09			neg.	neg.
	FS11R17			0.50	-0.09			neg.	neg
SF6232	89FM22S11			0.00	-.34			neg	neg
	S02			0.50	-0.09			neg.	neg
	S03			0.20	-0.27			neg	neg
	S05			0.50	-0.09			neg.	neg.
	D01			0.50	-0.09			neg.	neg
89	FM11R15			0.60	-0.03			neg.	neg.
89	FM22S03	lab dup		0.50	-0.09				
	S03	lab spike		41.60	24.45	rec=24%	20 ± 5 ug/l		
BLK				1.50	0.51		0 ± 5 ug/l		
BLK				1.00	0.21		0 ± 5 ug/l		
LOW PQC	5 (units)			10.10	5.64		positive result		
HIGH PQC	20 (units)			35.80	20.98		20 ± 5 ug/l		
BLK				2.00	0.81		0 ± 5 ug/l		

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JUL 20 1989

SUBJECT: Review of Region 5 data for T. O. Plastics

FROM: Curtis Ross, Director B. J. Evangelista, for.
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF-6231
Sample Numbers: 89FS22 S11-S12; D12; 89FS11R17
Parameter(s): PCB/Pesticides
Laboratory: CRL

Results Status:

( ) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

S. Griffin
JUL 28 1989

U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE:

Comments:

DATA SET	SITE	DU/ACT.
SF 6231	T.O. Plastics	TFA 302

SAMPLES	PARAMETER(S)
89FS22 $11 – $12; D12	PCB/Pesticides

89 FS 11 R17

SAMPLED	RECEIVED	DUE	LAB
6/20/89	6/21/89	7/12/89	CRL

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.

Comments By Reviewer: Data acceptable for use.

1. PCB matrix spike recovery of 100% is acceptable. No PCB MSD was done due to insufficient sample submitted.
2. Pest MS/MSD recoveries are within the respective limits for the individual parameters. RPD for the duplicate determinations are acceptable. Lack of precision for Lindane + Heptachlor (RPD = 35%) does not affect the data. No Lindane + Heptachlor are found in the samples.
3. DBC surrogate spike recoveries are on the high side and ~~does~~ do not impact the data negatively.
4. The method blank has a few contaminant peaks not matching any parameters of interest; has no effect on the qualitative/quantitative analyses of the samples.
5. Instrument QC are acceptable.

DATA MANAGEMENT COORDINATOR

RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(✓) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE	L Evangelista 7/17/89	
( ) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
( ) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE		

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
7/20/89	7/20/89	Sylvia Duffin

Form # 1:

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC DATA FORM:

DIVISION/BRANCH: SF/FIT Sampling Date: 6 12 0189 (Month Day Year) Arrival Date: 6 12 1189 (Month Day Year) Analysis Due Date: 7 1 2189 (Month Day Ye)

T.O. Plastics

D.U. Number: TFA Group #: SF6231 Activity #: Study:

All units are micrograms per liter or milligram per kilograms Sample Type: Water, Sediment, Oil, Sludge

#	Sample #	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor	Aroclor	Aroclor	Dibuthyl phthalate	Diethyl Hexyl phthalate	
1	89F522511	.2 u	.2 u	.2 u	.2 u						
2	89F522512	.2 u	.2 u	.2 u	.2 u						
3	89F522D12	.2 u	.2 u	.2 u	.2 u						
4	89F511R17	.2 u	.2 u	.2 u	.2 u						
5						Nidia Feliciano					
6							7/6/89				
7											
8											
9											
0											
1											
2											
3											
4											
5											
6											
7											
8											
9											
0											
1											
2											

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC FORM

DIVISION/BRANCH: SF/FIT Sampling Date: 6/20/89 Arrival Date: 6/21/89 Analysis Due Date: 7/12/89

Sample#/
D.U. Number: TFA ~~Group#~~ SF 6231 Activity#: Study: T.O. Plastico

ALL UNITS ARE MICROGRAMS PER LITER OR MILLIGRAMS PER KILOGRAM. Sample type:

Pesticide / Sample #	Y-BHC Lindane	Heptachlor	Aldrin	Heptachlor Epoxide	Endosulfan I	Lieldrin	Endrin	Endosulfan II	pp-DDE	Beta-BHC	Delta-BHC	Alpha-BHC	pp-DDD	pp-DDT	Methoxychlor	Endosulfan Sulfate	Endrin Aldehyde	Endrin Ketone	T-Chlordane	Toxaphene
1. 89F522511	.002	.03 u	.02 u	.01 u	.01 u	.01 u	.01 u	.01 u	.02 u	.02 u	.02 u	.02 u	.04 u	.02 u	.02 u	.13 u	.05 u	.03 u		
2. 89F522512	.002 u	.03 u	.02 u	.01 u	.01 u	.01 u	.01 u	.01 u	.02 u	.02 u	.02 u	.02 u	.04 u	.02 u	.02 u	.13 u	.05 u	.03 u		
3. 89F522012	.002 u	.03 u	.02 u	.01 u	.01 u	.01 u	.01 u	.01 u	.02 u	.02 u	.02 u	.02 u	.04 u	.02 u	.02 u	.13 u	.05 u	.03 u		
4. 89F521R17	.002 u	.03 u	.02 u	.01 u	.01 u	.01 u	.01 u	.01 u	.02 u	.02 u	.02 u	.02 u	.04 u	.02 u	.02 u	.13 u	.05 u	.03 u		
5.																				
6.																7/6/89				
7.																Nidia Feliciano				
8.																				
9.																				
10.																				
11.																				
12.																				
13.																				

USEPA REGION V CRL 07/03/89 15:28:38
SF6231 T.O.PLASTIC PAGE 01

WORKLIST : PPNF0002
TEST : PPWS0

WL#	ID	REP	COMMENTS
1	LRB		method blank
2	LF1		PEST MS
3	LF2		PEST MSD
4	LF3		PCB MS
5	LF4		PCB MSD
6	S9000268	01	S11
7	S9000269	01	S12
8	S9000270	01	D12
9	S9000271	01	R17

SUPERFUND

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

TFA302

DIVISION/BRANCH FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/13/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
89F922511	MSD/RW1 5-132723-25 5-188330		✓	✓		
S12	RW2 5-132842		✓	✓		
D12	Dup 5-188338		✓	✓		
89FS11R17	Blk 5-188346		✓	✓		

PCB/PEST EXTRACTION

DATA SET(S) SF6231 DATE EXTRACTED: 22 June 89
SAMPLE TYPE(S) water DATE CONCENTRATED: 23 June 89
EXTRACTION SYSTEM Sep. Funnel DATE COMPLETED:
SOLVENT SYSTEM CH_2Cl_2 VOLUMES USED

SAMPLE #	SAMPLE AMOUNT	CONC. EXTRACT	DILUTIONS 1ST	2ND	3RD	FINAL VOL	INSTDS MRX/OTHER	pH
89F$22$11 Pesticide MS	810 ml							6.0
89F$22$11 Pesticide MSD	920 ml							6.0
89F$22$11 PCB-MS	1L ~~1020 ml~~							6.0
89F$22$11	1L							6.0
89F$22$12	940 ml							6.5
89$22D12	1L							6.0
89F$11R17	1L							5.5
Method Blank for 6231	1L							7.0

It was confirmed with Linda E. that only 4-1L bottles of 89F$22$11 were received for Pest/PCB QC/QA extraction. Therefore, only 3 (three) matrix spikes were performed: 1 Pest MS + 1 Pest MSD and 1 PCB MS along with the original sample.

	#	PREPARATION DATE	VOLUME
MATRIX SPIKE SOLUTION:	~~1ml of Pesticide Matrix Spike solution was added to the Pest MS-MSD samples.~~ 1ml of PCB matrix Spike solution was added to the PCB-MS samples.		
~~MATRIX SPIKE~~ Surrogate SOLUTION:	1ml of 0.05µg/ml Pesticide surrogate std was added to all of the above samples.		
SURROGATES:			

PREP. CHEMIST Jason Holliday / Joann Fernandez ANALYST Nidia Feliciano 7/6/89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: JULY 7, 1989

SUBJECT: DATA SET SF6231
T.O. PLASTICS

FROM: NIDIA FELICIANO

TO : LINDA EVANGELISTA

This analysis report consists of four samples plus Q.C.. Samples were analyzed for Pesticides and PCB's using the CRL Method 608 DNS. The gas chromatographic analysis was followed using a Hewlett Packard 5890A GC-EC.

Internal standard areas are within the limits. Pesticides and PCB's surrogate recoveries are considerably high in all the samples, especially samples 89FS22S11, 89FS22S11 PCB MS and the Method Blank. Method Blank was reanalyzed but, recoveries results were the same as the first time. We proceeded in analyzing the spike surrogate solution in search of any possible contaminant. Spike solution was free of any contaminant. Contamination must have happened during sample preparation. Therefore, there is the possibility of phthalates esters contamination which generally appear in the chromatogram as large late eluting peaks which in this case is coeluting with DBC.

Method Blank shows unidentified peaks on the quantitation column at 6.52 and 24.33 min. These peak which are also present in all the samples, are not confirmed as ones of our parameters of interest. Field blank shows some early unidentified peaks which are also present in the sample and we considered field contaminants.

Pesticides and PCB matrix spike recoveries are acceptable. Due to a lack of sample no PCB matrix spike duplicate was done.

All samples are negative for pesticides and pcb's.

QC DATA

DATE:
DATA SET:

BLANK DATA:

	CONC. OF AROCLOR* (PPB)				CONC. OF PEST (PPB)
	1242	1248	1254	1260	
Method Blank	0.34	0.[illegible]	[illegible]	0.34	None detected

SPIKE DATA:

	COMPOUND:	* µg/L SPIKE ADDED TO MS	CONC. (ug) of PEST/PCB SPIKE ADDED TO DUPL.	SPIKE RESULT	SPIKE DUP. RESULT	RPD	% RECOVERY SPIKE RECOVERY	SPIKE DUPLICATE RECOVERY
PESTICIDES:	LINDANE	.07	.06	.05	.03	35	71	50
	HEPTACHLOR	.07	.06	.05	.03	35	71	50
	ALDRIN	.11	.10	.08	.06	19	73	60
	ENDOSULFAN-1	.13	.12	.12	.10	10	92	83
	DIELDRIN	.13	.12	.13	.11	8	100	92
	ENDRIN	.23	.22	.25	.23	5	109	104
	P,P'-DDT	.32	.30	.33	.30	3	103	100
	P,P'-METHOXYCHLOR	.38	.35	.44	.40	2	116	114
	DIBUTYL CHLORENDATE	.54	.50	.79	.76	4	146	152
PCB:	AROCLOR 1242 **		3.00	3.0		—	100	

COMMENTS: * Amount of spike added were corrected for sample amount. (See AQC Data Attachment)
** Insufficient sample for a PCB MSD

SF 6231

AQC Data Attachment

		* Spike Added	Spike % Recovery
Lindane	$\frac{.06}{.92}$ =	.06 m.t.	57
Heptachlor	$\frac{.06}{.92}$ =	.06 m.t.	57
Aldrin	$\frac{.10}{.92}$ =	.10 m.t.	72
Endo I	$\frac{.12}{.92}$ =	.13	92
Dieldrin	$\frac{.12}{.92}$ =	.13	92
Endrin	$\frac{.22}{.92}$ =	.23	104
DDT	$\frac{.30}{.92}$ =	.32	103
DBC	$\frac{.5}{.92}$ =	.54	146
methoxychlor	$\frac{.35}{.92}$ =	.38	115

* spike added - corrected by sample amount = .92 l.

Quantitation Column Sequence Sheet

SF6231

SEQUENCE RECORDED IN A:PLA.SEQ

	SAMPLE NAME	METHOD NAME	~~DATA FILE~~ Internal Standard area	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	HEXANE	N:AREA%		5.0000	1.0000	1.00	1.000
2	DDT	N:AREA%	1611390	5.0000	1.0000	1.00	1.000
3	ENDRIN	N:AREA%	1592808	5.0000	1.0000	1.00	1.000
4	PESA^1	N:PESA	1418170	5.0000	1.0000	1.00	1.000
5	PESA^2	N:PESA	1499625	5.0000	1.0000	1.00	1.000
6	PESA^3	N:PESA	1546976	5.0000	1.0000	1.00	1.000
7	PESB 3	N:AREA%	1546018	5.0000	1.0000	1.00	1.000
8	PESA^4	N:PESA	1335160	5.0000	1.0000	1.00	1.000
9	PESA^5	N:PESA	1349642	5.0000	1.0000	1.00	1.000
10	89FS22S12 PES MS	N:PESA	1334978	5.0000	1.0000	10.00	1.000
11	89FS22S12 PES MSD	N:PESA	1310345	5.0000	1.0000	10.00	1.000
12	PESTB 3	N:AREA%	1470640	5.0000	1.0000	1.00	1.000
13	METHOD BLANK	N:PESA	1415278	5.0000	1.0000	10.00	1.000
14	89FS22S11	N:PESA	1377357	5.0000	1.0000	10.00	1.000
15	89FS22S12	N:PESA	1380472	5.0000	1.0000	10.00	1.000
16	89FS22D12	N:PESA	1373718	5.0000	1.0000	10.00	1.000
17	89FS11R17	N:PESA	1253079	5.0000	1.0000	10.00	1.000
18	PESA	N:PESA	1758029	5.0000	1.0000	1.00	1.000
19	PESB 3	N:AREA%	1482648	5.0000	1.0000	1.00	1.000
20	A1242 2	N:AREA%	1690858	5.0000	1.0000	1.00	1.000
21	A1242 3	N:AREA%	1763004	5.0000	1.0000	1.00	1.000
22	A1242 4	N:AREA%	1722794	5.0000	1.0000	1.00	1.000
23	A1242 5	N:AREA%	1604150	5.0000	1.0000	1.00	1.000
24	A1242 6	N:AREA%	1633206	5.0000	1.0000	1.00	1.000
25	89FS22S12 PCB MS	N:AREA%	1365908	5.0000	1.0000	10.00	1.000
26	DDT	N:AREA%	1584895	5.0000	1.0000	1.00	1.000

Sequence conformation Column

SF6231

	SAMPLE NAME	METHOD NAME DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	HEXANE	N:AREA%	5.0000	1.0000	1.00	1.000
2	DDT	N:AREA%	5.0000	1.0000	1.00	1.000
3	ENDRIN	N:AREA%	5.0000	1.0000	1.00	1.000
4	PESA^1	N:PESA-2	5.0000	1.0000	1.00	1.000
5	PESA^3	N:PESA-2	5.0000	1.0000	1.00	1.000
6	PESA^5	N:PESA-2	5.0000	1.0000	1.00	1.000
7	89FS22S12 PES MS	N:PESA-2	5.0000	1.0000	10.00	1.000
8	89FS22S12 PES MSD	N:PESA-2	5.0000	1.0000	10.00	1.000
9	PESTB 3	N:AREA%	5.0000	1.0000	1.00	1.000
10	METHOD BLANK	N:PESA-2	5.0000	1.0000	10.00	1.000
11	89FS22S11	N:PESA-2	5.0000	1.0000	10.00	1.000
12	89FS22S12	N:PESA-2	5.0000	1.0000	10.00	1.000
13	89FS22D12	N:PESA-2	5.0000	1.0000	10.00	1.000
14	89FS11R17	N:PESA-2	5.0000	1.0000	10.00	1.000
15	PESA	N:PESA-2	5.0000	1.0000	1.00	1.000
16	PESB 3	N:AREA%	5.0000	1.0000	1.00	1.000
17	ENDRIN	N:AREA%	5.0000	1.0000	1.00	1.000
18	DDT	N:AREA%	5.0000	1.0000	1.00	1.000
19	A1242 2	N:AREA%	5.0000	1.0000	1.00	1.000
20	A1242 3	N:AREA%	5.0000	1.0000	1.00	1.000
21	A1242 4	N:AREA%	5.0000	1.0000	1.00	1.000
22	A1242 5	N:AREA%	5.0000	1.0000	1.00	1.000
23	A1242 6	N:AREA%	5.0000	1.0000	1.00	1.000
24	89FS22S12 PCB MS	N:AREA%	5.0000	1.0000	10.00	1.000

5F 6231

Internal Standard areas Report

point	value
1	1611390
2	1592808
3	1418170
4	1499625
5	1546976
6	1546018
7	1335160
8	1349642
9	1334978
10	1310345
11	1470640
12	1415270
13	1277357
14	1380472
15	1373718
16	1253079
17	1758029
18	1482648
19	1690858
20	1763004
21	1722794
22	1604150
23	1633206
24	1365908
25	1584895

DATA POINT	DATA ENTERED	DEVIATION
1	1611390	118544.4
2	1592808	99962.4
3	1418170	-74675.60000000001
4	1499625	6779.399999999994
5	1546976	54130.39999999999
6	1546018	53172.39999999999
7	1335160	-157685.6
8	1349642	-143203.6
9	1334978	-157867.6
10	1310345	-182500.6
11	1470640	-22205.60000000001
12	1415270	-77575.60000000001
13	1277357	-215488.6
14	1380472	-112373.6
15	1373718	-119127.6
16	1253079	-239766.6
17	1758029	265183.4
18	1482648	-10197.60000000001
19	1690858	198012.4
20	1763004	270158.4
21	1722794	229948.4
22	1604150	111304.4
23	1633206	140360.4
24	1365908	-126937.6
25	1584895	92049.4

The number of data points= 25

The sum of the data= 37321140

The mean= 1492845.6

The standard deviation is= 150791.5500234678

The coefficient of variation is= .1010094748066831

5F6231

SURROGATE PERCENT RECOVERY - DBC

SAMPLE	%RECOVERY
89FS22S11	175 n.f.
89FS22S12	146
89FS22D12	134
89FS11R17	132
89FS22S11PES MS	146 n.f.
89FS22S11PES MSD	152
89FS22S11PCB MS	186
METHOD BLANK	460

SF6237

PERCENT DEGRADATION FOR ENDRIN AND DDT

QUANTITATION COLUMN

FILE NAME	ENDRIN(%)
A:AA3	7.24
	DDT(%)
A:AA2	2.56
A:AA26	2.6

CONFIRMATION COLUMN

	ENDRIN(%)
A:AB3	20
A:AB17	19
	DDT(%)
A:AB2	4.3
A:AB18	2.23

SF 6231

Quantitation column

Standard	Peak area Initial Cal.	Peak area Cont. Cal.	% RPD
	Data file	Data file	
Mix A	H:AA16	H:AA18	
Alpha-BHC	472959	471074	0.39
Lindane	361134	349679	3.22
Heptachlor	422003	399257	5.53
Aldrin	724143	696027	3.95
Hept. Epox	1163843	1113874	4.38
Endosulfan I	1039969	1050792	1.03
Dieldrin	963360	984581	2.17
Endrin	754837	823517	8.70
Endosulfan II	2132313	2114890	0.82
DDT	1753893	1744261	0.55
DBC	1622920	1586436	2.27
Methoxychlor	1543615	1545209	0.10

********* AREA PERCENT REPORT *********

```
******************** 07-01-1989 09:47:38 Version 4.1 **********************
* Sample Name: DDT                                  Data File: a:aa2         *
* Date: 06-30-1989 09:33:23 Method: A:PESB                                   *
* Interface: 0   Cycle#:  2    Operator NID Channel#: 0    Vial#: N.A.      *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100               *
*****************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE      *
*              Solvent Description: NITROGEN                                 *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                            *
*            Detector 0: ECD 320C            Detector 1: ECD 320C            *
* Misc. Information: INSTRUMENT # 1                                          *
*****************************************************************************
```

SF6231

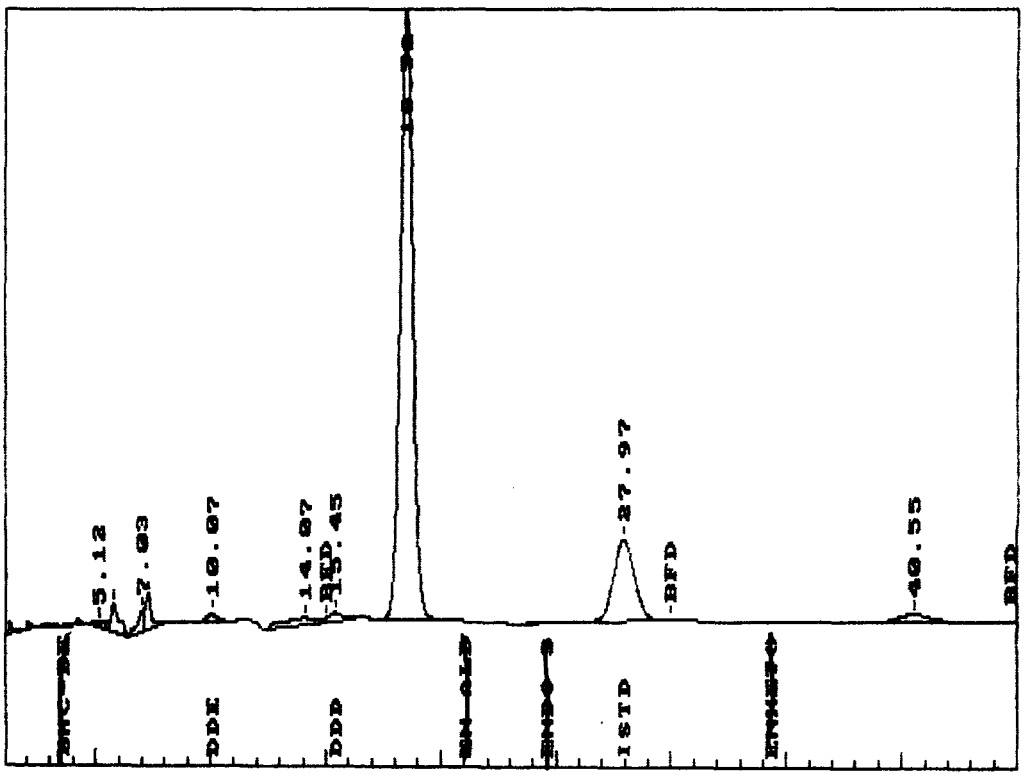
Starting Delay: 1.00 Run Time: 45.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
11	5.12	56372	0.5533	2	1698	0.770	33.2
12	5.78	245271	2.4074	2	9218	3.350	26.6
13	7.03	127564	1.2521	2	6650	1.742	19.2
14	7.28	224204	2.2007	3	11058	3.062	20.3
16	10.07 DDE	81291	0.7979	1	2667	1.110	30.5
17	14.07	229376	2.2514	2	2298	3.133	99.8
18	15.45 DDD	111343	1.0929	2	2447	1.521	45.5
19	18.52 DDT	7322301	71.8716	1	193862	100.000	37.8
21	27.97 ISTD	1611390	15.8165	1	25832	22.007	62.4
22	40.55	178915	1.7561	1	2256	2.443	79.3

% Degradation for DDT 2.56 %

Total Area: 10188028 Area Reject: 55555 One sample per 1.000 sec.

Data File = a:aa2.PTS Printed on 07-01-1989 at 09:48:16
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 36765 uv High Value: 236489 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A3

********* AREA PERCENT REPORT *********

```
******************** 07-01-1989 09:56:07 Version 4.1 *********************
* Sample Name: ENDRIN                          Data File: a:aa3            *
* Date: 06-30-1989 10:19:50 Method: N:AREA%                                *
* Interface: 0   Cycle#:  3    Operator NID Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
****************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE    *
*              Solvent Description: NITROGEN                               *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                          *
*            Detector 0: ECD 320C            Detector 1: ECD 320C          *
* Misc. Information: INSTRUMENT # 1                                        *
****************************************************************************
```

SFG203

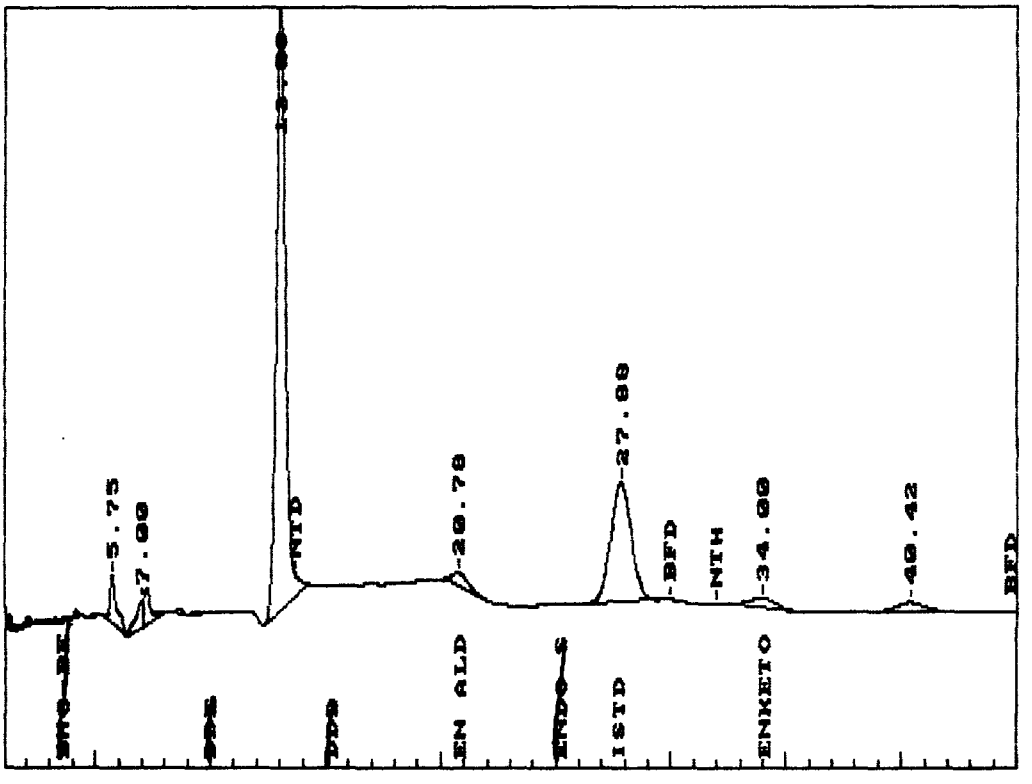
Starting Delay: 1.00 Run Time: 45.00

Pk No.	Ret Time		Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
12	5.75		219008	3.5011	1	10316	5.898	21.2
13	7.00		119187	1.9053	2	5756	3.210	20.7
14	7.25		172565	2.7586	3	7985	4.647	21.6
18	13.08	ENDRIN	3713245	59.3604	1	130939	100.000	28.4
19	20.78	EN-ALD	150036	2.3985	1	2830	4.041	53.0
20	27.88	ISTD	1592808	25.4628	1	25769	42.895	61.8
21	34.00	EN-KET	141315	2.2591	1	1833	3.806	77.1
22	40.42		147264	2.3542	1	1922	3.966	76.6

% degradation for Endrin = 7.24 %

Total Area: 6255426 Area Reject: 99999 One sample per 1.000 sec.

Data File = a:aa3.PTS Printed on 07-01-1989 at 09:56:44
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 36800 uv High Value: 173379 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A26

********* AREA PERCENT REPORT *********

```
******************** 07-03-1989 09:45:58 Version 4.1 **********************
* Sample Name: DDT                                Data File: a:aa26        *
* Date: 07-01-1989 07:25:21 Method: N:AREA%                                *
* Interface: 0   Cycle#:  26   Operator NID Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
****************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE    *
*              Solvent Description: NITROGEN                               *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                          *
*            Detector 0: ECD 320C            Detector 1: ECD 320C          *
* Misc. Information: INSTRUMENT # 1                      INSTRUMENT # 1    *
****************************************************************************
Starting Delay:   1.00                          Run Time:   45.00
```

SF6235

% Degradation for DDT = 2.6%

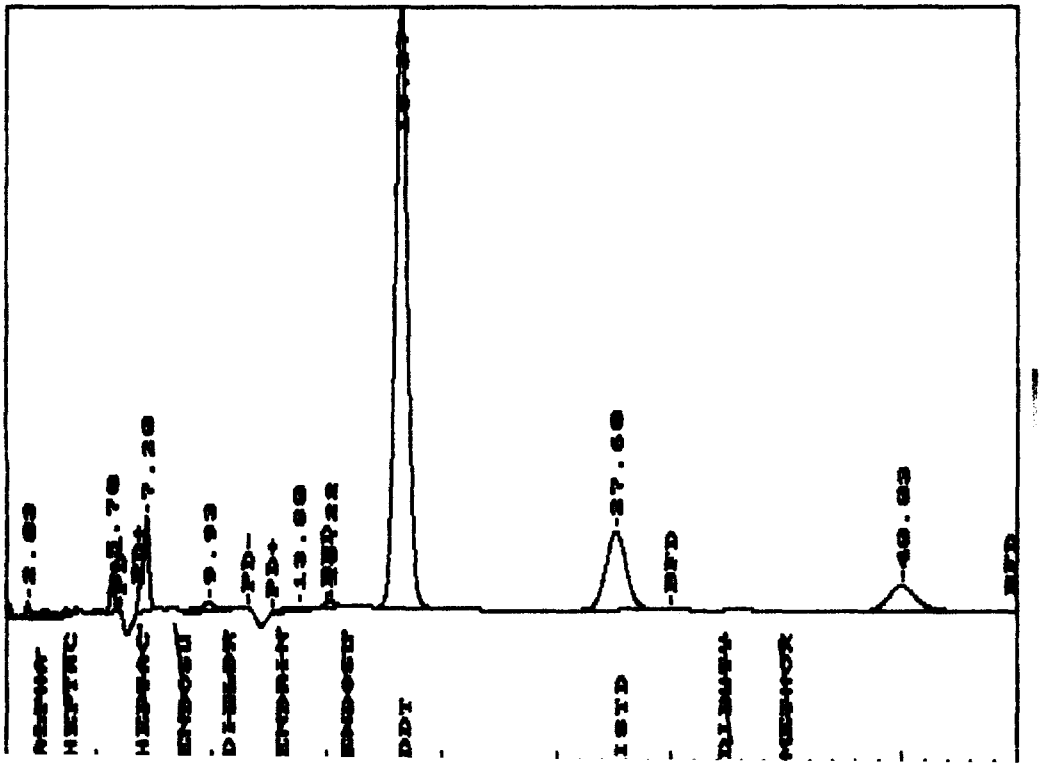
Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
4	2.03	70022	0.6502	2	5745	0.951	12.2
13	5.70	164385	1.5265	1	12049	2.234	13.6
14	7.20	596121	5.5355	1	30602	8.100	19.5
16	9.93 DDE	103207	0.9584	3	2886	1.402	35.8
18	13.80	107513	0.9983	2	1457	1.461	73.8
19	15.22 DDD	94275	0.8754	2	2274	1.281	41.5
20	18.27 DDT	7359433	68.3389	1	195890	100.000	37.6
21	27.60	1584895	14.7172	1	25429	21.536	62.3
22	40.03	689181	6.3997	1	8376	9.365	82.3

Total Area: 10769031 Area Reject: 50000 One sample per 1.000 sec.

Data File = a:aa26.PTS Printed on 07-03-1989 at 09:46:52

Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.

Low Value: 33780 uv High Value: 238413 uv Scale factor: 1.0



********* AREA PERCENT REPORT *********

```
******************** 07-04-1989 12:57:12 Version 4.1 *********************
* Sample Name: DDT                                  Data File: a:ab2       *
* Date: 07-01-1989 12:21:34 Method: N:AREA%                                *
* Interface: 0   Cycle#:  2    Operator NID Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
****************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE [SINGLE]  *
*              Solvent Description: NITROGEN                               *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                          *
*            Detector 0: ECD 320C            Detector 1: ECD 320C          *
* Misc. Information: INSTRUMENT # 1                                        *
****************************************************************************
```

SF6231

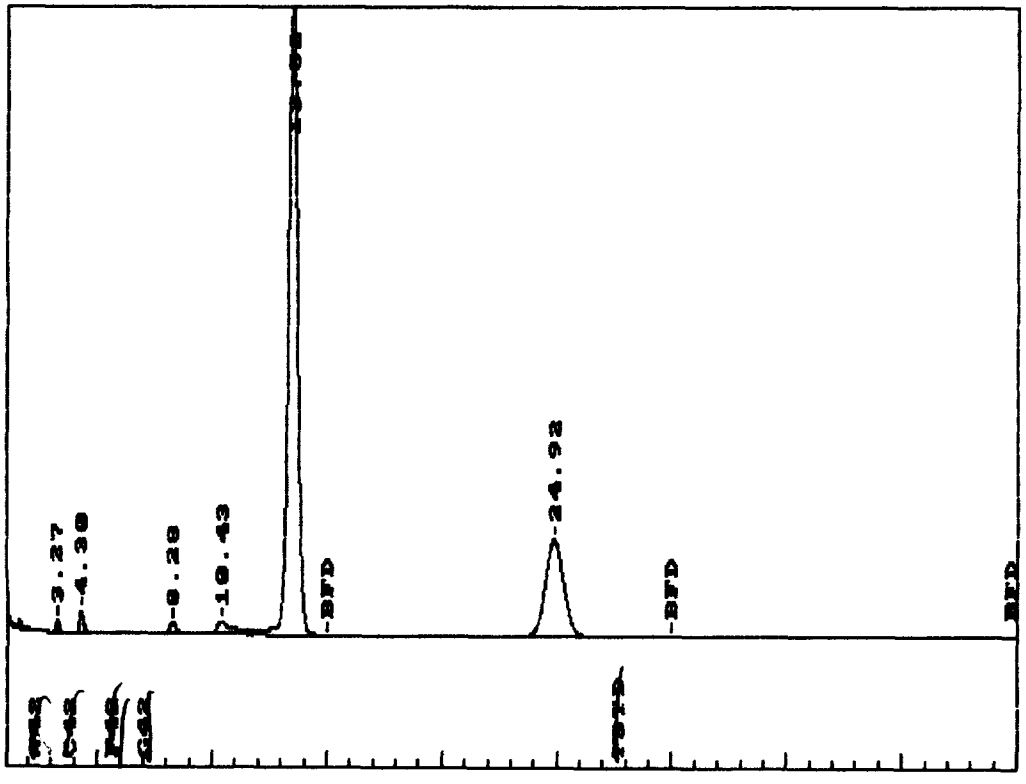
Starting Delay: 1.00 Run Time: 45.00

% Degradation for DDT = 4.3 %

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
6	3.27	76002	0.4347	2	8434	0.591	9.0
8	4.30	173605	0.9929	1	15467	1.351	11.2
12	8.28 DDD	170221	0.9736	1	8677	1.325	19.6
13	10.43 DDE	413220	2.3634	2	8980	3.215	46.0
14	13.52 DDT	12851540	73.5047	2	452648	100.000	28.4
15	24.92	3799378	21.7306	1	69655	29.564	54.5

Total Area: 17483964 Area Reject: 55555 One sample per 1.000 sec.

Data File = a:ab2.PTS Printed on 07-04-1989 at 12:57:39
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 58064 uv High Value: 511233 uv Scale factor: 1.0



********* AREA PERCENT REPORT *********

********** 07-03-1989 14:10:10 Version 4.1 **********
* Sample Name: DDT Data File: a:ab18 *
* Date: 07-03-1989 12:09:45 Method: N:AREA% *
* Interface: 0 Cycle#: 18 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *
****
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6231 *
****

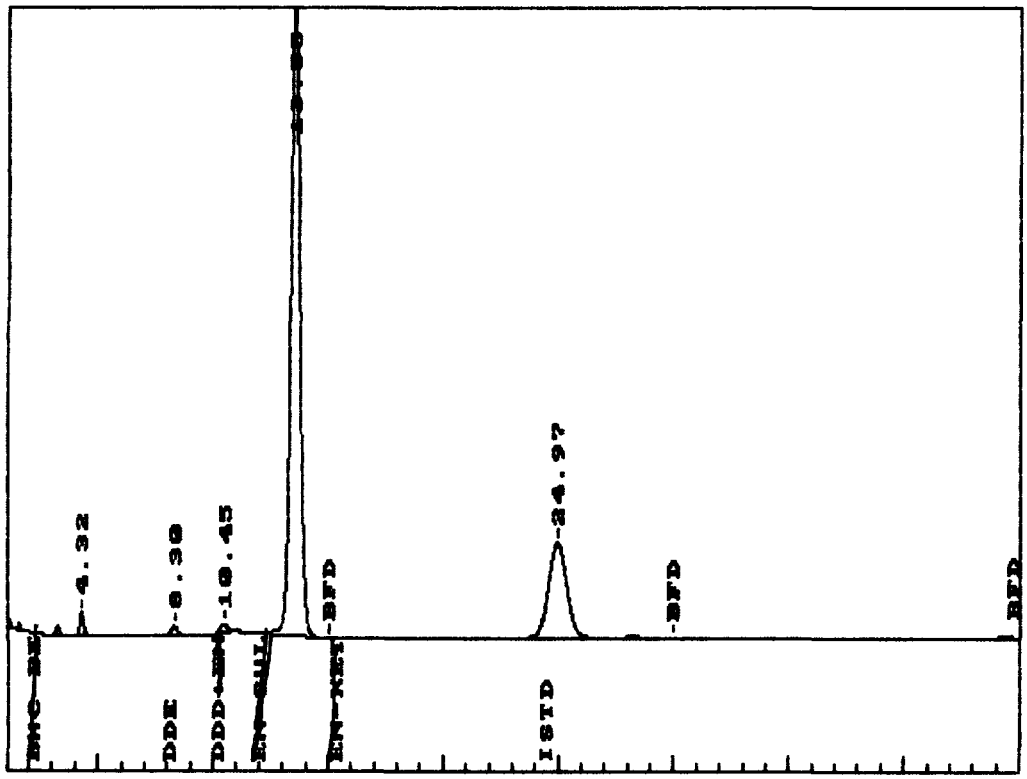
Starting Delay: 1.00 Run Time: 45.00

% Degradation for DDT 2.23 %

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
9	4.32	193510	1.0694	1	17397	1.420	11.1
13	8.30 DDD	149868	0.8282	1	7898	1.100	19.0
14	10.45 DDE	160975	0.8896	1	7050	1.181	22.8
15	13.55 DDT	13625891	75.3017	1	485779	100.000	28.0
16	24.97	3964828	21.9111	1	72660	29.098	54.6

Total Area: 18095072 Area Reject: 99999 One sample per 1.000 sec.

Data File = a:ab18.PTS Printed on 07-03-1989 at 14:10:34
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60110 uv High Value: 547575 uv Scale factor: 1.0



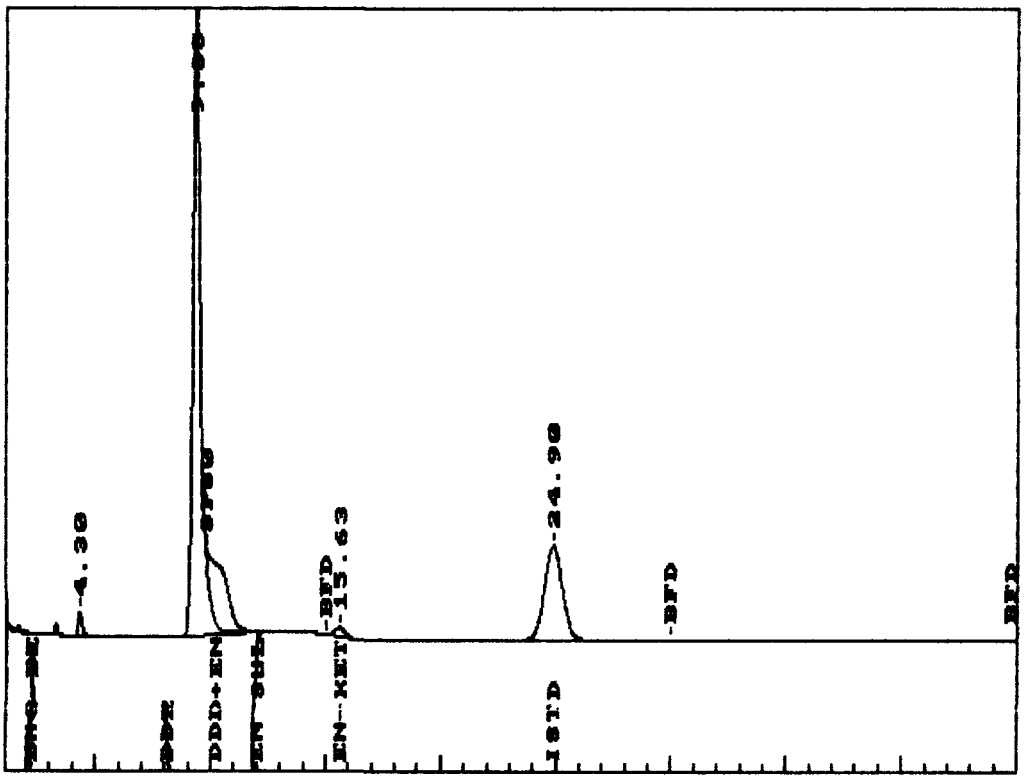
NEW TIMED EVENTS FROM A:B17

********* AREA PERCENT REPORT *********

********** 07-04-1989 13:59:24 Version 4.1 **********
* Sample Name: ENDRIN Data File: A:AB3 *
* Date: 07-01-1989 12:22:54 Method: A:PESB-2 *
* Interface: 0 Cycle#: 3 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *
****
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6231 *
****
Starting Delay: 1.00 Run Time: 15.00 % Degradation = 20.0

Pk No.	Ret Time		Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
8	4.30		217333	1.1931	1	18228	1.919	11.9
9	9.35	ENDRIN	11322787	62.1572	3	469230	100.000	24.1
10	9.80	EN-ALD	2656247	14.5816	4	11699	23.459	227.1
12	15.63	EN-KET	212167	1.1647	1	6709	1.874	31.6
13	24.90		3807838	20.9034	1	69931	33.630	54.5

Total Area: 18216372 Area Reject: 99999 One sample per 1.000 sec.
Data File = A:AB3.PTS Printed on 07-04-1989 at 13:59:53
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57918 uv High Value: 529114 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:B17

********* AREA PERCENT REPORT *********

```
******************** 07-04-1989 14:01:46 Version 4.1 **********************
* Sample Name: ENDRIN                          Data File: A:AB17          *
* Date: 07-03-1989 12:08:25 Method: N:AREA%                               *
* Interface: 0   Cycle#:  17   Operator NID Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
***************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE [SINGLE] *
*              Solvent Description: NITROGEN                              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0: ECD 320C            Detector 1: ECD 320C         *
* Misc. Information: INSTRUMENT # 1                                       *
***************************************************************************
Starting Delay:   1.00                          Run Time:   45.00
```

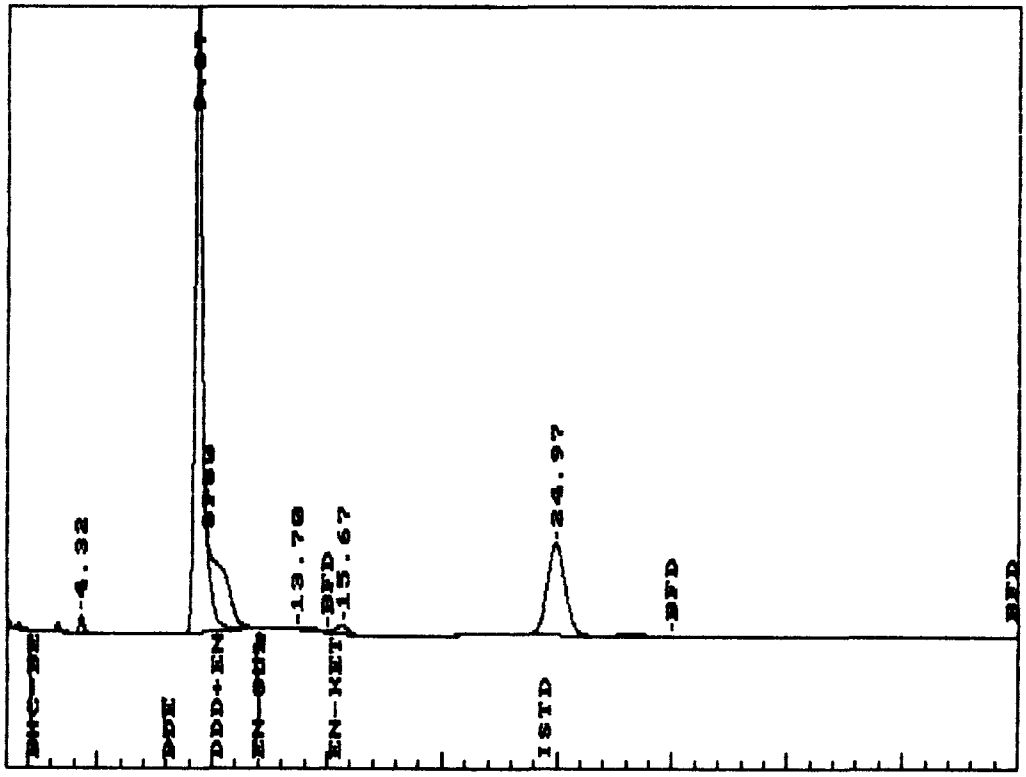
5F6231

% Degradation = 19.0 %

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
9	4.32	176118	0.8998	1	15011	1.438	11.7
10	9.37 ENDRIN	12251538	62.5932	3	512967	100.000	23.9
11	9.80 EN-AID	2668109	13.6314	4	10825	21.778	246.5
12	13.70	164593	0.8409	2	1263	1.343	130.3
13	15.67 EN-KET	271071	1.3849	2	7578	2.213	35.8
14	24.97	4041845	20.6498	1	74022	32.991	54.6

Total Area: 19573272 Area Reject: 99999 One sample per 1.000 sec.

Data File = A:AB17.PTS Printed on 07-04-1989 at 14:02:04
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59869 uv High Value: 575171 uv Scale factor: 1.0



O.C. Samples

Ran on 7/4
Spiking soln DBC
Concentration verification run

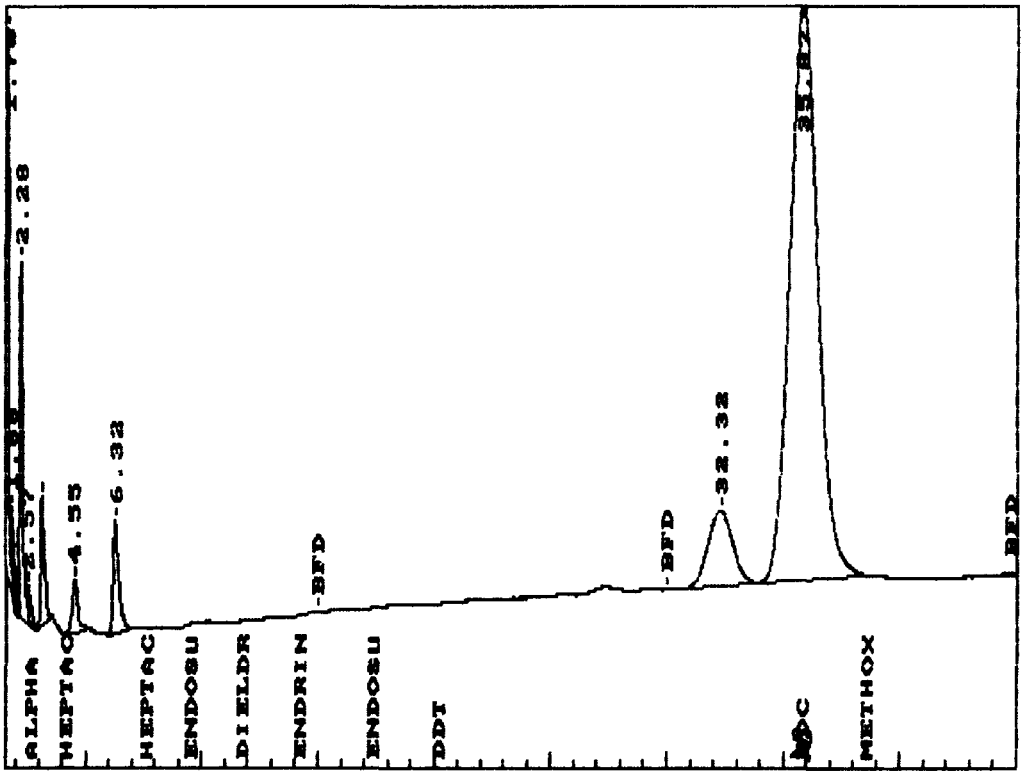
********* AREA PERCENT REPORT *********

```
******************** 07-14-1989 13:04:18 Version 4.1 **********************
* Sample Name: DBC                                Data File: A:CONFM21      *
* Date: 07-04-1989 14:02:51 Method: ZERO  05-22-1989 08:29:51  #  22       *
* Interface: 0   Cycle#:  21   Operator NW  Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 1000            *
*************************************************************************
* Instrument Type: HEWLETT PACKARD      Column Type: MIXED PHASE-PRIMARY  *
*              Solvent Description: ULTRA HIGH PURITY NITROGEN            *
* Conditions: ISOTHERMAL AT 200 CELSIUS                                   *
*            Detector 0: ECD QUANT            Detector 1: ECD CONF        *
* Misc. Information: SF 6231                            D.S. SF6232       *
*************************************************************************
Starting Delay:    1.50                          Run Time:    45.00
```

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
1	1.70	254872	5.3168	3	42194	7.023	6.0
3	2.28	233200	4.8647	3	27234	6.426	8.6
5	3.18	109921	2.2930	1	9824	3.029	11.2
7	6.32	149098	3.1103	1	8541	4.109	17.5
8	32.32	417671	8.7129	2	5692	11.509	73.4
9	35.87 DBC	3628970	75.7024	2	43705	100.000	83.0

Total Area: 4793732 Area Reject: 99999 One sample per 1.000 sec.

Data File = A:CONFM21.PTS Printed on 07-14-1989 at 13:08:14
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 76191 uv High Value: 124223 uv Scale factor: 1.0



Ran on 7/4
bed. for quant. of
DBC
spiking
soln

********* AREA PERCENT REPORT *********

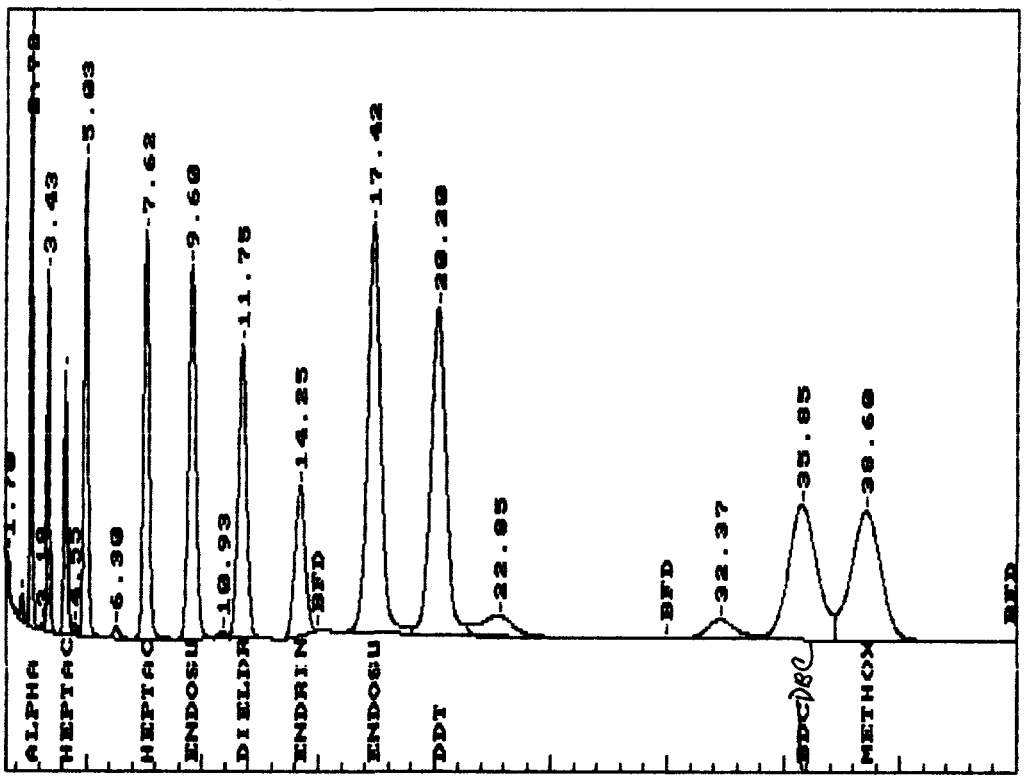
********** 07-14-1989 12:51:50 Version 4.1 **********
* Sample Name: PESA 5 Data File: A:CONFM22 *
* Date: 07-04-1989 14:20:31 Method: ZERO 05-22-1989 08:29:51 # 22 *
* Interface: 0 Cycle#: 22 Operator NW Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 1000 *
****
* Instrument Type: HEWLETT PACKARD Column Type: MIXED PHASE-PRIMARY *
* Solvent Description: ULTRA HIGH PURITY NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS *
* Detector 0: ECD QUANT Detector 1: ECD CONF *
* Misc. Information: SF 6231 D.S. SF6232 *
****

Starting Delay: 1.50 Run Time: 45.00

Pk No.	Ret Time	Peak Area	Area %	B L	Peak Ht.	Normalized %	Area/ Height
3	2.72	1550915	4.0730	1	247610	24.310	6.3
5	3.43	1132568	2.9744	2	144002	17.753	7.9
6	4.18	1084743	2.8488	3	105437	17.003	10.3
8	5.03	2220247	5.8308	2	190466	34.801	11.7
10	7.62	2835059	7.4454	2	162910	44.438	17.4
11	9.60	3195747	8.3927	2	149527	50.092	21.4
13	11.75	2994618	7.8645	2	117540	46.939	25.5
14	14.25	1815717	4.7684	1	59638	28.461	30.4
15	17.42	6379762	16.7546	2	163027	100.000	39.1
16	20.20	5797576	15.2256	3	130438	90.874	44.4
19	35.85	4559812	11.9750	2	53313	71.473	85.5
20	38.60 DBC	4511017	11.8468	2	51195	70.708	88.1

Total Area: 38077776 Area Reject: 999999 One sample per 1.000 sec.

Data File = A:CONFM22.PTS Printed on 07-14-1989 at 12:58:49
Start time: 1.50 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 82123 uv High Value: 334728 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A13

***** INTERNAL STANDARD TABLE *****

********** 07-04-1989 12:09:25 Version 4.1 **********

* Sample Name: METHOD BLANK Data File: a:aa13 *
* Date: 07-01-1989 07:02:26 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 13 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

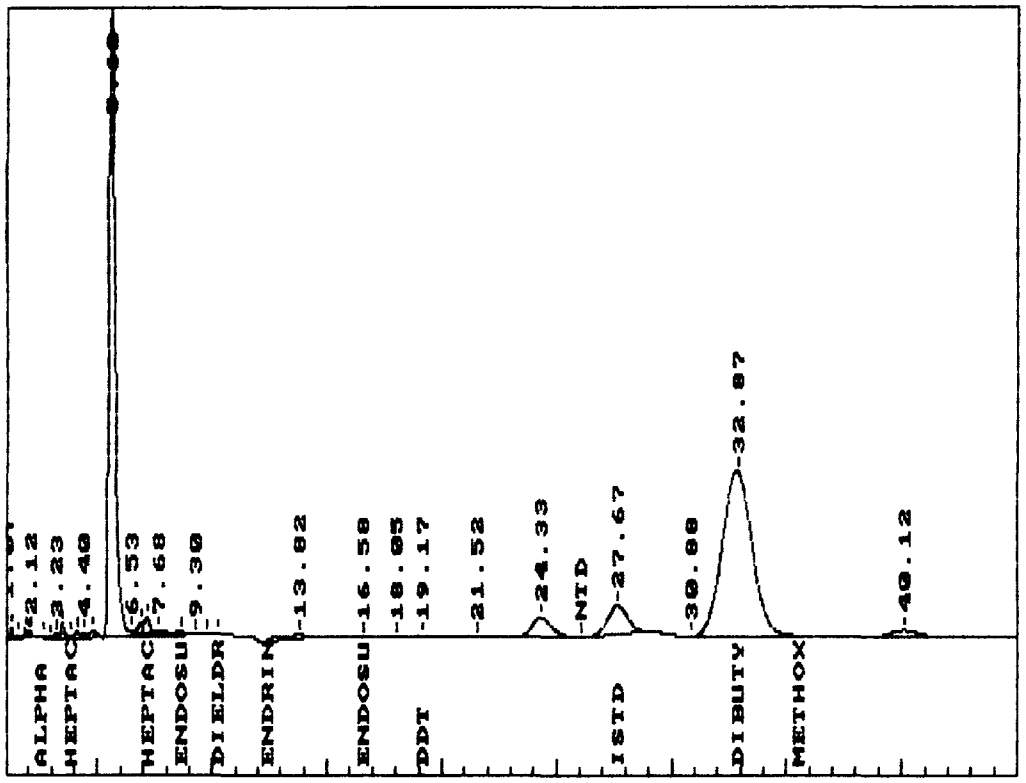
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
12	3.23	LINDANE	0.0133	0.5253%	56353	4641	12.1	2	12	33	0	2.3627E-07
14	3.87	HEPTACHLOR	0.0078	0.3075%	26473	2233	11.9	4	14	33	0	2.9443E-07
17	4.85	ALDRIN	0.0331	1.3069%	155043	7240	21.4	2	17	33	0	2.1363E-07
21	7.20	HEPTACHLOR EPOXIDE	0.0376	1.4849%	292670	15598	18.8	4	21	33	0	1.2859E-07
23	8.65	ENDOSULFAN I	0.0283	1.1172%	77224	3442	22.4	4	23	33	0	3.6666E-07
26	10.27	DIELDRIN	0.0219	0.8622%	45305	1904	23.8	4	26	33	0	4.8230E-07
28	16.58	ENDOSU II	0.0380	1.5004%	41022	869	47.2	1	28	33	0	9.2696E-07
30	19.17	DDT	0.0507	2.0017%	57250	1073	53.4	2	30	33	0	8.8615E-07
33	27.67	ISTD ✓	1.0000	0.0000%	1415270	24392	58.0	1	33	33	0	7.0658E-07
35	32.87	DIBUTYLCHLOR ✓	2.3036	90.8938%	12770424	141903	90.0	2	35	33	0	1.8039E-07

TOTAL AMOUNT = 2.5344

DBC % Recovery = $\frac{2.3}{.5} \times 100$

= 460 %

Data File = a:aa13.PTS Printed on 07-04-1989 at 12:10:27
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38280 uv High Value: 585376 uv Scale factor: 1.0



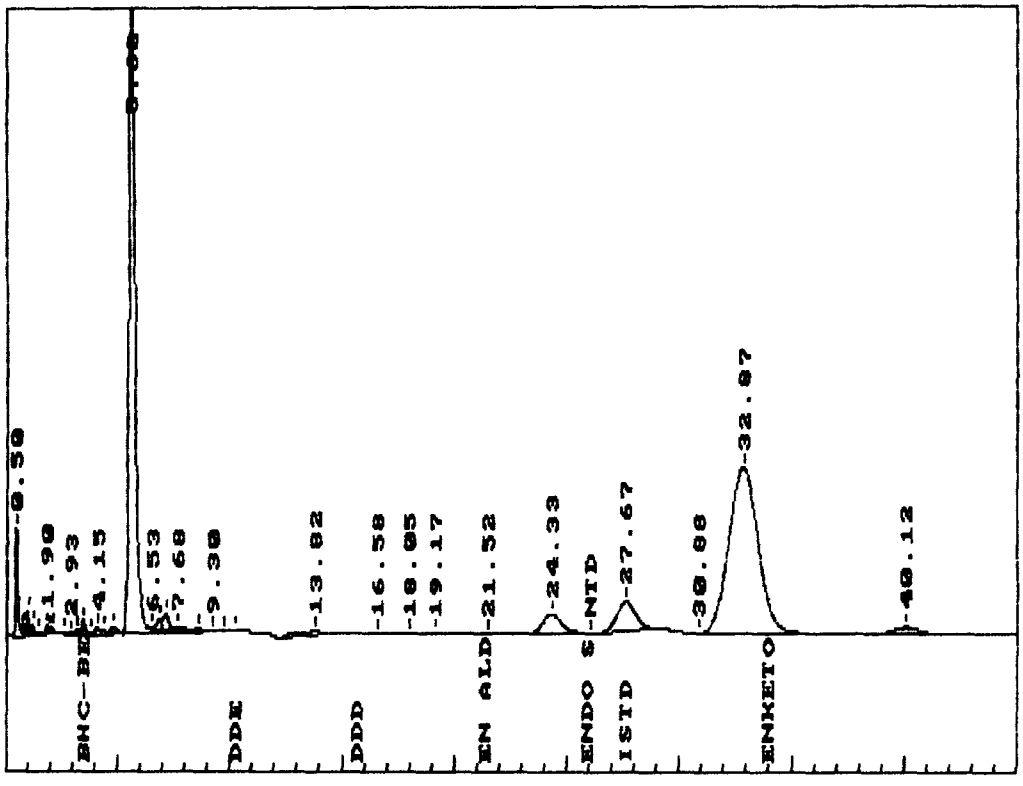
****** INTERNAL STANDARD TABLE ******

```
******************** 07-04-1989 12:11:43 Version 4.1 **********************
* Sample Name: METHOD BLANK                          Data File: a:aa13        *
* Date: 07-01-1989 07:02:26 Method: A:PESB 07-01-1989 09:43:27  #  124      *
* Interface: 0   Cycle#:  13   Operator NID Channel#: 0    Vial#: N.A.      *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100              *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE     *
*              Solvent Description: NITROGEN                                *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                SF6231     *
*            Detector 0: ECD 320C              Detector 1: ECD 320C         *
* Misc. Information: INSTRUMENT # 1                        INSTRUMENT # 1   *
*************************************************************************
Starting Delay:    0.00                        Ending retention time:   45.00
Area reject:         0                         One sample per   1.000 sec.
Amount injected:        5.00                   Dilution factor:       10.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
13	3.53	BHC-BETA	0.0291	0.7935%	136664	12727	10.7	3	13	33	0	2.1298E-07
15	4.15	BHC-DELTA	0.0134	0.3665%	83857	6249	13.4	2	15	33	0	1.6033E-07
26	10.27	DDE	0.0078	0.2127%	45305	1904	23.8	4	26	33	0	1.7223E-07
31	21.52	EN ALDEHYDE	0.0006	0.0165%	2818	81	34.8	1	26	33	.6779	2.1515E-07
33	27.67	ISTD	1.0000	0.0000%	1415270	24392	58.0	1	33	33	0	7.0658E-07
35	32.87	ENKETONE	3.6173	98.6108%	12770424	141903	90.0	2	33	33	-3.221	2.8326E-07

TOTAL AMOUNT = 3.6683

)ata File = a:aa13.PTS Printed on 07-04-1989 at 12:12:00
Start time: 0.00 min. Stop time: 45.00 min. Offset: 0 mv.
.ow Value: 38280 uv High Value: 585376 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-04-1989 12:13:55 Version 4.1 **********

* Sample Name: METHOD BLANK Data File: a:aa13 *
* Date: 07-01-1989 07:02:26 Method: A:AR042 07-01-1989 09:31:01 # 139 *
* Interface: 0 Cycle#: 13 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

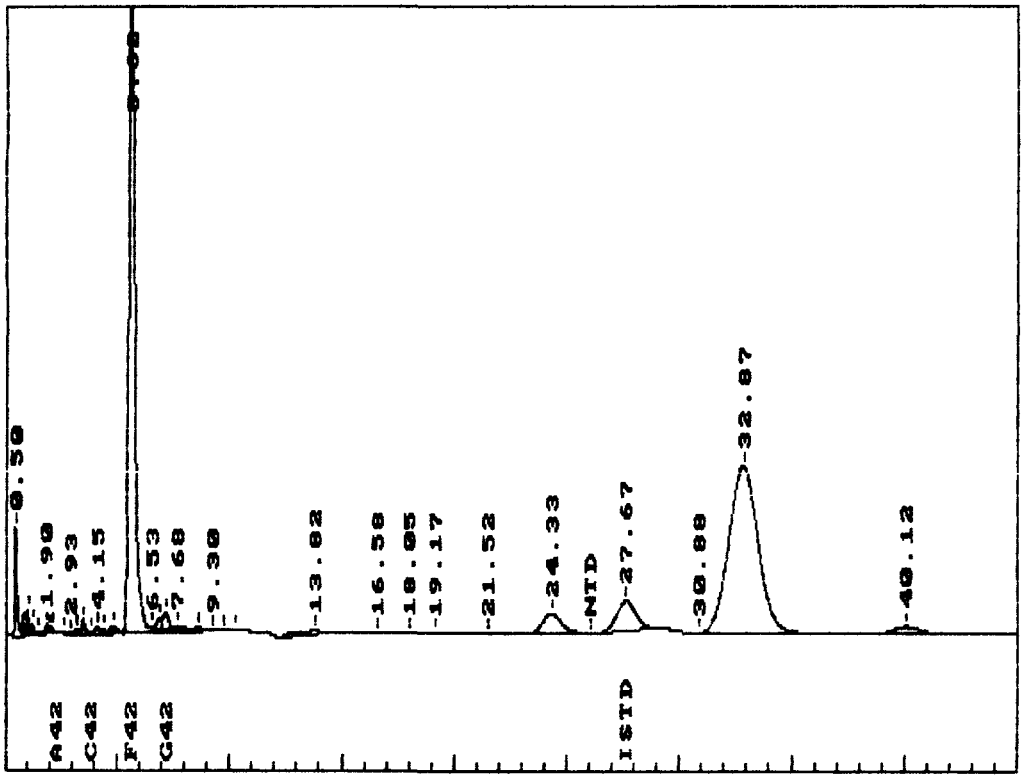
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	2.93	B42	-0.2068	-0.5080%	20489	1842	11.1	2	11	33	0	-1.0093E-05
14	3.87	C42	-0.1915	-0.4703%	26473	2233	11.9	4	14	33	0	-7.2324E-06
15	4.15	D42	0.0442	0.1085%	83857	6249	13.4	2	15	33	0	5.2653E-07
17	4.85	E42	0.1025	0.2518%	155043	7240	21.4	2	17	33	0	6.6108E-07
18	5.62	F42	40.8784	100.4176%	10895198	543688	20.0	3	18	33	0	3.7520E-06
21	7.20	G42	0.0816	0.2005%	292670	15598	18.8	4	21	33	0	2.7884E-07
33	27.67	ISTD	1.0000	0.0000%	1415270	24392	58.0	1	33	33	0	7.0658E-07

TOTAL AMOUNT = 40.7084

Data File = a:aa13.PTS Printed on 07-04-1989 at 12:14:12
Start time: 0.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38280 uv High Value: 585376 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 08:29:12 Version 4.1 **********

* Sample Name: METHOD BLANK Data File: a:ab10 *
* Date: 07-01-1989 16:32:00 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 10 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6636 *

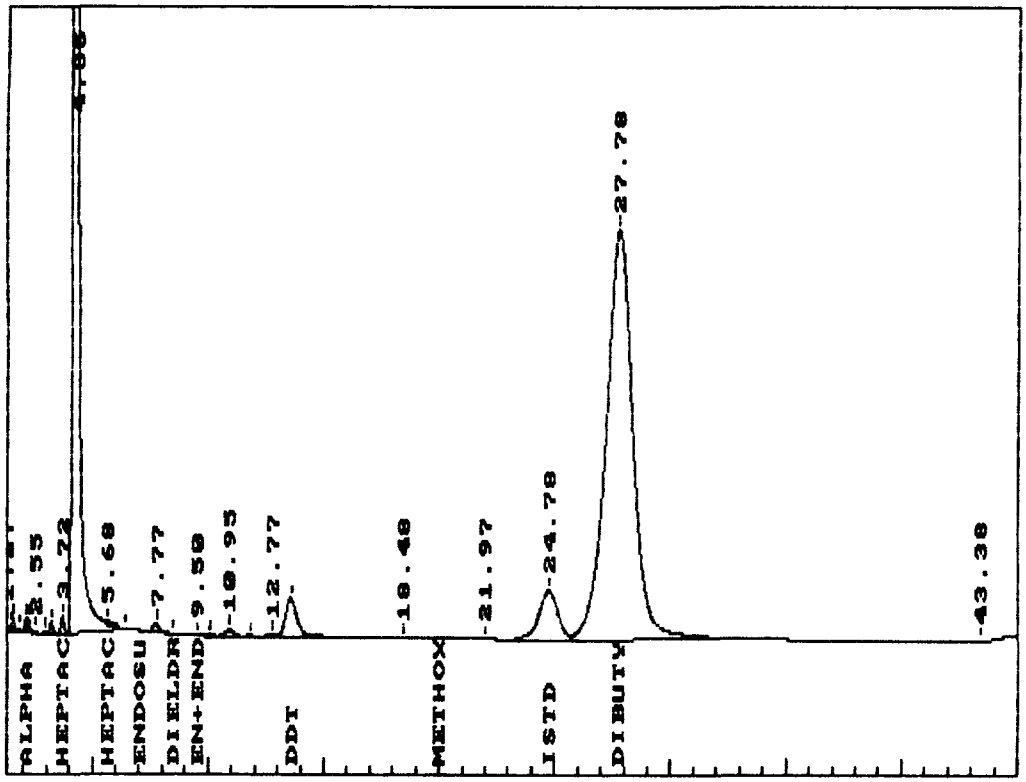
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.15	ALPHA BHC	0.0125	0.2156%	108099	20807	5.2	2	5	24	0	1.1586E-07
7	2.55	LINDANE	0.0073	0.1254%	32360	3863	8.4	2	7	24	0	2.2520E-07
10	3.72	HEPTACHLOR	0.0125	0.2157%	231569	24638	9.4	2	10	24	0	5.4112E-08
11	4.35	ALDRIN	1.2891	22.1916%	22707510	911503	24.9	3	10	24	-4.981	5.6771E-08
12	5.68	HEPTACHLOR EPOXIDE	0.0100	0.1729%	159224	4910	32.4	4	12	24	0	6.3081E-08
15	8.50	DIELDRIN	0.0133	0.2292%	37930	1544	24.6	4	15	24	0	3.5105E-07
16	9.50	EN+ENDII	0.0801	1.3789%	5269	289	18.2	2	16	24	0	1.5202E-05
21	13.60	DDT	0.1867	3.2137%	2151539	56362	38.2	2	21	24	0	8.6768E-08
24	24.78	ISTD	1.0000	0.0000%	4115682	70753	58.2	2	24	24	0	2.4297E-07
25	27.78	DIBUTYLCHLOR	4.1975	72.2569%	48275152	593882	81.3	2	25	24	0	8.6949E-08

TOTAL AMOUNT = 5.8091

Data File = a:ab10.PTS Printed on 07-03-1989 at 08:29:33
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61603 uv High Value: 983476 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 08:31:52 Version 4.1 **********

* Sample Name: METHOD BLANK Data File: a:ab10 *
* Date: 07-01-1989 16:32:00 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *
* Interface: 0 Cycle#: 10 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6231 *

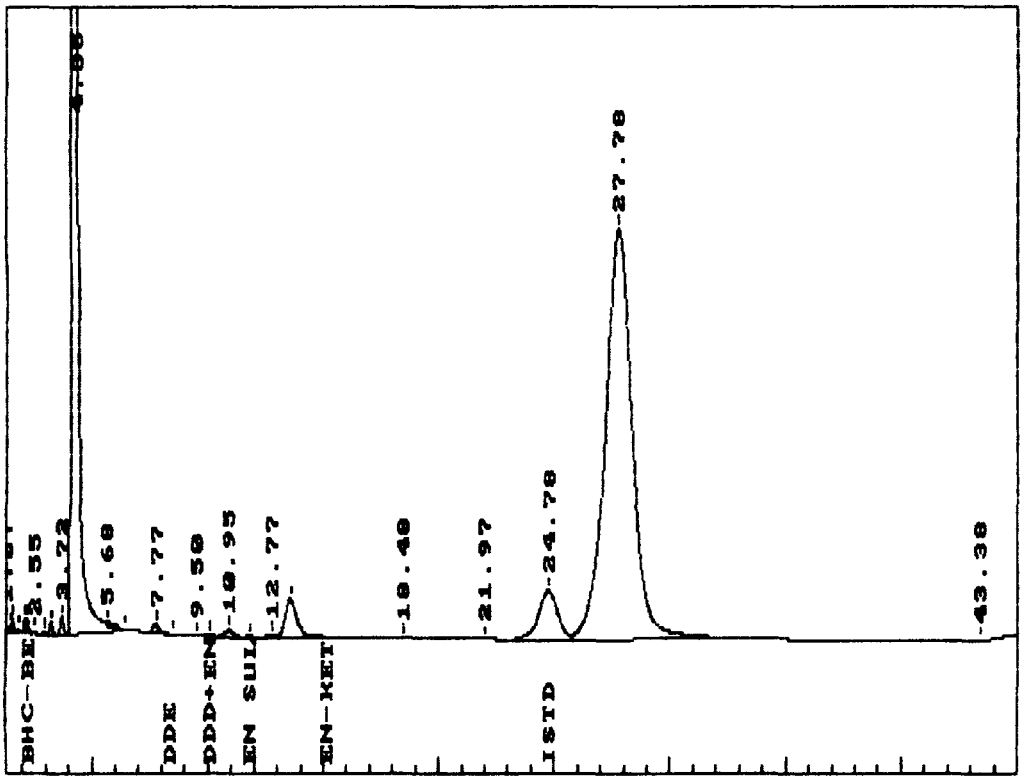
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.23	BHC-BETA	0.0145	59.2883%	154462	20987	7.4	2	6	24	0	9.3752E-08
7	2.55	BHC-DELTA	0.0023	9.2119%	32360	3863	8.4	2	7	24	0	6.9530E-08
15	8.50	DDE	0.0025	10.0793%	37930	1544	24.6	4	7	24	1.984	6.4905E-08
17	10.10	DDD+EN-ALD	0.0019	7.6296%	21359	1166	18.3	2	17	24	0	8.7249E-08
19	11.82	EN SULFATE	0.0034	13.7909%	31353	1168	26.9	2	19	24	0	1.0744E-07
24	24.78	ISTD	1.0000	0.0000%	4115682	70753	58.2	2	24	24	0	2.4297E-07

TOTAL AMOUNT = 0.0244

Data File = a:ab10.PTS Printed on 07-03-1989 at 08:32:09
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61603 uv High Value: 983476 uv Scale factor: 1.0



M. B. Re-run

NEW TIMED EVENTS FROM A:B26

****** INTERNAL STANDARD TABLE ******

********** 07-05-1989 07:24:03 Version 4.1 **********

* Sample Name: METHOD BLANK 2-analyses Data File: a:ab25 *
* Date: 07-04-1989 07:33:05 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 25 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

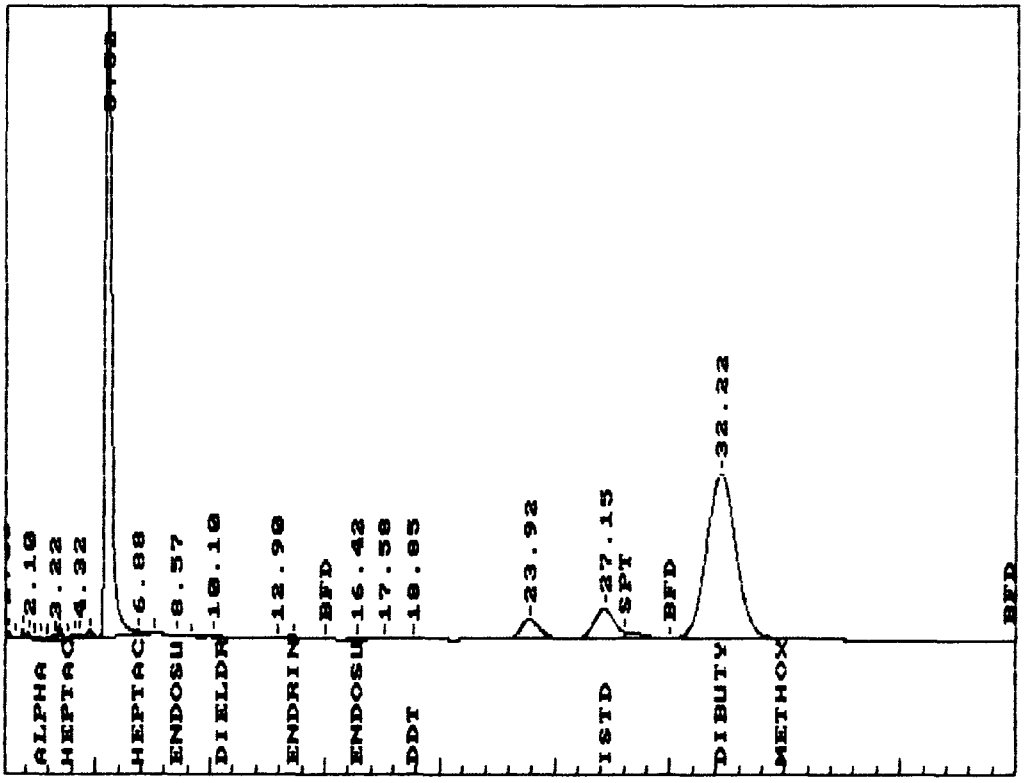
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.60	ALPHA BHC	0.0120	0.5512%	29237	2486	11.8	2	7	27	0	4.1202E-07
9	3.22	LINDANE	0.0115	0.5255%	47581	3794	12.5	2	9	27	0	2.4135E-07
11	3.80	HEPTACHLOR	0.0063	0.2885%	14573	1189	12.3	4	11	27	0	4.3266E-07
14	4.77	ALDRIN	0.0251	1.1495%	95523	5967	16.0	2	14	27	0	2.6296E-07
16	6.88	HEPTACHLOR EPOXIDE	0.0105	0.4799%	43594	1788	24.4	4	16	27	0	2.4058E-07
18	8.57	ENDOSULFAN I	0.0221	1.0110%	28190	1700	16.6	1	18	27	0	7.8370E-07
20	10.10	DIELDRIN	0.0250	1.1447%	83212	2261	36.8	2	18	27	-3.487	3.0061E-07
22	13.60	ENDRIN	0.0427	1.9547%	97909	2459	39.8	2	22	27	0	4.3627E-07
23	16.42	ENDOSU II	0.0360	1.6479%	28873	669	43.1	2	23	27	0	1.2472E-06
25	18.85	DDT	0.0448	2.0522%	16030	390	41.1	1	25	27	0	2.7976E-06
27	27.15	ISTD	1.0000	0.0000%	1688401	26752	63.1	2	27	27	0	5.9228E-07
29	32.22	DIBUTYLCHLOR	1.9491	89.1949%	12874973	142487	90.4	2	29	27	0	1.5139E-07

TOTAL AMOUNT = 2.1853

DBC % Recovery = $\frac{1.94}{.5} \times 100$

= 388 %

Data File = a:ab25.PTS Printed on 07-05-1989 at 07:24:51
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 41584 uv High Value: 591772 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A10

***** INTERNAL STANDARD TABLE *****

********** 07-13-1989 08:43:45 Version 4.1 **********

* Sample Name: 89FS22S12 PES MS Data File: a:aa10 *
* Date: 07-01-1989 06:57:08 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 10 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

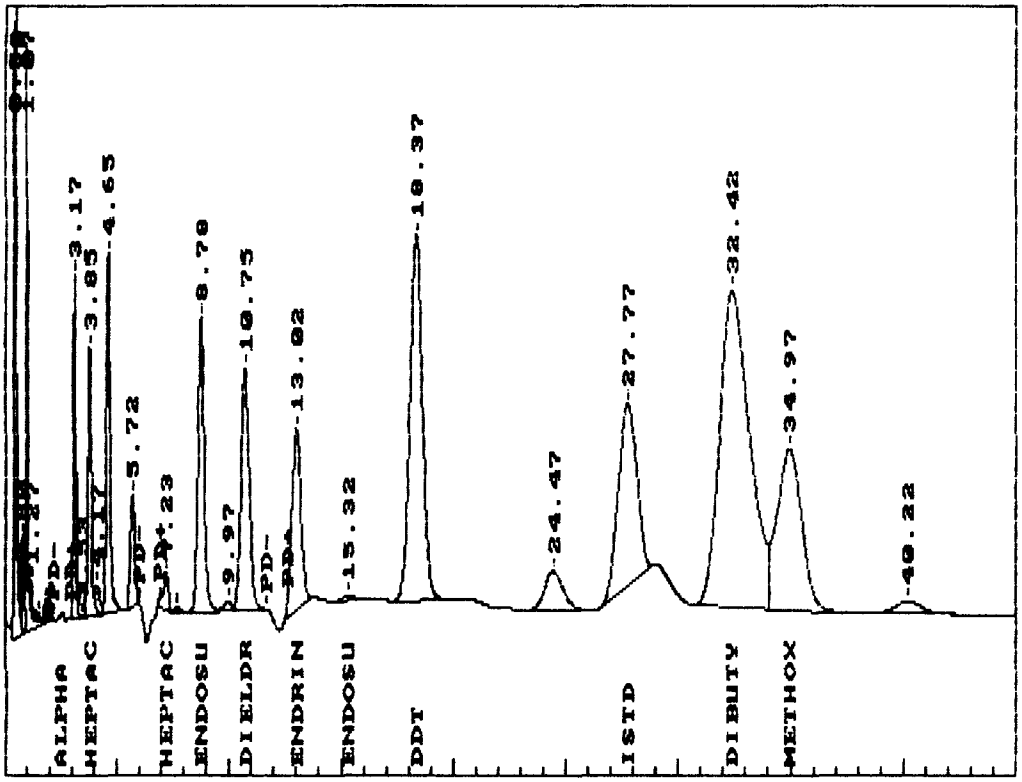
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 0.920000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	3.17	LINDANE	0.0488	2.1180%	321098	44356	7.2	1	11	26	0	1.5198E-07
13	3.85	HEPTACHLOR	0.0471	2.0421%	345482	34618	10.0	3	13	26	0	1.3619E-07
15	4.65	ALDRIN	0.0841	3.6504%	537319	46415	11.6	2	15	26	0	1.5653E-07
17	7.23	~~HEPTACHLOR EPOXIDE~~	~~0.0179~~	0.7788%	88047	4888	18.0	1	17	26	0	2.0379E-07
19	8.78	ENDOSULFAN I	0.1221	5.3003%	755603	37977	19.9	2	19	26	0	1.6162E-07
21	10.75	DIELDRIN	0.1296	5.6229%	752193	31302	24.0	2	21	26	0	1.7223E-07
22	13.02	ENDRIN	0.2489	10.8018%	661305	23399	28.3	1	22	26	0	3.7634E-07
23	15.32	ENDOSU II	~~0.0375~~	1.6293%	11223	416	26.9	1	23	26	0	3.3449E-06
24	18.37	DDT	0.3307	14.3538%	1833652	47223	38.8	1	24	26	0	1.8036E-07
26	27.77	ISTD	1.0000	0.0000%	1334978	23513	56.8	1	26	26	0	7.4908E-07
27	32.42	DIBUTYLCHLOR	0.7951	34.5083%	3770202	40930	92.1	2	27	26	0	2.1088E-07
28	34.97	METHOXYCHLOR	0.4422	19.1942%	1621229	20852	77.8	2	28	26	0	2.7278E-07

TOTAL AMOUNT = 2.3040

Data File = a:aa10.PTS Printed on 07-13-1989 at 08:44:08
Start time: 0.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38561 uv High Value: 121114 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A10
NEW TIMED EVENTS FROM A:A10

****** INTERNAL STANDARD TABLE ******

********** 07-01-1989 10:39:48 Version 4.1 **********

* Sample Name: 89FS22S12 PES MSD Data File: a:aa11 *
* Date: 07-01-1989 06:58:56 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 11 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

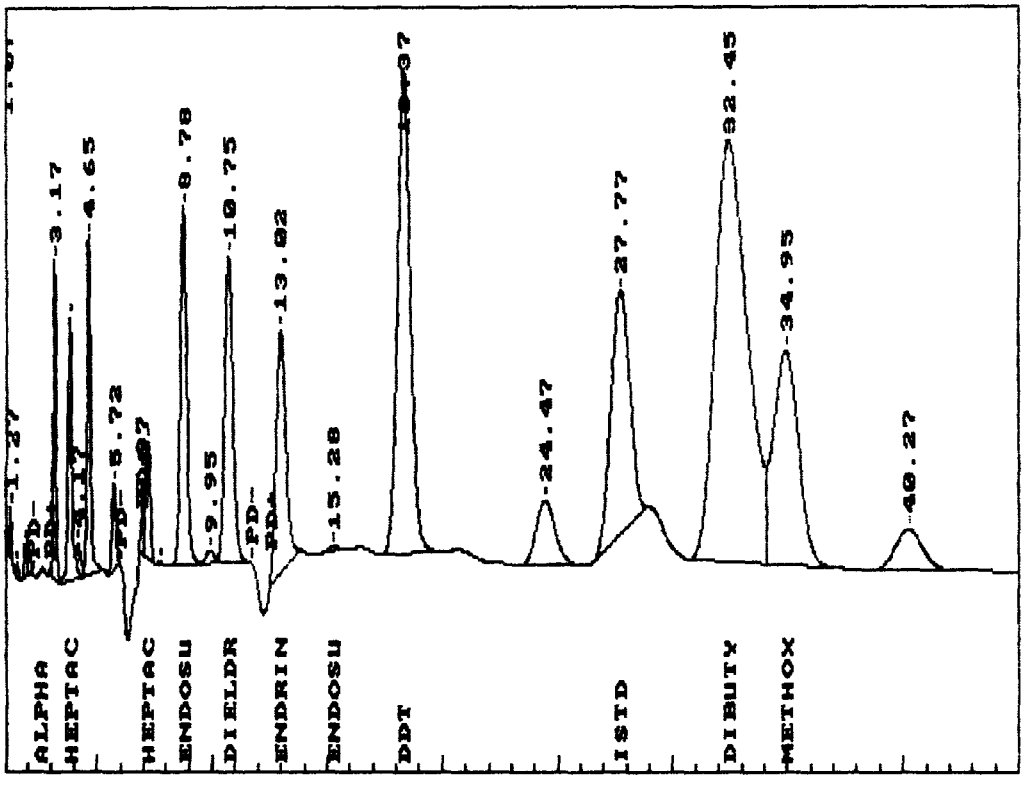
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	3.17	LINDANE	0.0343	1.6287%	227245	30226	7.5	1	7	22	0	1.5110E-07
8	3.85	HEPTACHLOR	0.0351	1.6642%	266404	24922	10.7	3	8	22	0	1.3170E-07
10	4.65	ALDRIN	0.0599	2.8407%	375708	32082	11.7	2	10	22	0	1.5940E-07
13	7.23	~~HEPTACHLOR EPOXIDE~~	0.0267	1.2682%	175785	11170	15.7	2	13	22	0	1.5210E-07
15	8.78	ENDOSULFAN I	0.1034	4.9065%	670606	33928	19.8	2	15	22	0	1.5425E-07
17	10.75	DIELDRIN	0.1137	5.3916%	698825	29078	24.0	2	17	22	0	1.6266E-07
18	13.02	ENDRIN	0.2340	11.1013%	664720	22938	29.0	1	18	22	0	3.5209E-07
19	15.28	~~ENDOSU II~~	0.0347	1.6437%	11915	448	26.6	1	19	22	0	2.9083E-06
20	18.37	DDT	0.3041	14.4242%	1798716	45943	39.2	1	20	22	0	1.6906E-07
22	27.77	ISTD	1.0000	0.0000%	1310345	22945	57.1	1	22	22	0	7.6316E-07
23	32.45	DIBUTYLCHLOR	0.7621	36.1466%	3858657	39807	96.9	2	23	22	0	1.9749E-07
24	34.95	METHOXYCHLOR	0.4002	18.9842%	1562813	20259	77.1	2	24	22	0	2.5610E-07

TOTAL AMOUNT = 2.1082

Data File = a:aa11.PTS Printed on 07-01-1989 at 10:40:25
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35781 uv High Value: 95758 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 08:20:08 Version 4.1 **********

* Sample Name: 89FS22S12 PES MS Data File: a:ab7 *
* Date: 07-01-1989 14:12:28 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 7 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6231 *

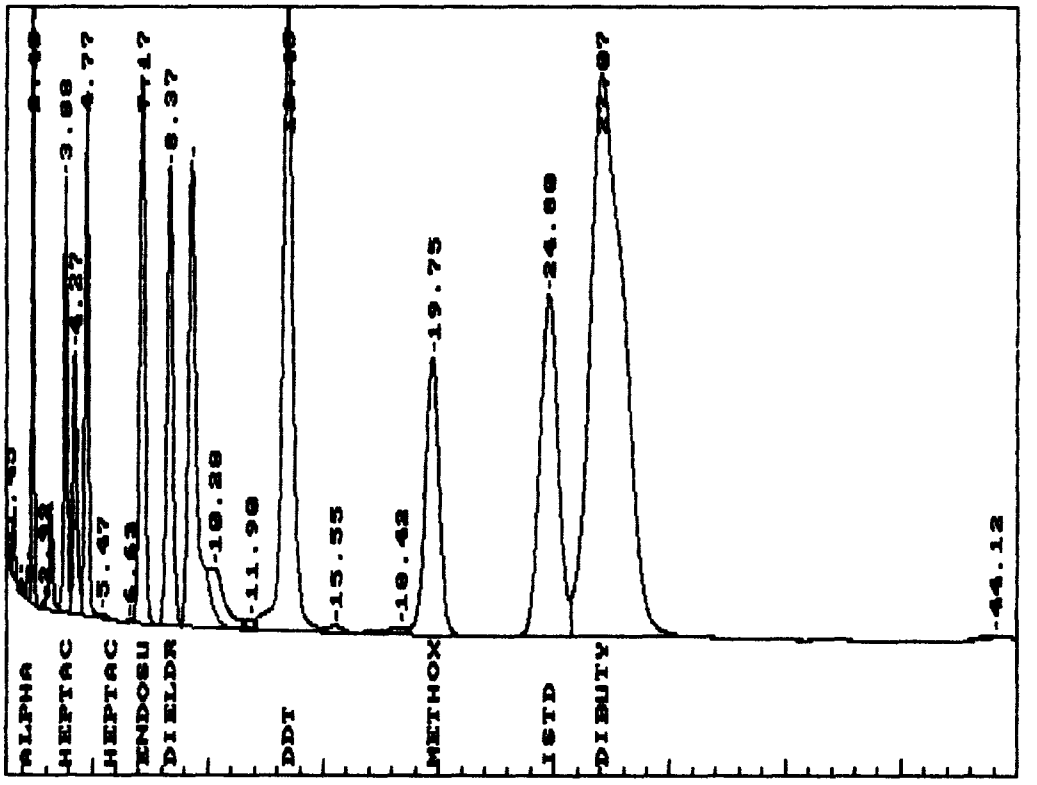
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.45	LINDANE	0.0495	1.9769%	713461	120798	5.9	2	5	22	0	6.9312E-08
8	3.88	HEPTACHLOR	0.0479	1.9158%	859498	87412	9.8	2	8	22	0	5.5757E-08
10	4.77	ALDRIN	0.0779	3.1155%	1135710	102681	11.1	3	10	22	0	6.8620E-08
13	7.17	ENDOSULFAN I	0.1141	4.5597%	1756959	110684	15.9	2	13	22	0	6.4918E-08
14	8.37	DIELDRIN	0.1197	4.7863%	1693627	92405	18.3	2	14	22	0	7.0692E-08
15	9.30	EN+ENDII	0.2641	10.5591%	2434402	93792	26.0	3	15	22	0	1.0850E-07
18	13.45	DDT	0.3477	13.8981%	4019541	125974	31.9	3	18	22	0	8.6490E-08
21	19.75	METHOXYCHLOR	0.3912	15.6383%	2343349	55973	41.9	2	21	22	0	1.6693E-07
22	24.80	ISTD	1.0000	0.0000%	3732766	68585	54.4	2	22	22	0	2.6790E-07
23	27.07	DIBUTYLCHLOR	1.0894	43.5502%	11302526	113346	99.7	2	23	22	0	9.6383E-08

TOTAL AMOUNT = 2.5014

Data File = a:ab7.PTS Printed on 07-03-1989 at 08:20:29
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59224 uv High Value: 187647 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 08:24:01 Version 4.1 **********

* Sample Name: 89FS22S12 PES MSD Data File: a:ab8 *
* Date: 07-01-1989 14:58:58 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 8 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6203 *

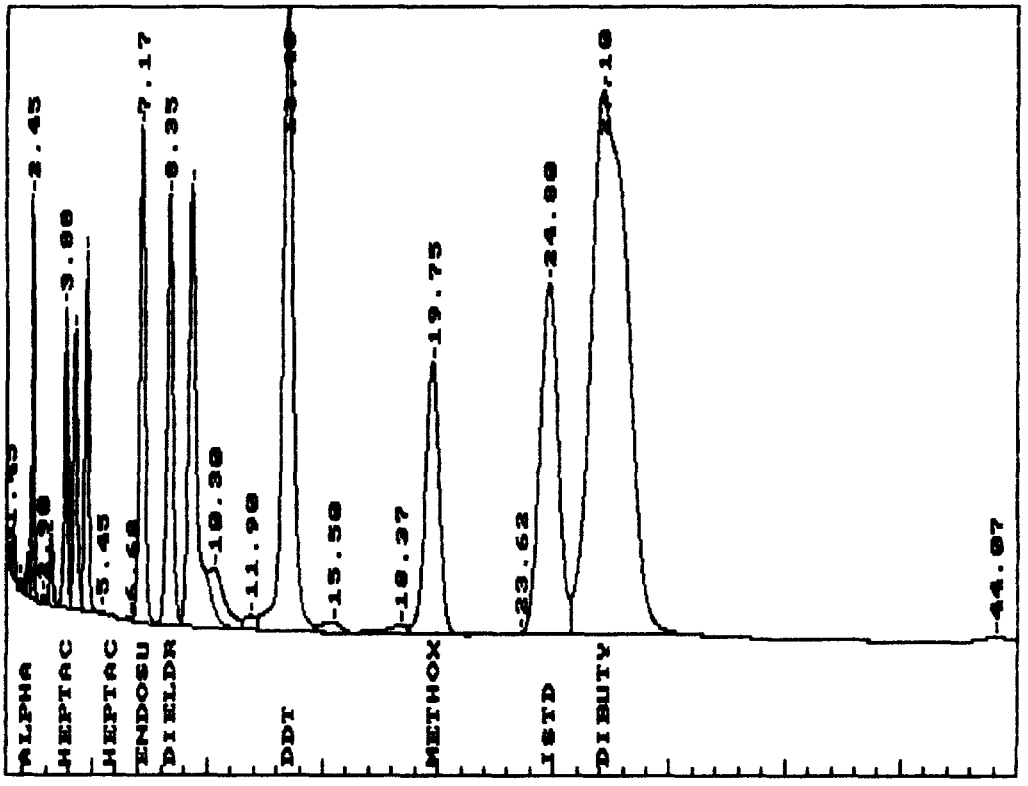
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.45	LINDANE	0.0346	1.4344%	485070	81230	6.0	2	5	23	0	7.1421E-08
8	3.88	HEPTACHLOR	0.0328	1.3588%	596889	60650	9.8	2	8	23	0	5.4981E-08
10	4.77	ALDRIN	0.0574	2.3746%	825273	72530	11.4	3	10	23	0	6.9497E-08
13	7.17	ENDOSULFAN I	0.1017	4.2122%	1593448	99783	16.0	2	13	23	0	6.3847E-08
14	8.35	DIELDRIN	0.1108	4.5861%	1592862	86383	18.4	2	14	23	0	6.9540E-08
15	9.30	EN+ENDII	0.2509	10.3889%	2316655	88672	26.1	3	15	23	0	1.0831E-07
18	13.45	DDT	0.3403	14.0886%	4023115	125535	32.0	3	18	23	0	8.4581E-08
21	19.75	METHOXYCHLOR	0.3757	15.5543%	2299759	54867	41.9	2	21	23	0	1.6336E-07
23	24.80	ISTD	1.0000	0.0000%	3826256	70460	54.3	2	23	23	0	2.6135E-07
24	27.10	DIBUTYLCHLOR	1.1111	46.0020%	11818037	109183	108.2	2	24	23	0	9.4015E-08

TOTAL AMOUNT = 2.4153

Data File = a:ab8.PTS Printed on 07-03-1989 at 08:24:22
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 59776 uv High Value: 187647 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

********** 07-01-1989 13:46:23 Version 4.1 **********

* Sample Name: 89FS22S12 PCB MS Data File: a:aa25 *
* Date: 07-01-1989 07:23:33 Method: A:AR042 07-01-1989 09:31:01 # 139 *
* Interface: 0 Cycle#: 25 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

SF6231

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.30	A42	2.6108	11.6404%	454241	58168	7.8	2	5	30	0	5.7477E-06
7	2.92	B42	2.7676	12.3395%	843345	89984	9.4	2	7	30	0	3.2817E-06
10	3.78	C42	3.0092	13.4164%	1606561	164600	9.8	2	10	30	0	1.8730E-06
11	4.13	D42	3.1998	14.2664%	785979	68187	11.5	2	11	30	0	4.0711E-06
13	4.73	E42	3.3822	15.0794%	1255895	61607	20.4	2	13	30	0	2.6930E-06
14	5.62	F42	~~4.1107~~	18.3276%	1164001	60998	19.1	2	14	30	0	3.5315E-06
17	7.03	G42	3.3487	14.9303%	1432192	59374	24.1	3	17	30	0	2.3382E-06
30	27.65	ISTD	1.0000	0.0000%	1365908	23937	57.1	1	30	30	0	7.3211E-07

TOTAL AMOUNT = 22.4290

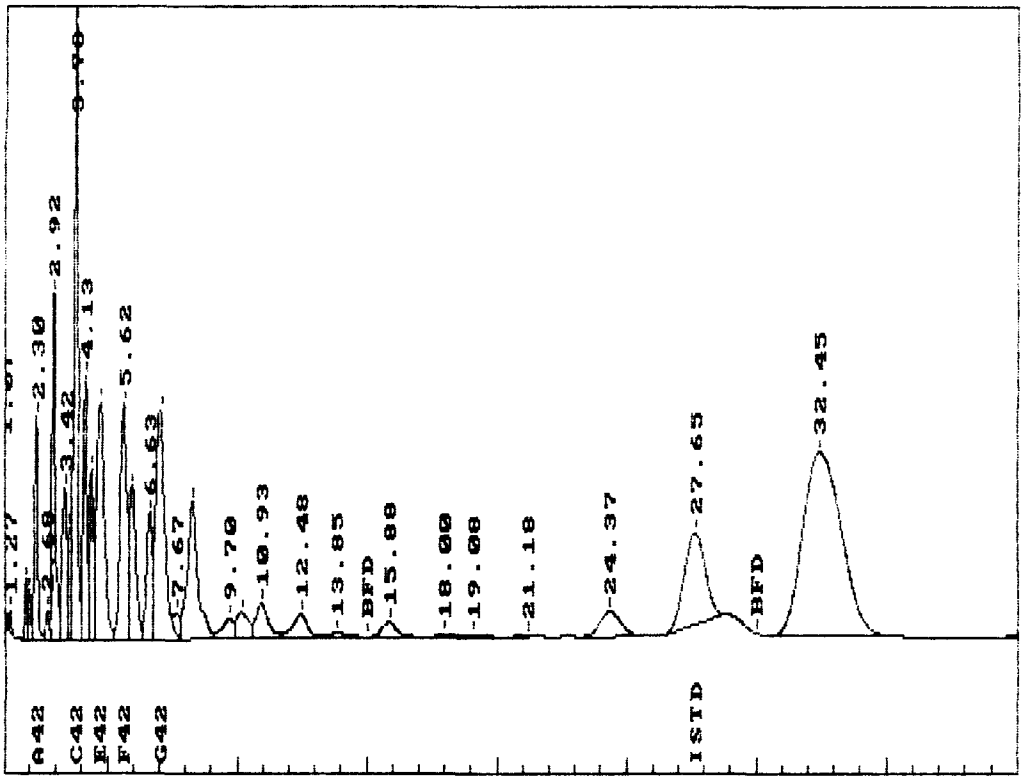
$$\text{average} = \frac{18}{6} = 3$$

$$\% \text{ Recovery} = \frac{3}{*3} \times 100$$

$$= 100\%$$

* amount added

Data File = a:aa25.PTS Printed on 07-01-1989 at 13:47:02
Start time: 1.00 min. Stop time: 40.00 min. Offset: 0 mv.
Low Value: 41591 uv High Value: 206351 uv Scale factor: 1.0



```
*****   INTERNAL STANDARD TABLE   *****
******************** 07-01-1989 13:48:20 Version 4.1 **********************
* Sample Name: 89FS22S12 PCB MS                    Data File: a:aa25        *
* Date: 07-01-1989 07:23:33 Method: A:PESA 07-01-1989 10:11:18  #  172     *
* Interface: 0   Cycle#:  25   Operator NID Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE   *
*              Solvent Description: NITROGEN                              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0: ECD 320C            Detector 1: ECD 320C         *
* Misc. Information: INSTRUMENT # 1                      INSTRUMENT # 1   *
*************************************************************************
Starting Delay:    1.00                      Ending retention time:   45.00
Area reject:        0                        One sample per   1.000 sec.
Amount injected:        5.00                 Dilution factor:       10.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

SF6231

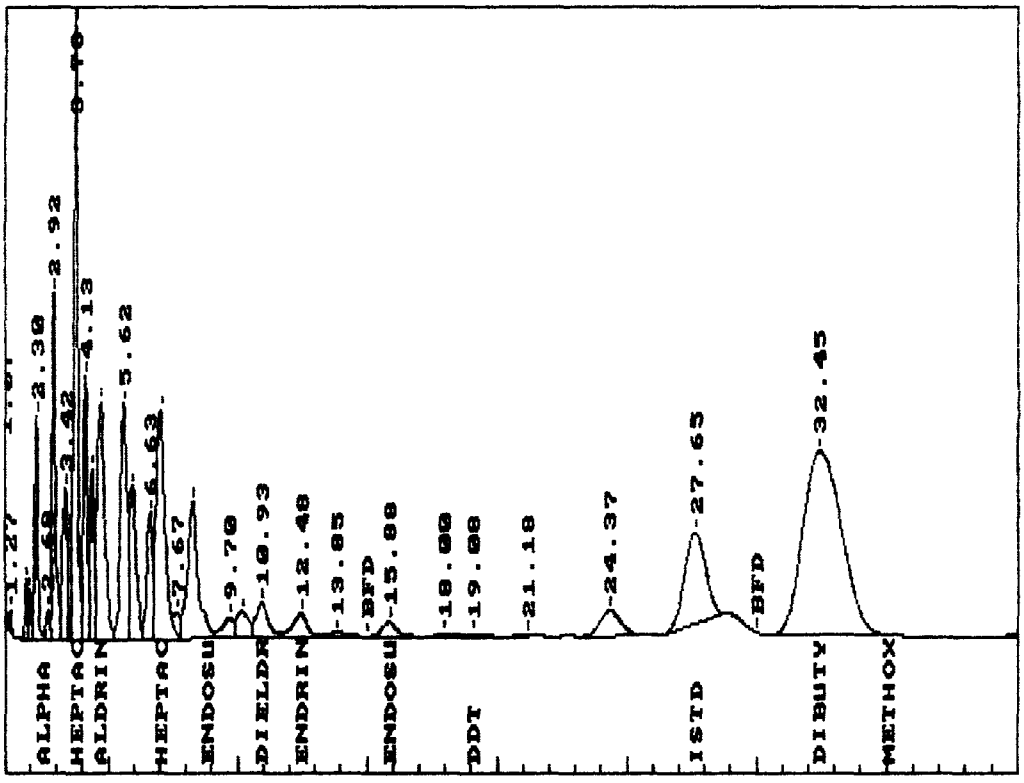
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
10	3.78	HEPTACHLOR	0.1789	10.6284%	1606561	164600	9.8	2	10	30	0	1.1136E-07
13	4.73	ALDRIN	0.1555	9.2366%	1255895	61607	20.4	2	13	30	0	1.2380E-07
17	7.03	HEPTACHLOR EPOXIDE	0.1639	9.7363%	1432192	59374	24.1	3	17	30	0	1.1443E-07
22	10.93	DIELDRIN	0.0558	3.3149%	296897	8827	33.6	2	22	30	0	1.8794E-07
23	12.48	ENDRIN	0.0921	5.4725%	237673	6018	39.5	3	23	30	0	3.8758E-07
25	15.88	ENDOSU II	0.0514	3.0549%	147505	3805	38.8	1	25	30	0	3.4861E-07
27	19.08	DDT	0.0479	2.8464%	35007	635	55.2	2	27	30	0	1.3687E-06
30	27.65	ISTD	1.0000	0.0000%	1365908	23937	57.1	1	30	30	0	7.3211E-07
31	32.45	DIBUTYLCHLOR	0.9377	55.7099%	4968553	47772	104.0	1	31	30	0	1.8874E-07

TOTAL AMOUNT = 1.6833

$$\text{DBC \% Recovery} = \frac{.93}{.5} \times 100$$

$$= 186\ \%$$

Data File = a:aa25.PTS Printed on 07-01-1989 at 13:48:51
Start time: 1.00 min. Stop time: 40.00 min. Offset: 0 mv.
Low Value: 41591 uv High Value: 206351 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-04-1989 14:15:35 Version 4.1 **********

* Sample Name: 89FS22S12 PCB MS Data File: A:AB24 *
* Date: 07-03-1989 13:55:55 Method: A:AR042-2 07-03-1989 13:20:09 # 53 *
* Interface: 0 Cycle#: 24 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.13	A42	2.7526	16.4085%	1137448	130088	8.7	3	6	28	0	2.4200E-06
8	2.67	B42	2.2849	13.6202%	1593142	190667	8.4	2	8	28	0	1.4342E-06
10	3.40	C42	2.5943	15.4645%	3819367	353981	10.8	2	10	28	0	6.7925E-07
11	3.60	D42	2.6103	15.5597%	2652331	167048	15.9	2	11	28	0	9.8414E-07
12	4.27	E42	3.4453	20.5375%	2942375	170161	17.3	2	12	28	0	1.1709E-06
15	5.90	F42	3.0883	18.4095%	3528268	156244	22.6	2	15	28	0	8.7531E-07
28	24.80	ISTD	1.0000	0.0000%	4072620	74188	54.9	2	28	28	0	2.4554E-07

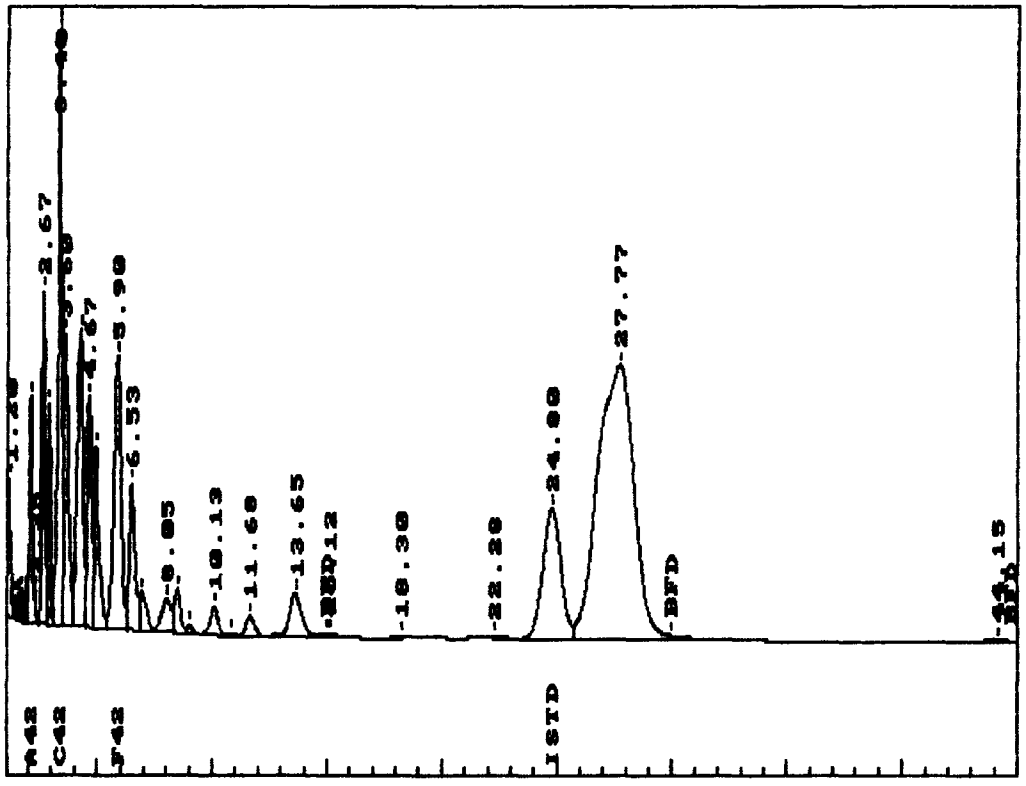
TOTAL AMOUNT = 16.7757

peak average = $\frac{1\cancel{0}.77}{6}$

% Recovery Spike = $\frac{2.79}{3} \times 100$

= 93 %

Data File = A:AB24.PTS Printed on 07-04-1989 at 14:15:52
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61720 uv High Value: 424780 uv Scale factor: 1.0



Samples

****** INTERNAL STANDARD TABLE ******

********** 07-13-1989 10:58:41 Version 4.1 **********

* Sample Name: 89FS22S11 Data File: a:aa14 *
* Date: 07-01-1989 07:04:13 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 14 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF 6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 0.820000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
10	3.22	LINDANE B.L. STD	0.0104	0.7452%	12232	843	14.5	2	10	24	0	8.5304E-07
13	4.77	ALDRIN ~~B.L. STD~~ N.C.	0.0205	1.4657%	2169	263	8.3	1	13	24	0	9.4616E-06
16	7.20	HEPTACHLOR EPOXIDE N.C.	0.0620	4.4247%	376293	17537	21.5	2	16	24	0	1.6464E-07
18	8.58	ENDOSULFAN I N.C.	0.0820	5.8572%	372373	9415	39.6	2	18	24	0	2.2024E-07
21	16.52	ENDOSU II	0.1152	8.2290%	462310	1566	295.1	3	21	24	0	2.4923E-07
22	19.05	DDT N.C.	0.0600	4.2858%	41430	190	217.7	4	22	24	0	1.4485E-06
24	27.63	ISTD	1.0000	0.0000%	1277357	22554	56.6	1	24	24	0	7.8287E-07
25	32.32	DIBUTYLCHLOR	1.0500	74.9924%	4260007	43082	98.9	1	25	24	0	2.4649E-07

TOTAL AMOUNT = 1.4002

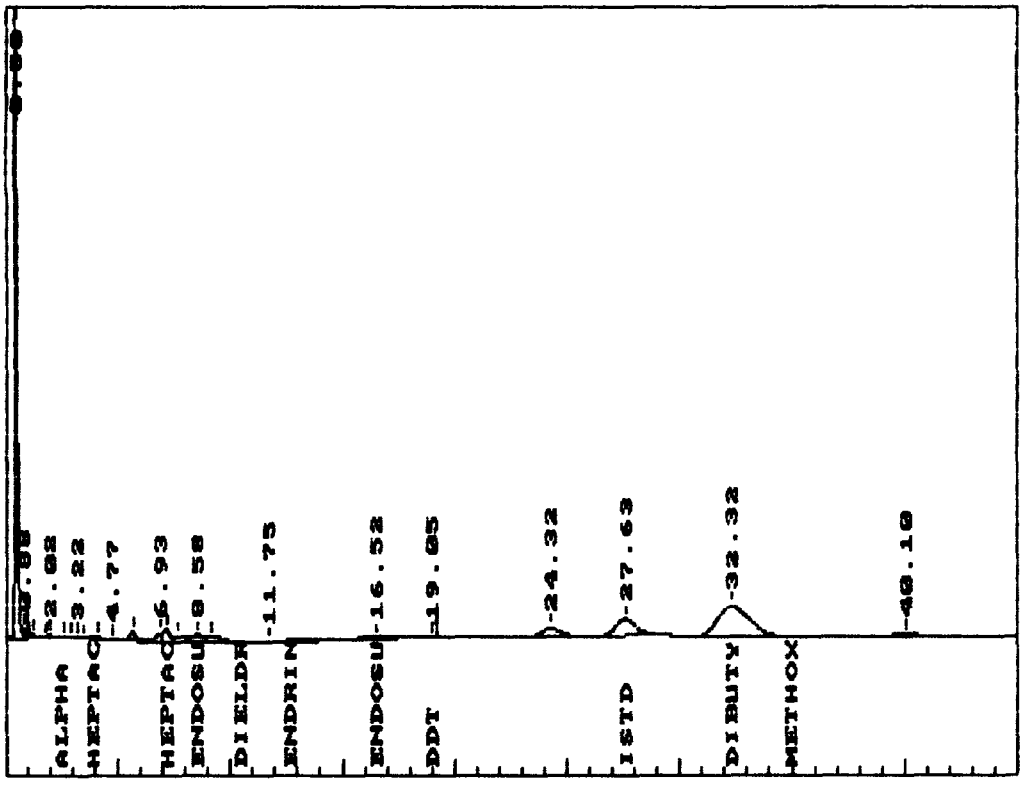
DBC % Recovery $= \frac{1.05}{.6} \times 100$

$= 175\%$

* amount added $= \frac{.5}{.92}$ $\frac{\text{amount added}}{\text{sample amount}}$

$= .6$

Data File = a:aa14.PTS Printed on 07-13-1989 at 10:58:59
Start time: 0.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35443 uv High Value: 946296 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-13-1989 11:00:22 Version 4.1 **********

* Sample Name: 89FS22S11 Data File: a:aa14 *
* Date: 07-01-1989 07:04:13 Method: A:PESB 07-01-1989 09:43:27 # 124 *
* Interface: 0 Cycle#: 14 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C 3F6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

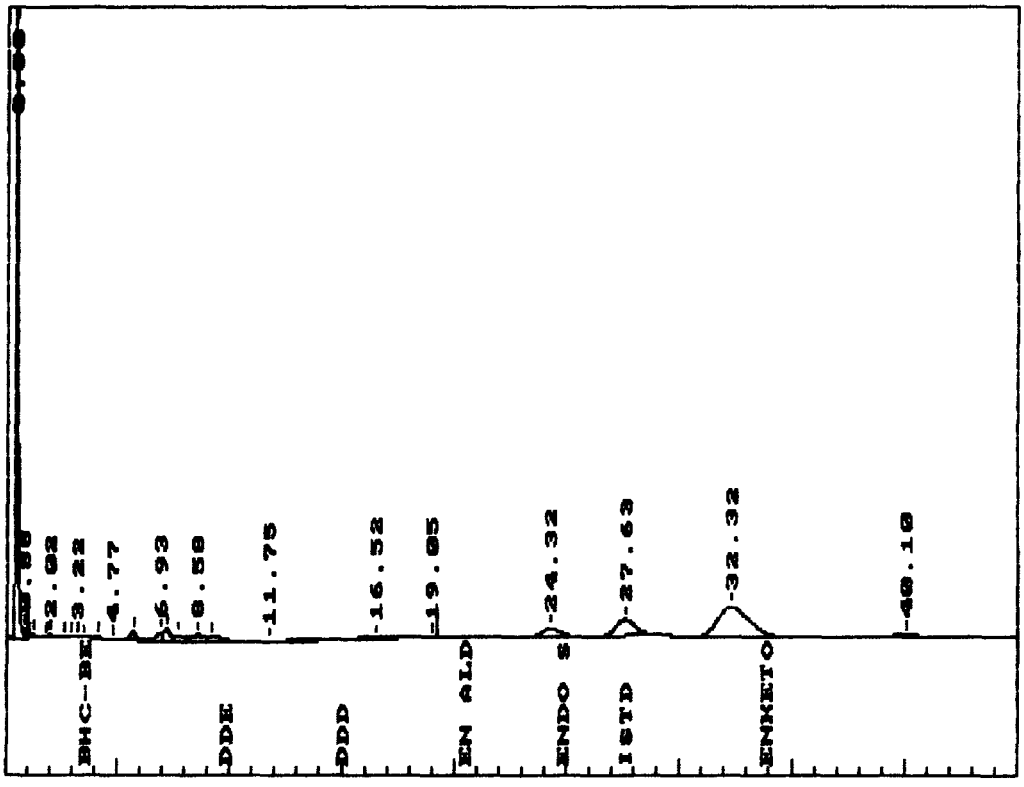
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 0.820000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	3.48	BHC-BETA	0.0001	0.0058%	371	82	4.5	1	0	24	-3.240	2.8778E-07
12	4.13	BHC-DELTA	0.0063	0.3419%	29273	1977	14.8	1	12	24	0	2.1664E-07
23	24.32	ENDO SULFATE	0.2182	11.7617%	724910	12617	57.5	1	12	24	-2.143	3.0099E-07
24	27.63	ISTD	1.0000	0.0000%	1277357	22554	56.6	1	24	24	0	7.8287E-07
25	32.32	ENKETONE	1.6304	87.8906%	4260007	43082	98.9	1	24	24	-4.725	3.8273E-07

TOTAL AMOUNT = 1.8551

Data File = a:aa14.PTS Printed on 07-13-1989 at 11:00:38
Start time: 0.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35443 uv High Value: 946296 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-13-1989 11:02:03 Version 4.1 **********

* Sample Name: 89FS22S11 Data File: a:aa14 *

* Date: 07-01-1989 07:04:13 Method: A:AR042 07-01-1989 09:31:01 # 139 *

* Interface: 0 Cycle#: 14 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 0.00 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 10.00

Internal Standard Amount: 1

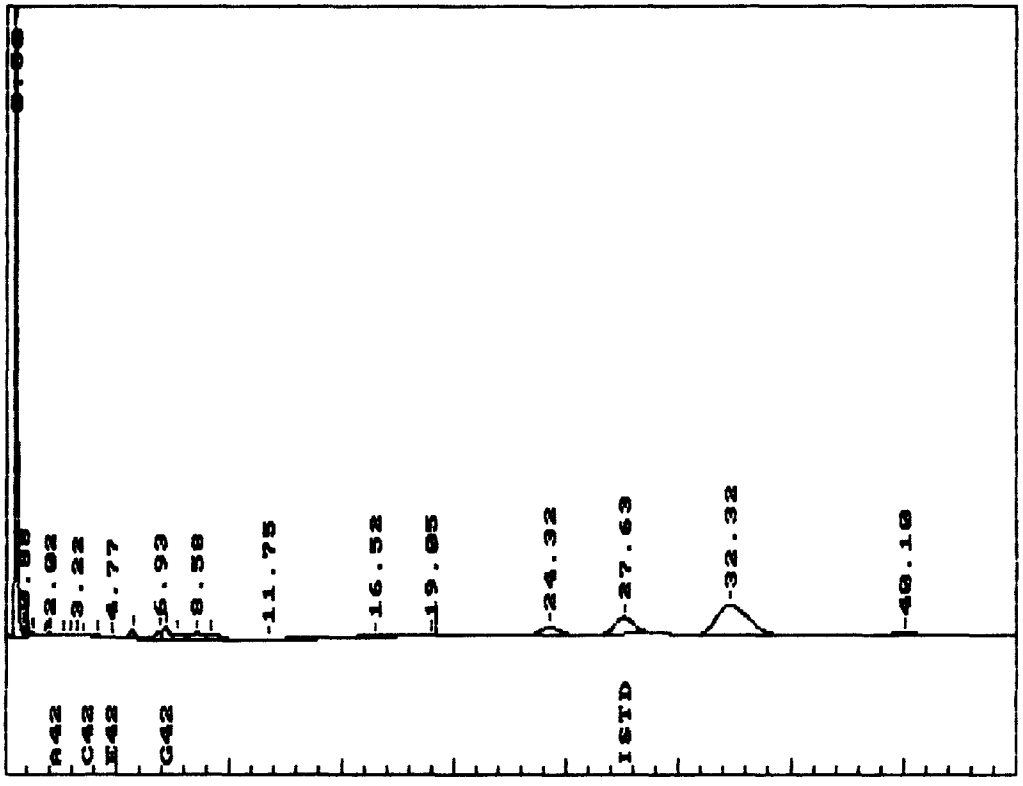
Sample Weight: 0.820000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
9	2.90	B42	~~-0.2811~~	-115.5821%	12353	1017	12.2	2	9	24	0	-2.2755E-05
12	4.13	D42	~~-0.2170~~	-89.2448%	29273	1977	14.8	1	12	24	0	-7.4146E-06
13	4.77	E42	~~-0.4076~~	-167.6007%	2169	263	8.3	1	13	24	0	-1.8793E-04
14	5.68	F42	~~-0.6339~~	260.6381%	234463	12332	19.0	1	14	24	0	2.7036E-06
16	7.20	G42	0.5151	211.7895%	376293	17537	21.5	2	16	24	0	1.3688E-06
24	27.63	ISTD	1.0000	0.0000%	1277357	22554	56.6	1	24	24	0	7.8287E-07

TOTAL AMOUNT = 0.2432

No pattern

Data File = a:aa14.PTS Printed on 07-13-1989 at 11:02:19
Start time: 0.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35443 uv High Value: 946296 uv Scale factor: 1.0



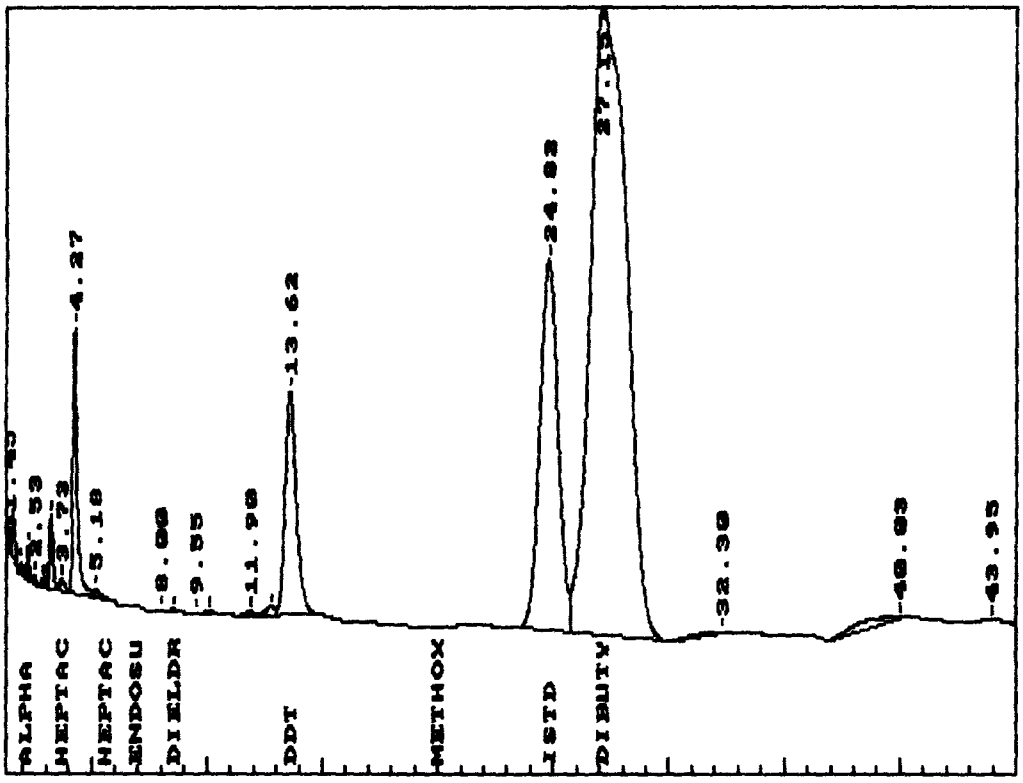
```
******     INTERNAL STANDARD TABLE     ******
******************** 07-03-1989 12:57:40 Version 4.1 **********************
* Sample Name: 89FS22S11                          Data File: a:ab11        *
* Date: 07-01-1989 17:18:31 Method: A:PESA-2 07-03-1989 08:01:22  #  135   *
* Interface: 0   Cycle#:  11   Operator NID Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100             *
***************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE/   *
*            Solvent Description: NITROGEN                                 *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                          *
*            Detector 0: ECD 320C            Detector 1: ECD 320C          *
* Misc. Information: INSTRUMENT # 1                                        *
***************************************************************************
Starting Delay:    1.20                      Ending retention time:    45.00
Area reject:        0                        One sample per    1.000 sec.
Amount injected:        5.00                 Dilution factor:        10.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

SF6231

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.53	LINDANE	0.0064	0.4401%	14876	1681	8.9	2	5	19	0	4.2892E-07
9	3.73	HEPTACHLOR	0.0028	0.1961%	32780	2231	14.7	2	9	19	0	8.6722E-08
13	8.53	DIELDRIN	0.0116	0.8006%	7908	458	17.3	2	13	19	0	1.4678E-06
14	9.55	EN+ENDII	0.0800	5.5179%	3487	184	18.9	2	14	19	0	2.2945E-05
18	13.62	DDT	0.1428	9.8526%	1411051	41710	33.8	2	18	19	0	1.0123E-07
19	24.82	ISTD	1.0000	0.0000%	3794510	69371	54.7	2	19	19	0	2.6354E-07
20	27.15	DIBUTYLCHLOR	1.2062	83.1927%	12730028	117697	108.2	2	20	19	0	9.4748E-08

TOTAL AMOUNT = 1.4498

Data File = a:ab11.PTS Printed on 07-03-1989 at 12:58:09
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 62103 uv High Value: 180844 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-13-1989 11:12:21 Version 4.1 **********

* Sample Name: 89FS22S11 Data File: a:AB11 *

* Date: 07-01-1989 17:18:31 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *

* Interface: 0 Cycle#: 11 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 SF6231 *

****

Starting Delay: 1.20 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 10.00

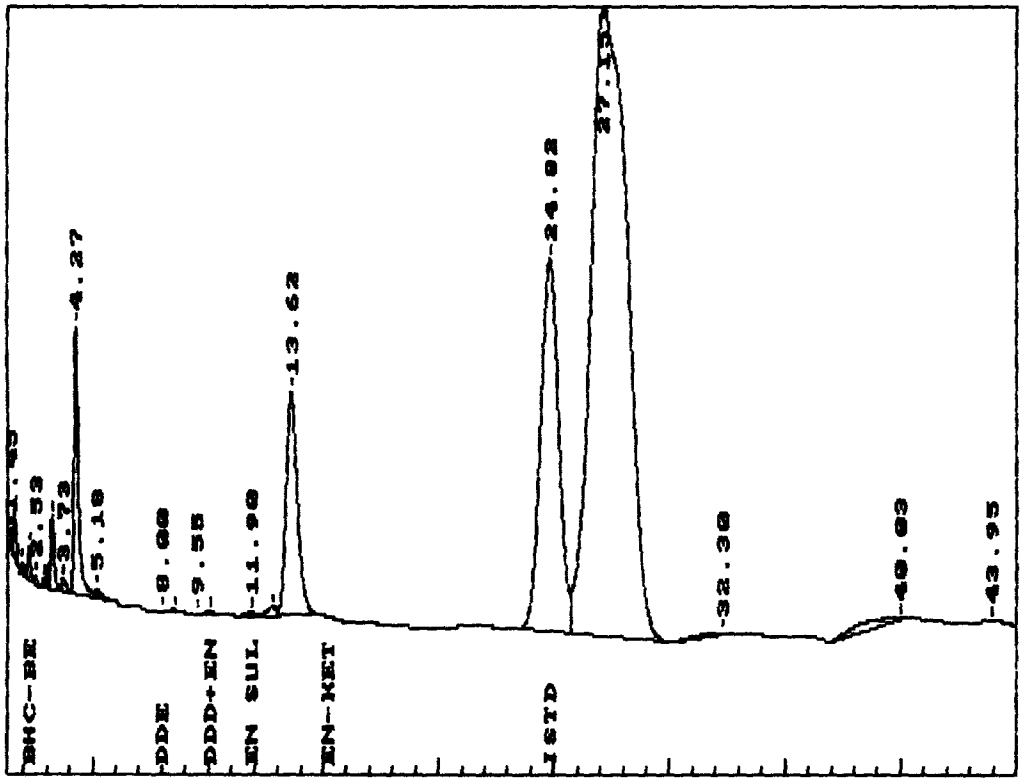
Internal Standard Amount: 1

Sample Weight: 0.820000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.25	BHC-BETA	0.0063	52.2905%	50889	6187	8.2	2	4	19	0	1.2401E-07
5	2.53	BHC-DELTA	0.0014	11.3364%	14876	1681	8.9	2	5	19	0	9.1970E-08
12	8.00	DDE	0.0006	4.9741%	6992	292	24.0	2	12	19	0	8.5852E-08
15	10.10	DDD+EN-ALD	0.0013	11.1268%	11636	560	20.8	2	15	19	0	1.1541E-07
16	11.90	EN SULFATE	0.0024	20.2722%	17216	728	23.7	2	16	19	0	1.4211E-07
19	24.82	ISTD	1.0000	0.0000%	3794510	69371	54.7	2	19	19	0	2.6354E-07

TOTAL AMOUNT = 0.0121

Data File = a:AB11.PTS Printed on 07-13-1989 at 11:15:31
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 62103 uv High Value: 180844 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A15

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 09:52:26 Version 4.1 **********

* Sample Name: 89FS22S12 Data File: a:aa15 *
* Date: 07-01-1989 07:05:57 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 15 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C SE-623 *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
10	3.25	LINDANE B.L STD	0.0074	0.8557%	2688	286	9.4	2	10	23	0	2.7362E-06
12	3.83	HEPTACHLOR B.L.STD	0.0053	0.6112%	2096	199	10.6	2	12	23	0	2.5062E-06
16	7.20	HEPTACHLOR EPOXIDE B.L STD	0.0102	1.1812%	32562	803	40.6	2	16	23	0	3.1181E-07
18	10.62	DIELDRIN B.L. STD	0.0183	2.1259%	17232	528	32.6	1	18	23	0	1.0605E-06
19	16.38	ENDOSU II B.L. STD	0.0352	4.1000%	17351	539	32.2	1	19	23	0	2.0311E-06
20	19.42	DDT B.L.STD	0.0510	5.9373%	58043	635	91.4	2	19	23	2.397	8.7927E-07
23	27.67	ISTD	1.0000	0.0000%	1380472	24181	57.1	1	23	23	0	7.2439E-07
24	32.30	DIBUTYLCHLOR	0.7323	85.1887%	3902987	41872	93.2	1	24	23	0	1.8761E-07

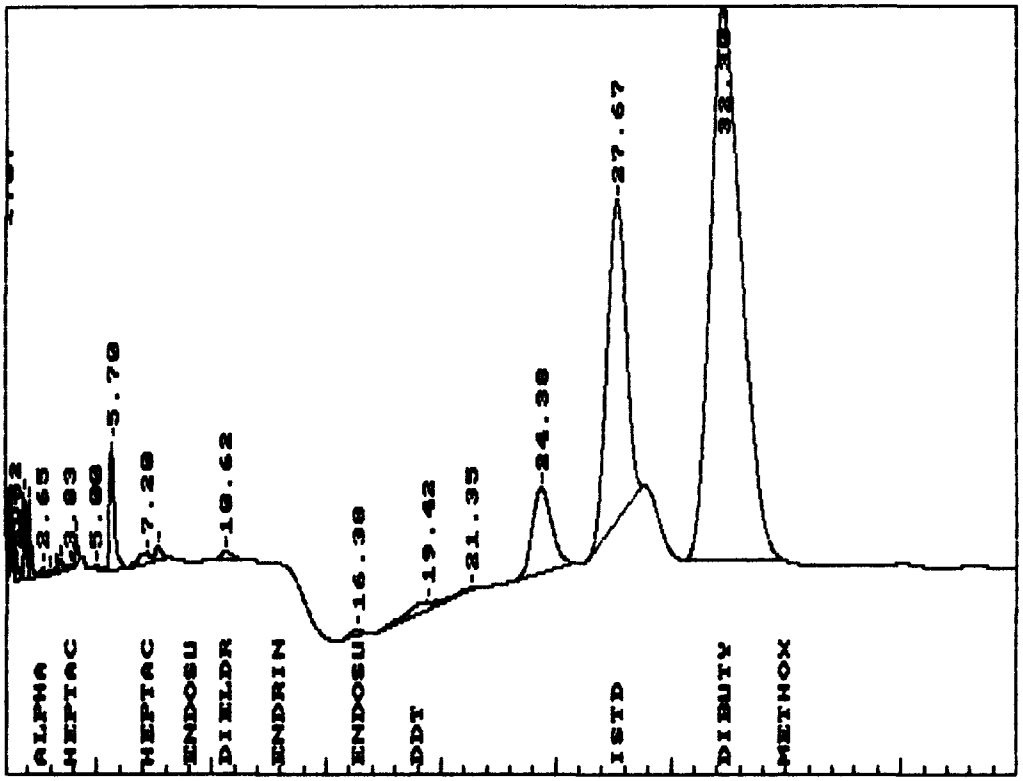
TOTAL AMOUNT = 0.8596

$$\% \text{ DBC Recovery} = \frac{.73}{.5} \times 100$$

$$= 146$$

B.L. std - peak area are below the low standard in the calibration curve

Data File = a:aa15.PTS Printed on 07-03-1989 at 09:52:57
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37115 uv High Value: 84975 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A15

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 09:54:42 Version 4.1 **********

* Sample Name: 89FS22S12 Data File: a:aa15 *
* Date: 07-01-1989 07:05:57 Method: A:PESB 07-01-1989 09:43:27 # 124 *
* Interface: 0 Cycle#: 15 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C SF 4 231
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

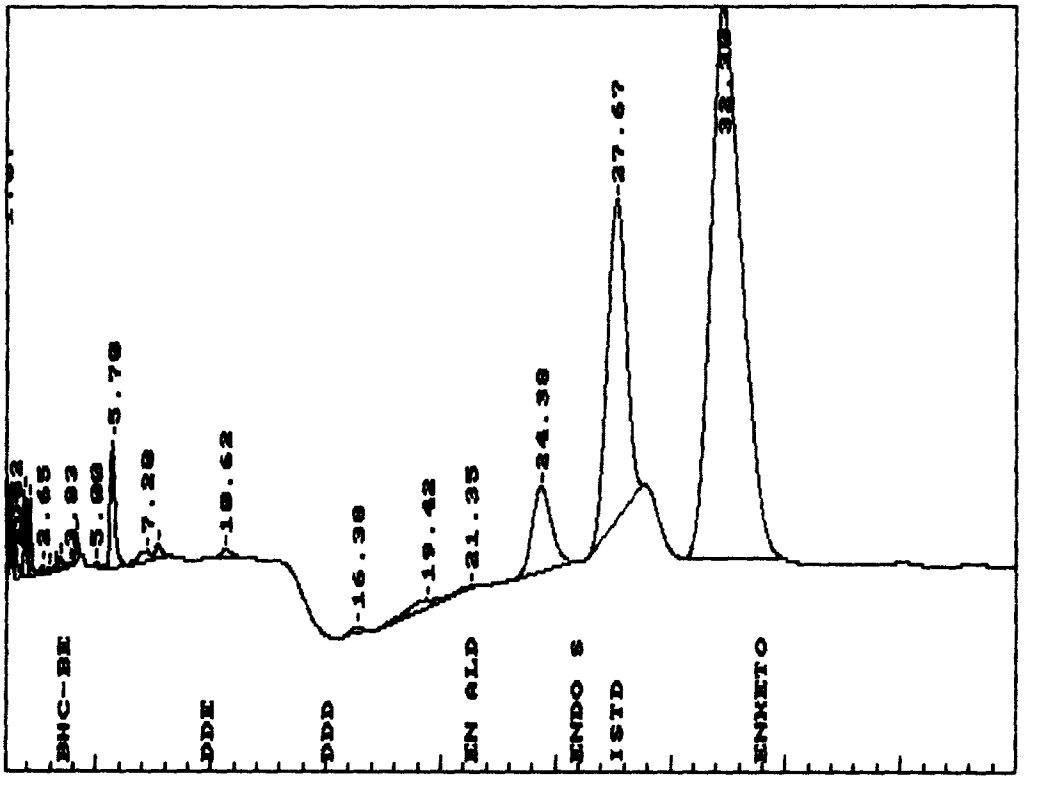
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	3.47	BHC-BETA B.L. STd	0.0023	0.2009%	10510	814	12.9	2	0	23	-3.703	2.1835E-07
13	4.13	BHC-DELTA B.L. Std	0.0028	0.2493%	17329	1948	8.9	1	13	23	0	1.6437E-07
21	21.35	EN ALDEHYDE B.L. Std	0.0038	0.3340%	17301	178	97.1	2	21	23	0	2.2058E-07
23	27.67	ISTD	1.0000	0.0000%	1380472	24181	57.1	1	23	23	0	7.2439E-07
24	32.30	~~ENKETONE~~ DBC	1.1334	99.2157%	3902987	41872	93.2	1	23	23	-4.889	2.9040E-07

TOTAL AMOUNT = 1.1424

Data File = a:aa15.PTS Printed on 07-03-1989 at 09:55:17
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37115 uv High Value: 84975 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 09:57:19 Version 4.1 **********

* Sample Name: 89FS22S12 Data File: a:aa15 *
* Date: 07-01-1989 07:05:57 Method: A:AR042 07-01-1989 09:31:01 # 139 *
* Interface: 0 Cycle#: 15 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C SF6231 *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

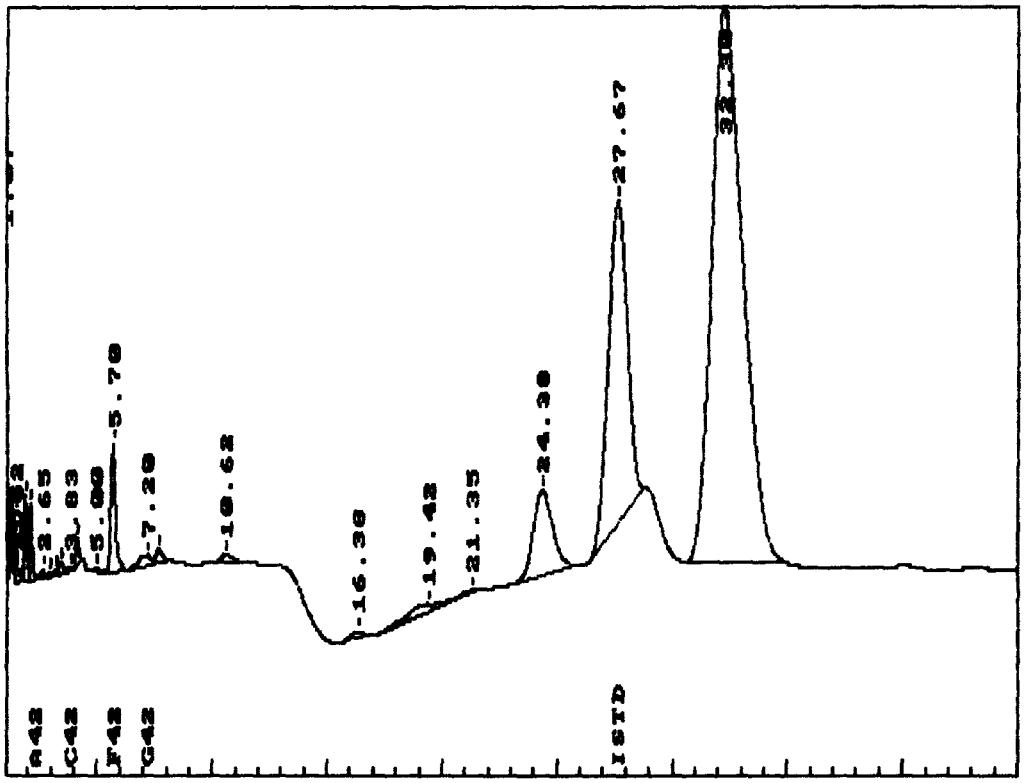
Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
9	2.92	B42	~~-0.2728~~	21.0633%	1512	218	6.9	2	9	23	0	-1.8048E-04
12	3.83	C42	~~-0.2390~~	18.4519%	2096	199	10.6	2	12	23	0	-1.1400E-04
13	4.13	D42	~~-0.2413~~	18.6335%	17329	1948	8.9	1	13	23	0	-1.3927E-05
15	5.70	F42	~~-0.0874~~	-6.7506%	142257	9597	14.8	1	15	23	0	6.1462E-07
16	7.20	G42	~~-0.6295~~	48.6020%	32562	803	40.6	2	16	23	0	-1.9332E-05
23	27.67	ISTD	1.0000	0.0000%	1380472	24181	57.1	1	23	23	0	7.2439E-07

TOTAL AMOUNT = -1.2952

No pattern

Data File = a:aa15.PTS Printed on 07-03-1989 at 09:58:02
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37115 uv High Value: 84975 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:23:21 Version 4.1 **********

* Sample Name: 89FS22S12 Data File: a:ab12 *
* Date: 07-01-1989 18:05:03 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 12 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

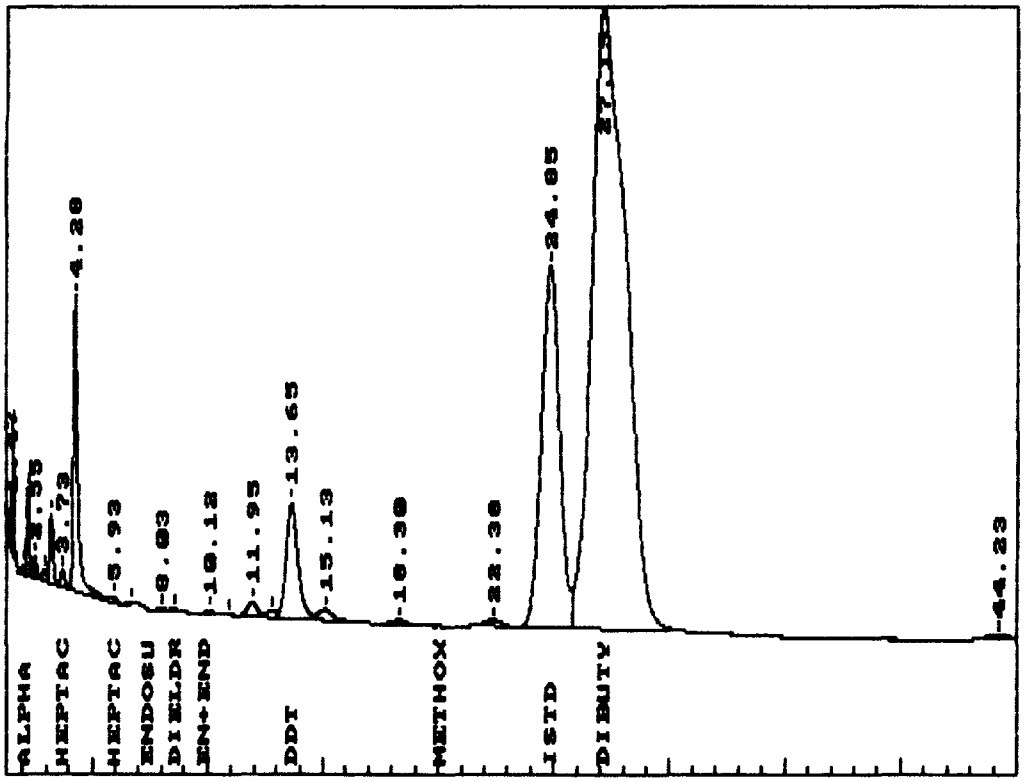
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	2.02	ALPHA BHC	0.0082	0.5926%	17446	1986	8.8	2	3	22	0	4.6775E-07
5	2.55	LINDANE	0.0080	0.5833%	40626	4255	9.5	2	5	22	0	1.9772E-07
8	3.73	HEPTACHLOR	0.0033	0.2414%	40282	2962	13.6	2	8	22	0	8.2529E-08
10	5.93	HEPTACHLOR EPOXIDE	0.0030	0.2181%	23860	1222	19.5	4	10	22	0	1.2585E-07
13	8.55	DIELDRIN	0.0119	0.8651%	12276	631	19.5	2	13	22	0	9.7037E-07
14	10.12	EN+ENDII	0.0806	5.8501%	10543	565	18.6	1	13	22	3.481	7.6406E-06
18	13.65	DDT	0.0959	6.9652%	769676	21689	35.5	3	18	22	0	1.2461E-07
22	24.85	ISTD	1.0000	0.0000%	3659730	67503	54.2	2	22	22	0	2.7324E-07
23	27.15	DIBUTYLCHLOR	1.1661	84.6843%	11867384	116872	101.5	2	23	22	0	9.8260E-08

TOTAL AMOUNT = 1.3770

Data File = a:ab12.PTS Printed on 07-03-1989 at 13:23:41
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61469 uv High Value: 180535 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:25:01 Version 4.1 **********

* Sample Name: 89FS22S12 Data File: a:ab12 *
* Date: 07-01-1989 18:05:03 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *
* Interface: 0 Cycle#: 12 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

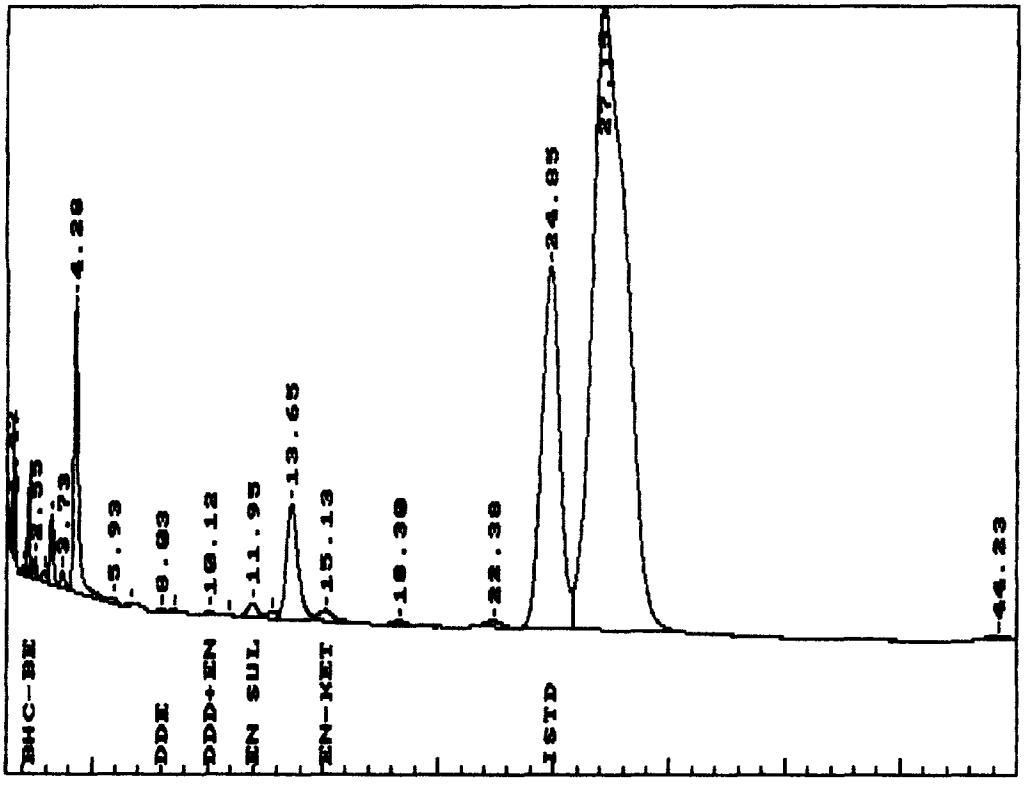
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.25	BHC-BETA	0.0118	29.4610%	111609	16739	6.7	2	4	22	0	1.0543E-07
5	2.55	BHC-DELTA	0.0032	7.9533%	40626	4255	9.5	2	5	22	0	7.8192E-08
12	8.03	DDE	0.0007	1.7765%	9721	393	24.8	2	12	22	0	7.2991E-08
14	10.12	DDD+EN-ALD	0.0010	2.5900%	10543	565	18.6	1	14	22	0	9.8119E-08
16	11.95	EN SULFATE	0.0097	24.3915%	80633	2763	29.2	2	16	22	0	1.2082E-07
19	15.13	EN-KETONE	0.0135	33.8277%	93893	2141	43.9	4	19	22	0	1.4390E-07
22	24.85	ISTD	1.0000	0.0000%	3659730	67503	54.2	2	22	22	0	2.7324E-07

TOTAL AMOUNT = 0.0399

Data File = a:ab12.PTS Printed on 07-03-1989 at 13:25:19
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61469 uv High Value: 180535 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:A16

***** INTERNAL STANDARD TABLE *****

********** 07-01-1989 13:10:12 Version 4.1 **********

* Sample Name: 89FS22D12 Data File: a:aa16 *
* Date: 07-01-1989 07:07:42 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 16 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

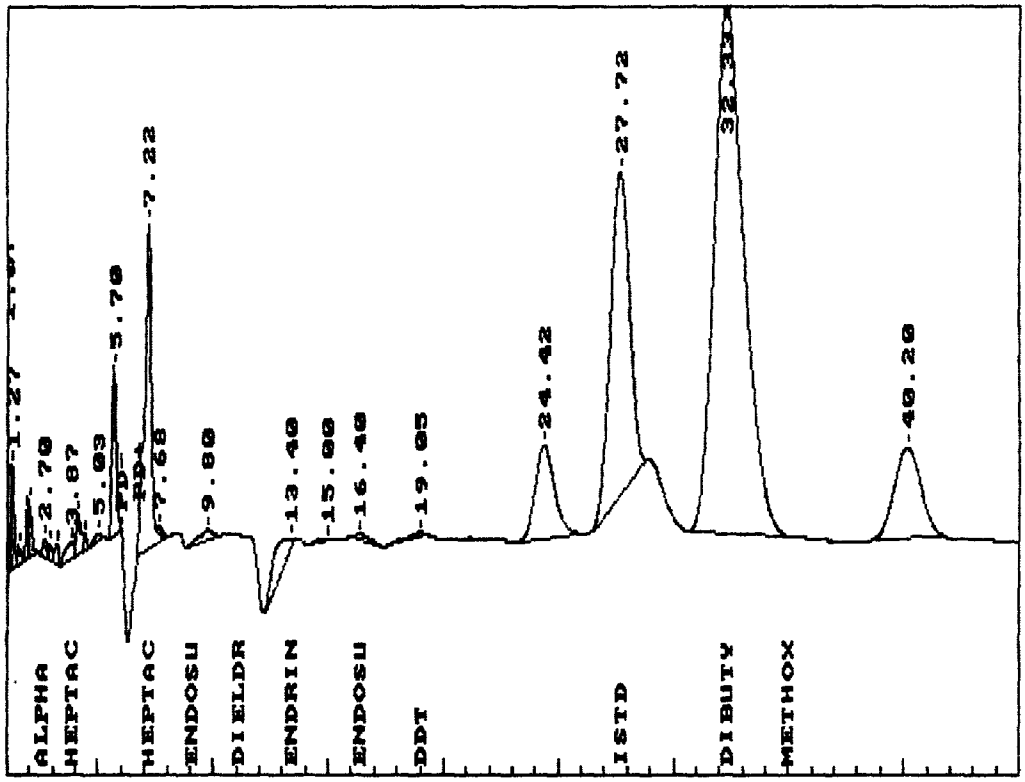
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	3.23	LINDANE B.L. Std	0.0095	1.0737%	21114	1428	14.8	2	11	25	0	4.4840E-07
12	3.87	HEPTACHLOR B.L. Std	0.0083	0.9370%	30043	1229	24.4	2	12	25	0	2.7501E-07
17	7.22	HEPTACHLOR EPOXIDE	0.0616	6.9821%	503283	24324	20.7	3	17	25	0	1.2233E-07
20	13.40	ENDRIN N.C.	0.0511	5.7902%	106575	457	233.0	1	20	25	0	4.7908E-07
22	16.40	ENDOSU II B.L. Std	0.0356	4.0369%	20142	388	51.9	1	22	25	0	1.7673E-06
23	19.05	DDT B.L. Std	0.0445	5.0427%	10308	156	66.2	1	23	25	0	4.3140E-06
25	27.72	ISTD	1.0000	0.0000%	1373718	24000	57.2	1	25	25	0	7.2795E-07
26	32.33	DIBUTYLCHLOR	0.6714	76.1376%	3554142	39442	90.1	1	26	25	0	1.8890E-07

TOTAL AMOUNT = 0.8818

DB% percent recovery = $\frac{.67}{\cancel{100}\ .5\ \%} \times 100$

= 134%

Data File = a:aa16.PTS Printed on 07-01-1989 at 13:10:45
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35228 uv High Value: 82704 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:16

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 10:00:40 Version 4.1 **********

* Sample Name: 89FS22D12 Data File: a:aa16 *
* Date: 07-01-1989 07:07:42 Method: A:PESB 07-01-1989 09:43:27 # 124 *
* Interface: 0 Cycle#: 16 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

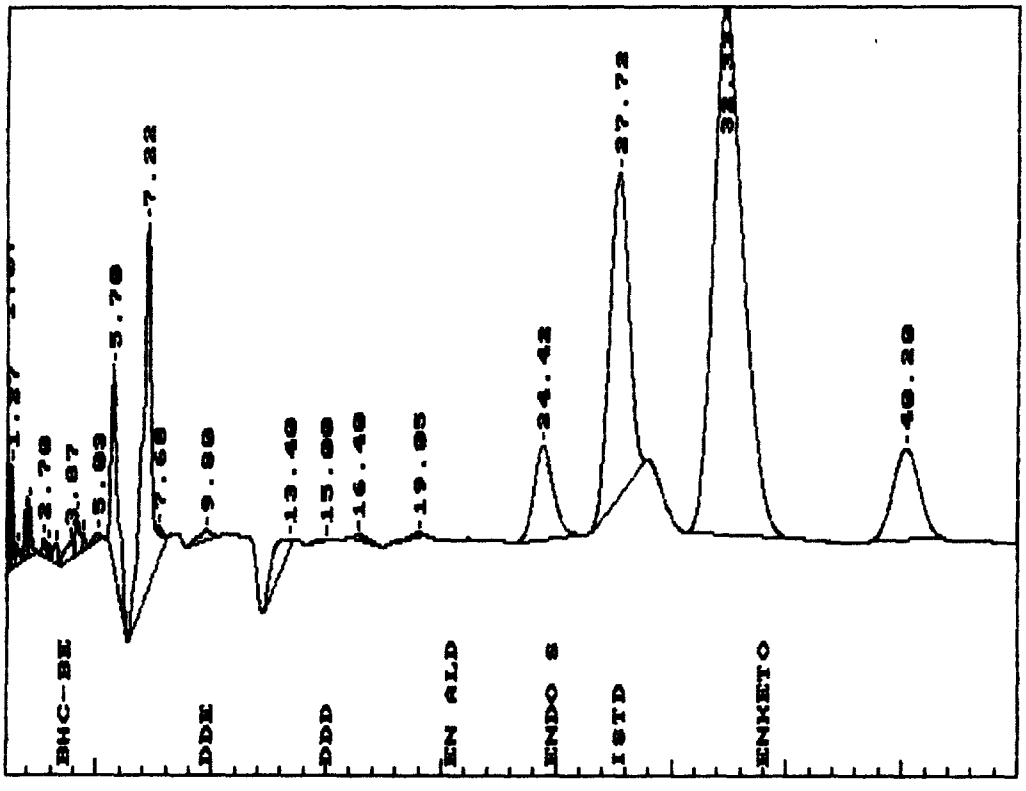
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C SF6231 *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
13	4.15	BHC-DELTA B.L. Std	0.0070	0.6091%	42136	3033	13.9	2	13	25	0	1.6518E-07
19	9.80	DDE B.L. Std	0.0054	0.4715%	30362	748	40.6	1	19	25	0	1.7744E-07
21	15.00	DDD B.L. Std	0.0014	0.1197%	6724	94	71.2	1	21	25	0	2.0336E-07
24	24.42	ENDO SULFATE N.C.	0.0918	8.0325%	399946	6906	57.9	1	21	25	-1.473	2.2950E-07
25	27.72	ISTD	1.0000	0.0000%	1373718	24000	57.2	1	25	25	0	7.2795E-07
26	32.33	ENKETONE DBC	1.0372	90.7673%	3554142	39442	90.1	1	25	25	-4.963	2.9183E-07

TOTAL AMOUNT = 1.1427

Data File = a:aa16.PTS Printed on 07-03-1989 at 10:01:26
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35228 uv High Value: 82704 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 10:03:26 Version 4.1 **********

* Sample Name: 89FS22D12 Data File: a:aa16 *

* Date: 07-01-1989 07:07:42 Method: A:AR042 07-01-1989 09:31:01 # 139 *

* Interface: 0 Cycle#: 16 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

* Detector 0: ECD 320C Detector 1: ECD 320C SF 6231 *

* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 0.00 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 10.00

Internal Standard Amount: 1

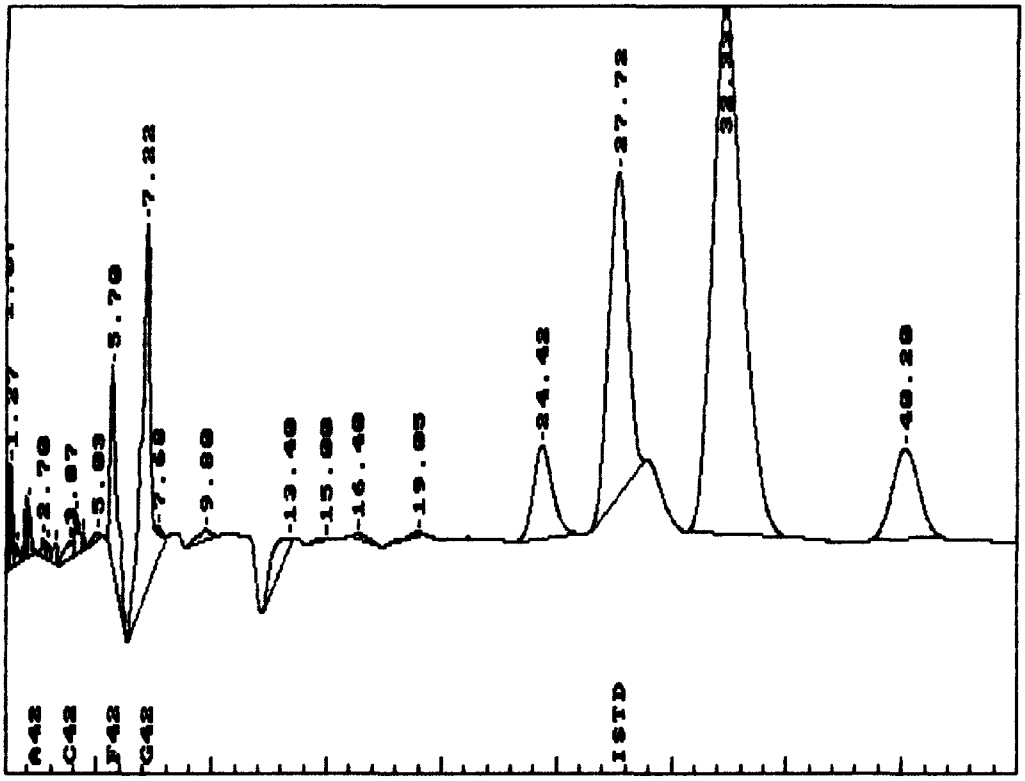
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
10	2.88	B42	~~-0.2341~~	-14.7403%	12280	1157	10.6	2	10	25	0	-1.9065E-05
12	3.87	C42	~~-0.1827~~	-11.5040%	30043	1229	24.4	2	12	25	0	-6.0816E-06
13	4.15	D42	~~-0.1306~~	-8.2206%	42136	3033	13.9	2	13	25	0	-3.0987E-06
16	5.70	F42	0.7873	49.5692%	320573	15089	21.2	1	16	25	0	2.4559E-06
17	7.22	G42	1.3484	84.8957%	732409	27208	26.9	3	17	25	0	1.8410E-06
25	27.72	ISTD	1.0000	0.0000%	1373718	24000	57.2	1	25	25	0	7.2795E-07

TOTAL AMOUNT = 1.5883

No pattern

Data File = a:aa16.PTS Printed on 07-03-1989 at 10:04:12
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35228 uv High Value: 82704 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:27:08 Version 4.1 **********

* Sample Name: 89FS22D12 Data File: a:ab13 *

* Date: 07-01-1989 18:51:31 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *

* Interface: 0 Cycle#: 13 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C 6F6231 *

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 *

****

Starting Delay: 1.20 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 10.00

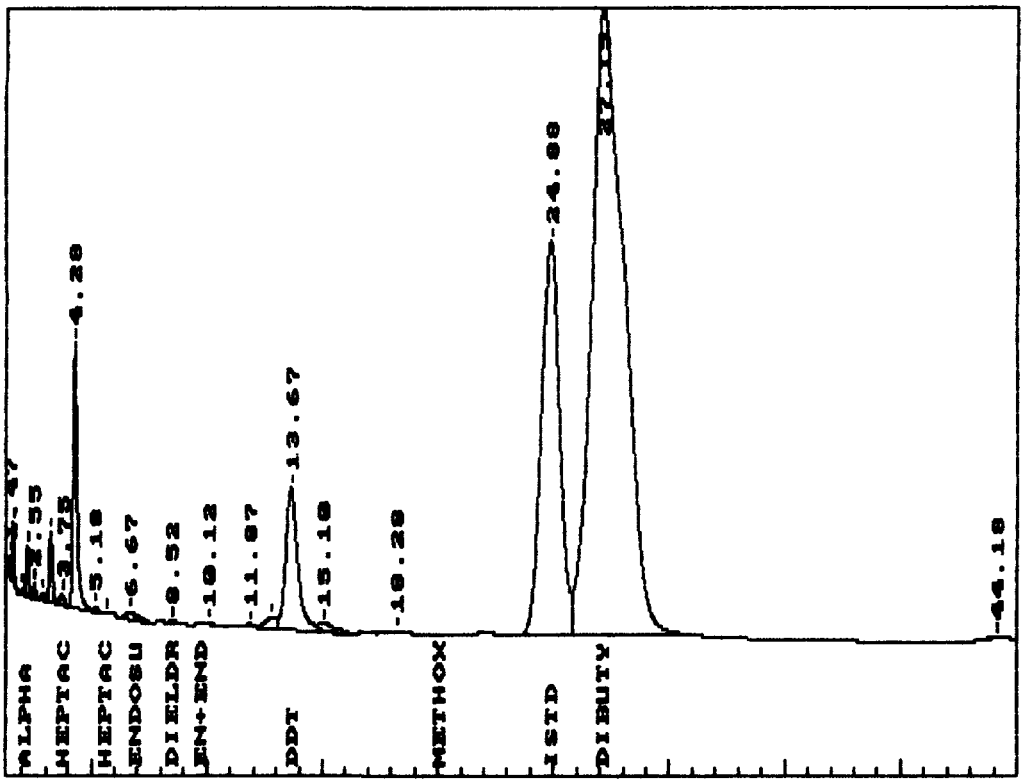
Internal Standard Amount: 1

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.55	LINDANE	0.0068	0.5496%	21665	2700	8.0	2	5	20	0	3.1417E-07
8	3.75	HEPTACHLOR	0.0023	0.1851%	22272	1863	12.0	2	8	20	0	1.0293E-07
11	5.63	HEPTACHLOR EPOXIDE	0.0016	0.1300%	583	88	6.6	1	8	20	.8696	2.7608E-06
12	6.67	ENDOSULFAN I	0.0101	0.8193%	49888	1218	41.0	1	8	20	-3.669	2.0341E-07
13	8.52	DIELDRIN	0.0114	0.9193%	4329	264	16.4	1	13	20	0	2.6300E-06
14	10.12	EN+ENDII	0.0803	6.4873%	8030	427	18.8	1	13	20	3.886	1.0006E-05
17	13.67	DDT	0.1043	8.4229%	898033	24804	36.2	3	17	20	0	1.1616E-07
20	24.88	ISTD	1.0000	0.0000%	3753511	68808	54.6	2	20	20	0	2.6642E-07
21	27.15	DIBUTYLCHLOR	1.0216	82.4867%	10653115	110262	96.6	2	21	20	0	9.5897E-08

TOTAL AMOUNT = 1.2385

Data File = a:ab13.PTS Printed on 07-03-1989 at 13:27:28
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61628 uv High Value: 173199 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:28:46 Version 4.1 **********

* Sample Name: 89FS22D12 Data File: a:ab13 *
* Date: 07-01-1989 18:51:31 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *
* Interface: 0 Cycle#: 13 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

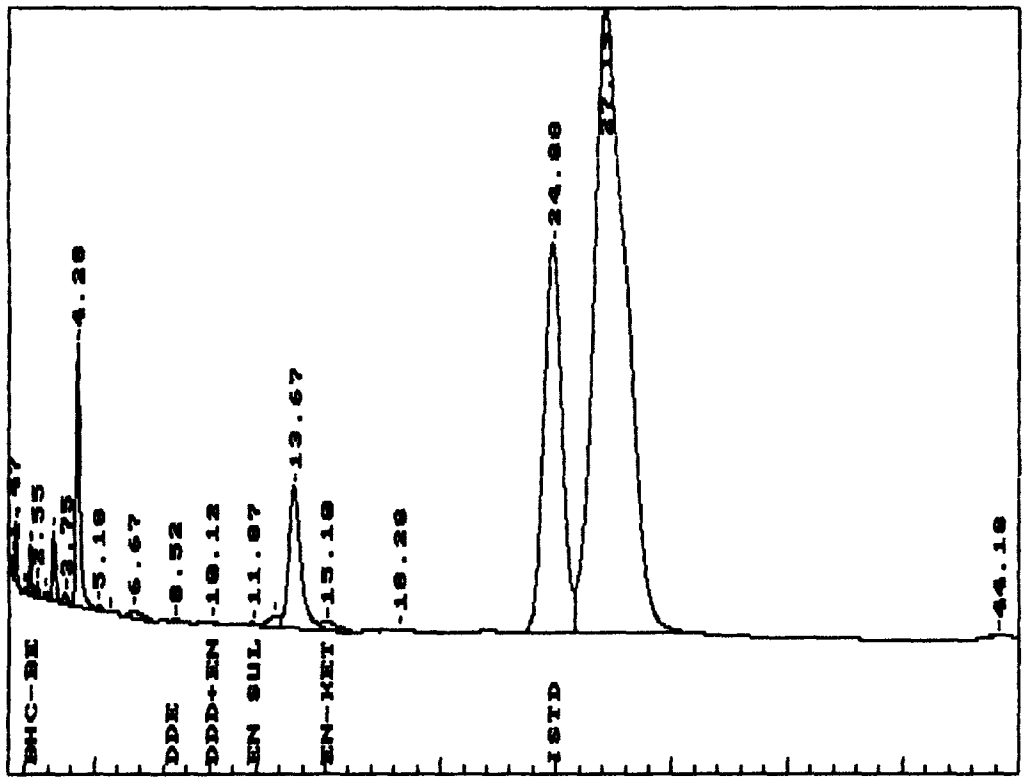
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.25	BHC-BETA	0.0062	31.4463%	60110	8996	6.7	2	4	20	0	1.0280E-07
5	2.55	BHC-DELTA	0.0017	8.4057%	21665	2700	8.0	2	5	20	0	7.6239E-08
13	8.52	DDE	0.0003	1.5679%	4329	264	16.4	1	5	20	2.184	7.1168E-08
14	10.12	DDD+EN-ALD	0.0008	3.9094%	8030	427	18.8	1	14	20	0	9.5668E-08
15	11.87	EN SULFATE	0.0015	7.7323%	12898	479	27.0	2	15	20	0	1.1780E-07
18	15.10	EN-KETONE	0.0092	46.9385%	65738	1320	49.8	4	18	20	0	1.4030E-07
20	24.88	ISTD	1.0000	0.0000%	3753511	68808	54.6	2	20	20	0	2.6642E-07

TOTAL AMOUNT = 0.0196

Data File = a:ab13.PTS Printed on 07-03-1989 at 13:29:04
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 61628 uv High Value: 173199 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:17
NEW TIMED EVENTS FROM A:17

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 10:59:33 Version 4.1 **********
* Sample Name: 89FS11R17 Data File: a:aa17 *
* Date: 07-01-1989 07:09:27 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 17 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *
****
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

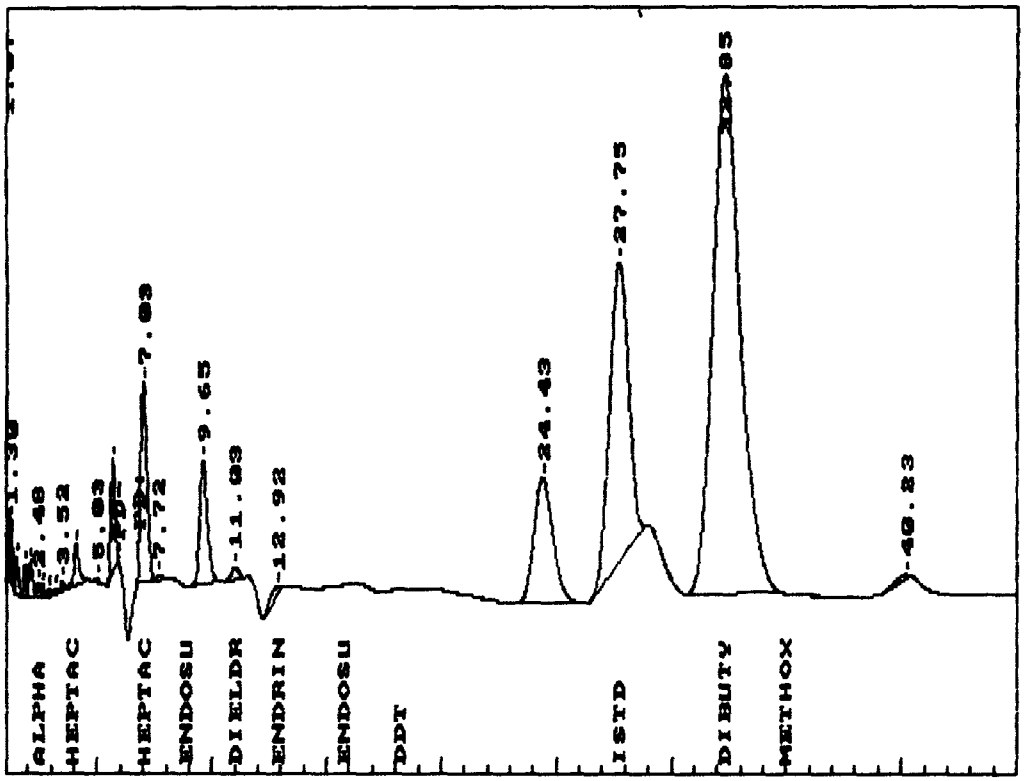
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.48	ALPHA BHC N.C.	0.0106	1.3749%	9224	988	9.3	2	7	21	0	1.1525E-06
10	3.23	LINDANE B.L. Std	0.0075	0.9741%	3837	370	10.4	2	10	21	0	1.9627E-06
12	4.12	HEPTACHLOR B.L. Std	0.0099	1.2829%	41444	2988	13.9	2	10	21	4.270	2.3933E-07
15	7.03	HEPTACHLOR EPOXIDE N.C.	0.0402	5.1961%	280352	14691	19.1	1	15	21	0	1.4330E-07
18	11.03	DIELDRIN N.C.	0.0190	2.4608%	20788	956	21.7	1	18	21	0	9.1524E-07
19	12.92	ENDRIN N.C.	0.0251	3.2439%	20773	436	47.7	1	19	21	0	1.2074E-06
21	27.75	ISTD	1.0000	0.0000%	1253079	22131	56.6	1	21	21	0	7.9803E-07
22	32.35	DIBUTYLCHLOR	0.6608	85.4674%	3189705	38395	83.1	1	22	21	0	2.0716E-07

TOTAL AMOUNT = 0.7732

DBC % Recovery $= \frac{.66}{.5} \times 100$

$= 132$

Data File = a:aa17.PTS Printed on 07-03-1989 at 11:00:06
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 39318 uv High Value: 86317 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 12:01:43 Version 4.1 **********

* Sample Name: 89FS11R17 Data File: a:aa17 *
* Date: 07-01-1989 07:09:27 Method: A:PESB 07-01-1989 09:43:27 # 124 *
* Interface: 0 Cycle#: 17 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

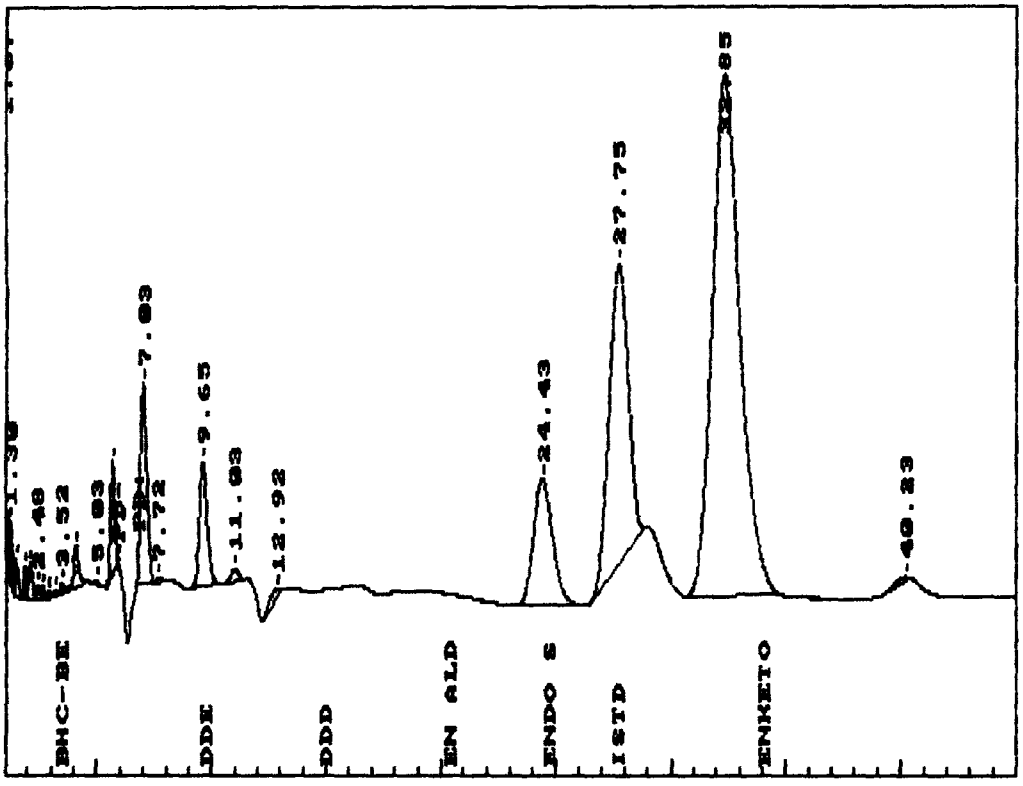
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	3.52	BHC-BETA B.L. Std	0.0017	0.8970%	6943	736	9.4	2	11	21	0	2.4055E-07
12	4.12	BHC-DELTA B.L. Std	0.0075	4.0310%	41444	2988	13.9	2	12	21	0	1.8108E-07
17	9.65	DDE N.C.	0.0424	22.7950%	218164	9221	23.7	1	12	21	-1.546	1.9453E-07
20	24.43	ENDO SULFATE N.C.	0.1346	72.2770%	534838	9336	57.3	1	12	21	-1.275	2.5159E-07
21	27.75	ISTD	1.0000	0.0000%	1253079	22131	56.6	1	21	21	0	7.9803E-07

TOTAL AMOUNT = 0.1862

Data File = a:aa17.PTS Printed on 07-03-1989 at 12:02:17
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 39318 uv High Value: 86317 uv Scale factor: 1.0



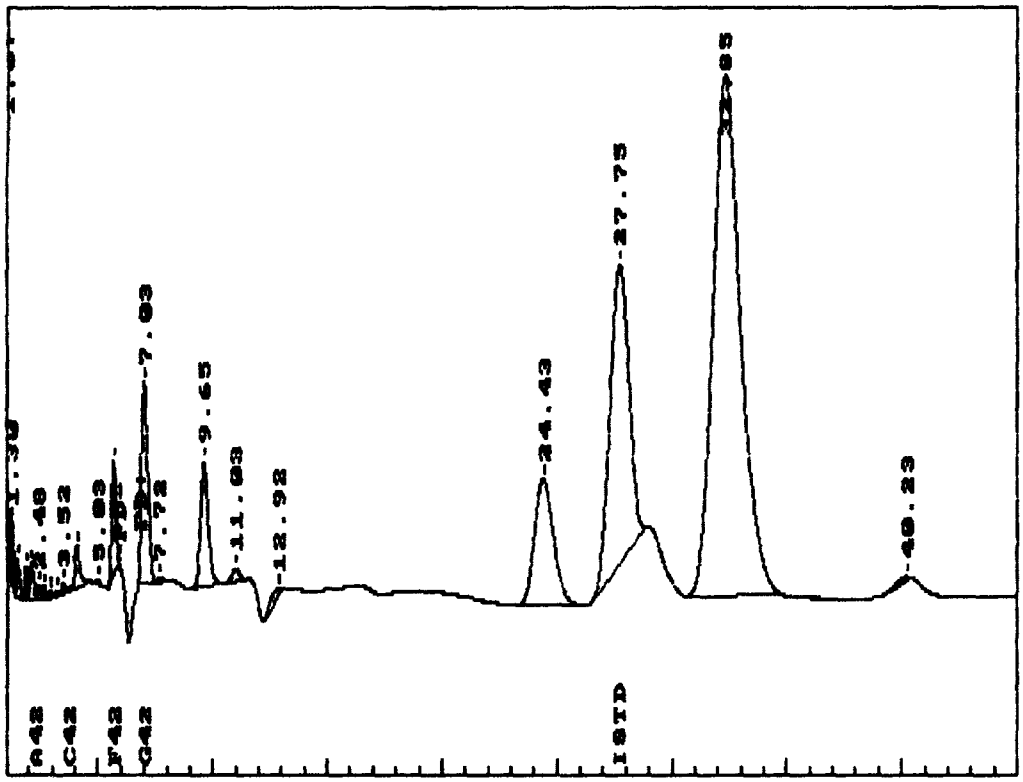
```
*****   INTERNAL STANDARD TABLE   *****
******************** 07-03-1989 12:45:46 Version 4.1 **********************
* Sample Name: 89FS11R17                          Data File: a:aa17        *
* Date: 07-01-1989 07:09:27 Method: A:AR042 07-01-1989 09:31:01  #  139   *
* Interface: 0   Cycle#:  17   Operator NID Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE   *
*              Solvent Description: NITROGEN                              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                         *
*            Detector 0: ECD 320C            Detector 1: ECD 320C         *
* Misc. Information: INSTRUMENT # 1                      INSTRUMENT # 1   *
*************************************************************************
Starting Delay:    0.00                      Ending retention time:   45.00
Area reject:        0                        One sample per   1.000 sec.
Amount injected:        5.00                 Dilution factor:       10.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

SF6 231

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
9	2.95	B42	-0.2575	97.1604%	5254	455	11.6	2	9	21	0	-4.9014E-05
12	4.12	D42	-0.1159	43.7222%	41444	2988	13.9	2	12	21	0	-2.7963E-06
14	5.72	F42	-0.0390	14.7082%	99633	8163	12.2	1	14	21	0	-3.9128E-07
15	7.03	G42	0.1473	-55.5909%	280352	14691	19.1	1	15	21	0	5.2557E-07
21	27.75	ISTD	1.0000	0.0000%	1253079	22131	56.6	1	21	21	0	7.9803E-07

TOTAL AMOUNT = -0.2651

Data File = a:aa17.PTS Printed on 07-03-1989 at 12:47:06
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 39318 uv High Value: 86317 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:30:50 Version 4.1 **********

* Sample Name: 89FS11R17 Data File: a:ab14 *
* Date: 07-01-1989 19:38:02 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 14 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

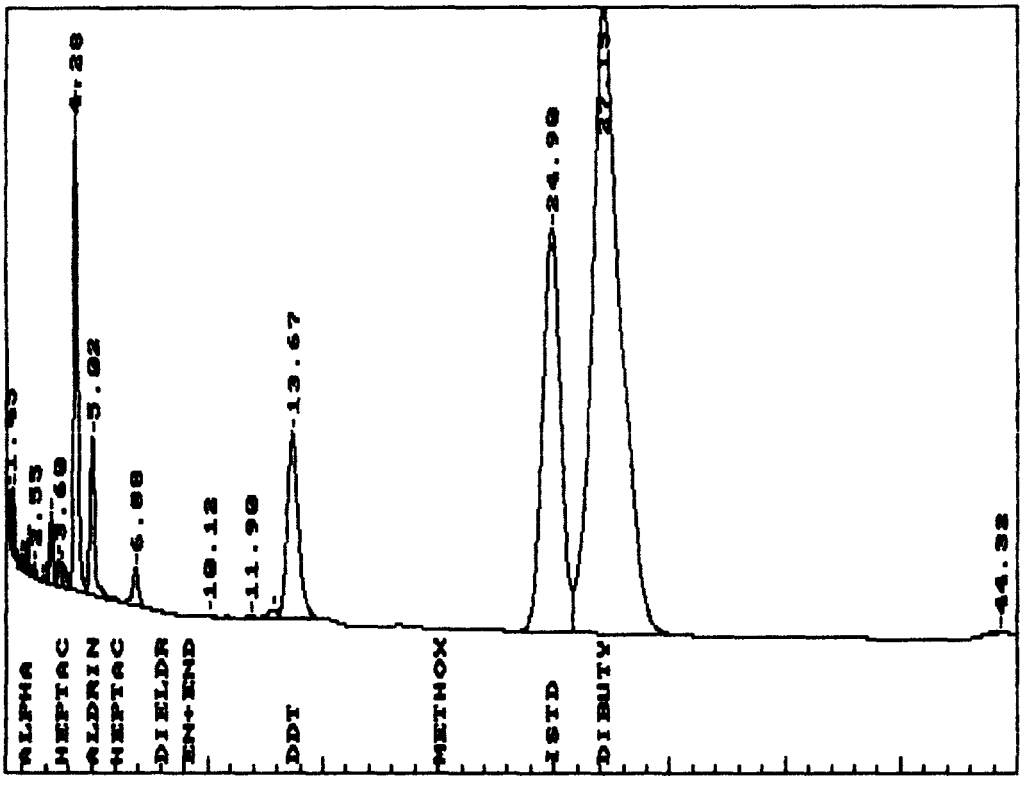
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.55	LINDANE	0.0069	0.6572%	23273	2299	10.1	2	5	18	0	2.9554E-07
10	3.73	HEPTACHLOR	0.0044	0.4245%	63146	4028	15.7	2	10	18	0	7.0357E-08
12	5.02	ALDRIN	0.0303	2.8960%	379858	27332	13.9	2	12	18	0	7.9791E-08
13	6.88	ENDOSULFAN I	0.0144	1.3748%	122272	6564	18.6	1	13	18	0	1.1768E-07
17	13.67	DDT	0.1181	11.2884%	1097466	32361	33.9	2	17	18	0	1.0765E-07
18	24.90	ISTD	1.0000	0.0000%	3825967	70202	54.5	2	18	18	0	2.6137E-07
19	27.15	DIBUTYLCHLOR	0.8724	83.3593%	9261081	109441	84.6	2	19	18	0	9.4206E-08

TOTAL AMOUNT = 1.0466

Data File = a:ab14.PTS Printed on 07-03-1989 at 13:31:08
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60924 uv High Value: 171590 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:32:31 Version 4.1 **********

* Sample Name: 89FS11R17 Data File: a:ab14 *

* Date: 07-01-1989 19:38:02 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *

* Interface: 0 Cycle#: 14 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C 6F6231 *

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 *

****

Starting Delay: 1.20 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 10.00

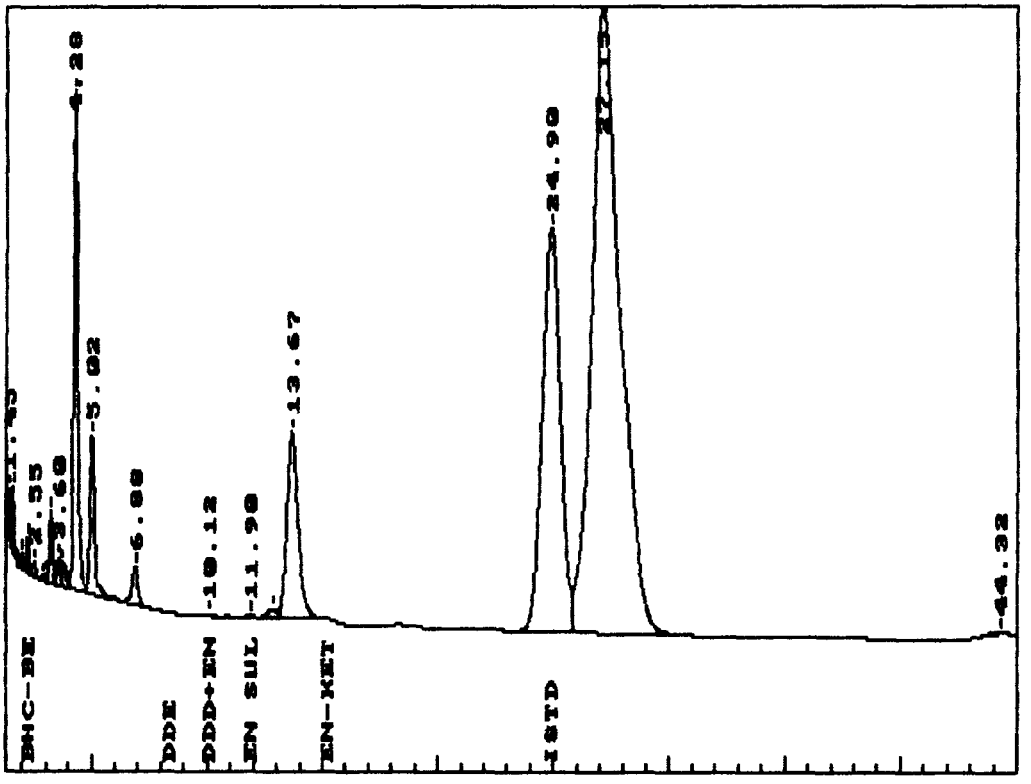
Internal Standard Amount: 1

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.25	BHC-BETA	0.0038	50.0306%	37519	5895	6.4	2	4	18	0	1.0085E-07
5	2.55	BHC-DELTA	0.0017	23.0157%	23273	2299	10.1	2	5	18	0	7.4795E-08
14	10.12	DDD+EN-ALD	0.0004	4.9423%	3983	255	15.6	1	14	18	0	9.3856E-08
15	11.90	EN SULFATE	0.0017	22.0114%	14404	525	27.4	2	15	18	0	1.1557E-07
18	24.90	ISTD	1.0000	0.0000%	3825967	70202	54.5	2	18	18	0	2.6137E-07

TOTAL AMOUNT = 0.0076

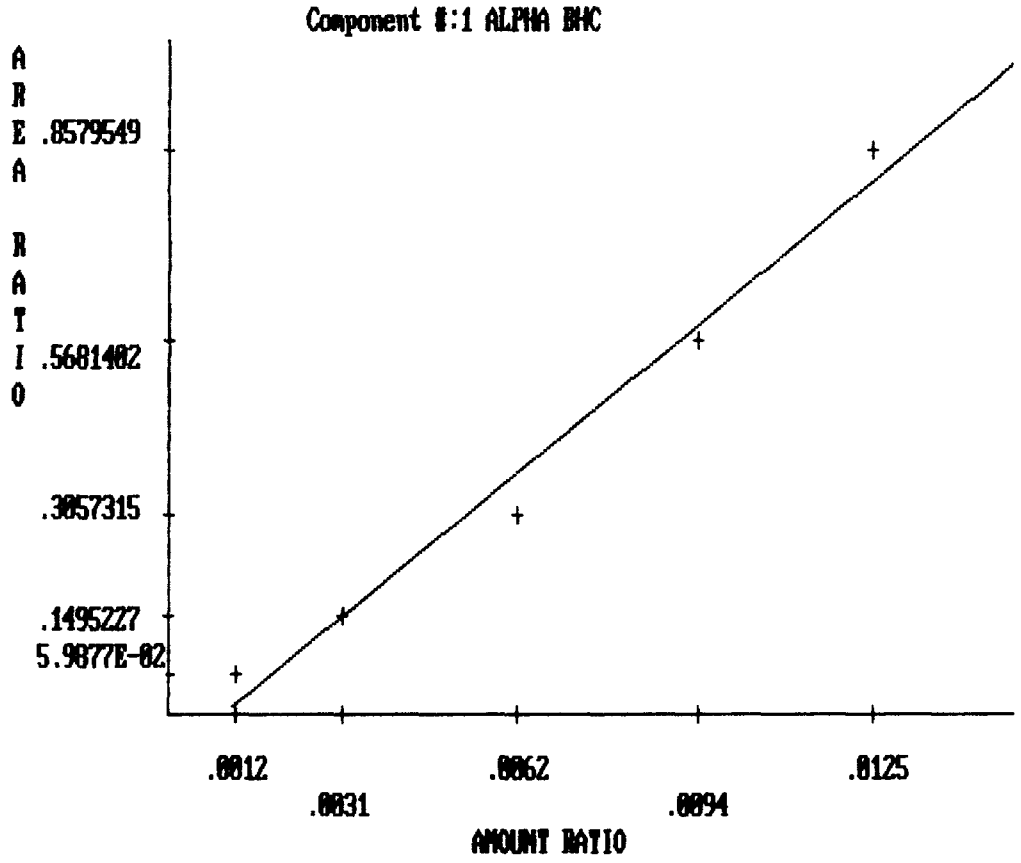
Data File = a:ab14.PTS Printed on 07-03-1989 at 13:32:47
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 60924 uv High Value: 171590 uv Scale factor: 1.0



Standards

Quantitation column
SF6231

Method A:PESA
Sample PESTICIDES
Operator NF
Run date 07-01-1989 10:11:18 version: 172
Printed on 07-04-1989 AT 08:03:10
Straight Line fit

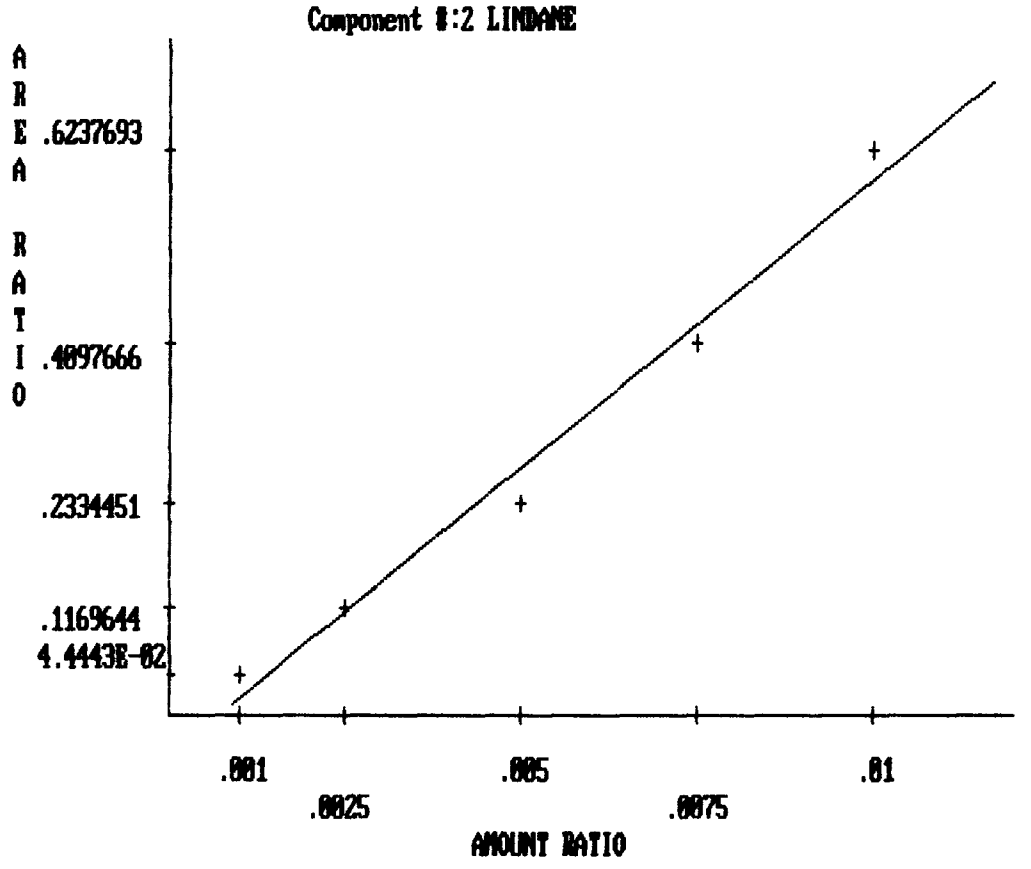


Component 1 = ALPHA BHC
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0012	84916	0.0012	0.0599
2	0.0031	224228	0.0031	0.1495
3	0.0062	472959	0.0062	0.3057
4	0.0094	758558	0.0094	0.5681
5	0.0125	1157932	0.0125	0.8580

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 7.0313E+01 * Amt ratio + -6.7384E-02
Amt ratio = 1.4222E-02 * Area ratio + 9.5834E-04
Correlation Coefficient = 0.9798

3F6231
A:PESA
V.172

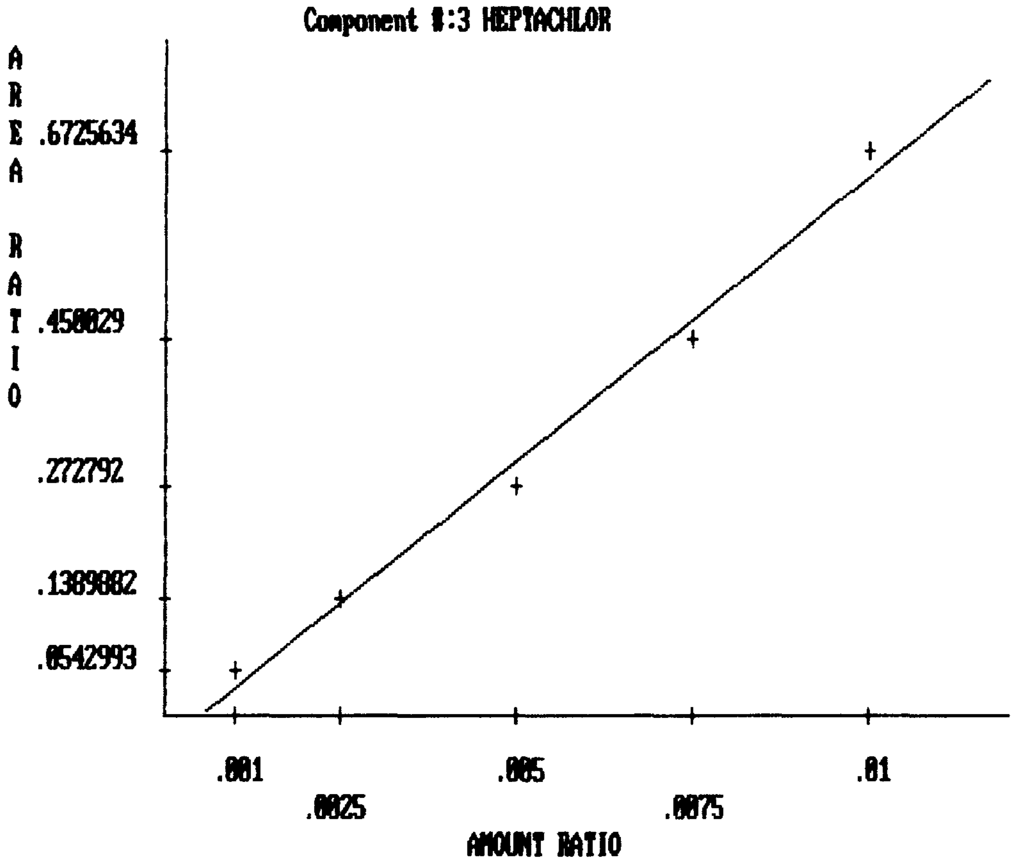


Component 2 = LINDANE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	63029	0.0010	0.0444
2	0.0025	175403	0.0025	0.1170
3	0.0050	361134	0.0050	0.2334
4	0.0075	547104	0.0075	0.4098
5	0.0100	841865	0.0100	0.6238

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 6.3553E+01 * Amt ratio + -4.4800E-02
Amt ratio = 1.5735E-02 * Area ratio + 7.0492E-04
Correlation Coefficient = 0.9826

SF6231
A: PESA
V. 172

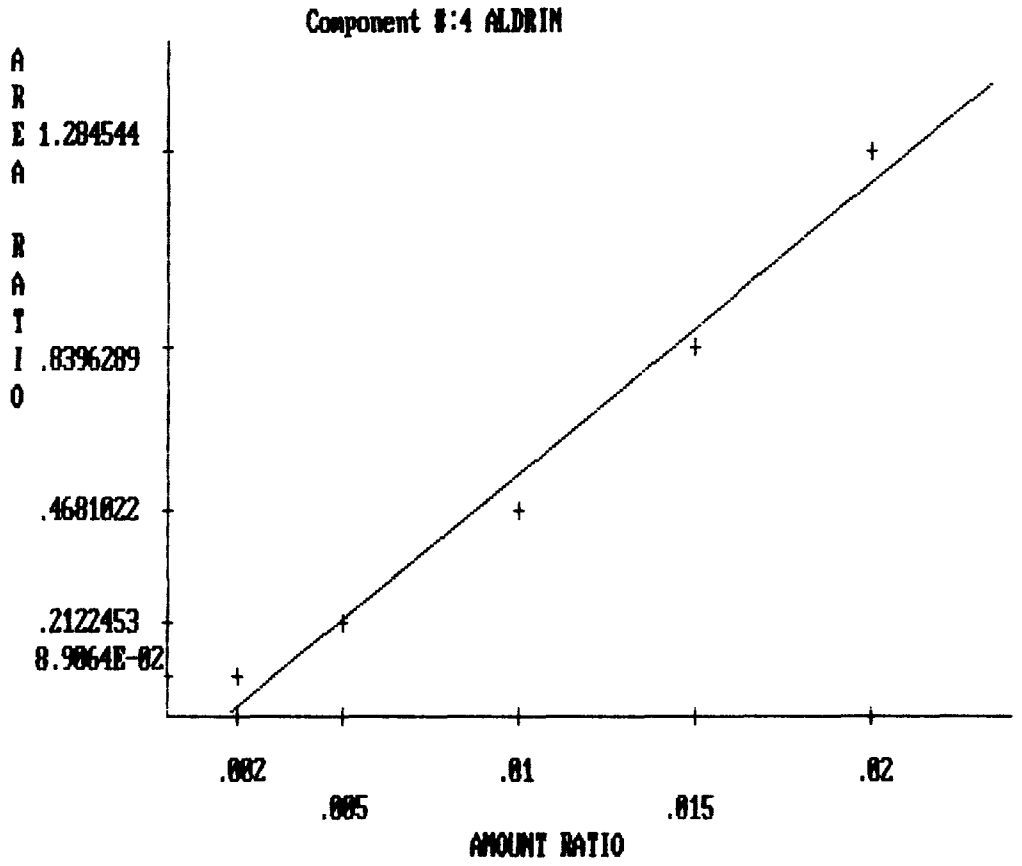


Component 3 = HEPTACHLOR
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	77006	0.0010	0.0543
2	0.0025	208430	0.0025	0.1390
3	0.0050	422003	0.0050	0.2728
4	0.0075	600861	0.0075	0.4500
5	0.0100	907720	0.0100	0.6726

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 6.7645E+01 * Amt ratio + -3.4021E-02
Amt ratio = 1.4783E-02 * Area ratio + 5.0293E-04
Correlation Coefficient = 0.9883

SF 6231
A:PESA
V.172

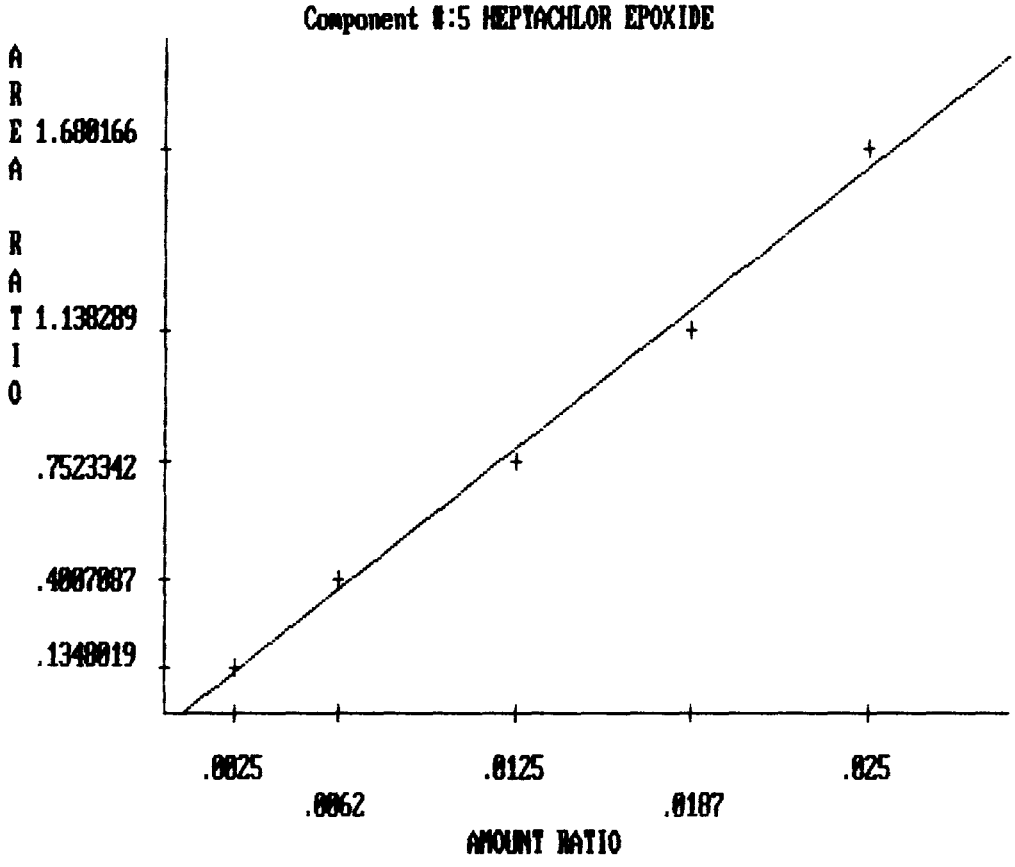


Component 4 = ALDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0020	126308	0.0020	0.0891
2	0.0050	318288	0.0050	0.2122
3	0.0100	724143	0.0100	0.4681
4	0.0150	1121039	0.0150	0.8396
5	0.0200	1733674	0.0200	1.2845

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 6.6193E+01 * Amt ratio + -1.0969E-01
Amt ratio = 1.5107E-02 * Area ratio + 1.6572E-03
Correlation Coefficient = 0.9807

SF6J31
A:PES
V.176



Component 5 = HEPTACHLOR EPOXIDE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0025	191172	0.0025	0.1348
2	0.0062	600913	0.0062	0.4007
3	0.0125	1163843	0.0125	0.7523
4	0.0187	1519798	0.0187	1.1383
5	0.0250	2267622	0.0250	1.6802

Y = SLOPE * X + INTERCEPT

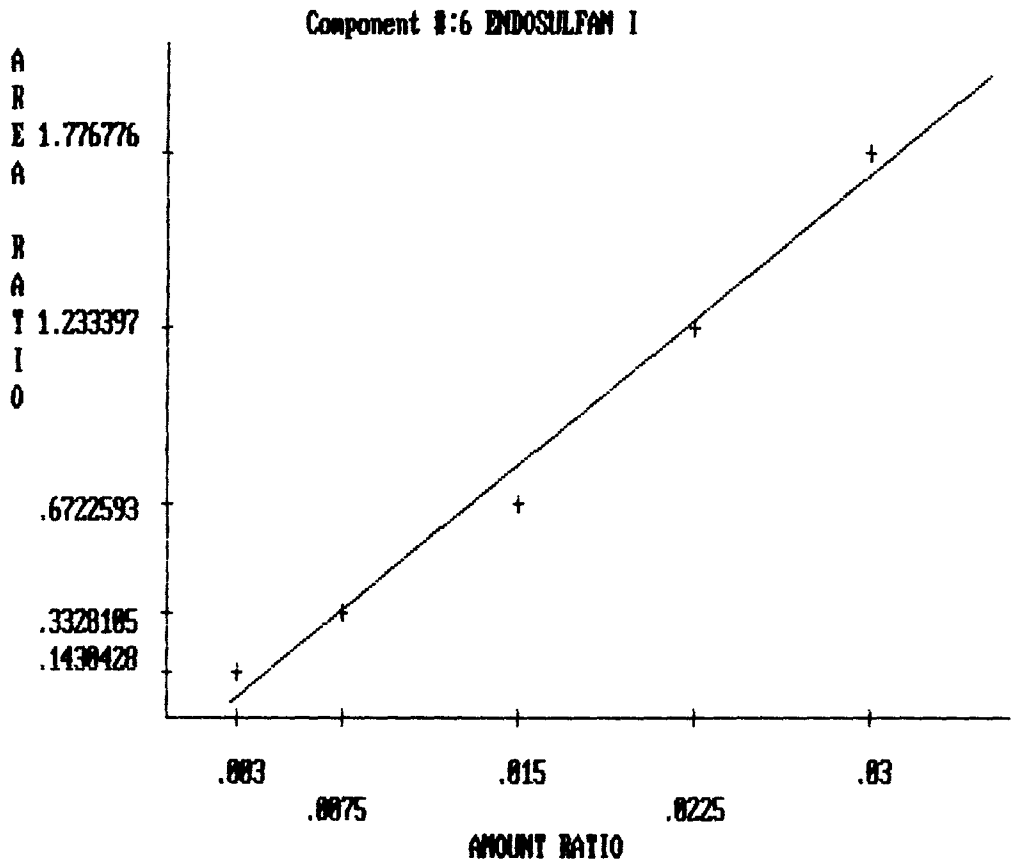
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 6.6669E+01 * Amt ratio + -4.4103E-02

Amt ratio = 1.4999E-02 * Area ratio + 6.6152E-04

Correlation Coefficient = 0.9933

SF 6231
A: PEST
v.170

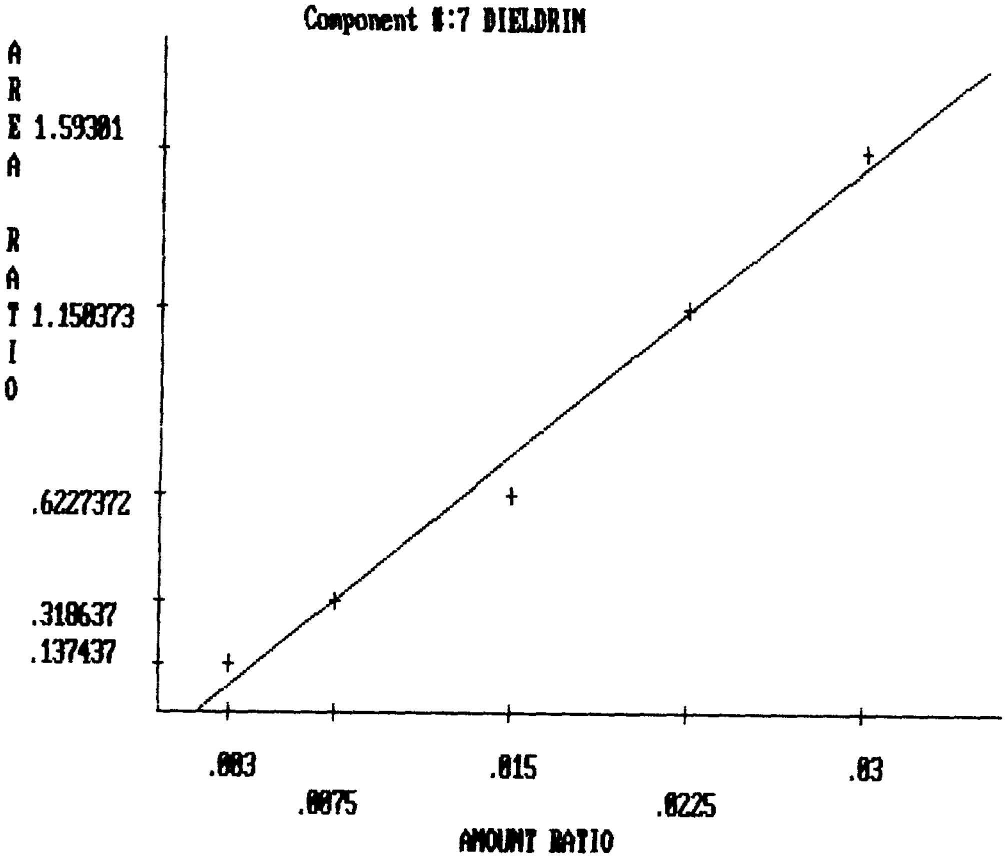


Component 6 = ENDOSULFAN I
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	202859	0.0030	0.1430
2	0.0075	499091	0.0075	0.3328
3	0.0150	1039969	0.0150	0.6723
4	0.0225	1646783	0.0225	1.2334
5	0.0300	2398012	0.0300	1.7768

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 6.0860E+01 * Amt ratio + -1.1776E-01
Amt ratio = 1.6431E-02 * Area ratio + 1.9349E-03
Correlation Coefficient = 0.9854

5F 6231
A:PEGA
V.172

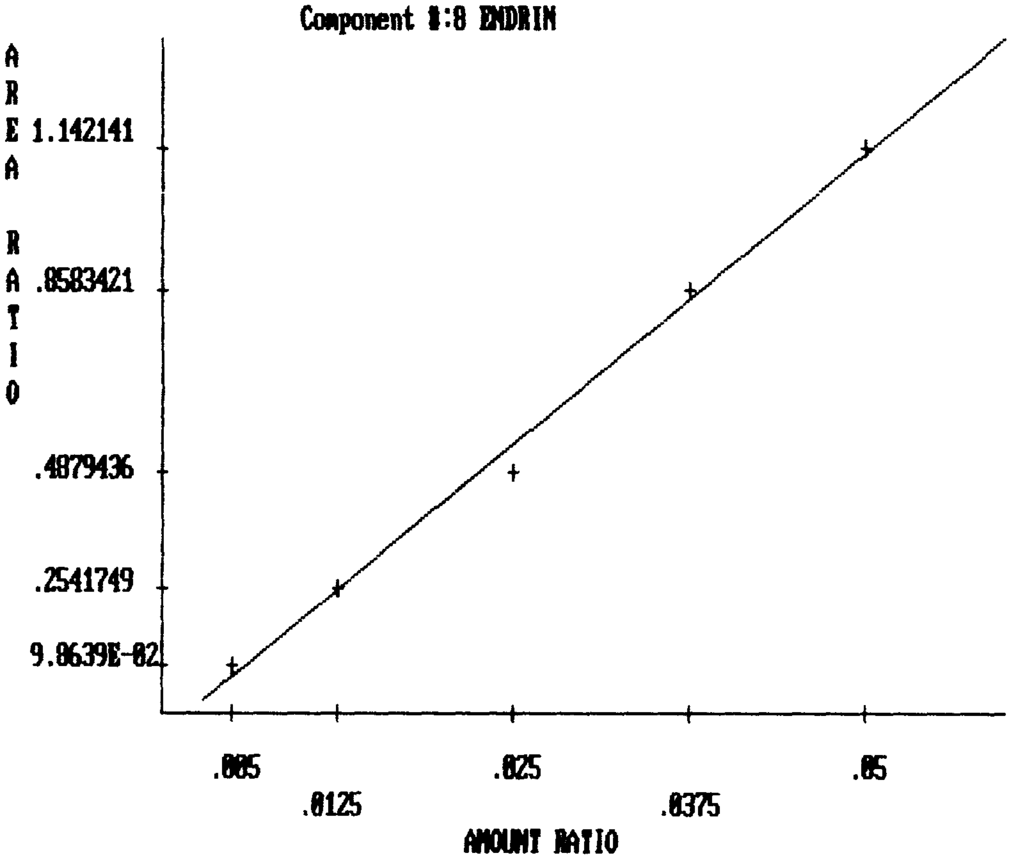


Component 7 = DIELDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	194909	0.0030	0.1374
2	0.0075	477836	0.0075	0.3186
3	0.0150	963360	0.0150	0.6227
4	0.0225	1535932	0.0225	1.1504
5	0.0300	2149993	0.0300	1.5930

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.4598E+01 * Amt ratio + -8.7288E-02
mt ratio = 1.8316E-02 * Area ratio + 1.5987E-03
Correlation Coefficient = 0.9879

3F6231
A:PESA
v. 17.

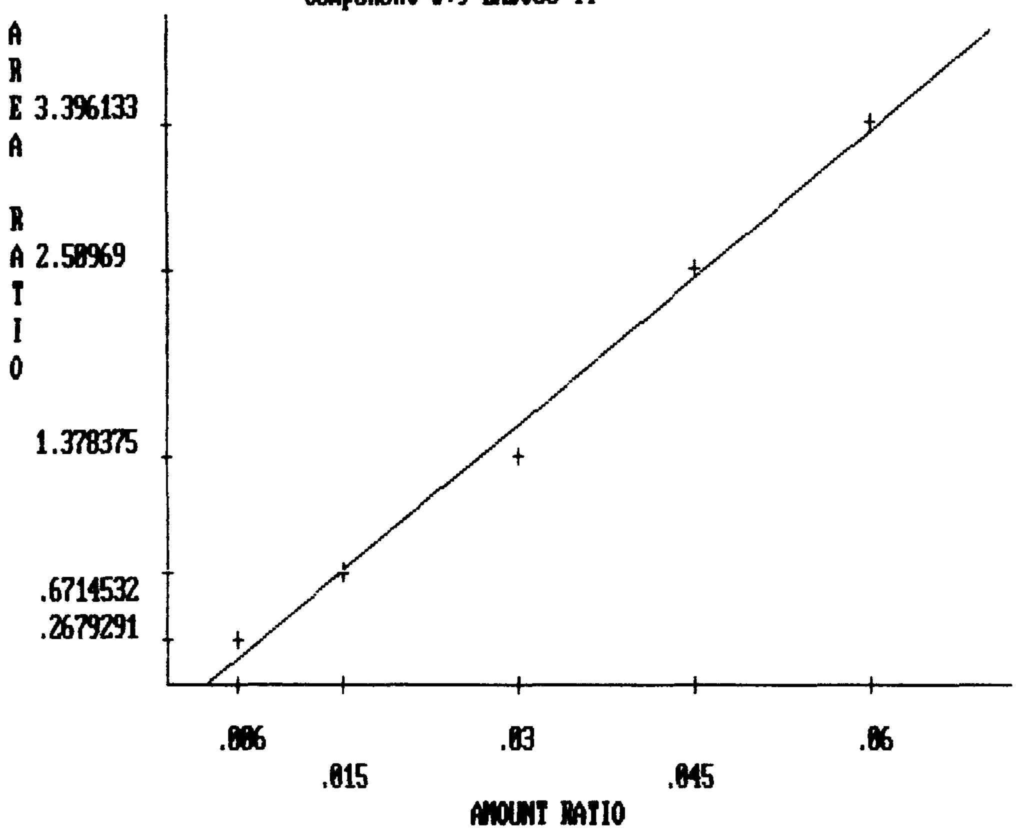


Component 8 = ENDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0050	139887	0.0050	0.0986
2	0.0125	381167	0.0125	0.2542
3	0.0250	754837	0.0250	0.4879
4	0.0375	1146024	0.0375	0.8583
5	0.0500	1541482	0.0500	1.1421

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.3483E+01 * Amt ratio + -4.2320E-02
Amt ratio = 4.2583E-02 * Area ratio + 1.8021E-03
Correlation Coefficient = 0.9942

5F 6231
A:PES.
V.17.

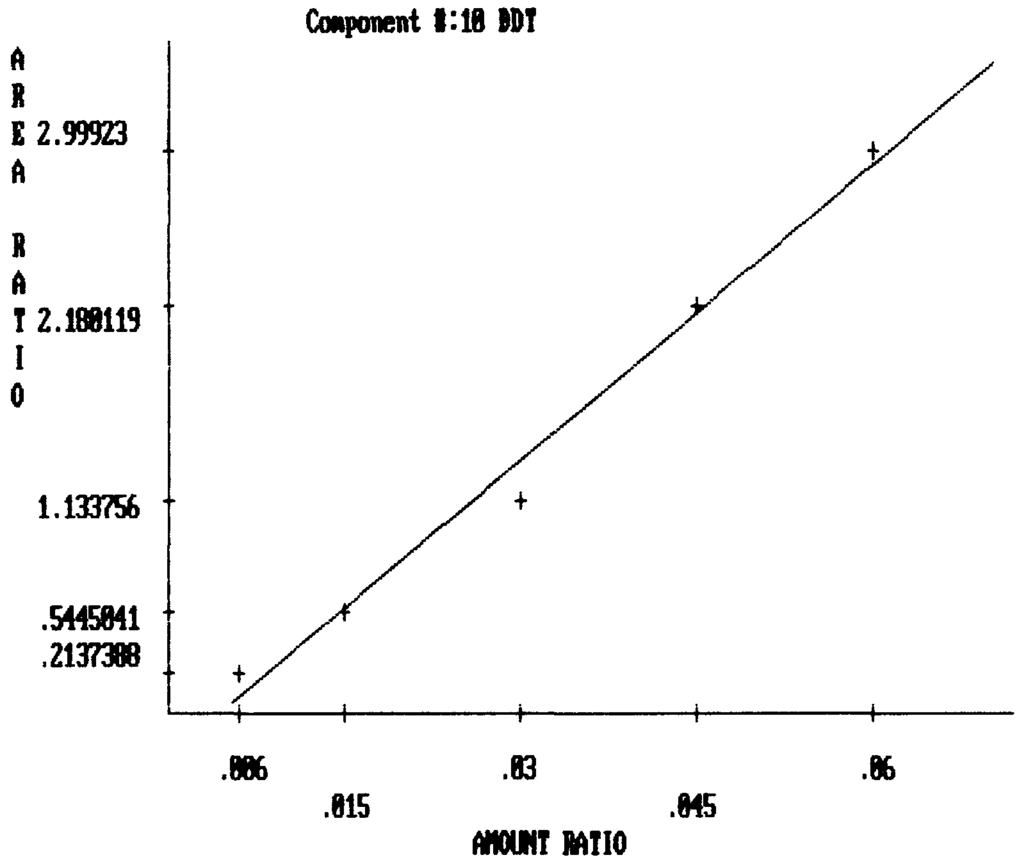


Component 9 = ENDOSU II
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	379969	0.0060	0.2679
2	0.0150	1006928	0.0150	0.6715
3	0.0300	2132313	0.0300	1.3784
4	0.0450	3350838	0.0450	2.5097
5	0.0600	4583564	0.0600	3.3961

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.8974E+01 * Amt ratio + -1.9527E-01
Amt ratio = 1.6957E-02 * Area ratio + 3.3111E-03
Correlation Coefficient = 0.9917

SF 6231
A:/PESA
V.17

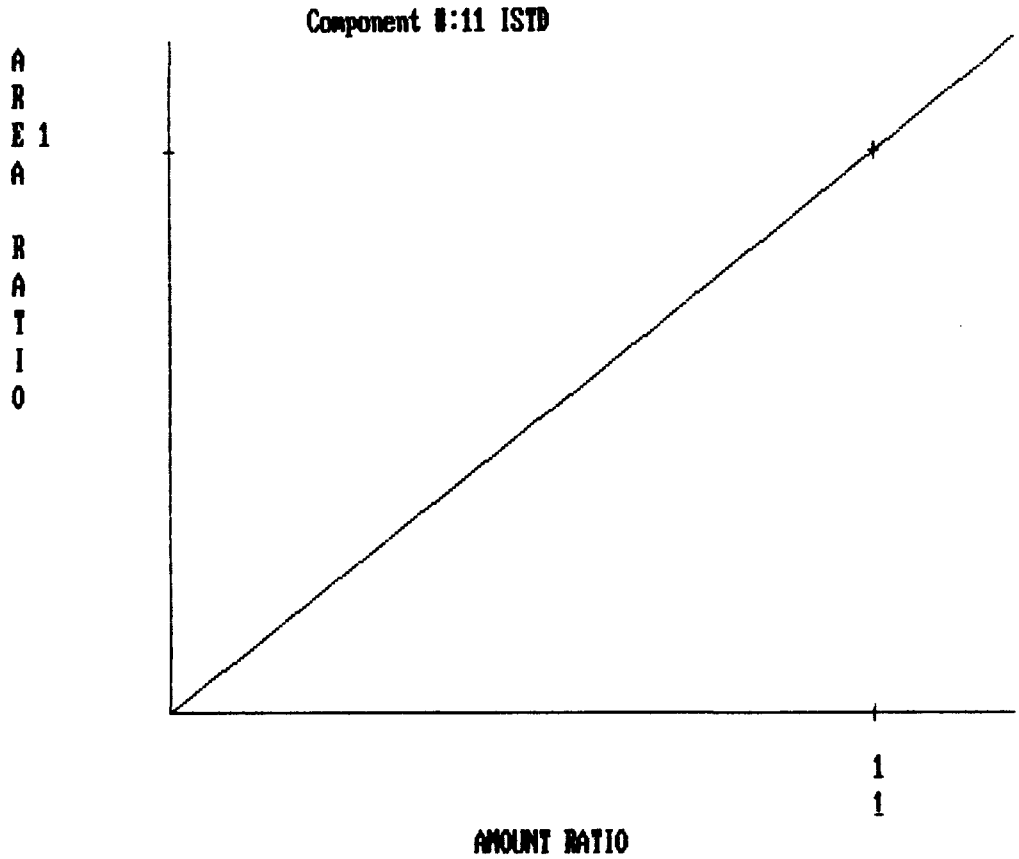


Component 10 = DDT
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	303118	0.0060	0.2137
2	0.0150	816552	0.0150	0.5445
3	0.0300	1753893	0.0300	1.1338
4	0.0450	2910808	0.0450	2.1801
5	0.0600	4047887	0.0600	2.9992

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 5.2583E+01 * Amt ratio + -2.2631E-01
Amt ratio = 1.9018E-02 * Area ratio + 4.3039E-03
Correlation Coefficient = 0.9870

5F6231
A:PESA
V.172



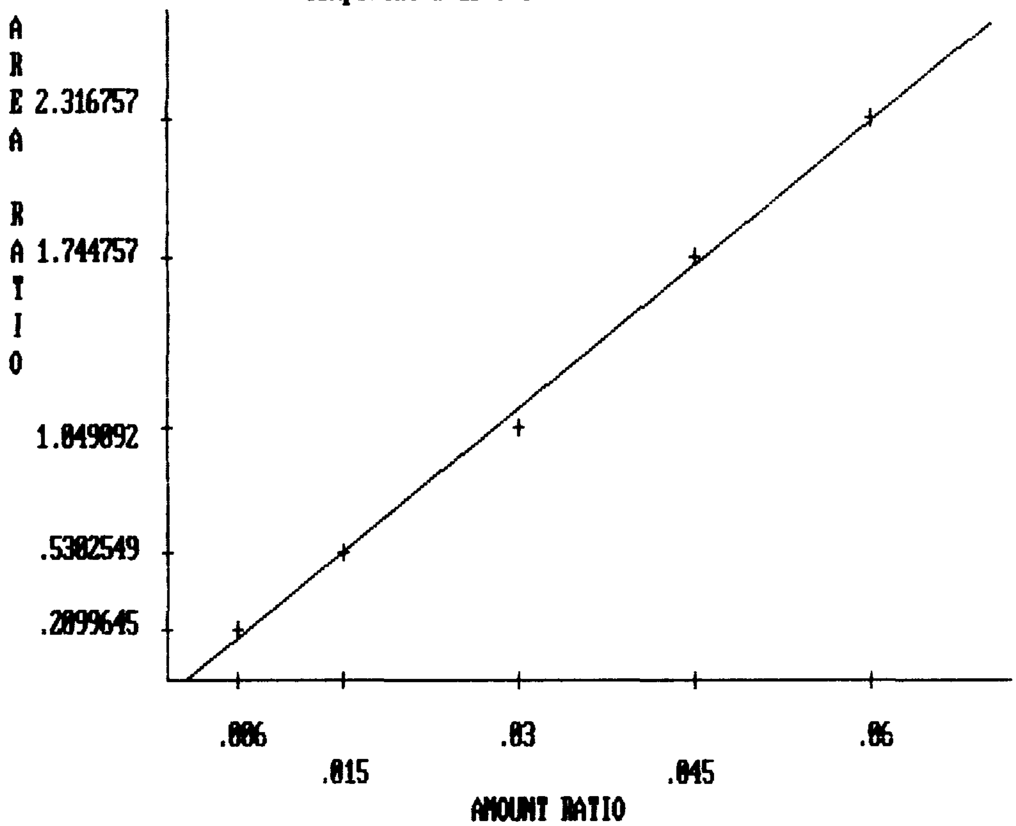
Component 11 = ISTD
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	1418170	1.0000	1.0000
2	1.0000	1499625	1.0000	1.0000
3	1.0000	1546976	1.0000	1.0000
4	1.0000	1335160	1.0000	1.0000
5	1.0000	1349642	1.0000	1.0000

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.0000E+00 * Amt ratio + 0.0000E+00
Amt ratio = 1.0000E+00 * Area ratio + 0.0000E+00
Correlation Coefficient = 0.0000

3F6231
A:PESA
V.172

Component #:12 DIBUTYLCHLOR



Component 12 = DIBUTYLCHLOR

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	297765	0.0060	0.2100
2	0.0150	795184	0.0150	0.5303
3	0.0300	1622920	0.0300	1.0491
4	0.0450	2329530	0.0450	1.7448
5	0.0600	3126793	0.0600	2.3168

Y = SLOPE * X + INTERCEPT

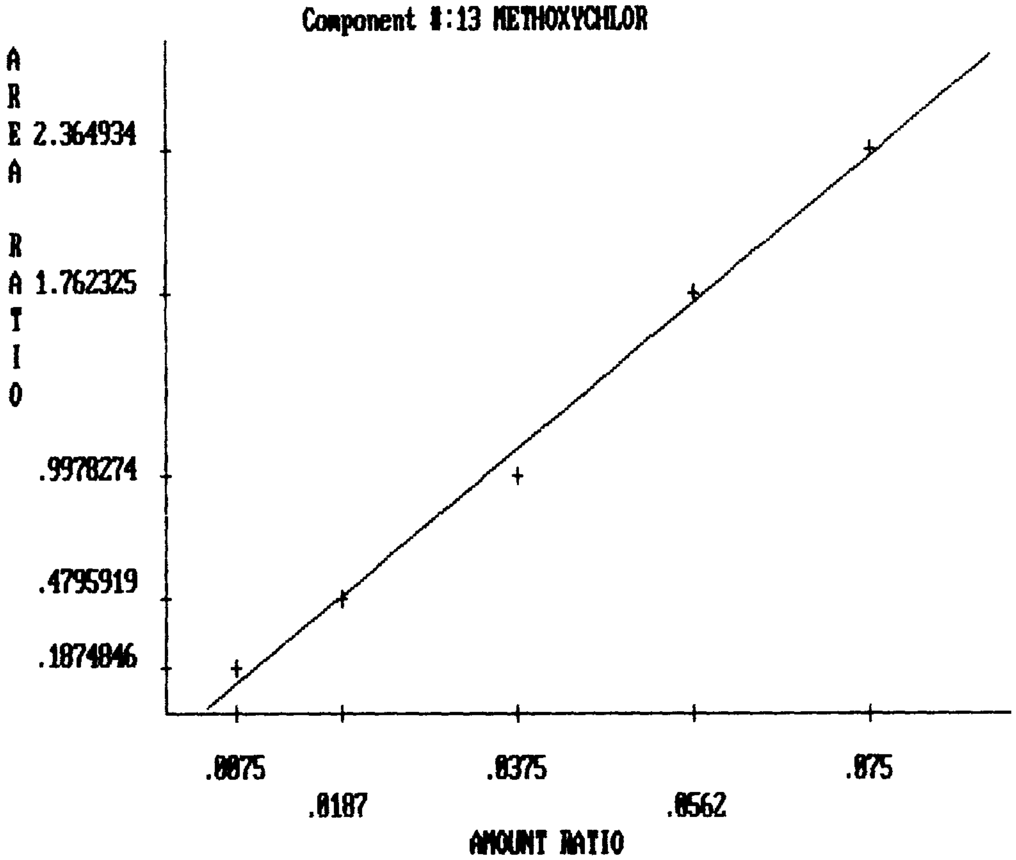
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.9431E+01 * Amt ratio + -6.0081E-02

Amt ratio = 2.5361E-02 * Area ratio + 1.5237E-03

Correlation Coefficient = 0.9975

SF 6231
A:PESA
V.172



Component 13 = METHOXYCHLOR
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0075	265885	0.0075	0.1875
2	0.0187	719208	0.0187	0.4796
3	0.0375	1543615	0.0375	0.9978
4	0.0562	2352986	0.0562	1.7623
5	0.0750	3191814	0.0750	2.3649

Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.2826E+01 * Amt ratio + -1.2114E-01

Amt ratio = 3.0463E-02 * Area ratio + 3.6902E-03

Correlation Coefficient = 0.9942

NEW TIMED EVENTS FROM A:P1

****** INTERNAL STANDARD TABLE ******

********** 07-01-1989 10:14:40 Version 4.1 **********

* Sample Name: PESA^1 Data File: A:AA4 *
* Date: 06-30-1989 11:06:20 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 4 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 3F6231 *

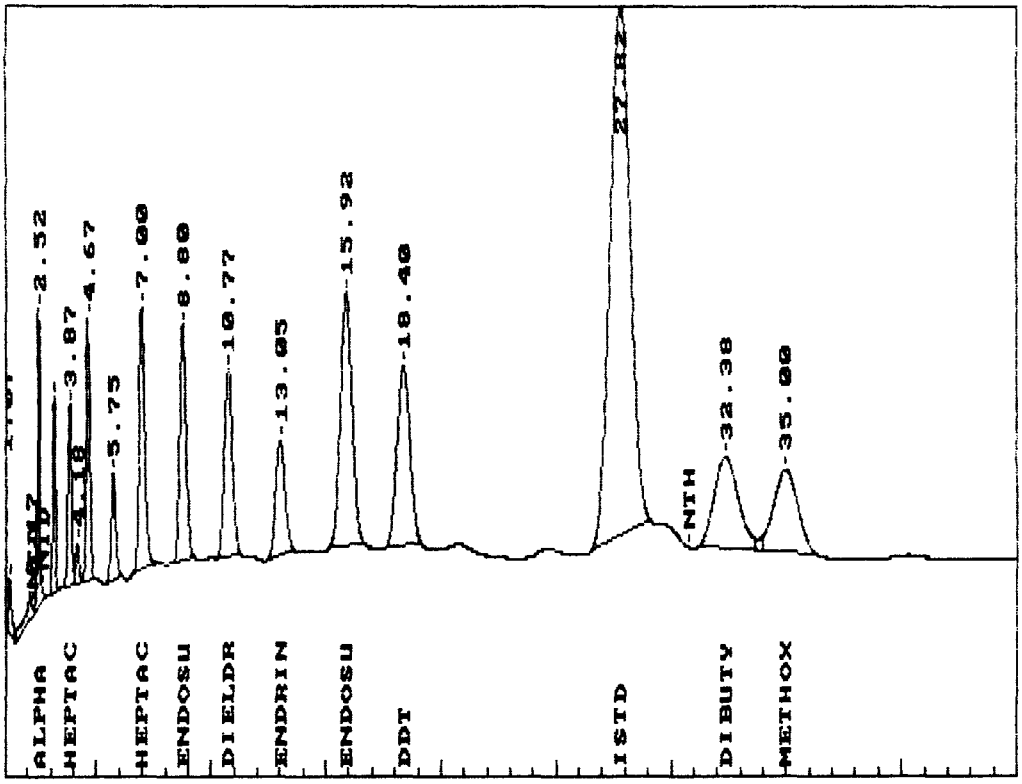
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.52	ALPHA BHC	0.0018	3.1707%	84916	13147	6.5	2	5	17	0	2.1314E-08
6	3.17	LINDANE	0.0014	2.4600%	63029	8622	7.3	1	6	17	0	2.2279E-08
7	3.87	HEPTACHLOR	0.0013	2.2873%	77006	7968	9.7	2	7	17	0	1.6955E-08
9	4.67	ALDRIN	0.0030	5.2602%	126308	11519	11.0	2	9	17	0	2.3773E-08
11	7.00	HEPTACHLOR EPOXIDE	0.0027	4.7010%	191172	11550	16.6	1	11	17	0	1.4037E-08
12	8.80	ENDOSULFAN I	0.0043	7.5071%	202859	10344	19.6	1	12	17	0	2.1124E-08
13	10.77	DIELDRIN	0.0041	7.2106%	194909	8229	23.7	1	13	17	0	2.1118E-08
14	13.05	ENDRIN	0.0060	10.5154%	139887	5008	27.9	1	14	17	0	4.2910E-08
15	15.92	ENDOSU II	0.0079	13.7594%	379969	11068	34.3	1	15	17	0	2.0671E-08
16	18.40	DDT	0.0084	14.6607%	303118	7896	38.4	1	16	17	0	2.7609E-08
17	27.82	ISTD	1.0000	0.0000%	1418170	23338	60.8	1	17	17	0	7.0513E-07
18	32.38	DIBUTYLCHLOR	0.0068	11.9976%	297765	4035	73.8	2	18	17	0	2.3000E-08
19	35.00	METHOXYCHLOR	0.0094	16.4701%	265885	3644	73.0	2	19	17	0	3.5360E-08

TOTAL AMOUNT = 0.0571

Data File = A:AA4.PTS Printed on 07-01-1989 at 10:15:28
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38282 uv High Value: 66356 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:P2

***** INTERNAL STANDARD TABLE *****

********** 07-01-1989 10:20:53 Version 4.1 **********

* Sample Name: PESA^2 Data File: A:AA5 *
* Date: 06-30-1989 11:52:50 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 5 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SFG 231 *

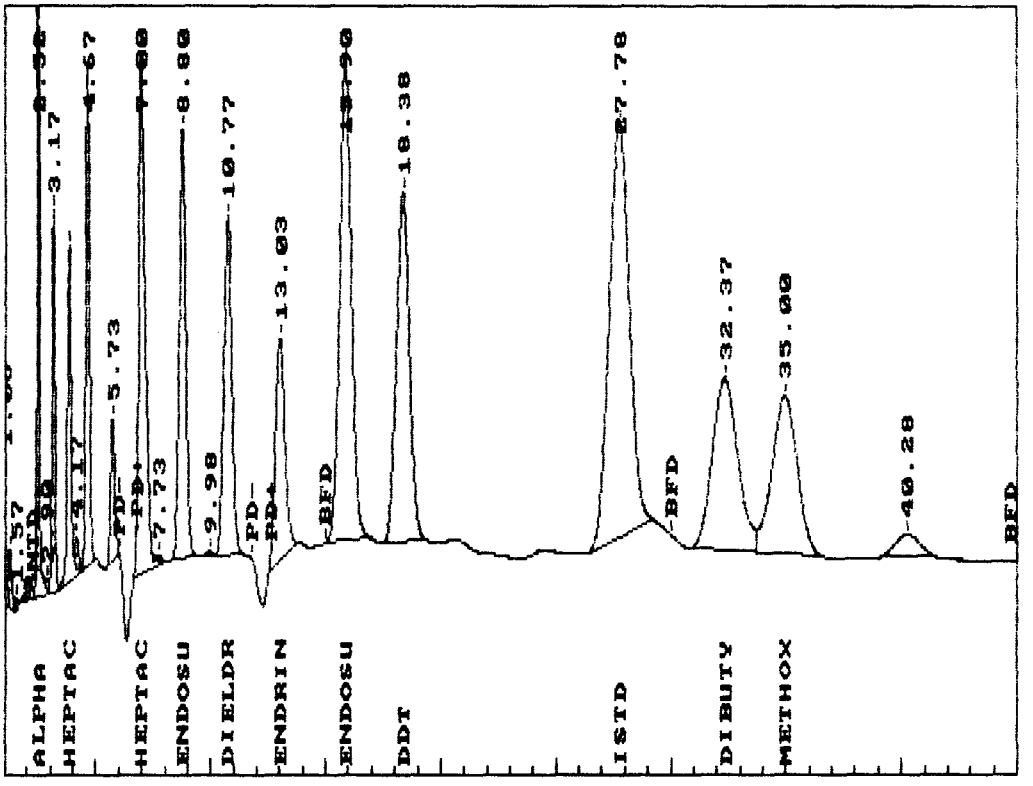
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
8	2.52	ALPHA BHC	0.0031	2.8092%	224228	35233	6.4 3	8	23	0	1.3758E-08
10	3.17	LINDANE	0.0025	2.3178%	175403	22653	7.7 2	10	23	0	1.4511E-08
11	3.87	HEPTACHLOR	0.0026	2.3290%	208430	19962	10.4 3	11	23	0	1.2271E-08
13	4.67	ALDRIN	0.0049	4.4289%	318288	29442	10.8 2	13	23	0	1.5281E-08
15	7.00	HEPTACHLOR EPOXIDE	0.0067	6.0756%	600913	31029	19.4 3	15	23	0	1.1103E-08
17	8.80	ENDOSULFAN I	0.0074	6.7417%	499091	25518	19.6 1	17	23	0	1.4834E-08
19	10.77	DIELDRIN	0.0074	6.7703%	477836	20132	23.7 1	19	23	0	1.5559E-08
20	13.03	ENDRIN	0.0126	11.4973%	381167	13256	28.8 1	20	23	0	3.3124E-08
21	15.90	ENDOSU II	0.0147	13.3832%	1006928	28778	35.0 1	21	23	0	1.4596E-08
22	18.38	DDT	0.0147	13.3490%	816552	20819	39.2 1	22	23	0	1.7952E-08
23	27.78	ISTD	1.0000	0.0000%	1499625	24565	61.0 1	23	23	0	6.6683E-07
24	32.37	DIBUTYLCHLOR	0.0150	13.6333%	795184	10278	77.4 2	24	23	0	1.8828E-08
25	35.00	METHOXYCHLOR	0.0183	16.6646%	719208	9417	76.4 2	25	23	0	2.5445E-08

TOTAL AMOUNT = 0.1098

Data File = A:AA5.PTS Printed on 07-01-1989 at 10:21:34
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37034 uv High Value: 74968 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:P3

****** INTERNAL STANDARD TABLE ******

********** 07-01-1989 10:23:18 Version 4.1 **********

* Sample Name: PESA^3 Data File: A:AA6 *
* Date: 06-30-1989 12:39:22 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 6 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

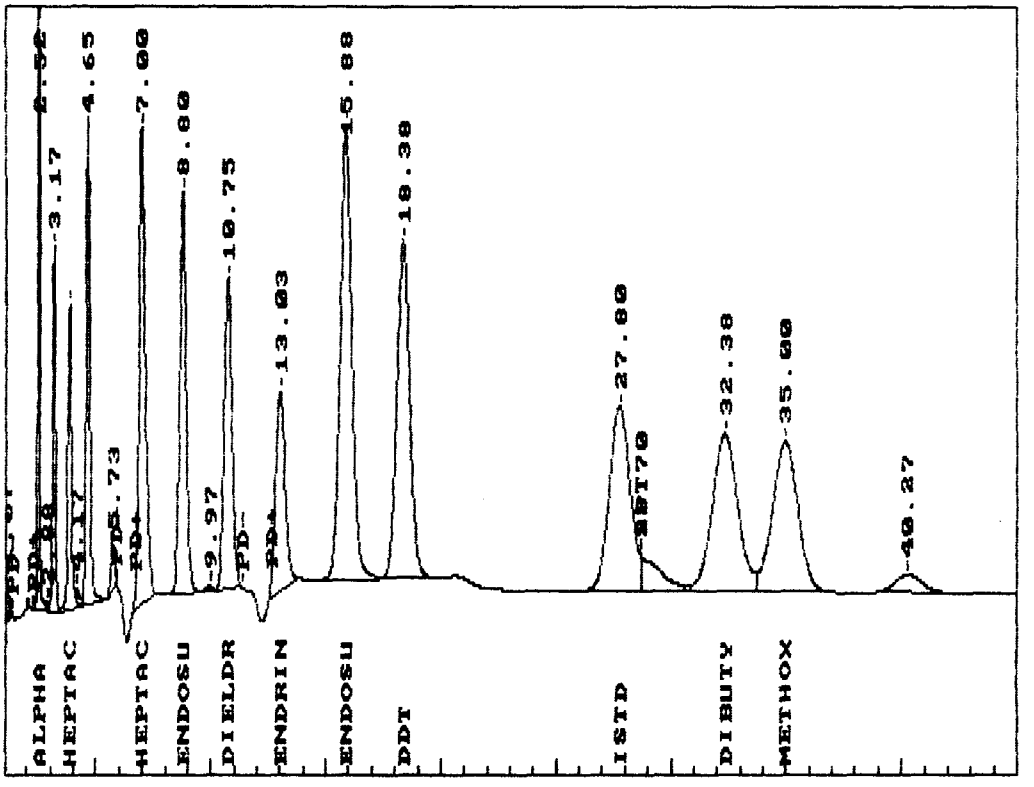
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.52	ALPHA BHC	0.0053	2.6770%	472959	81215	5.8	3	4	18	0	1.1220E-08
6	3.17	LINDANE	0.0044	2.2086%	361134	48863	7.4	2	6	18	0	1.2123E-08
7	3.87	HEPTACHLOR	0.0045	2.2881%	422003	40885	10.3	3	7	18	0	1.0748E-08
9	4.65	ALDRIN	0.0087	4.4035%	724143	65250	11.1	2	9	18	0	1.2054E-08
11	7.00	HEPTACHLOR EPOXIDE	0.0119	6.0265%	1163843	63836	18.2	1	11	18	0	1.0264E-08
12	8.80	ENDOSULFAN I	0.0130	6.5485%	1039969	53727	19.4	2	12	18	0	1.2482E-08
14	10.75	DIELDRIN	0.0130	6.5605%	963360	41585	23.2	1	14	18	0	1.3499E-08
15	13.03	ENDRIN	0.0226	11.3912%	754837	26683	28.3	1	15	18	0	2.9914E-08
16	15.88	ENDOSU II	0.0267	13.4612%	2132313	61145	34.9	2	16	18	0	1.2514E-08
17	18.38	DDT	0.0259	13.0483%	1753893	45249	38.8	2	17	18	0	1.4747E-08
18	27.80	ISTD	1.0000	0.0000%	1546976	24577	62.9	2	18	18	0	6.4642E-07
20	32.38	DIBUTYLCHLOR	0.0281	14.1905%	1622920	21032	77.2	2	20	18	0	1.7333E-08
21	35.00	METHOXYCHLOR	0.0341	17.1961%	1543615	19991	77.2	2	21	18	0	2.2083E-08

TOTAL AMOUNT = 0.1982

Data File = A:AA6.PTS Printed on 07-01-1989 at 10:23:59
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35428 uv High Value: 120928 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:P4

****** INTERNAL STANDARD TABLE ******

********** 07-01-1989 10:26:24 Version 4.1 **********

* Sample Name: PESA^4 Data File: A:AA8 *
* Date: 07-01-1989 06:53:08 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 8 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

SF6234

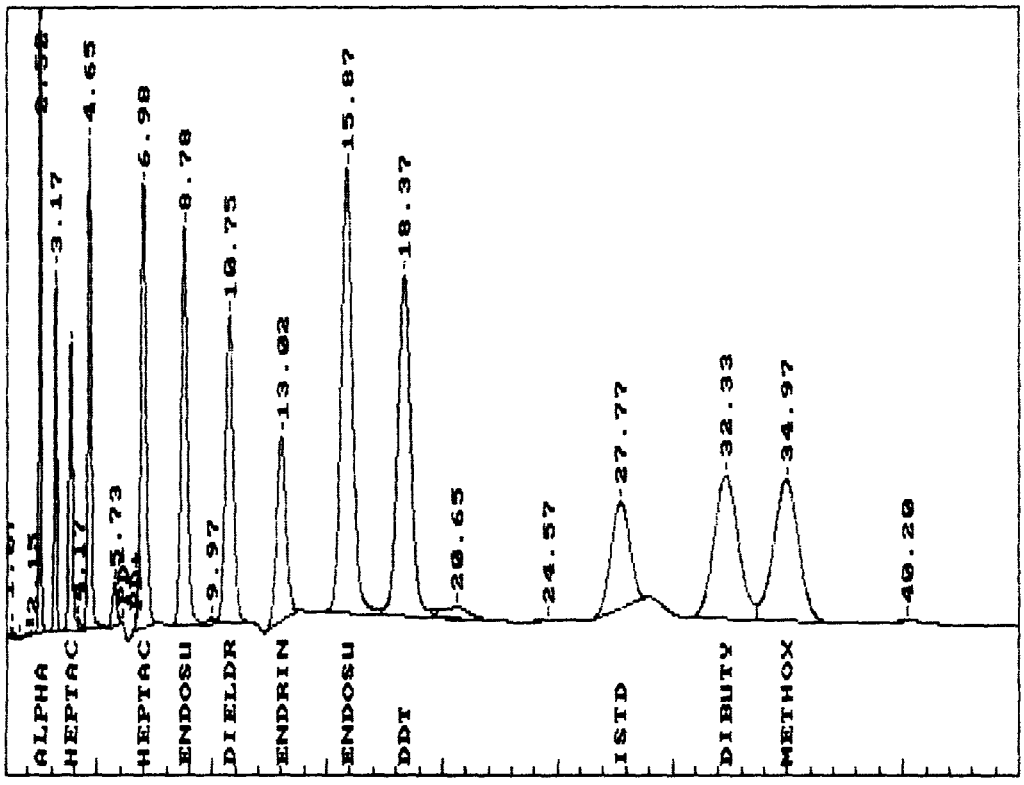
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
8	2.52	ALPHA BHC	0.0090	2.7108%	758558	135824	5.6	1	8	23	0	1.1915E-08
9	3.17	LINDANE	0.0072	2.1452%	547104	78373	7.0	1	9	23	0	1.3073E-08
10	3.87	HEPTACHLOR	0.0072	2.1461%	600861	62181	9.7	3	10	23	0	1.1909E-08
12	4.65	ALDRIN	0.0143	4.3013%	1121039	105808	10.6	2	12	23	0	1.2793E-08
14	6.98	HEPTACHLOR EPOXIDE	0.0177	5.3191%	1519798	95791	15.9	1	14	23	0	1.1669E-08
15	8.78	ENDOSULFAN I	0.0222	6.6584%	1646783	85889	19.2	2	15	23	0	1.3481E-08
17	10.75	DIELDRIN	0.0227	6.7987%	1535932	66605	23.1	2	17	23	0	1.4759E-08
18	13.02	ENDRIN	0.0384	11.5027%	1146024	40401	28.4	1	18	23	0	3.3466E-08
19	15.87	ENDOSU II	0.0459	13.7563%	3350838	96431	34.7	2	19	23	0	1.3688E-08
20	18.37	DDT	0.0458	13.7255%	2910808	73896	39.4	3	20	23	0	1.5722E-08
23	27.77	ISTD	1.0000	0.0000%	1335160	23202	57.5	1	23	23	0	7.4897E-07
24	32.33	DIBUTYLCHLOR	0.0458	13.7278%	2329530	31320	74.4	2	24	23	0	1.9649E-08
25	34.97	METHOXYCHLOR	0.0574	17.2082%	2352986	30699	76.6	2	25	23	0	2.4385E-08

TOTAL AMOUNT = 0.3334

Data File = A:AA8.PTS Printed on 07-01-1989 at 10:27:01
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38238 uv High Value: 175994 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-01-1989 10:29:41 Version 4.1 **********

* Sample Name: PESA^5 Data File: A:AA9 *
* Date: 07-01-1989 06:55:15 Method: A:PESA 07-01-1989 10:11:18 # 172 *
* Interface: 0 Cycle#: 9 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

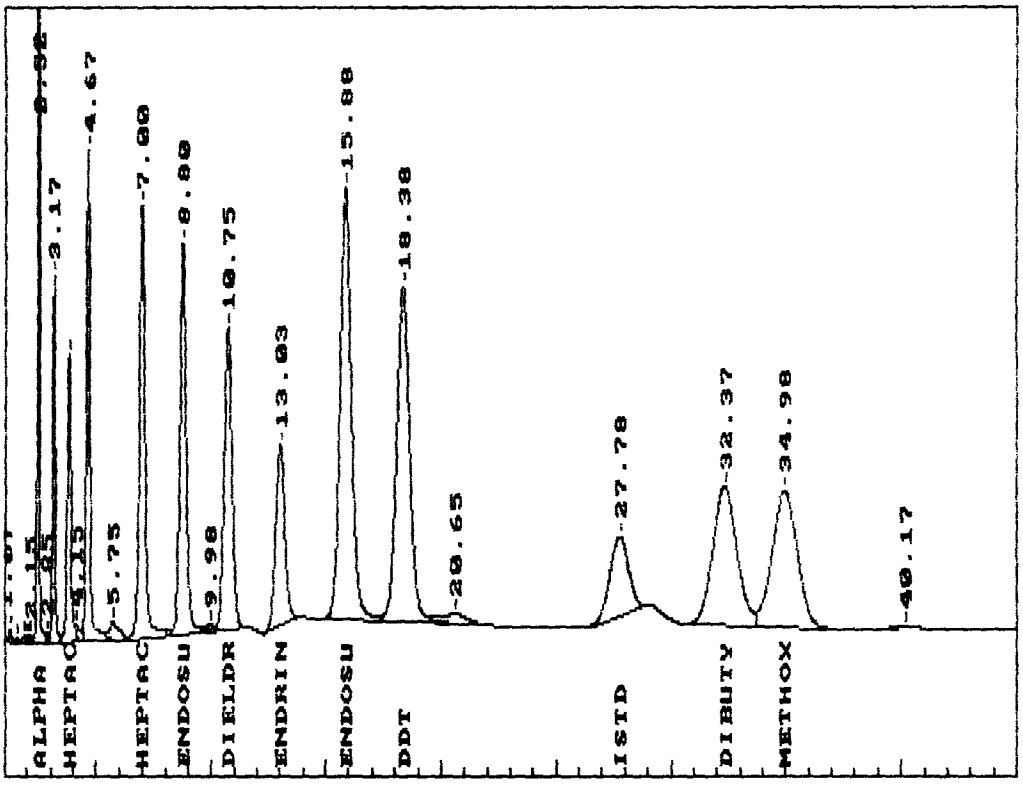
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 10.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
8	2.52	ALPHA BHC	0.1316	2.9138%	1157932	196660	5.9	3	8	23	0	1.1365E-07
10	3.17	LINDANE	0.1052	2.3292%	841865	113070	7.4	2	10	23	0	1.2496E-07
11	3.87	HEPTACHLOR	0.1045	2.3127%	907720	88651	10.2	3	11	23	0	1.1507E-07
13	4.67	ALDRIN	0.2106	4.6636%	1733674	151795	11.4	3	13	23	0	1.2149E-07
15	7.00	HEPTACHLOR EPOXIDE	0.2586	5.7264%	2267622	133609	17.0	2	15	23	0	1.1405E-07
16	8.80	ENDOSULFAN I	0.3113	6.8924%	2398012	120870	19.8	3	16	23	0	1.2981E-07
18	10.75	DIELDRIN	0.3078	6.8141%	2149993	93601	23.0	2	18	23	0	1.4314E-07
19	13.03	ENDRIN	0.5044	11.1676%	1541482	55461	27.8	1	19	23	0	3.2721E-07
20	15.88	ENDOSU II	0.6090	13.4835%	4583564	133366	34.4	2	20	23	0	1.3286E-07
21	18.38	DDT	0.6134	13.5819%	4047887	103728	39.0	3	21	23	0	1.5154E-07
23	27.78	ISTD	1.0000	0.0000%	1349642	24009	56.2	1	23	23	0	7.4094E-07
24	32.37	DIBUTYLCHLOR	0.6028	13.3463%	3126793	42576	73.4	2	24	23	0	1.9278E-07
25	34.98	METHOXYCHLOR	0.7573	16.7684%	3191814	41795	76.4	2	25	23	0	2.3728E-07

TOTAL AMOUNT = 4.5165

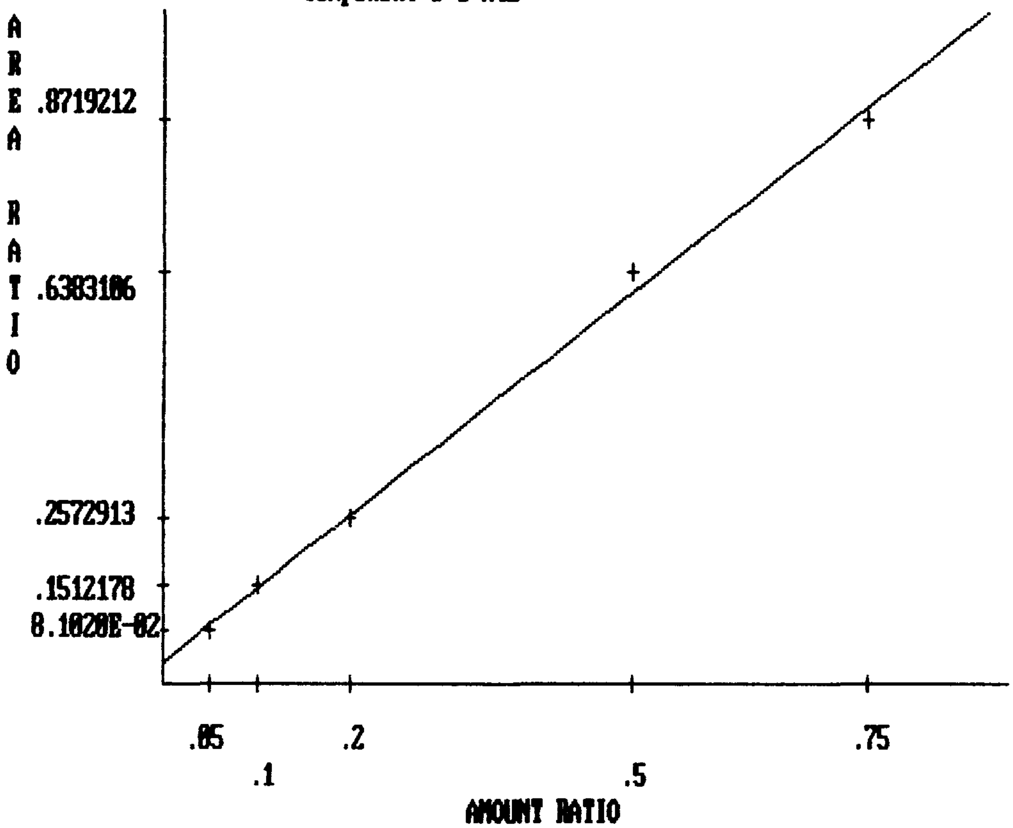
Data File = A:AA9.PTS Printed on 07-01-1989 at 10:30:18
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37899 uv High Value: 234780 uv Scale factor: 1.0



Quantitation column
5F 6731

Method A:AR042
Sample PCB
Operator NF
Run date 07-01-1989 09:31:01 version: 139
Printed on 07-04-1989 AT 08:18:08
Straight Line fit

Component #:1 A42

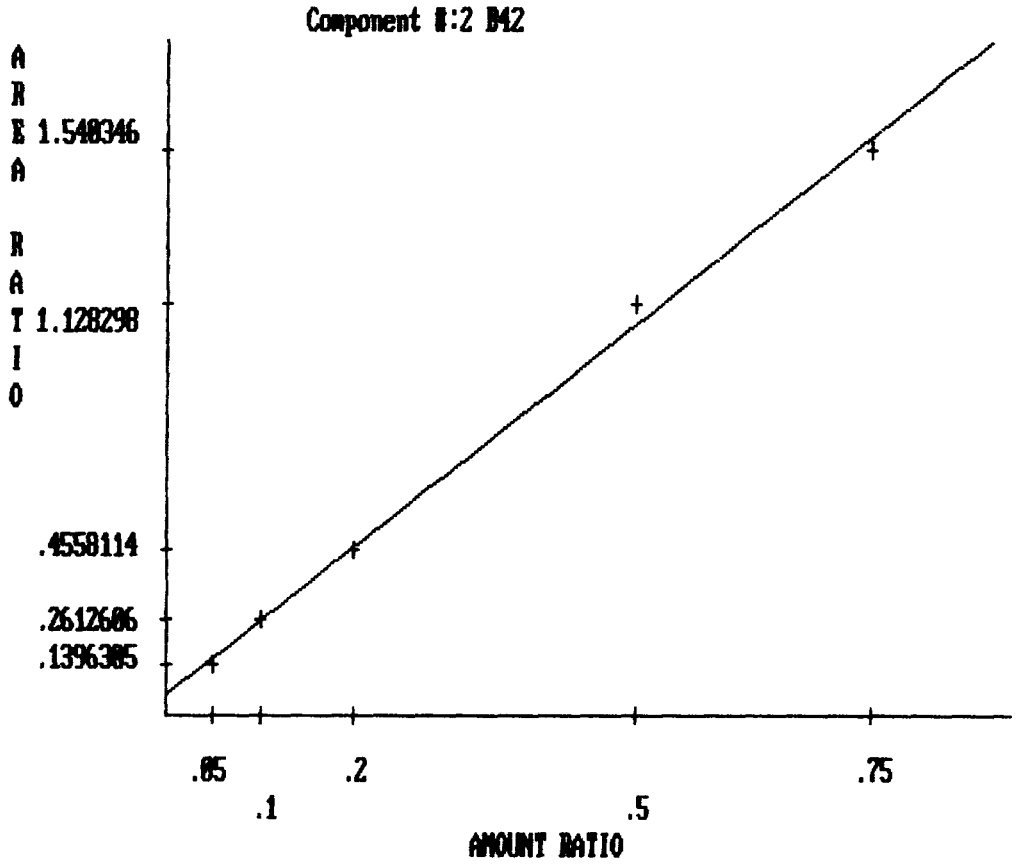


Component 1 = A42
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	136994	0.0500	0.0810
2	0.1000	266598	0.1000	0.1512
3	0.2000	443260	0.2000	0.2573
4	0.5000	1023946	0.5000	0.6383
5	0.7500	1424027	0.7500	0.8719

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.1439E+00 * Amt ratio + 3.3898E-02
Amt ratio = 8.7419E-01 * Area ratio + -2.9633E-02
Correlation Coefficient = 0.9966

JF6231
A:AR042
V.139

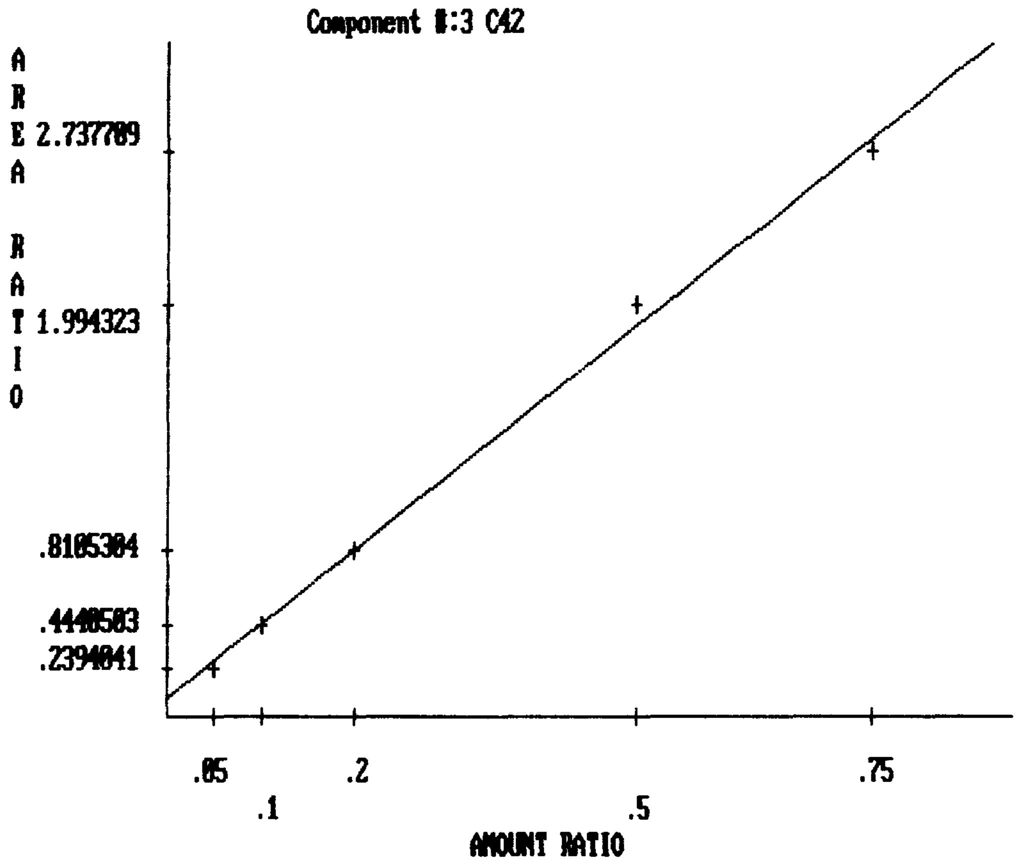


Component 2 = B42
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	236095	0.0500	0.1396
2	0.1000	460603	0.1000	0.2613
3	0.2000	785269	0.2000	0.4558
4	0.5000	1809959	0.5000	1.1283
5	0.7500	2515702	0.7500	1.5403

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.0271E+00 * Amt ratio + 5.6396E-02
Amt ratio = 4.9331E-01 * Area ratio + -2.7821E-02
Correlation Coefficient = 0.9965

SF 6231
M:HR042
V.139



Component 3 = C42

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	404798	0.0500	0.2394
2	0.1000	782863	0.1000	0.4441
3	0.2000	1396377	0.2000	0.8105
4	0.5000	3199193	0.5000	1.9943
5	0.7500	4471242	0.7500	2.7377

Y = SLOPE * X + INTERCEPT

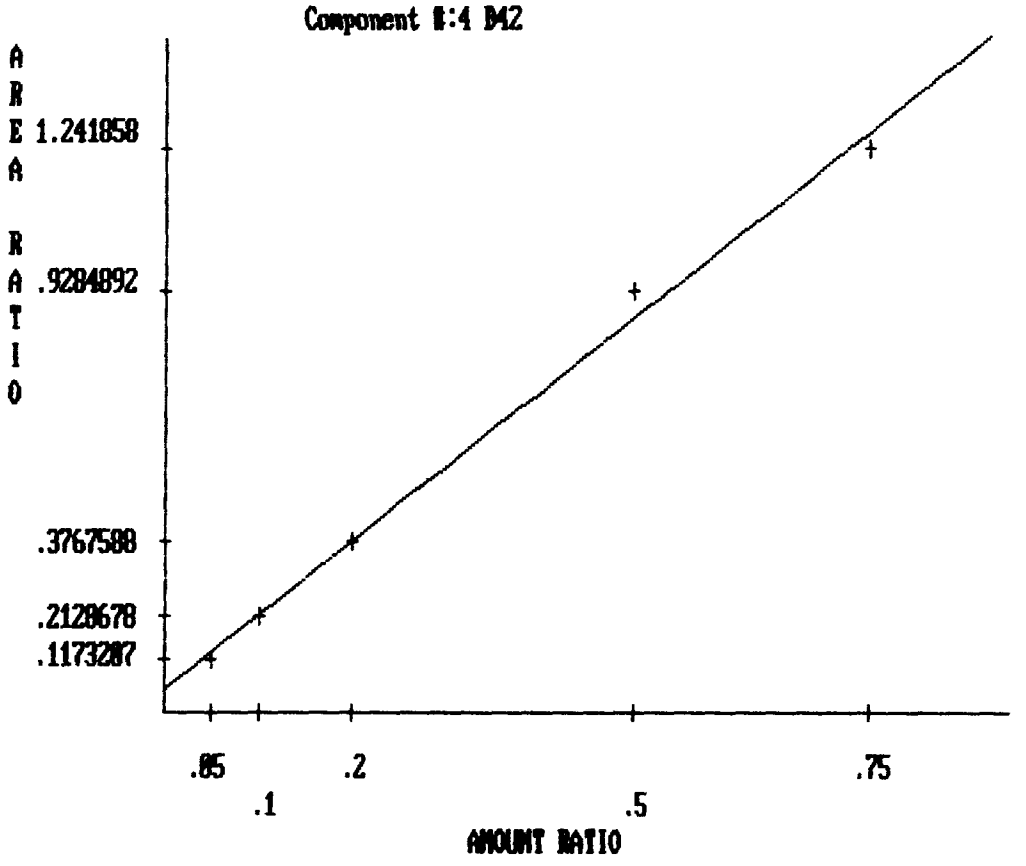
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.6164E+00 * Amt ratio + 8.7946E-02

Amt ratio = 2.7652E-01 * Area ratio + -2.4319E-02

Correlation Coefficient = 0.9969

SF 6231
A:AR647
v.159

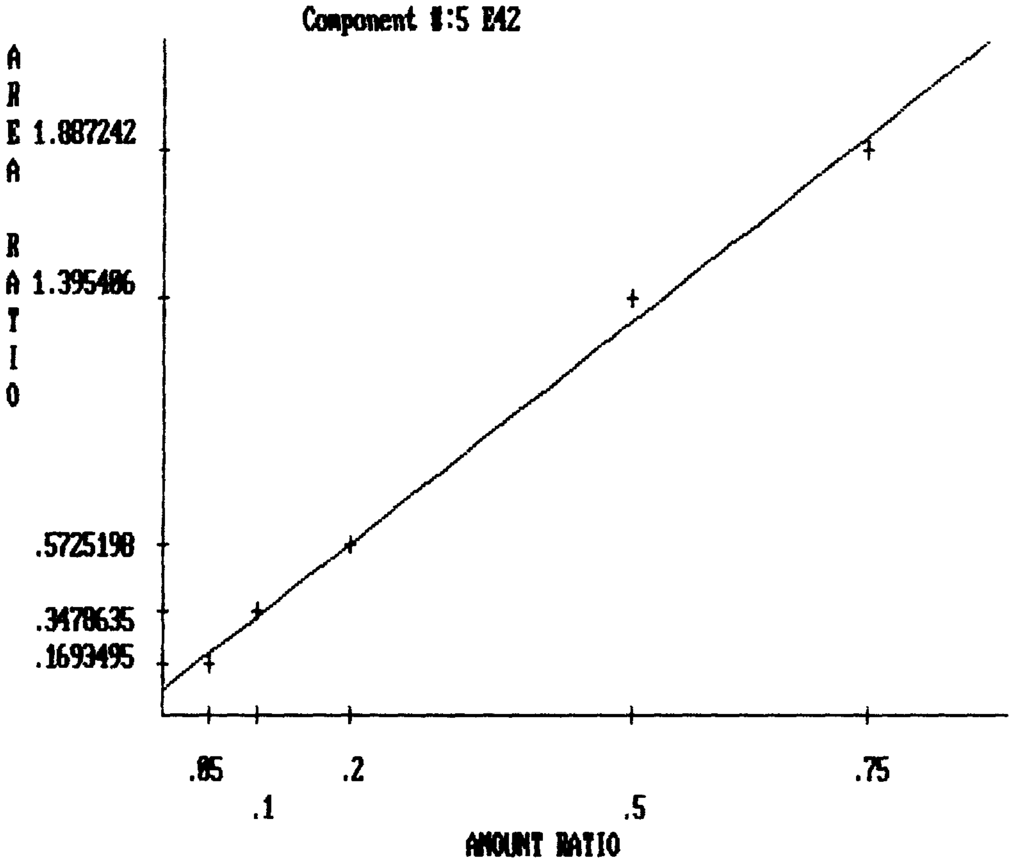


Component 4 = D42
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	198373	0.0500	0.1173
2	0.1000	375287	0.1000	0.2129
3	0.2000	649078	0.2000	0.3768
4	0.5000	1489436	0.5000	0.9285
5	0.7500	2028210	0.7500	1.2419

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.6357E+00 * Amt ratio + 5.2029E-02
Amt ratio = 6.1135E-01 * Area ratio + -3.1808E-02
Correlation Coefficient = 0.9946

SF 6231
A: AR042
V. 139

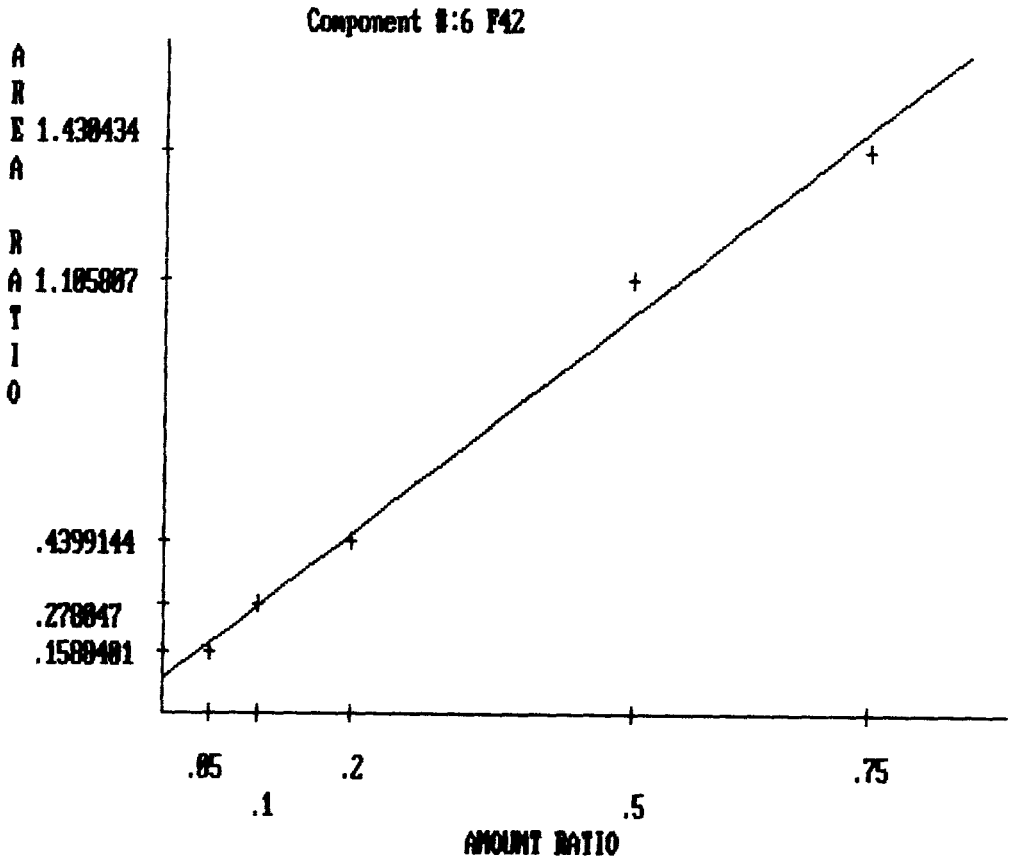


Component 5 = E42
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	286346	0.0500	0.1693
2	0.1000	613285	0.1000	0.3479
3	0.2000	986334	0.2000	0.5725
4	0.5000	2238440	0.5000	1.3954
5	0.7500	3082255	0.7500	1.8872

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.4695E+00 * Amt ratio + 8.4239E-02
Amt ratio = 4.0494E-01 * Area ratio + -3.4112E-02
Correlation Coefficient = 0.9954

SF 6231
A:AR042
v.139

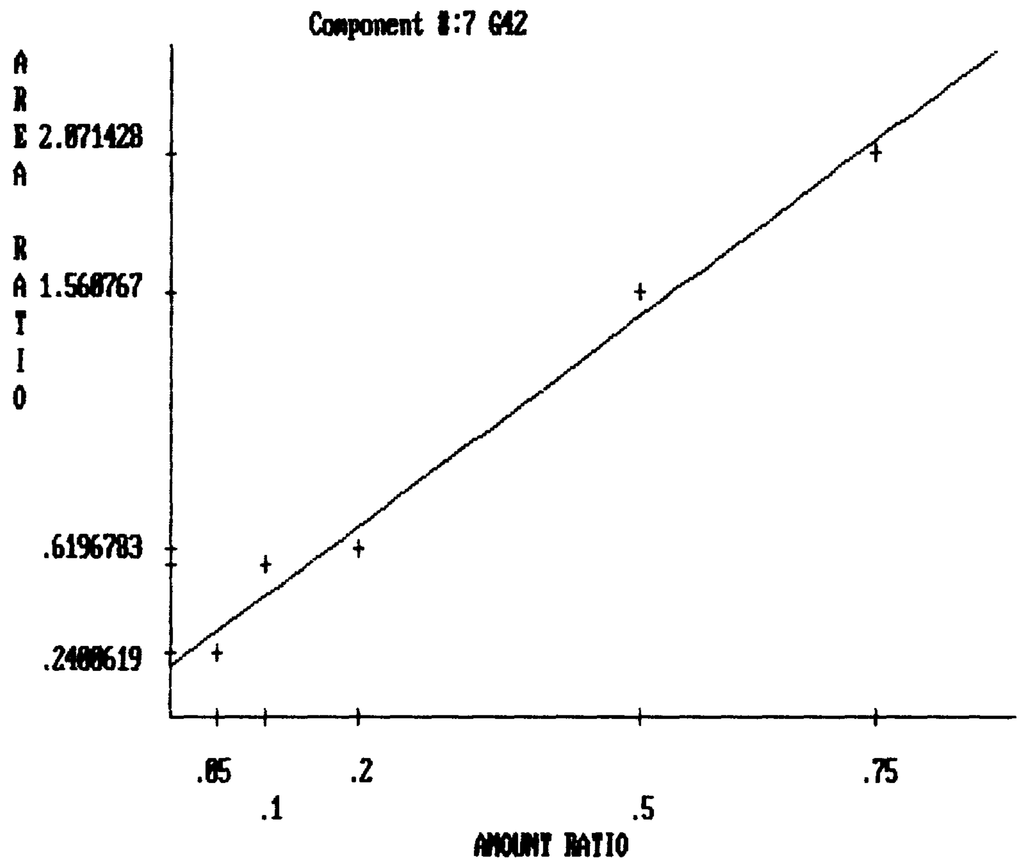


Component 6 = F42
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	268576	0.0500	0.1588
2	0.1000	490198	0.1000	0.2780
3	0.2000	757882	0.2000	0.4399
4	0.5000	1773880	0.5000	1.1058
5	0.7500	2336193	0.7500	1.4304

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.8620E+00 * Amt ratio + 8.6769E-02
nt ratio = 5.3706E-01 * Area ratio + -4.6600E-02
Correlation Coefficient = 0.9908

SK 6231
A: AR042
V.139



Component 7 = G42

INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0500	405911	0.0500	0.2401
2	0.1000	985749	0.1000	0.5591
3	0.2000	1067578	0.2000	0.6197
4	0.5000	2503704	0.5000	1.5608
5	0.7500	3383069	0.7500	2.0714

Y = SLOPE * X + INTERCEPT

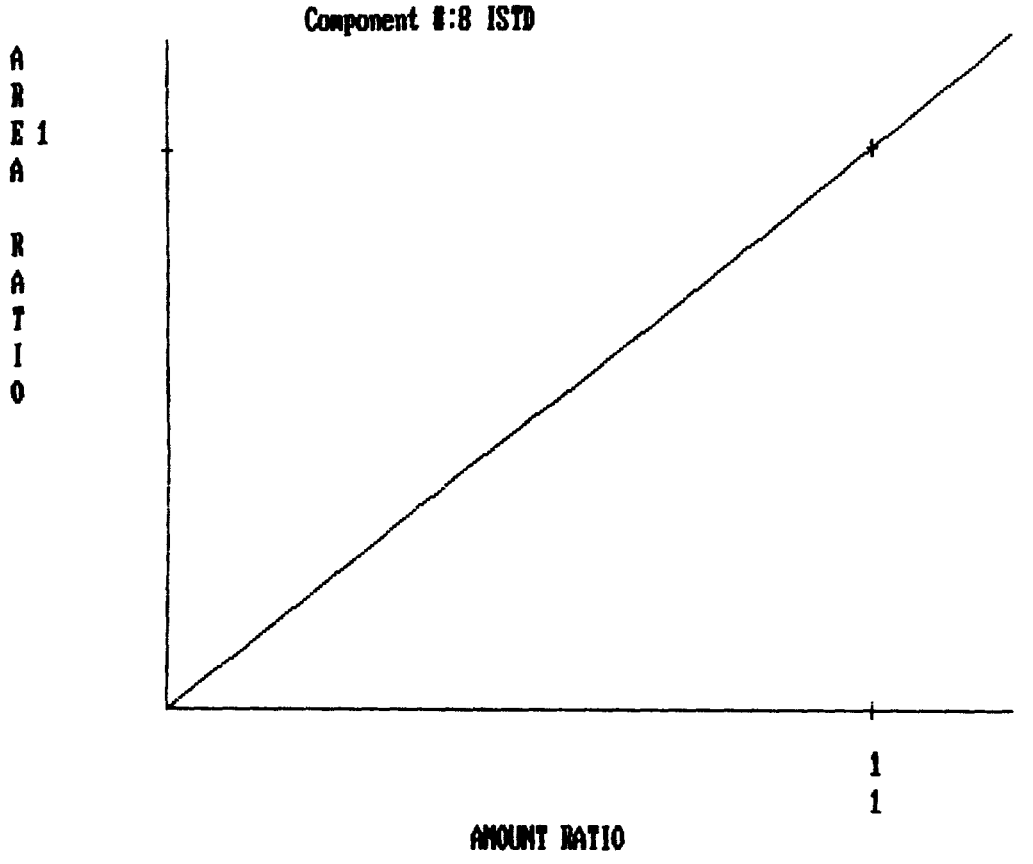
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 2.5764E+00 * Amt ratio + 1.8577E-01

mt ratio = 3.8814E-01 * Area ratio + -7.2104E-02

Correlation Coefficient = 0.9852

SF6231
A:AR042
V.139



Component 8 = ISTD
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	1690858	1.0000	1.0000
2	1.0000	1763004	1.0000	1.0000
3	1.0000	1722794	1.0000	1.0000
4	1.0000	1604150	1.0000	1.0000
5	1.0000	1633206	1.0000	1.0000

Y = SLOPE * X + INTERCEPT
)DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
\rea ratio = 1.0000E+00 * Amt ratio + 0.0000E+00
ıt ratio = 1.0000E+00 * Area ratio + 0.0000E+00
:orrelation Coefficient = 0.0000

NEW TIMED EVENTS FROM A:A19

***** INTERNAL STANDARD TABLE *****

********** 07-01-1989 13:30:02 Version 4.1 **********

* Sample Name: A1242 2 Data File: a:aa20 *
* Date: 07-01-1989 07:14:39 Method: A:AR042 07-01-1989 09:31:01 # 139 *
* Interface: 0 Cycle#: 20 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C 6F6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

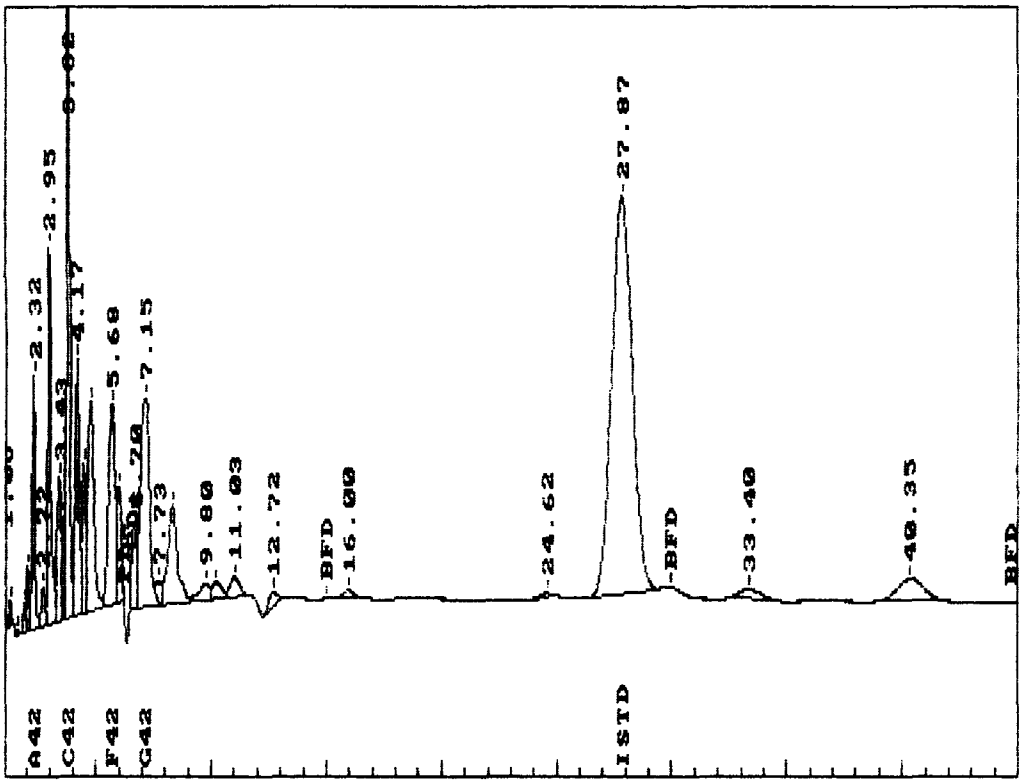
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.32	A42	0.0412	15.9483%	136994	17409	7.9	2	6	27	0	3.0070E-07
8	2.95	B42	0.0411	15.8968%	236095	25994	9.1	2	8	27	0	1.7392E-07
11	3.82	C42	0.0419	16.2142%	404798	42093	9.6	2	11	27	0	1.0346E-07
12	4.17	D42	0.0399	15.4537%	198373	17569	11.3	2	12	27	0	2.0122E-07
14	4.77	E42	0.0345	13.3432%	286346	14341	20.0	2	14	27	0	1.2036E-07
15	5.68	F42	0.0387	14.9852%	268576	13650	19.7	2	15	27	0	1.4412E-07
18	7.15	G42	0.0211	8.1586%	405911	14380	28.2	3	18	27	0	5.1916E-08
27	27.87	ISTD	1.0000	0.0000%	1690858	27272	62.0	1	27	27	0	5.9142E-07

TOTAL AMOUNT = 0.2583

Data File = a:aa20.PTS Printed on 07-01-1989 at 13:30:35
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 39694 uv High Value: 83570 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:21

****** INTERNAL STANDARD TABLE ******

********** 07-01-1989 13:32:16 Version 4.1 **********

* Sample Name: A1242 3 Data File: a:aa21 *
* Date: 07-01-1989 07:16:25 Method: A:AR042 07-01-1989 09:31:01 # 139 *
* Interface: 0 Cycle#: 21 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

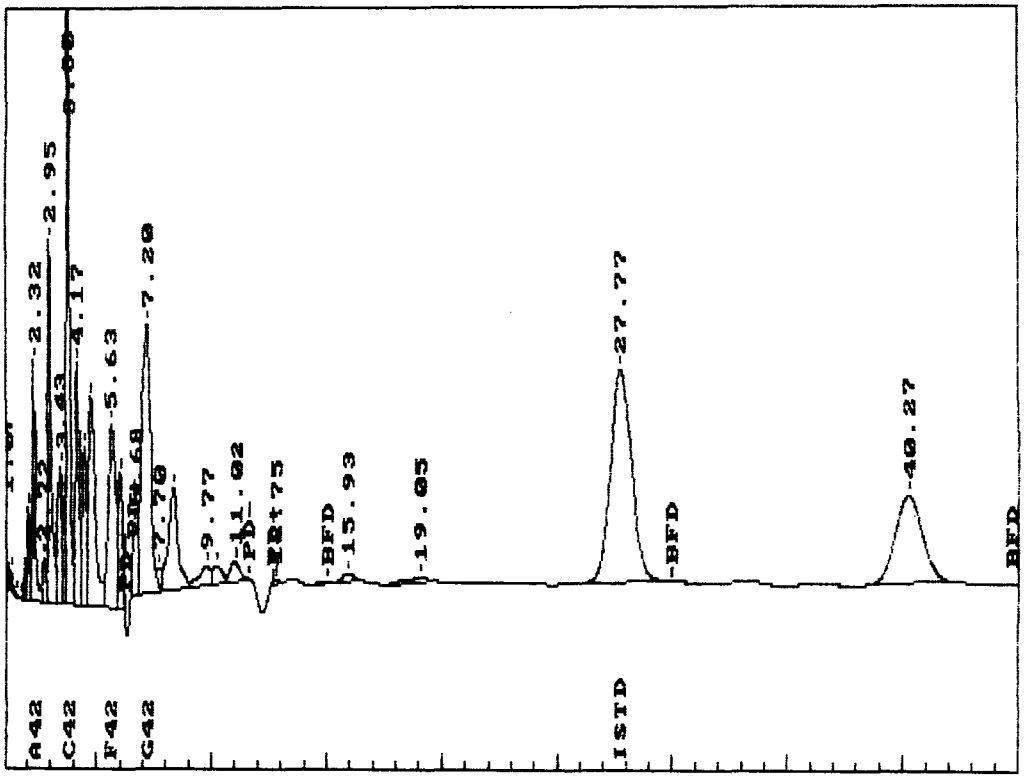
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.32	A42	0.1026	13.5874%	266598	32297	8.3	2	7	28	0	3.8470E-07
9	2.95	B42	0.1011	13.3890%	460603	48129	9.6	2	9	28	0	2.1941E-07
12	3.80	C42	0.0985	13.0454%	782863	78760	9.9	2	12	28	0	1.2578E-07
13	4.17	D42	0.0983	13.0269%	375287	32478	11.6	2	13	28	0	2.6201E-07
15	4.77	E42	0.1068	14.1429%	613285	28110	21.8	2	15	28	0	1.7407E-07
16	5.63	F42	0.1027	13.6096%	490198	24639	19.9	2	16	28	0	2.0956E-07
19	7.20	G42	0.1449	19.1989%	985749	36018	27.4	3	19	28	0	1.4701E-07
28	27.77	ISTD	1.0000	0.0000%	1763004	28026	62.9	1	28	28	0	5.6721E-07

TOTAL AMOUNT = 0.7548

Data File = a:aa21.PTS Printed on 07-01-1989 at 13:32:45
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 35275 uv High Value: 118144 uv Scale factor: 1.0

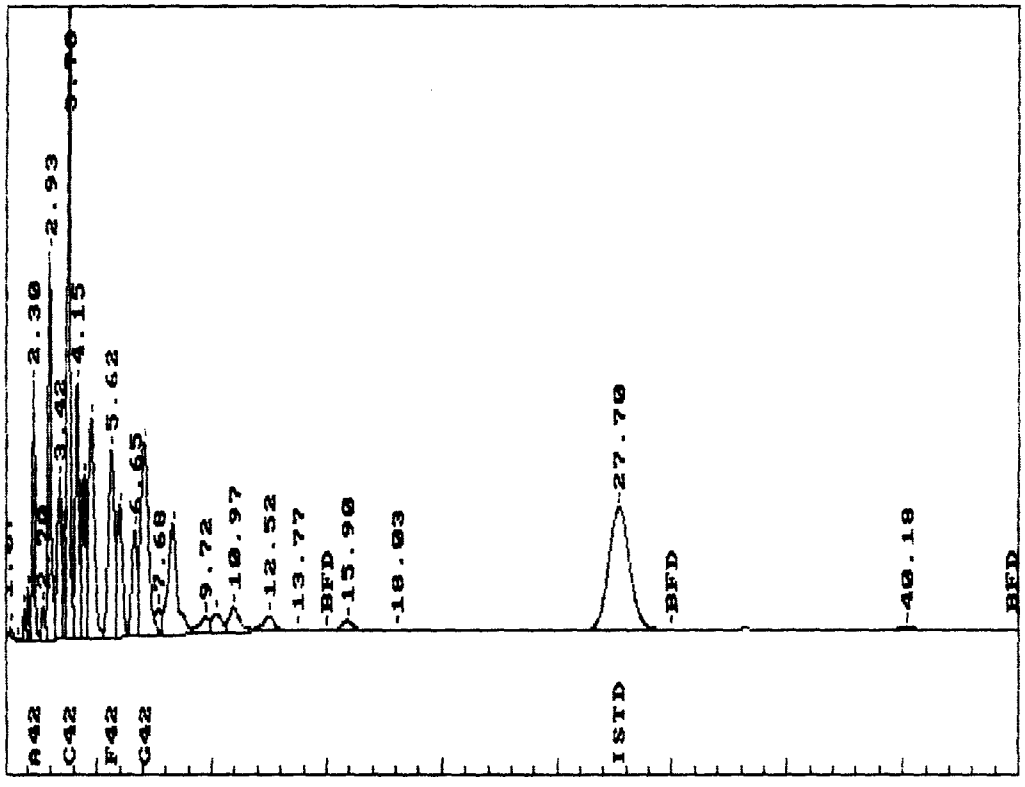


```
*****   INTERNAL STANDARD TABLE   *****
******************** 07-01-1989 13:34:51 Version 4.1 **********************
* Sample Name: A1242 4                          Data File: a:aa22          *
* Date: 07-01-1989 07:18:11 Method: A:AR042 07-01-1989 09:31:01  #  139   *
* Interface: 0   Cycle#:  22   Operator NID Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE   *
*              Solvent Description: NITROGEN                              *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                SF6231   *
*            Detector 0: ECD 320C            Detector 1: ECD 320C         *
* Misc. Information: INSTRUMENT # 1                     INSTRUMENT # 1    *
*************************************************************************
Starting Delay:    1.00                      Ending retention time:    45.00
Area reject:        0                        One sample per   1.000 sec.
Amount injected:        5.00                 Dilution factor:        1.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.30	A42	0.1953	14.5038%	443260	57711	7.7	2	6	28	0	4.4057E-07
8	2.93	B42	0.1970	14.6338%	785269	86858	9.0	2	8	28	0	2.5092E-07
11	3.78	C42	0.1998	14.8394%	1396377	142336	9.8	2	11	28	0	1.4309E-07
12	4.15	D42	0.1985	14.7442%	649078	57237	11.3	2	12	28	0	3.0586E-07
14	4.75	E42	0.1977	14.6849%	986334	49344	20.0	2	14	28	0	2.0046E-07
15	5.62	F42	0.1897	14.0858%	757882	41959	18.1	2	15	28	0	2.5025E-07
18	7.05	G42	0.1684	12.5082%	1067578	43315	24.6	3	18	28	0	1.5776E-07
28	27.70	ISTD	1.0000	0.0000%	1722794	27445	62.8	1	28	28	0	5.8045E-07

TOTAL AMOUNT = 1.3465

Data File = a:aa22.PTS Printed on 07-01-1989 at 13:35:25
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 39876 uv High Value: 182752 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-01-1989 13:36:56 Version 4.1 **********

* Sample Name: A1242 5 Data File: a:aa23 *

* Date: 07-01-1989 07:19:58 Method: A:AR042 07-01-1989 09:31:01 # 139 *

* Interface: 0 Cycle#: 23 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

Starting Delay: 1.00 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 1.00

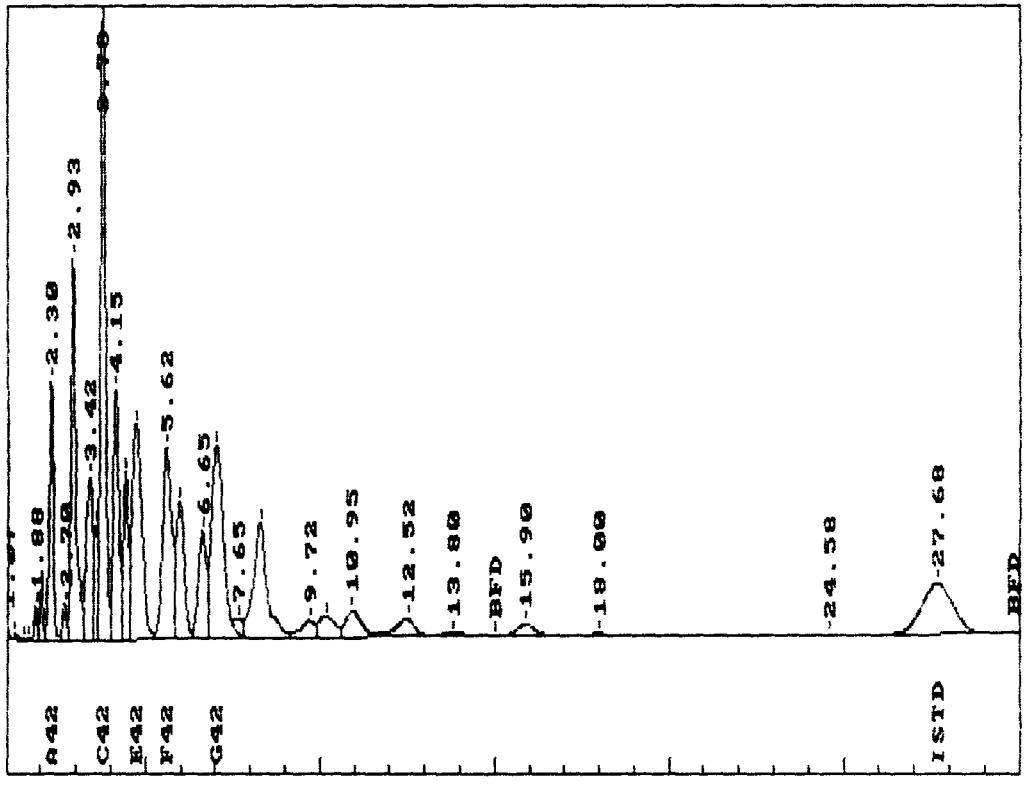
Internal Standard Amount: 1

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.30	A42	0.5284	14.1577%	1023946	134654	7.6	2	7	30	0	5.1601E-07
9	2.93	B42	0.5288	14.1688%	1809959	198456	9.1	2	9	30	0	2.9215E-07
12	3.78	C42	0.5271	14.1248%	3199193	329229	9.7	2	12	30	0	1.6477E-07
13	4.15	D42	0.5358	14.3574%	1489436	130098	11.4	2	13	30	0	3.5975E-07
15	4.75	E42	0.5309	14.2267%	2238440	111237	20.1	2	15	30	0	2.3719E-07
16	5.62	F42	0.5473	14.6644%	1773880	99328	17.9	2	16	30	0	3.0852E-07
19	7.05	G42	0.5337	14.3003%	2503704	99820	25.1	3	19	30	0	2.1316E-07
30	27.68	ISTD	1.0000	0.0000%	1604150	25926	61.9	1	30	30	0	6.2338E-07

TOTAL AMOUNT = 3.7320

Data File = a:aa23.PTS Printed on 07-01-1989 at 13:37:26
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 39483 uv High Value: 369212 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-01-1989 13:39:04 Version 4.1 **********

* Sample Name: A1242 6 Data File: a:aa24 *
* Date: 07-01-1989 07:21:46 Method: A:AR042 07-01-1989 09:31:01 # 139 *
* Interface: 0 Cycle#: 24 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

SF 6231

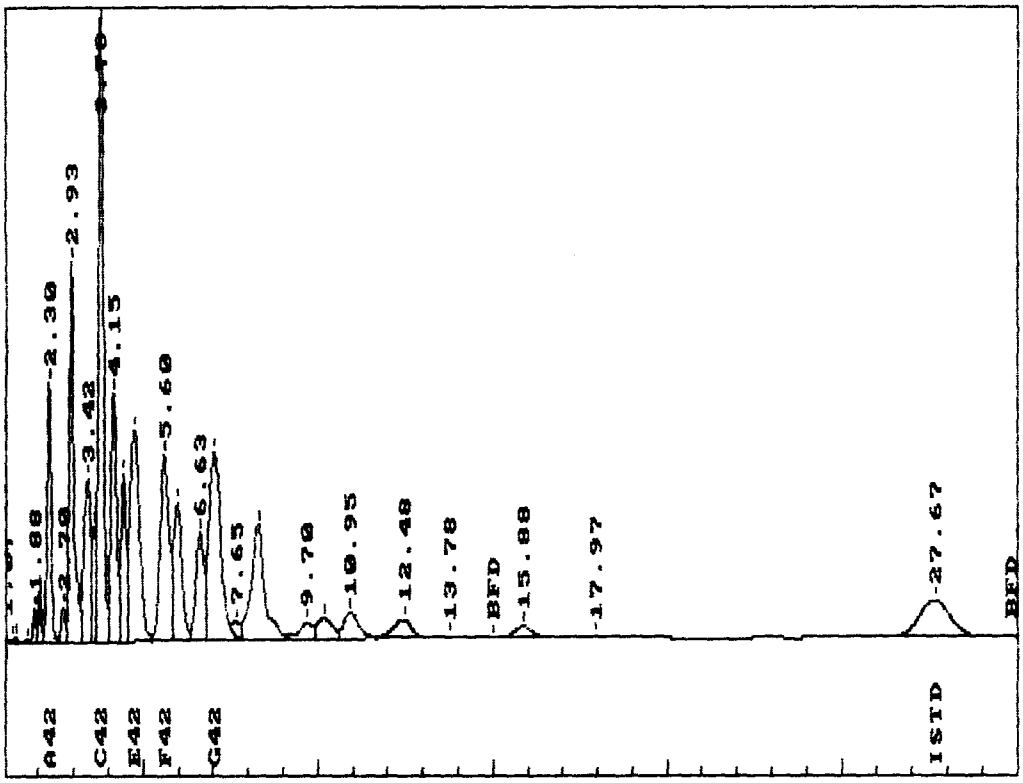
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.30	A42	0.7326	14.3409%	1424027	188300	7.6	2	7	29	0	5.1445E-07
9	2.93	B42	0.7321	14.3304%	2515702	275603	9.1	2	9	29	0	2.9099E-07
12	3.78	C42	0.7327	14.3431%	4471242	462615	9.7	2	12	29	0	1.6387E-07
13	4.15	D42	0.7274	14.2394%	2028210	179997	11.3	2	13	29	0	3.5864E-07
15	4.75	E42	0.7301	14.2924%	3082255	153457	20.1	2	15	29	0	2.3688E-07
16	5.60	F42	0.7216	14.1263%	2336193	135146	17.3	2	16	29	0	3.0889E-07
19	7.03	G42	0.7319	14.3274%	3383069	137357	24.6	3	19	29	0	2.1634E-07
29	27.67	ISTD	1.0000	0.0000%	1633206	26418	61.8	1	29	29	0	6.1229E-07

TOTAL AMOUNT = 5.1084

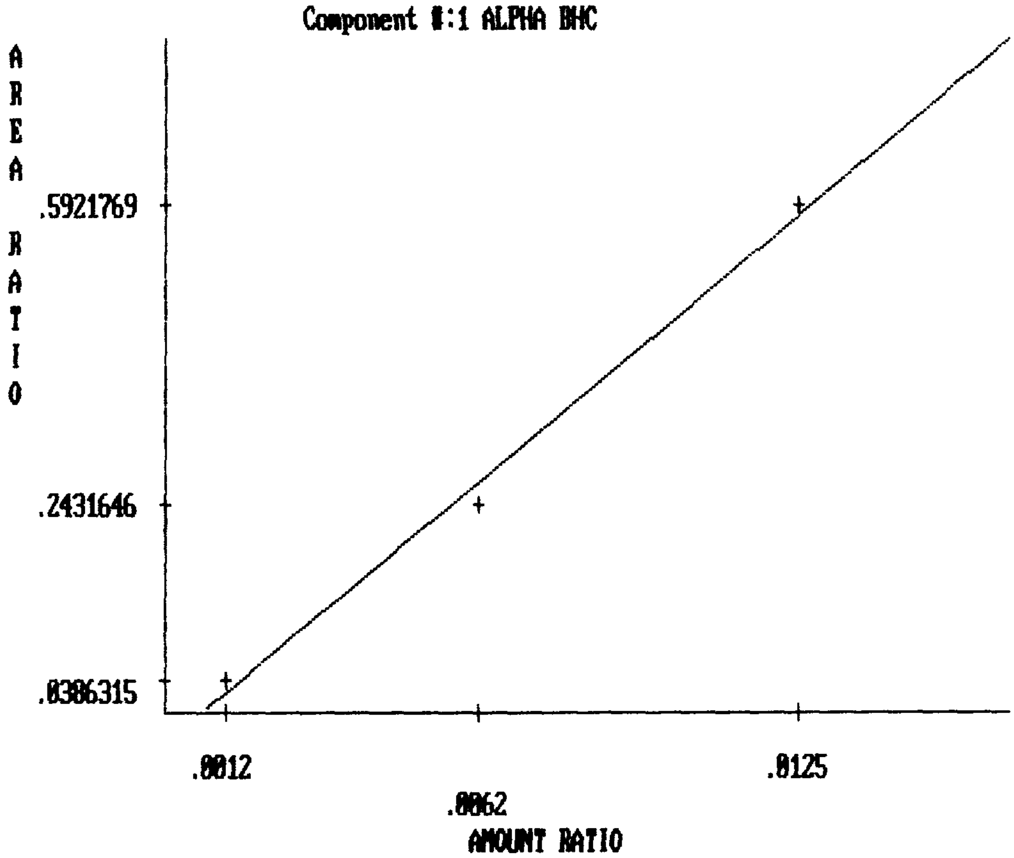
Data File = a:aa24.PTS Printed on 07-01-1989 at 13:39:34
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 39120 uv High Value: 502269 uv Scale factor: 1.0



Confirmation column

5F6231

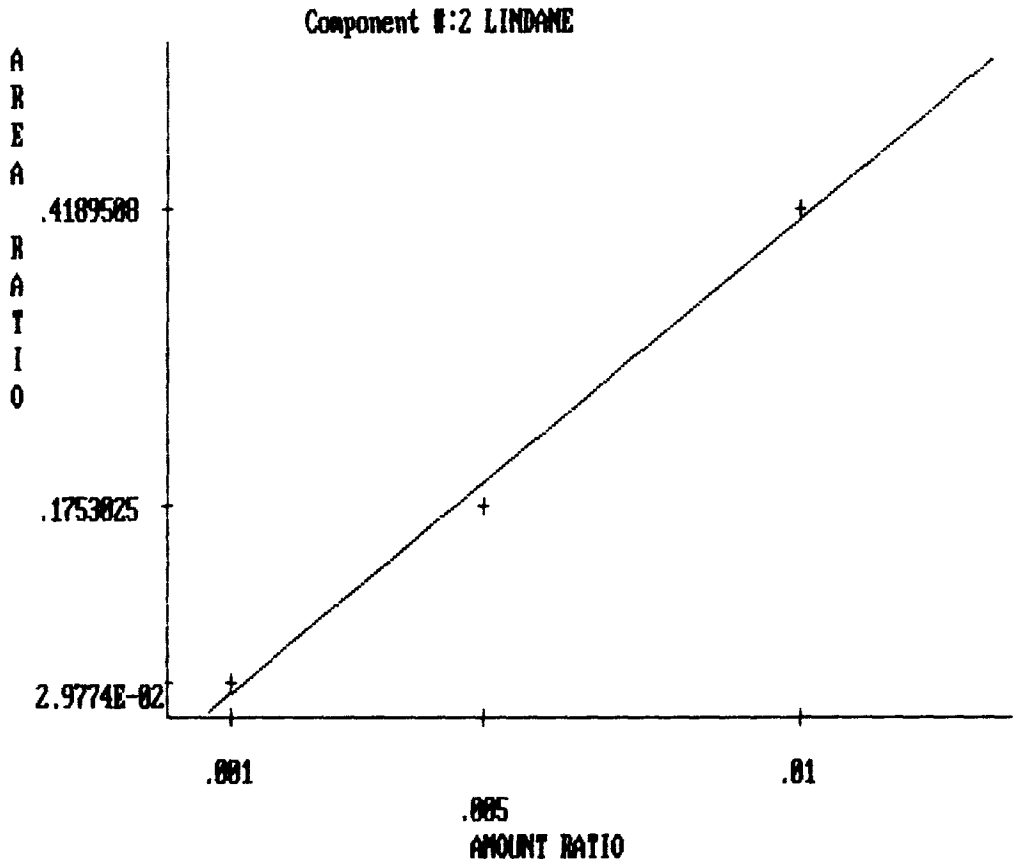
Method A:PESA-2
Sample PESTICIDES
Operator NF
Run date 07-03-1989 08:01:22 version: 135
Printed on 07-04-1989 AT 09:06:41
Straight Line fit



Component 1 = ALPHA BHC
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0012	154794	0.0012	0.0386
2	0.0062	952682	0.0062	0.2432
3	0.0125	2208788	0.0125	0.5922

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.9259E+01 * Amt ratio + -3.5429E-02
Amt ratio = 2.0301E-02 * Area ratio + 7.1924E-04
Correlation Coefficient = 0.9931



Component 2 = LINDANE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	119303	0.0010	0.0298
2	0.0050	686809	0.0050	0.1753
3	0.0100	1562664	0.0100	0.4190

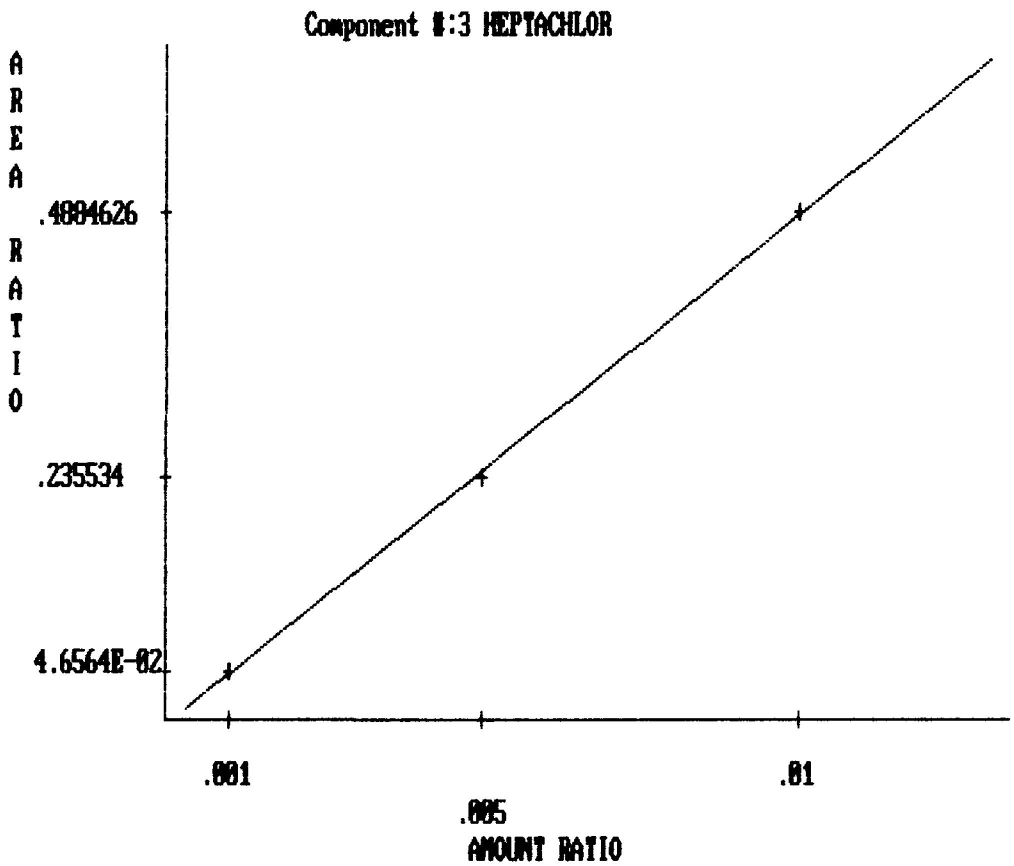
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 4.3467E+01 * Amt ratio + -2.3814E-02

Amt ratio = 2.3006E-02 * Area ratio + 5.4786E-04

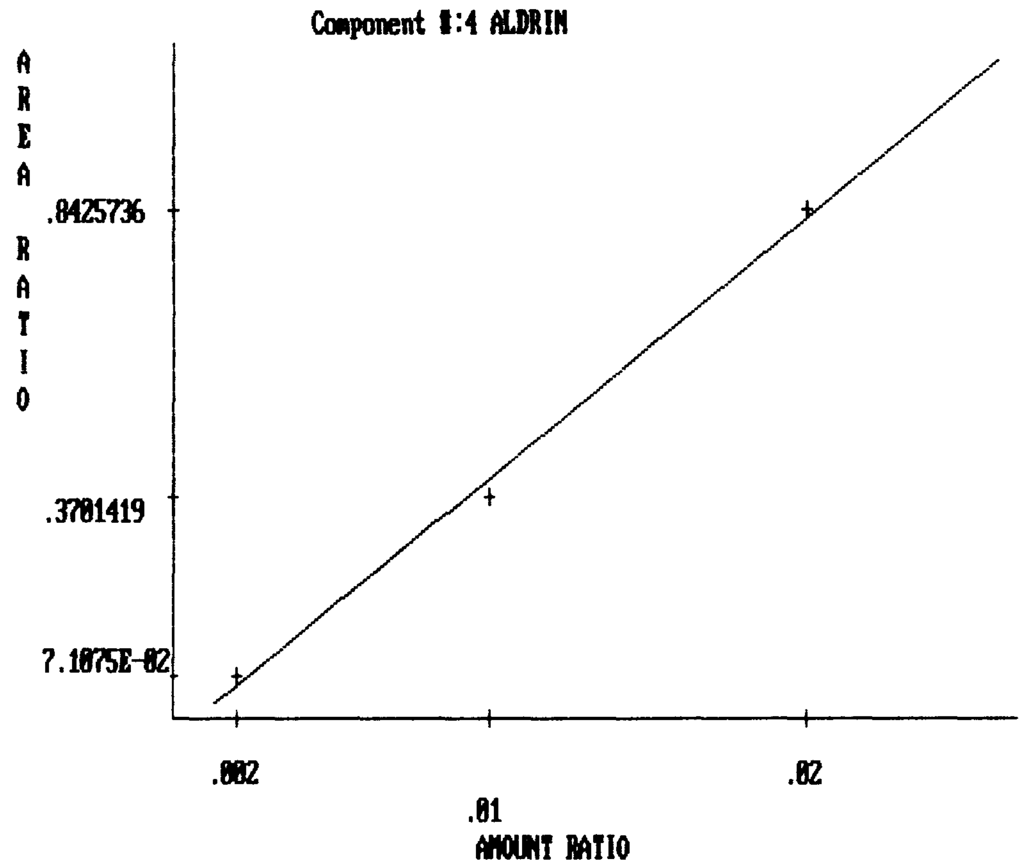
Correlation Coefficient = 0.9935



Component 3 = HEPTACHLOR
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0010	186582	0.0010	0.0466
2	0.0050	922787	0.0050	0.2355
3	0.0100	1821939	0.0100	0.4885

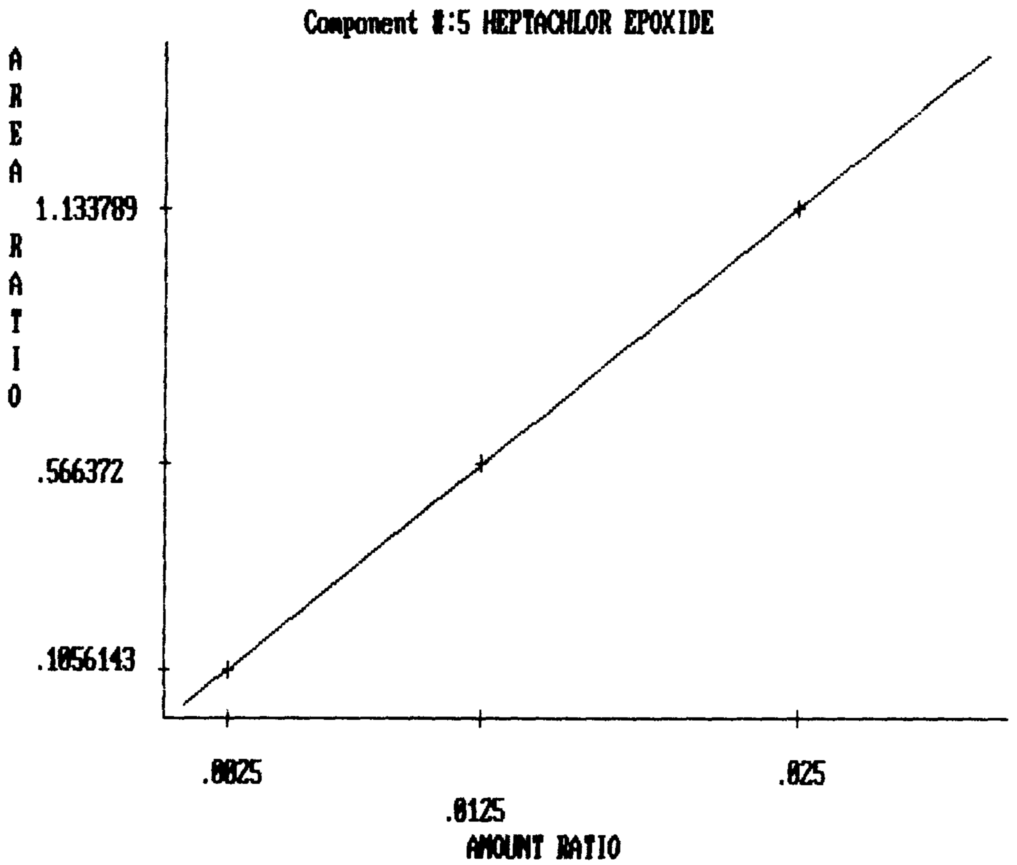
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.9161E+01 * Amt ratio + -5.3363E-03
Amt ratio = 2.0341E-02 * Area ratio + 1.0855E-04
Correlation Coefficient = 0.9996



Component 4 = ALDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0020	284797	0.0020	0.0711
2	0.0100	1450160	0.0100	0.3701
3	0.0200	3142754	0.0200	0.8426

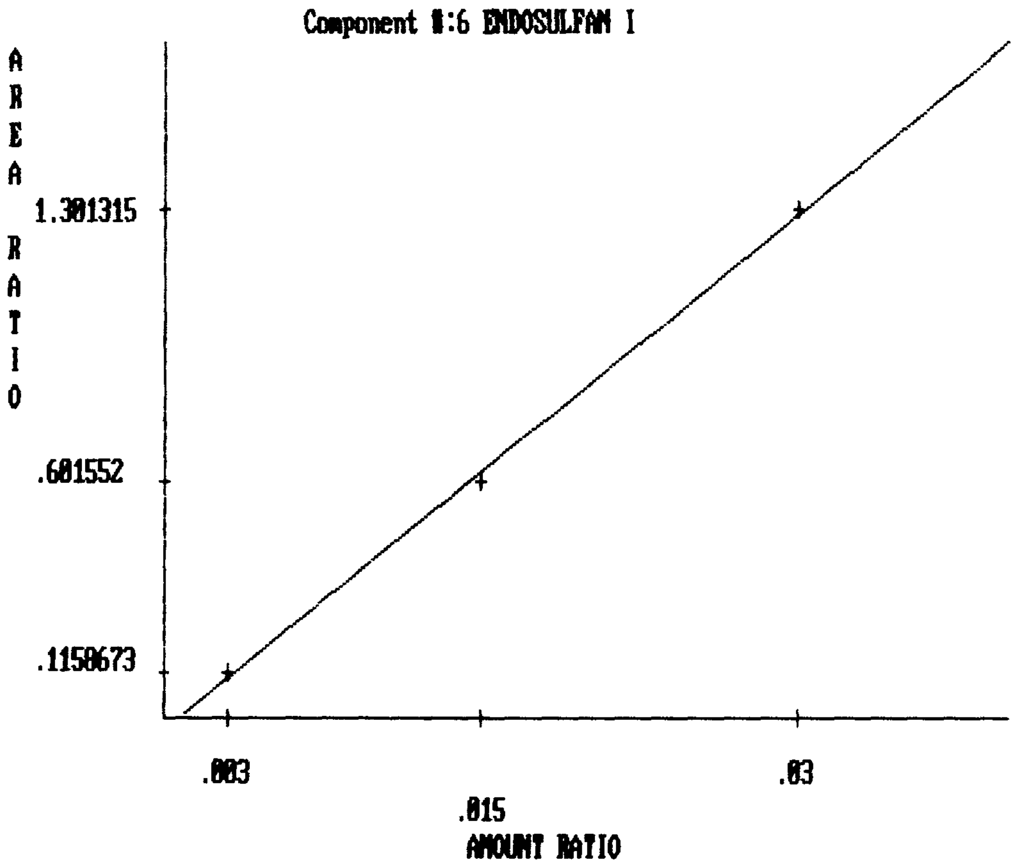
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.3041E+01 * Amt ratio + -3.1169E-02
Amt ratio = 2.3234E-02 * Area ratio + 7.2418E-04
Correlation Coefficient = 0.9958



Component 5 = HEPTACHLOR EPOXIDE
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0025	423190	0.0025	0.1056
2	0.0125	2218960	0.0125	0.5664
3	0.0250	4228972	0.0250	1.1338

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.5684E+01 * Amt ratio + -7.1979E-03
Amt ratio = 2.1889E-02 * Area ratio + 1.5756E-04
Correlation Coefficient = 1.0000



Component 6 = ENDOSULFAN I
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	464273	0.0030	0.1159
2	0.0150	2356790	0.0150	0.6016
3	0.0300	4853834	0.0300	1.3013

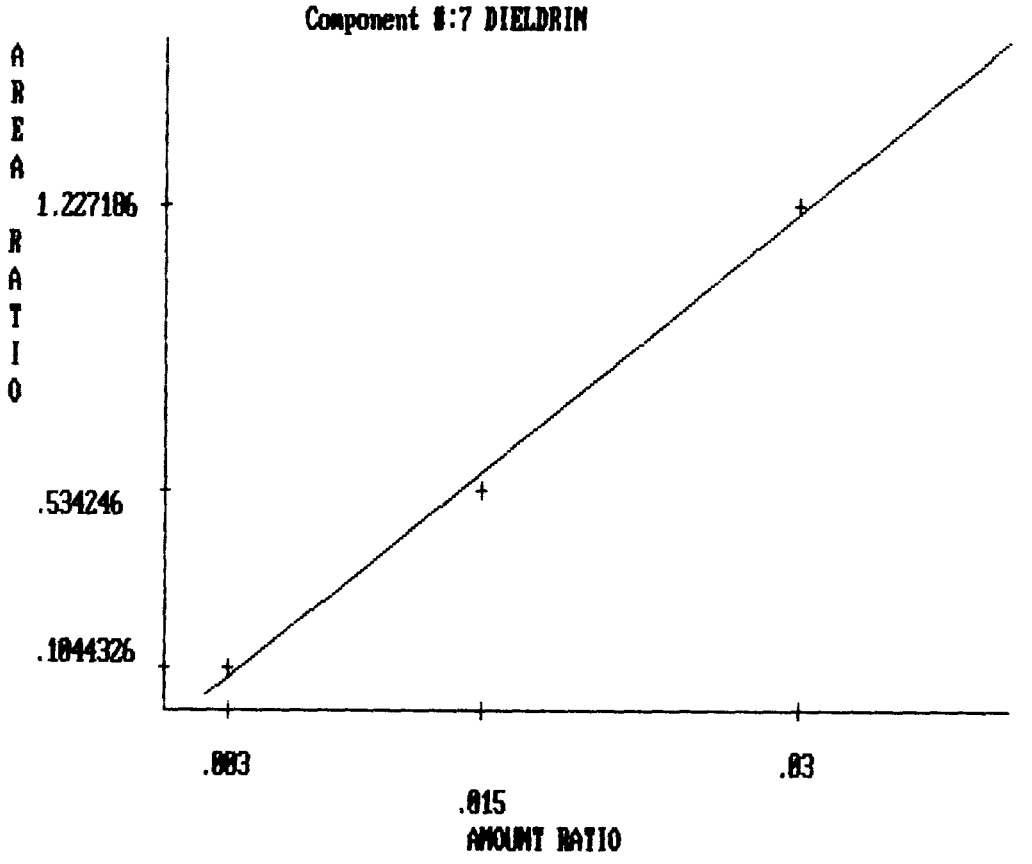
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 4.4018E+01 * Amt ratio + -3.1376E-02

Amt ratio = 2.2718E-02 * Area ratio + 7.1281E-04

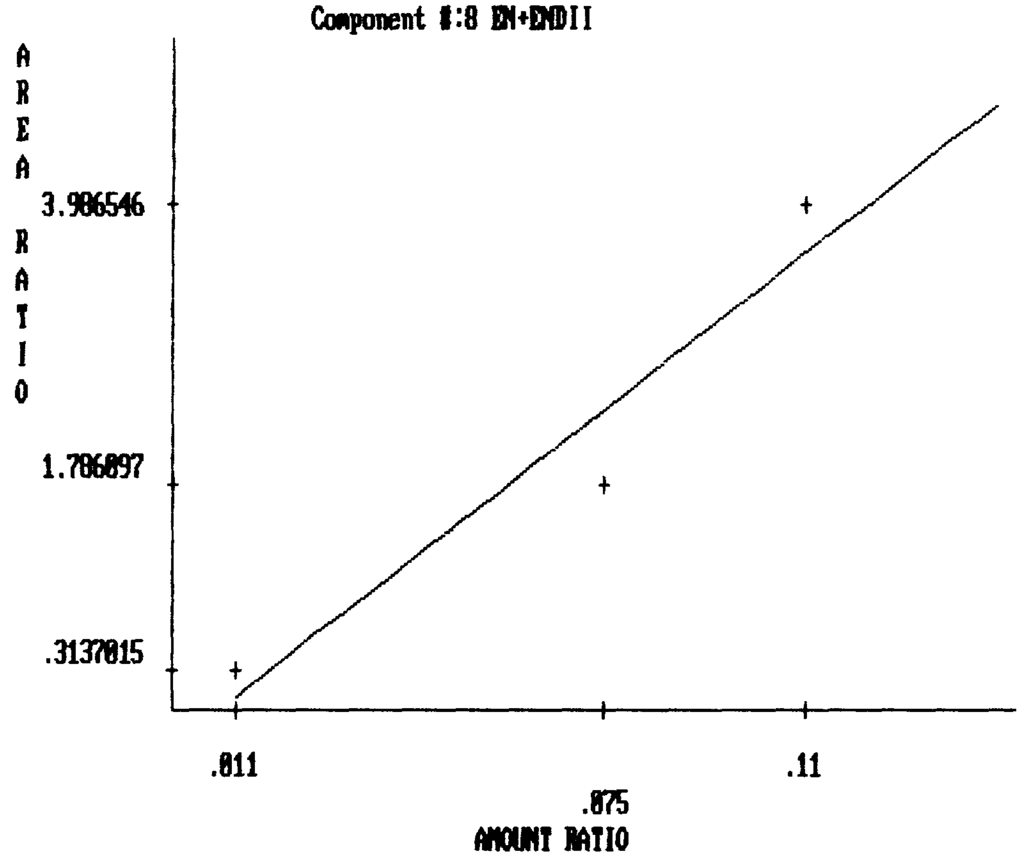
Correlation Coefficient = 0.9984



Component 7 = DIELDRIN
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0030	418455	0.0030	0.1044
2	0.0150	2093095	0.0150	0.5342
3	0.0300	4577336	0.0300	1.2272

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 4.1772E+01 * Amt ratio + -4.6405E-02
mt ratio = 2.3939E-02 * Area ratio + 1.1109E-03
Correlation Coefficient = 0.9950



Component 8 = EN+ENDII

INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0110	1256982	0.0110	0.3137
2	0.0750	6997660	0.0750	1.7861
3	0.1100	14869600	0.1100	3.9865

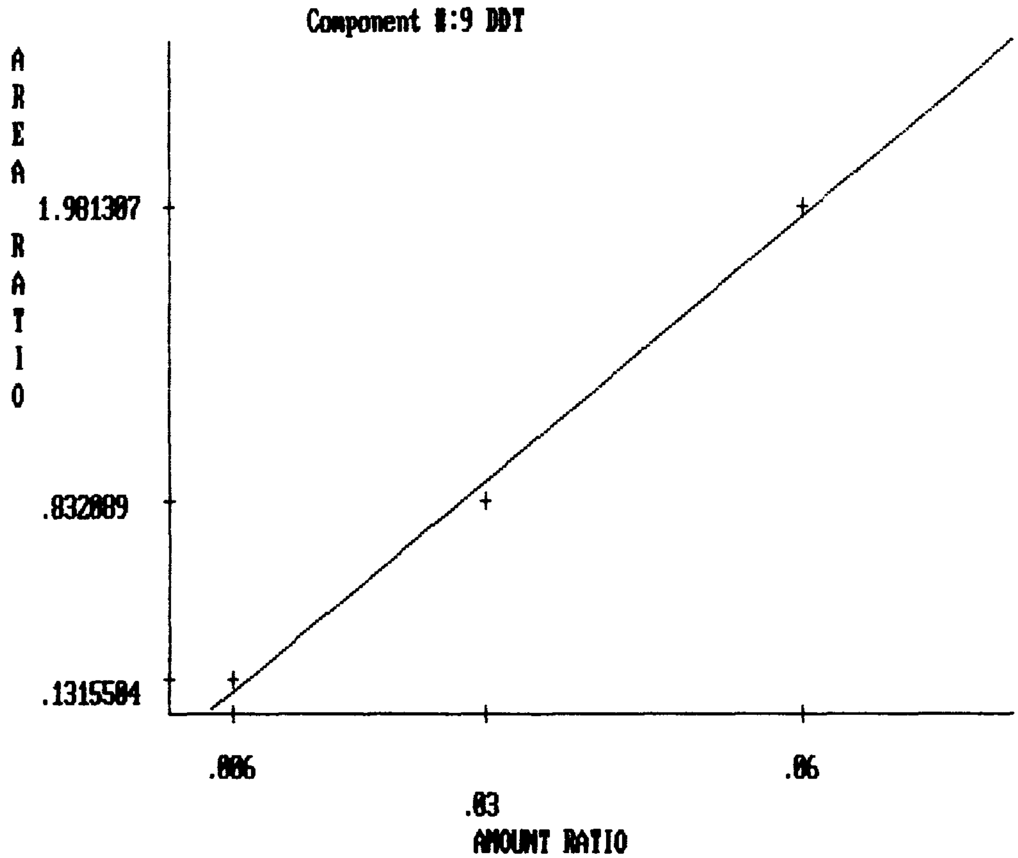
Y = SLOPE * X + INTERCEPT

DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD

Area ratio = 3.5370E+01 * Amt ratio + -2.8204E-01

mt ratio = 2.8273E-02 * Area ratio + 7.9740E-03

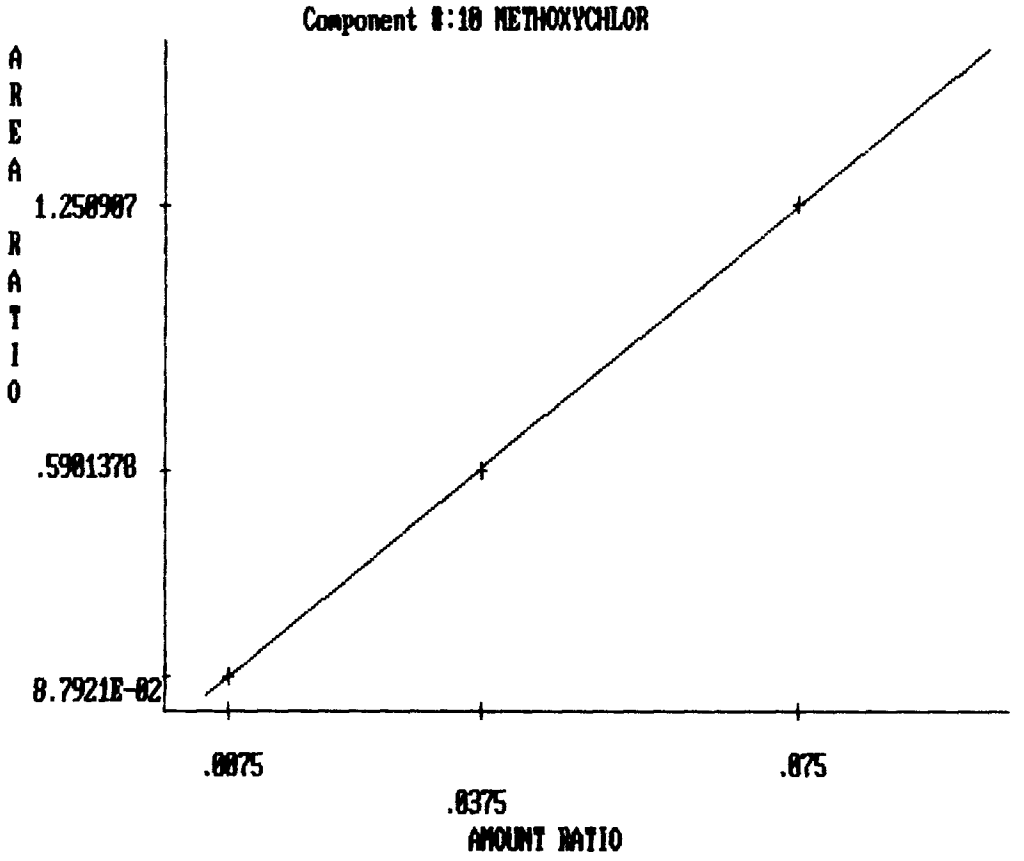
Correlation Coefficient = 0.9228



Component 9 = DDT
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0060	527114	0.0060	0.1316
2	0.0300	3259999	0.0300	0.8321
3	0.0600	7390168	0.0600	1.9813

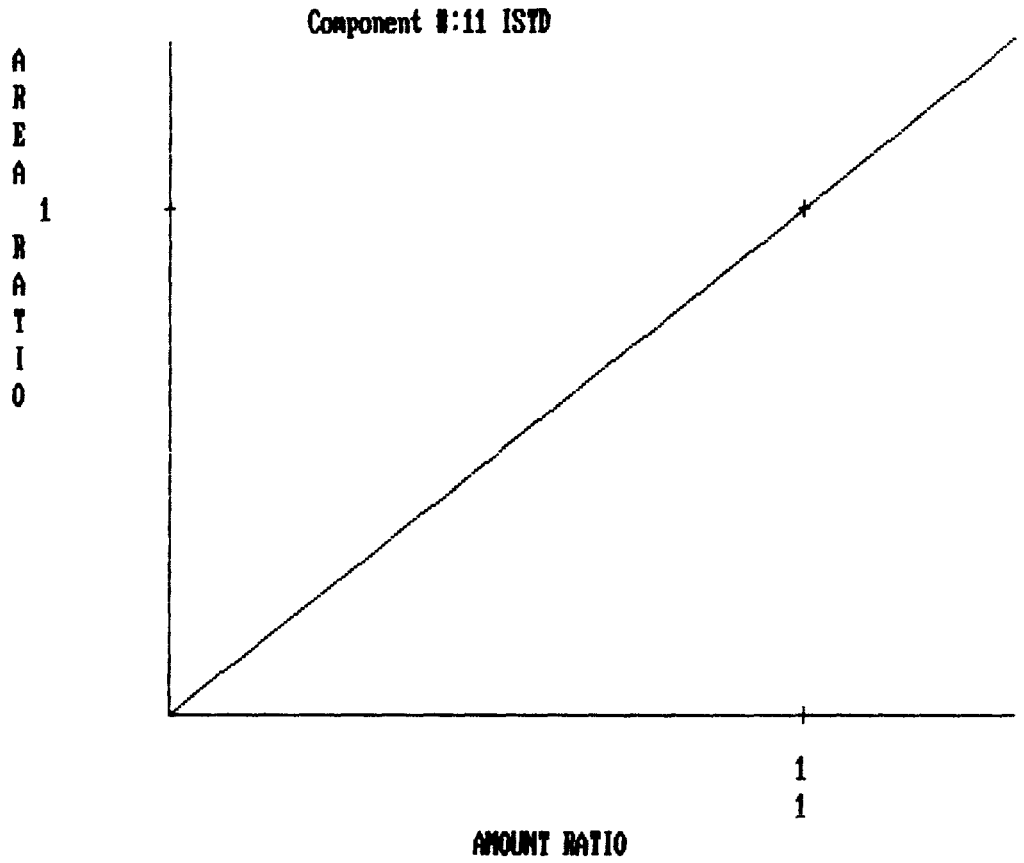
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 3.4421E+01 * Amt ratio + -1.1982E-01
Amt ratio = 2.9052E-02 * Area ratio + 3.4810E-03
Correlation Coefficient = 0.9944



Component 10 = METHOXYCHLOR
INTERNAL STANDARD CALIBRATION

EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0075	352294	0.0075	0.0879
2	0.0375	2312071	0.0375	0.5901
3	0.0750	4665814	0.0750	1.2509

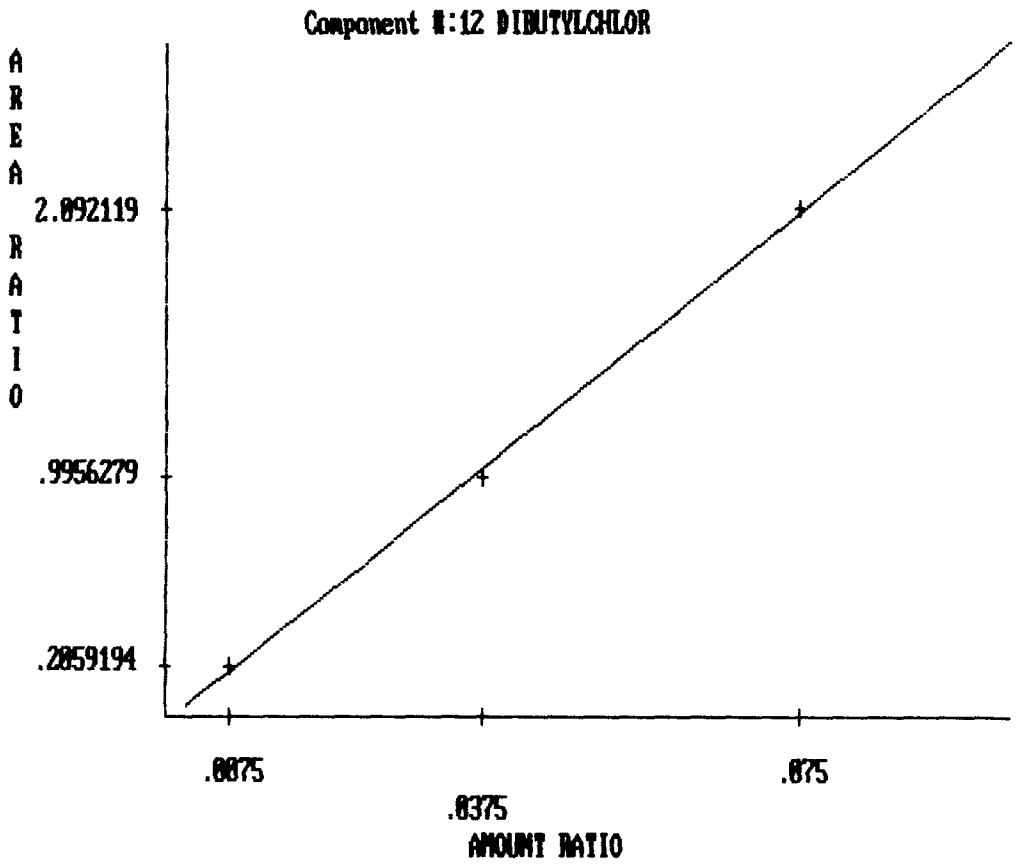
Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.7245E+01 * Amt ratio + -4.6829E-02
nt ratio = 5.7986E-02 * Area ratio + 2.7155E-03
Correlation Coefficient = 0.9998



Component 11 = ISTD
INTERNAL STANDARD CALIBRATION

LEVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	1.0000	4006937	1.0000	1.0000
2	1.0000	3917849	1.0000	1.0000
3	1.0000	3729946	1.0000	1.0000

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 1.0000E+00 * Amt ratio + 0.0000E+00
Amt ratio = 1.0000E+00 * Area ratio + 0.0000E+00
Correlation Coefficient = 0.0000



Component 12 = DIBUTYLCHLOR
INTERNAL STANDARD CALIBRATION

.EVEL	AMOUNT	AREA	AMOUNT Ratio	AREA Ratio
1	0.0075	825106	0.0075	0.2059
2	0.0375	3900720	0.0375	0.9956
3	0.0750	7803491	0.0750	2.0921

Y = SLOPE * X + INTERCEPT
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
Area ratio = 2.7997E+01 * Amt ratio + -2.1984E-02
mt ratio = 3.5718E-02 * Area ratio + 7.8523E-04
Correlation Coefficient = 0.9991

****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 08:12:05 Version 4.1 **********

* Sample Name: PESA^1 Data File: a:ab4 *
* Date: 07-01-1989 12:24:13 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 4 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6231 *

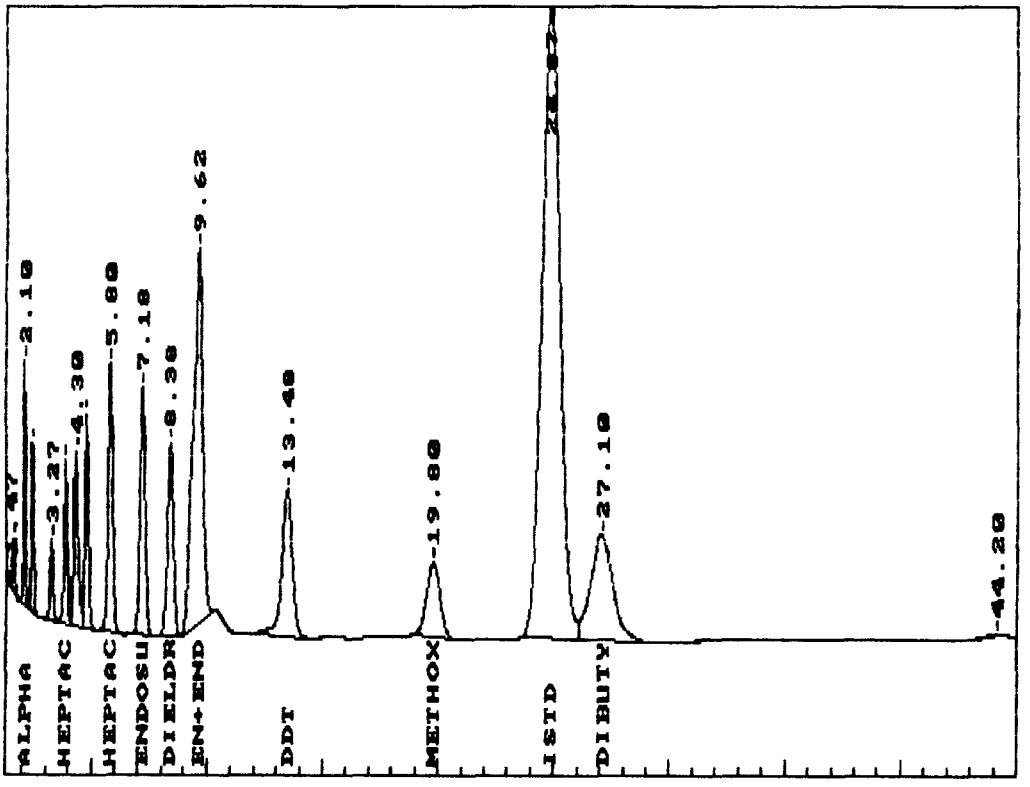
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	2.10	ALPHA BHC	0.0015	2.6996%	154794	28377	5.5	1	3	15	0	9.7128E-09
4	2.45	LINDANE	0.0012	2.2136%	119303	19687	6.1	1	4	15	0	1.0334E-08
6	3.88	HEPTACHLOR	0.0011	1.8956%	186582	18938	9.9	2	6	15	0	5.6583E-09
8	4.78	ALDRIN	0.0024	4.2654%	284797	24916	11.4	2	8	15	0	8.3412E-09
9	5.80	HEPTACHLOR EPOXIDE	0.0025	4.4339%	423190	31197	13.6	1	9	15	0	5.8352E-09
10	7.18	ENDOSULFAN I	0.0033	6.0063%	464273	28746	16.2	1	10	15	0	7.2050E-09
11	8.38	DIELDRIN	0.0036	6.4836%	418455	22422	18.7	1	11	15	0	8.6292E-09
12	9.62	EN+ENDII	0.0168	30.2430%	1256982	43326	29.0	1	12	15	0	1.3400E-08
13	13.48	DDT	0.0073	13.1126%	527114	16851	31.3	1	13	15	0	1.3854E-08
14	19.80	METHOXYCHLOR	0.0078	14.0299%	352294	8681	40.6	1	14	15	0	2.2179E-08
15	24.87	ISTD	1.0000	0.0000%	4006937	73322	54.6	2	15	15	0	2.4957E-07
16	27.10	DIBUTYLCHLOR	0.0081	14.6164%	825106	12117	68.1	2	16	15	0	9.8658E-09

TOTAL AMOUNT = 0.0557

Data File = a:ab4.PTS Printed on 07-03-1989 at 08:12:52
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57900 uv High Value: 131608 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:C5

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 08:14:48 Version 4.1 **********

* Sample Name: PESA^3 Data File: a:ab5 *
* Date: 07-01-1989 12:40:15 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 5 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

SF6231

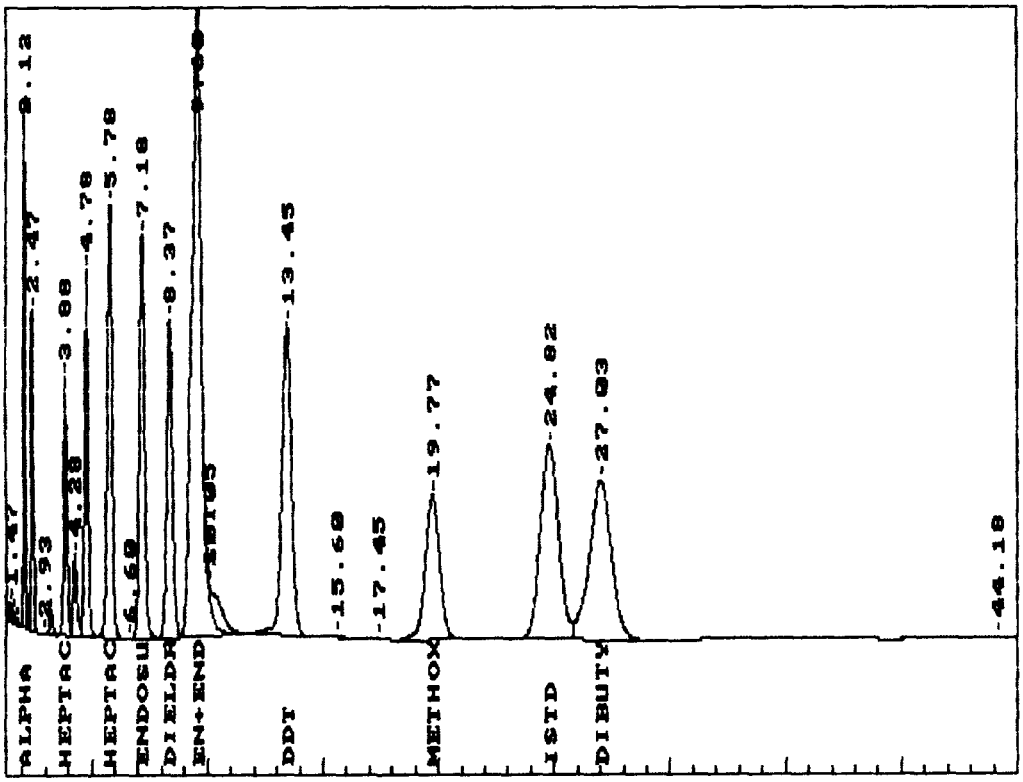
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.12	ALPHA BHC	0.0057	2.5169%	952682	190525	5.0	2	4	21	0	5.9366E-09
5	2.47	LINDANE	0.0046	2.0386%	686809	117712	5.8	2	5	21	0	6.6698E-09
8	3.88	HEPTACHLOR	0.0049	2.1805%	922787	94956	9.7	2	8	21	0	5.3096E-09
10	4.78	ALDRIN	0.0093	4.1495%	1450160	134668	10.8	2	10	21	0	6.4296E-09
11	5.78	HEPTACHLOR EPOXIDE	0.0126	5.5874%	2218960	159186	13.9	2	11	21	0	5.6581E-09
13	7.18	ENDOSULFAN I	0.0144	6.3990%	2356790	148368	15.9	2	13	21	0	6.1010E-09
14	8.37	DIELDRIN	0.0139	6.1861%	2093095	116778	17.9	2	14	21	0	6.6410E-09
15	9.60	EN+ENDII	0.0585	26.0218%	6997660	231976	30.2	3	15	21	0	8.3559E-09
17	13.45	DDT	0.0277	12.3073%	3259999	114208	28.5	1	17	21	0	8.4831E-09
20	19.77	METHOXYCHLOR	0.0369	16.4373%	2312071	53767	43.0	1	20	21	0	1.5975E-08
21	24.82	ISTD	1.0000	0.0000%	3917849	71678	54.7	2	21	21	0	2.5524E-07
22	27.03	DIBUTYLCHLOR	0.0363	16.1757%	3900720	58957	66.2	2	22	21	0	9.3181E-09

TOTAL AMOUNT = 0.2247

Data File = a:ab5.PTS Printed on 07-03-1989 at 08:15:10
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57467 uv High Value: 291504 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:C5

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 08:16:58 Version 4.1 **********

* Sample Name: PESA^5 Data File: a:ab6 *
* Date: 07-01-1989 13:26:31 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 6 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6231 *

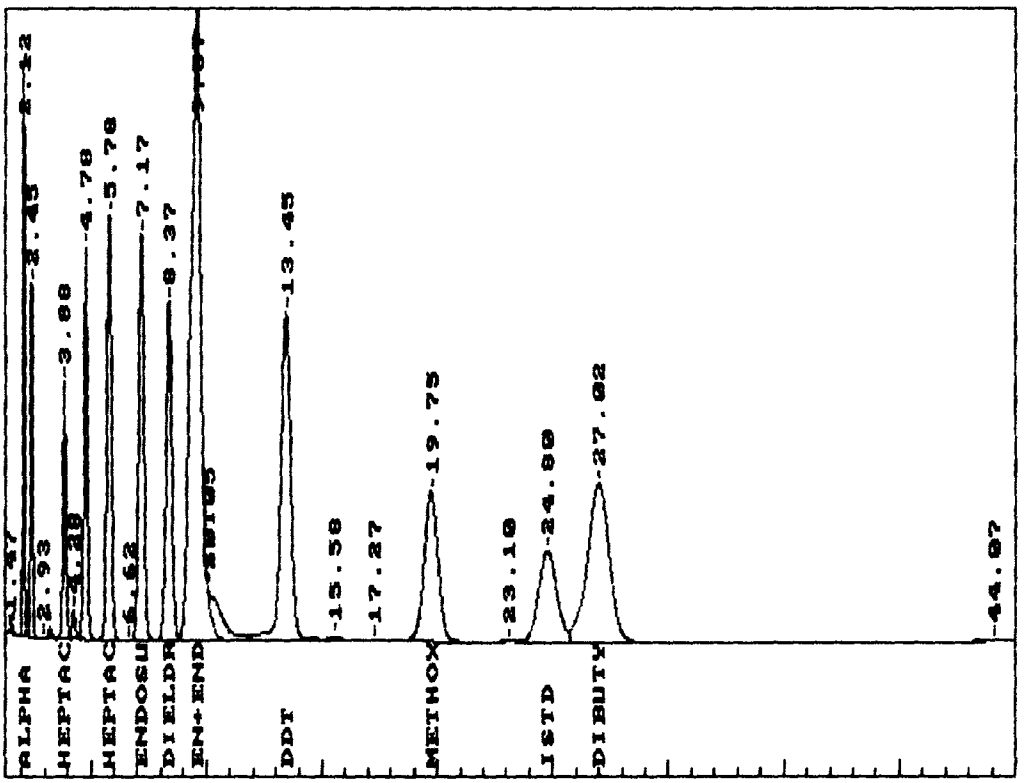
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
3	2.12	ALPHA BHC	0.0127	2.7022%	2208788	427133	5.2	2	3	21	0	5.7683E-09
4	2.45	LINDANE	0.0102	2.1604%	1562664	267268	5.8	2	4	21	0	6.5185E-09
7	3.88	HEPTACHLOR	0.0100	2.1303%	1821939	194395	9.4	2	7	21	0	5.5131E-09
9	4.78	ALDRIN	0.0203	4.3055%	3142754	296024	10.6	2	9	21	0	6.4594E-09
10	5.78	HEPTACHLOR EPOXIDE	0.0250	5.2970%	4228972	320581	13.2	2	10	21	0	5.9058E-09
12	7.17	ENDOSULFAN I	0.0303	6.4212%	4853834	306039	15.9	2	12	21	0	6.2376E-09
13	8.37	DIELDRIN	0.0305	6.4663%	4577336	256053	17.9	2	13	21	0	6.6608E-09
14	9.57	EN+ENDII	0.1207	25.5958%	14869604	477336	31.2	3	14	21	0	8.1162E-09
16	13.45	DDT	0.0610	12.9463%	7390168	248202	29.8	3	16	21	0	8.2599E-09
19	19.75	METHOXYCHLOR	0.0753	15.9598%	4665814	112344	41.5	1	19	21	0	1.6128E-08
21	24.80	ISTD	1.0000	0.0000%	3729946	68322	54.6	2	21	21	0	2.6810E-07
22	27.02	DIBUTYLCHLOR	0.0755	16.0152%	7803491	119506	65.3	2	22	21	0	9.6767E-09

TOTAL AMOUNT = 0.4715

Data File = a:ab6.PTS Printed on 07-03-1989 at 08:17:21
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57578 uv High Value: 536403 uv Scale factor: 1.0



Confirmation Column

NEW TIMED EVENTS FROM A:B15

***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 13:38:03 Version 4.1 **********

* Sample Name: PESA Data File: a:ab15 *
* Date: 07-03-1989 06:57:17 Method: A:PESA-2 07-03-1989 08:01:22 # 135 *
* Interface: 0 Cycle#: 15 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 5F6231 *

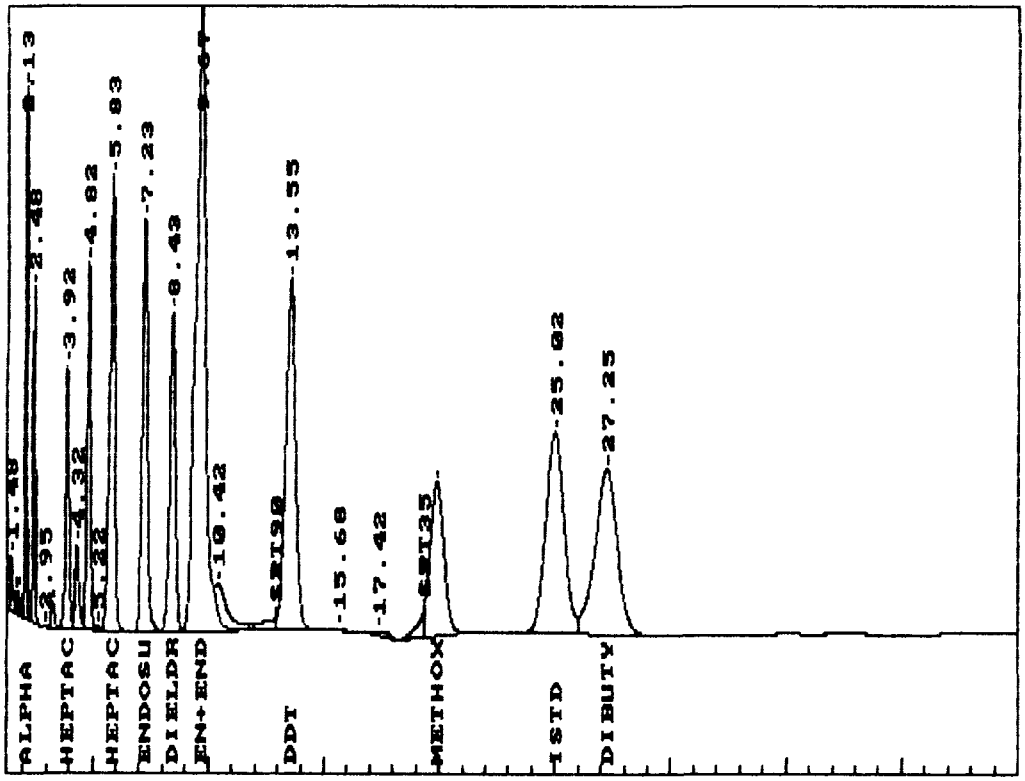
****

Starting Delay: 1.20 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
4	2.13	ALPHA BHC	0.0057	2.5266%	1050321	205813	5.1	2	4	23	0	5.4587E-09
5	2.48	LINDANE	0.0047	2.0520%	759422	129708	5.9	2	5	23	0	6.1315E-09
8	3.92	HEPTACHLOR	0.0050	2.1963%	1019191	101536	10.0	2	8	23	0	4.8900E-09
10	4.82	ALDRIN	0.0090	3.9794%	1520211	142015	10.7	3	10	23	0	5.9401E-09
12	5.83	HEPTACHLOR EPOXIDE	0.0140	6.1599%	2684933	176102	15.2	2	12	23	0	5.2062E-09
13	7.23	ENDOSULFAN I	0.0144	6.3550%	2565959	159438	16.1	1	13	23	0	5.6202E-09
14	8.43	DIELDRIN	0.0135	5.9429%	2198233	123163	17.8	2	14	23	0	6.1349E-09
15	9.67	EN+ENDII	0.0571	25.1679%	7390730	242572	30.5	3	15	23	0	7.7276E-09
18	13.55	DDT	0.0305	13.4216%	3948523	135256	29.2	2	18	23	0	7.7135E-09
22	19.93	METHOXYCHLOR	0.0366	16.1376%	2486404	58935	42.2	2	22	23	0	1.4728E-08
23	25.02	ISTD	1.0000	0.0000%	4252409	77321	55.0	2	23	23	0	2.3516E-07
24	27.25	DIBUTYLCHLOR	0.0364	16.0609%	4245591	63526	66.8	2	24	23	0	8.5845E-09

TOTAL AMOUNT = 0.2269

Data File = a:ab15.PTS Printed on 07-03-1989 at 13:39:04
Start time: 1.20 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57789 uv High Value: 303776 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 08:26:48 Version 4.1 **********

* Sample Name: PESTB 3 Data File: a:ab9 *
* Date: 07-01-1989 15:45:28 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *
* Interface: 0 Cycle#: 9 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF6203 *

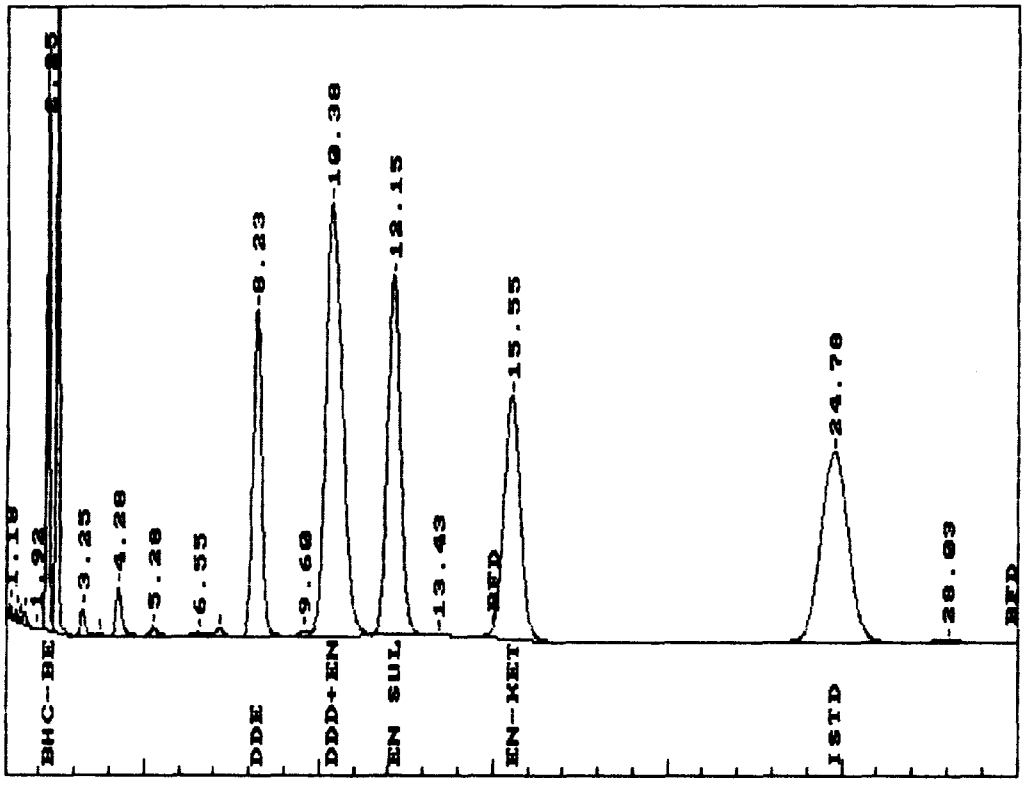
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.25	BHC-BETA	0.0124	7.4140%	1224643	211096	5.8	2	6	20	0	1.0134E-08
7	2.52	BHC-DELTA	0.0102	6.0750%	1353061	232264	5.8	2	7	20	0	7.5157E-09
14	8.23	DDE	0.0149	8.8797%	2118662	120826	17.5	1	14	20	0	7.0157E-09
16	10.38	DDD+EN-ALD	0.0497	29.6769%	5267397	160377	32.8	2	16	20	0	9.4310E-09
17	12.15	EN SULFATE	0.0400	23.8952%	3444258	133092	25.9	2	17	20	0	1.1613E-08
19	15.55	EN-KETONE	0.0403	24.0591%	2911736	89799	32.4	1	19	20	0	1.3831E-08
20	24.78	ISTD	1.0000	0.0000%	3807555	70172	54.3	1	20	20	0	2.6264E-07

TOTAL AMOUNT = 0.1674

Data File = a:ab9.PTS Printed on 07-03-1989 at 08:27:34
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 58989 uv High Value: 294912 uv Scale factor: 1.0



NEW TIMED EVENTS FROM A:B16

****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 13:57:45 Version 4.1 **********

* Sample Name: PESB 3 Data File: a:ab16 *
* Date: 07-03-1989 12:07:04 Method: A:PESB-2 07-01-1989 08:40:54 # 101 *
* Interface: 0 Cycle#: 16 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 5F6231 *

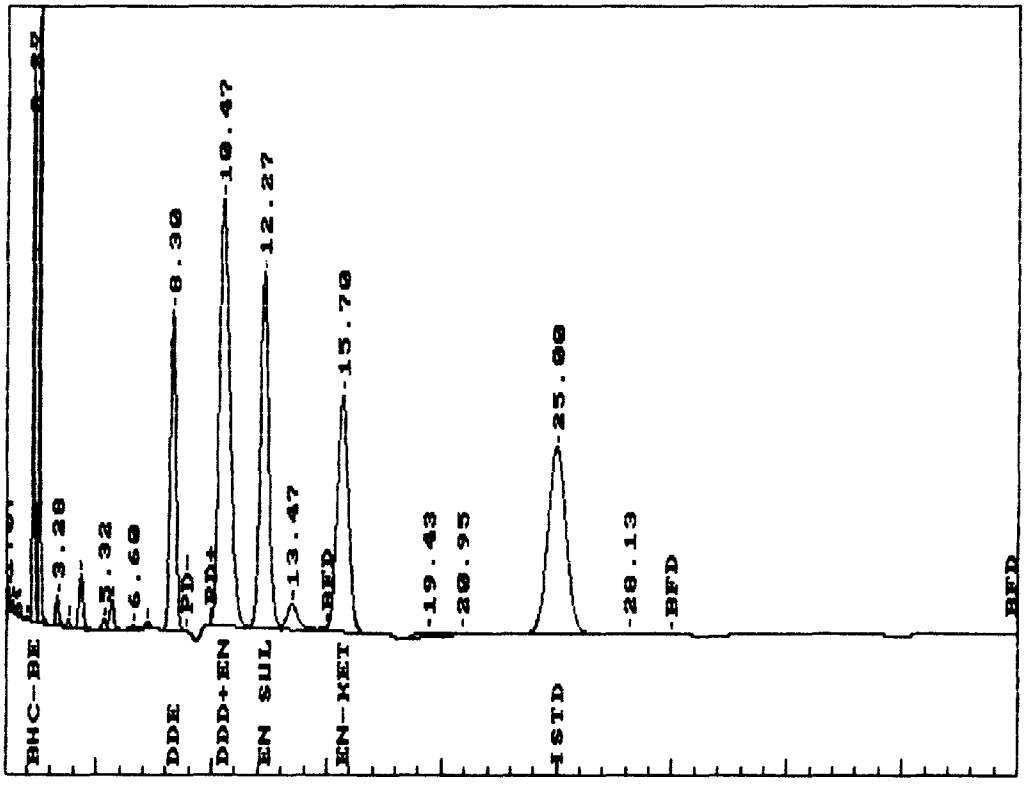
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.27	BHC-BETA	0.0125	7.4697%	1329592	228320	5.8	2	7	23	0	9.3874E-09
8	2.55	BHC-DELTA	0.0103	6.1520%	1476511	250047	5.9	2	8	23	0	6.9620E-09
16	8.30	DDE	0.0145	8.6699%	2229090	129313	17.2	1	16	23	0	6.4989E-09
17	10.47	DDD+EN-ALD	0.0488	29.1775%	5580569	172010	32.4	2	17	23	0	8.7363E-09
18	12.27	EN SULFATE	0.0402	24.0348%	3733177	143463	26.0	2	18	23	0	1.0758E-08
20	15.70	EN-KETONE	0.0409	24.4961%	3194641	96296	33.2	2	20	23	0	1.2812E-08
23	25.00	ISTD	1.0000	0.0000%	4110346	75266	54.6	1	23	23	0	2.4329E-07

TOTAL AMOUNT = 0.1671

Data File = a:ab16.PTS Printed on 07-03-1989 at 13:58:02
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 57655 uv High Value: 314863 uv Scale factor: 1.0



Continuing

NEW TIMED EVENTS FROM A:A18

****** INTERNAL STANDARD TABLE ******

********** 07-03-1989 09:40:06 Version 4.1 **********

* Sample Name: PESA 3 Data File: a:aa18 *

* Date: 07-01-1989 07:11:11 Method: A:PESA 07-01-1989 10:11:18 # 172 *

* Interface: 0 Cycle#: 18 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF 6231

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

****

Starting Delay: 1.00 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 1.00

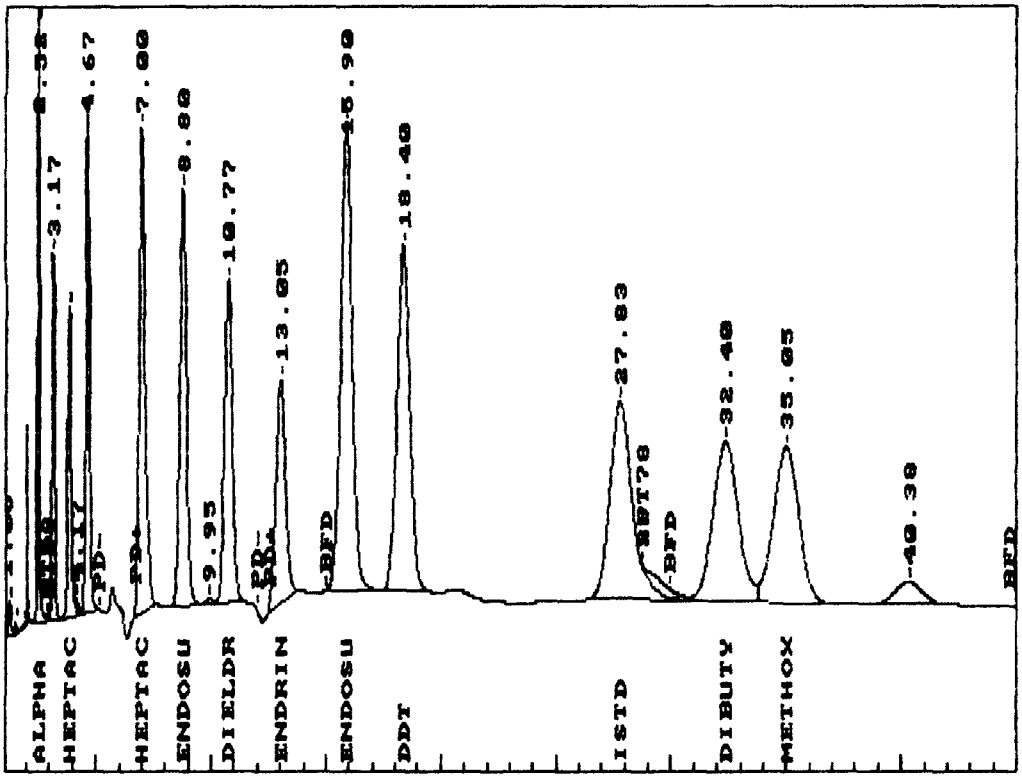
Internal Standard Amount: 1

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.52	ALPHA BHC	0.0048	2.6886%	471074	80454	5.9	3	6	19	0	1.0124E-08
8	3.17	LINDANE	0.0038	2.1617%	349679	47887	7.3	2	8	19	0	1.0966E-08
9	3.87	HEPTACHLOR	0.0039	2.1762%	399257	40495	9.9	3	9	19	0	9.6685E-09
11	4.67	ALDRIN	0.0076	4.3060%	696027	65330	10.7	2	11	19	0	1.0974E-08
12	7.00	HEPTACHLOR EPOXIDE	0.0102	5.7305%	1113874	63487	17.5	1	12	19	0	9.1259E-09
13	8.80	ENDOSULFAN I	0.0118	6.6273%	1050792	54300	19.4	2	13	19	0	1.1188E-08
15	10.77	DIELDRIN	0.0119	6.6839%	984581	42088	23.4	2	15	19	0	1.2042E-08
16	13.05	ENDRIN	0.0217	12.2611%	823517	29100	28.3	1	16	19	0	2.6410E-08
17	15.90	ENDOSU II	0.0237	13.3661%	2114890	61196	34.6	2	17	19	0	1.1211E-08
18	18.40	DDT	0.0232	13.0633%	1744261	45111	38.7	2	18	19	0	1.3285E-08
19	27.83	ISTD	1.0000	0.0000%	1758029	25797	68.1	3	19	19	0	5.6882E-07
21	32.40	DIBUTYLCHLOR	0.0244	13.7604%	1586436	20810	76.2	2	21	19	0	1.5386E-08
22	35.05	METHOXYCHLOR	0.0305	17.1748%	1545209	20204	76.5	2	22	19	0	1.9716E-08

TOTAL AMOUNT = 0.1774

Data File = a:aa18.PTS Printed on 07-03-1989 at 09:40:47
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38507 uv High Value: 121071 uv Scale factor: 1.0



Standard	Peak area Initial Cal. Data File	Peak area Cont. Cal. Data File	% RPD
Mix B	A:AA7	A:AA12	
Beta-BHC	641121	649997	1.37
Delta-BHC	681328	668401	1.91
DDE	951370	959336	.83
DDD	1383541	1379899	.26
Endr. Aldehyde	1269302	1290598	1.66
Endo. Sulfate	1961539	2016148	2.77
Endr. Ketone	1542597	1578340	2.29

Std	Data File A:AA19	% RPD
Beta BHC	646357	0.81
Delta-BHC	681693	0.05
DDE	956923	0.58
DDD	1396319	0.91
Endr. Aldehyde	1313313	3.40
Endo. Sulfate	2030162	3.43
Endr. Ketone	1579778	2.38

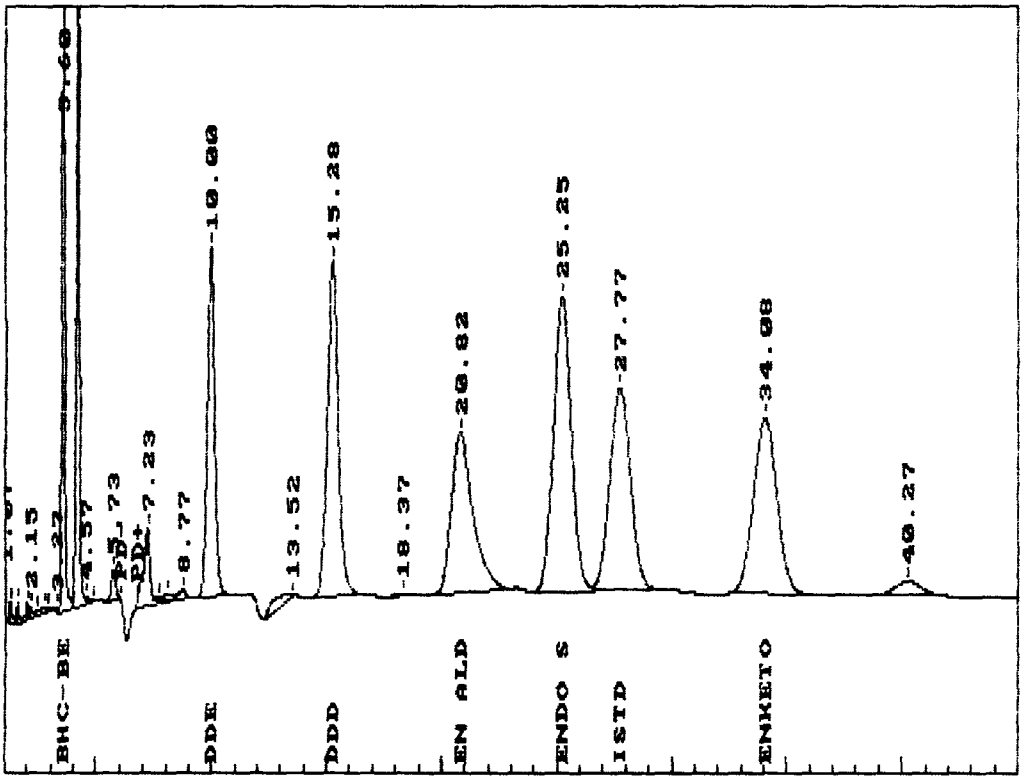
NEW TIMED EVENTS FROM A:B3

```
*****   INTERNAL STANDARD TABLE   *****
******************** 07-01-1989 10:44:35 Version 4.1 **********************
* Sample Name: PESB 3                          Data File: a:aa7          *
* Date: 07-01-1989 06:51:06 Method: A:PESB 07-01-1989 09:43:27  #  124   *
* Interface: 0   Cycle#:  7    Operator NID Channel#: 0    Vial#: N.A.   *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100           *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE  *
*              Solvent Description: NITROGEN                            *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                 3F6231 *
*             Detector 0: ECD 320C            Detector 1: ECD 320C       *
* Misc. Information: INSTRUMENT # 1                     INSTRUMENT # 1   *
*************************************************************************
Starting Delay:    0.00                      Ending retention time:   45.00
Area reject:        0                        One sample per   1.000 sec.
Amount injected:        5.00                 Dilution factor:        1.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
11	3.60	BHC-BETA	0.0125	7.4627%	641121	75011	8.5	2	11	26	0	1.9497E-08
12	4.20	BHC-DELTA	0.0100	5.9702%	681328	74666	9.1	3	12	26	0	1.4677E-08
20	10.00	DDE	0.0150	8.9552%	951370	43129	22.1	1	20	26	0	1.5767E-08
22	15.28	DDD	0.0250	14.9254%	1383541	41536	33.3	1	22	26	0	1.8070E-08
24	20.82	EN ALDEHYDE	0.0250	14.9254%	1269302	19890	63.8	1	24	26	0	1.9696E-08
25	25.25	ENDO SULFATE	0.0400	23.8806%	1961539	36477	53.8	2	25	26	0	2.0392E-08
26	27.77	ISTD	1.0000	0.0000%	1546018	24901	62.1	2	26	26	0	6.4682E-07
27	34.08	ENKETONE	0.0400	23.8806%	1542597	21748	70.9	1	27	26	0	2.5930E-08

TOTAL AMOUNT = 0.1675

Data File = a:aa7.PTS Printed on 07-01-1989 at 10:45:06
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 36452 uv High Value: 115226 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 08:35:16 Version 4.1 **********

* Sample Name: PESTB 3 Data File: a:aa12 *
* Date: 07-01-1989 07:00:42 Method: A:PESB 07-01-1989 09:43:27 # 124 *
* Interface: 0 Cycle#: 12 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

SF6231

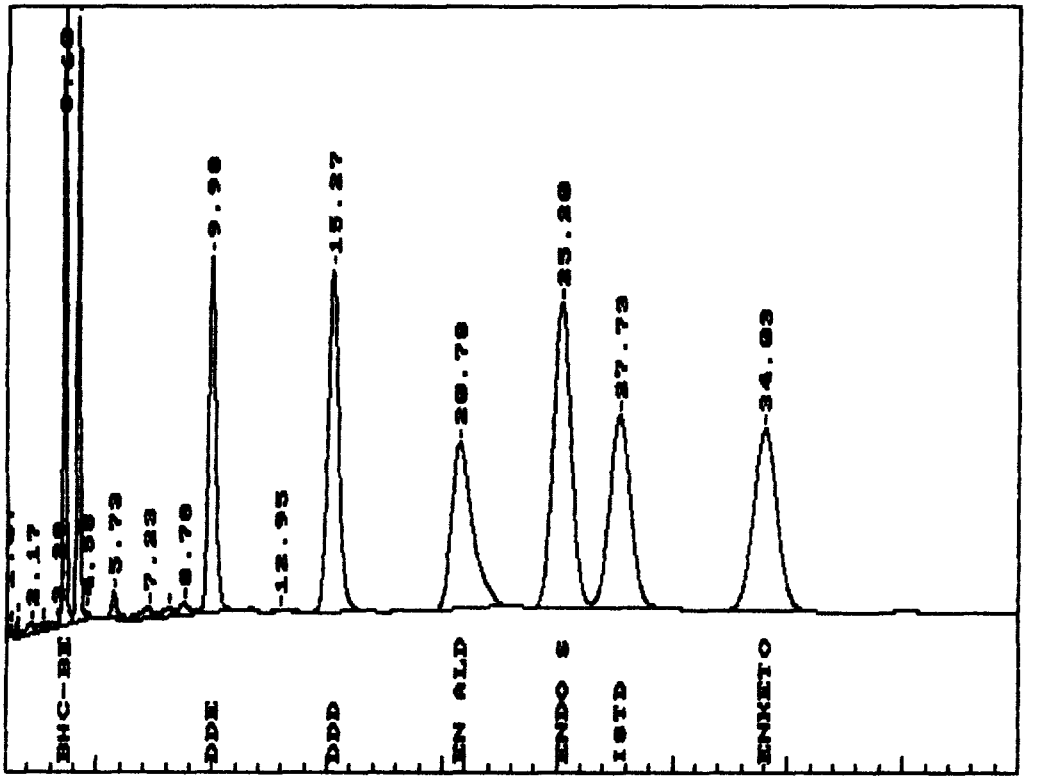
****

Starting Delay: 0.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
8	3.60	BHC-BETA	0.0133	7.4541%	649997	76084	8.5	2	8	20	0	2.0496E-08
9	4.18	BHC-DELTA	0.0103	5.7702%	668401	74025	9.0	3	9	20	0	1.5430E-08
15	9.98	DDE	0.0159	8.8966%	959336	43465	22.1	2	15	20	0	1.6575E-08
17	15.27	DDD	0.0262	14.6659%	1379899	41739	33.1	1	17	20	0	1.8996E-08
18	20.78	EN ALDEHYDE	0.0267	14.9513%	1290598	20260	63.7	1	18	20	0	2.0705E-08
19	25.20	ENDO SULFATE	0.0432	24.1895%	2016748	37335	54.0	2	19	20	0	2.1437E-08
20	27.73	ISTD	1.0000	0.0000%	1470640	23476	62.6	2	20	20	0	6.7998E-07
21	34.03	ENKETONE	0.0430	24.0724%	1578340	22184	71.1	1	21	20	0	2.7259E-08

TOTAL AMOUNT = 0.1787

Data File = a:aa12.PTS Printed on 07-03-1989 at 08:37:03
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 38575 uv High Value: 116361 uv Scale factor: 1.0



***** INTERNAL STANDARD TABLE *****

********** 07-03-1989 09:33:06 Version 4.1 **********

* Sample Name: PESB 3 Data File: a:aa19 *
* Date: 07-01-1989 07:12:55 Method: A:PESB 07-01-1989 09:43:27 # 124 *
* Interface: 0 Cycle#: 19 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 INSTRUMENT # 1 *

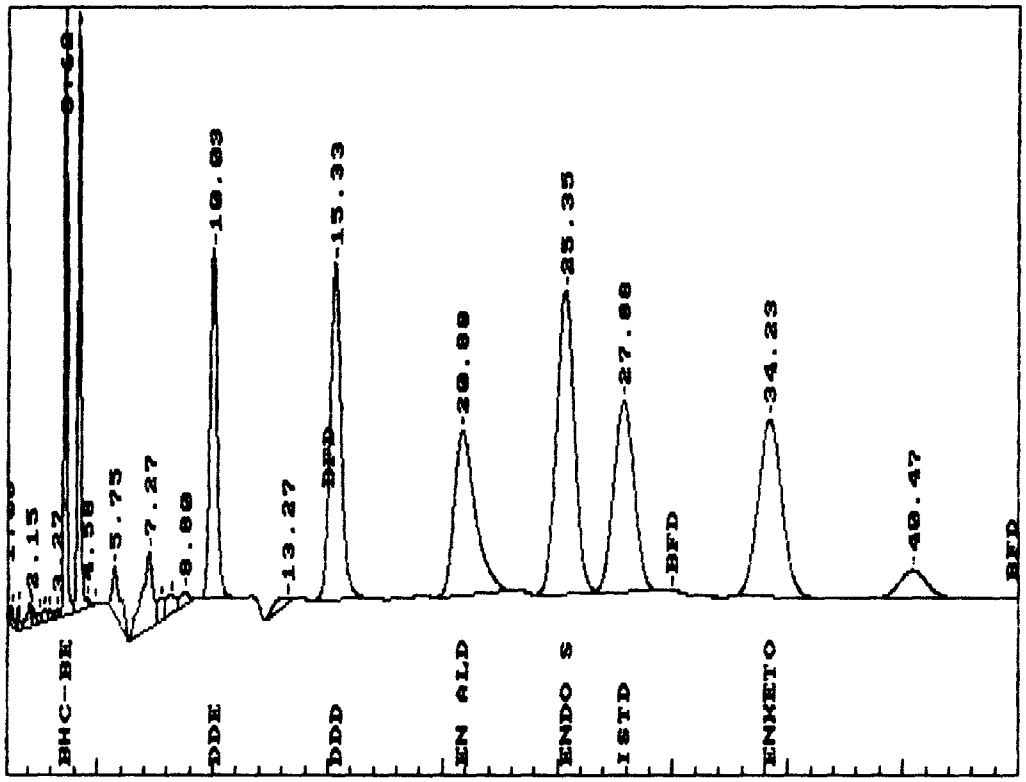
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
10	3.62	BHC-BETA	0.0131	7.3629%	646357	75631	8.5	2	10	24	0	2.0330E-08
11	4.22	BHC-DELTA	0.0104	5.8457%	681693	74142	9.2	3	11	24	0	1.5305E-08
19	10.03	DDE	0.0157	8.8151%	956923	43426	22.0	1	19	24	0	1.6441E-08
21	15.33	DDD	0.0263	14.7414%	1396319	41859	33.4	1	21	24	0	1.8842E-08
22	20.88	EN ALDEHYDE	0.0270	15.1130%	1313313	20572	63.8	1	22	24	0	2.0538E-08
23	25.35	ENDO SULFATE	0.0432	24.1881%	2030162	37692	53.9	2	23	24	0	2.1264E-08
24	27.88	ISTD	1.0000	0.0000%	1482648	23891	62.1	2	24	24	0	6.7447E-07
25	34.23	ENKETONE	0.0427	23.9338%	1579778	22173	71.2	1	25	24	0	2.7039E-08

TOTAL AMOUNT = 0.1785

Data File = a:aa19.PTS Printed on 07-03-1989 at 09:34:23
Start time: 1.00 min. Stop time: 45.00 min. Offset: 0 mv.
Low Value: 37572 uv High Value: 116531 uv Scale factor: 1.0



Confirmation column

***** INTERNAL STANDARD TABLE *****

********** 07-05-1989 06:51:07 Version 4.1 **********

* Sample Name: A1242 2 Data File: A:AB19 *
* Date: 07-03-1989 12:11:05 Method: A:AR042-2 07-03-1989 13:20:09 # 53 *
* Interface: 0 Cycle#: 19 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 SF623% *

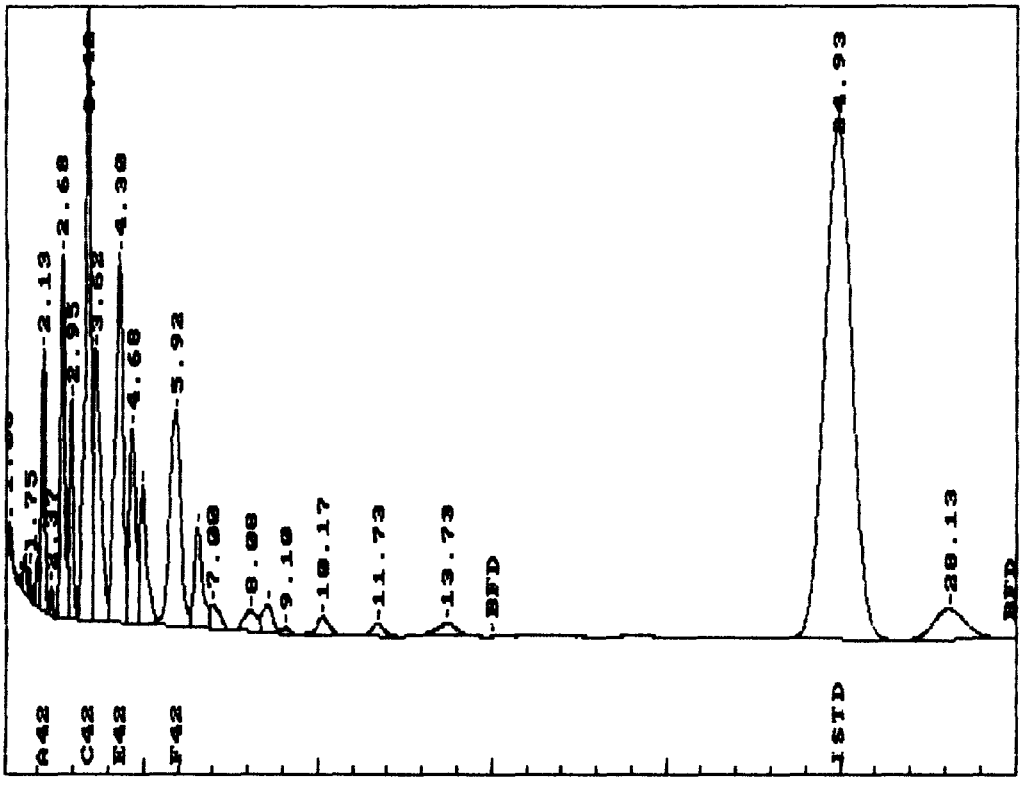
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.13	A42	0.0329	19.6747%	274097	39502	6.9	2	7	25	0	1.1985E-07
9	2.68	B42	0.0315	18.8779%	445824	55172	8.1	2	9	25	0	7.0700E-08
11	3.42	C42	0.0317	19.0092%	1008226	93392	10.8	2	11	25	0	3.1480E-08
13	4.30	E42	0.0368	22.0555%	860028	55862	15.4	2	13	25	0	4.2818E-08
16	5.92	F42	0.0340	20.3826%	706393	32617	21.7	2	16	25	0	4.8177E-08
25	24.93	ISTD	1.0000	0.0000%	4240895	77664	54.6	1	25	25	0	2.3580E-07

TOTAL AMOUNT = 0.1670

Data File = A:AB19.PTS Printed on 07-05-1989 at 06:52:25
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 60286 uv High Value: 156755 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-05-1989 06:56:49 Version 4.1 **********

* Sample Name: A1242 3 Data File: A:AB20 *
* Date: 07-03-1989 12:12:26 Method: A:AR042-2 07-03-1989 13:20:09 # 53 *
* Interface: 0 Cycle#: 20 Operator NID Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE *
* Solvent Description: NITROGEN *
* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C SF6231 *
* Detector 0: ECD 320C Detector 1: ECD 320C *
* Misc. Information: INSTRUMENT # 1 *

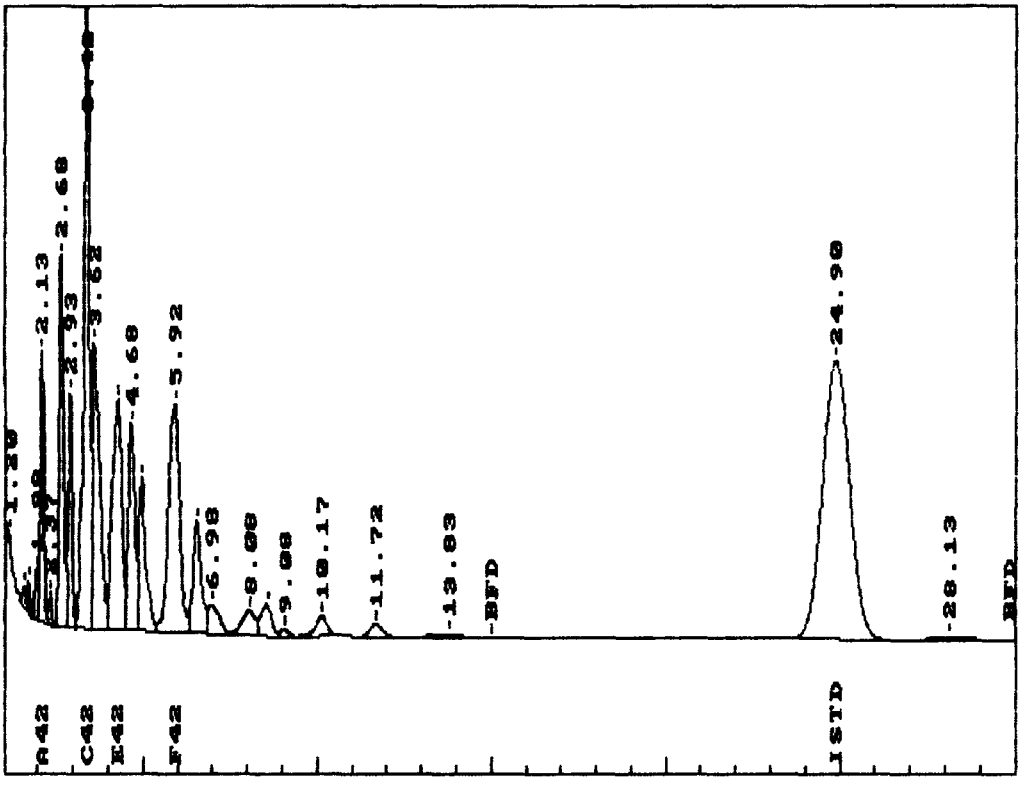
****

Starting Delay: 1.00 Ending retention time: 45.00
Area reject: 0 One sample per 1.000 sec.
Amount injected: 5.00 Dilution factor: 1.00
Internal Standard Amount: 1
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
5	2.13	A42	0.0986	20.6832%	489696	71201	6.9	2	5	23	0	2.0126E-07
7	2.68	B42	0.0990	20.7788%	809983	97965	8.3	2	7	23	0	1.2224E-07
9	3.42	C42	0.0987	20.7101%	1768648	164697	10.7	2	9	23	0	5.5797E-08
11	4.28	E42	0.0814	17.0914%	1109037	60631	18.3	2	11	23	0	7.3435E-08
14	5.92	F42	0.0988	20.7365%	1321864	60119	22.0	2	14	23	0	7.4751E-08
23	24.90	ISTD	1.0000	0.0000%	3987241	73258	54.4	1	23	23	0	2.5080E-07

TOTAL AMOUNT = 0.4765

Data File = A:AB20.PTS Printed on 07-05-1989 at 06:57:17
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 60229 uv High Value: 227979 uv Scale factor: 1.0



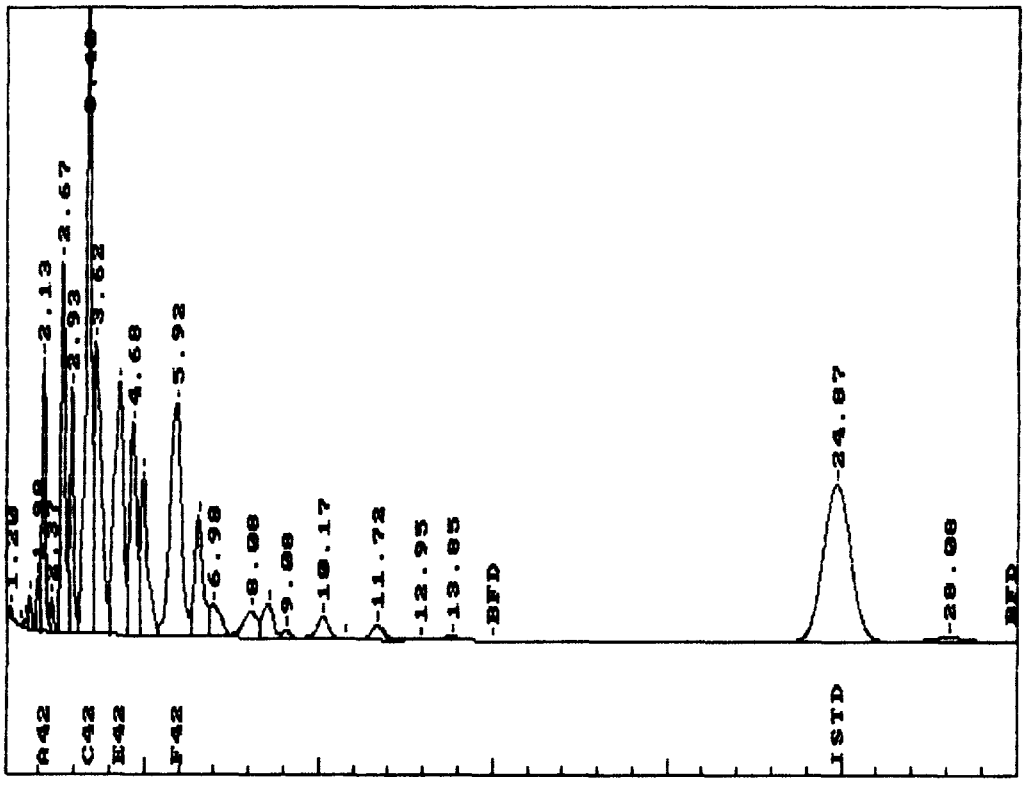
```
*****   INTERNAL STANDARD TABLE   *****
******************** 07-05-1989 06:49:00 Version 4.1 **********************
* Sample Name: A1242 4                          Data File: A:AB21          *
* Date: 07-03-1989 12:13:46 Method: A:AR042-2 07-03-1989 13:20:09  #  53  *
* Interface: 0   Cycle#:  21   Operator NID Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE  *
*              Solvent Description: NITROGEN                             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                        *
*            Detector 0: ECD 320C            Detector 1: ECD 320C        *
* Misc. Information: INSTRUMENT # 1                                      *
*************************************************************************
Starting Delay:    1.00                      Ending retention time:    45.00
Area reject:        0                        One sample per   1.000 sec.
Amount injected:        5.00                 Dilution factor:        1.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

SF6231

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
6	2.13	A42	0.2104	16.4275%	898689	129027	7.0	2	6	26	0	2.3416E-07
8	2.67	B42	0.2103	16.4163%	1477347	175783	8.4	2	8	26	0	1.4235E-07
10	3.40	C42	0.2104	16.4245%	3187766	296522	10.8	2	10	26	0	6.6003E-08
11	3.62	D42	0.2075	16.1986%	2150192	138056	15.6	2	11	26	0	9.6507E-08
12	4.28	E42	0.2318	18.0975%	2155262	119441	18.0	2	12	26	0	1.0757E-07
15	5.92	F42	0.2105	16.4355%	2495087	110197	22.6	2	15	26	0	8.4383E-08
26	24.87	ISTD	1.0000	0.0000%	4050148	74191	54.6	1	26	26	0	2.4690E-07

TOTAL AMOUNT = 1.2810

Data File = A:AB21.PTS Printed on 07-05-1989 at 06:49:32
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 60764 uv High Value: 360639 uv Scale factor: 1.0



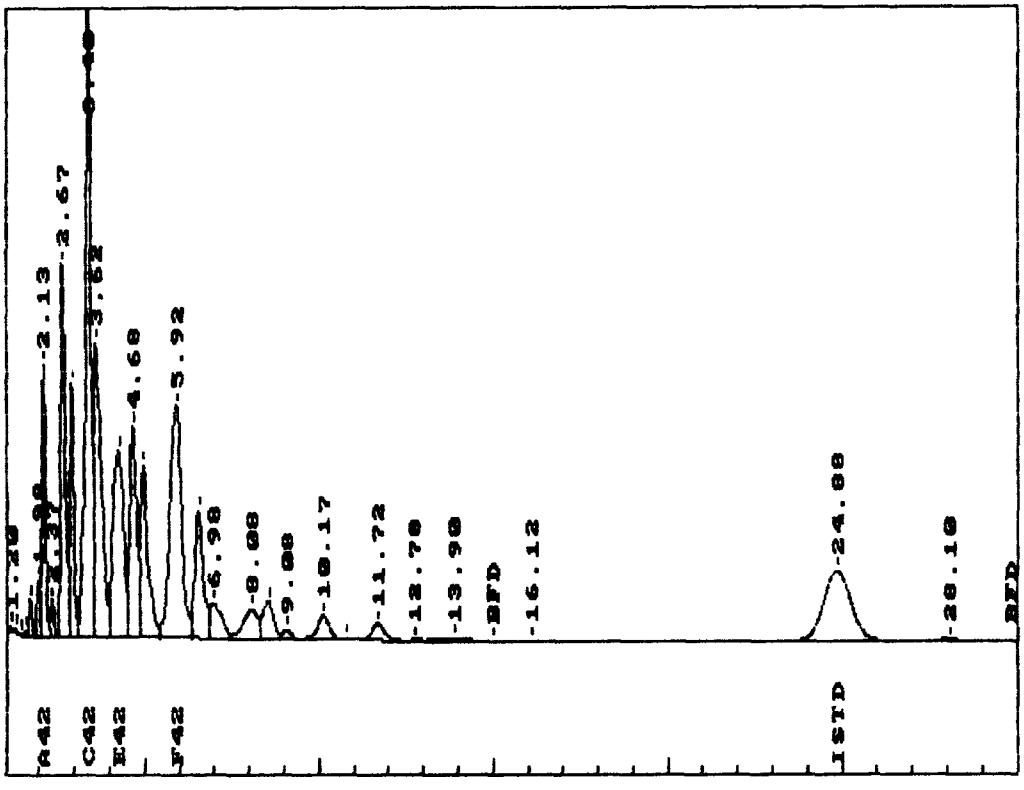
```
*****   INTERNAL STANDARD TABLE   *****
******************** 07-05-1989 06:59:02 Version 4.1 **********************
* Sample Name: A1242 5                          Data File: A:AB22          *
* Date: 07-03-1989 12:22:54 Method: A:AR042-2 07-03-1989 13:20:09  #  53  *
* Interface: 0   Cycle#:  22   Operator NID Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  10   Threshold: 1  Area Threshold: 100            *
*************************************************************************
* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE SINGLE  *
*              Solvent Description: NITROGEN                             *
* Conditions: ISOTHERMAL AT 200 CELSIUS  INJ 250C                        *
*            Detector 0: ECD 320C            Detector 1: ECD 320C        *
* Misc. Information: INSTRUMENT # 1                                      *
*************************************************************************
Starting Delay:    1.00                    Ending retention time:    45.00
Area reject:        0                      One sample per   1.000 sec.
Amount injected:        5.00               Dilution factor:        1.00
Internal Standard Amount:  1
Sample Weight:          1.000000
```

5F6731

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.13	A42	0.5288	16.7911%	2034130	290429	7.0	2	7	28	0	2.5996E-07
9	2.67	B42	0.5317	16.8818%	3357137	396661	8.5	2	9	28	0	1.5837E-07
11	3.40	C42	0.5317	16.8820%	7166134	670251	10.7	2	11	28	0	7.4192E-08
12	3.62	D42	0.5175	16.4310%	4958244	313268	15.8	2	12	28	0	1.0436E-07
13	4.27	E42	0.5151	16.3562%	4080194	199735	20.4	2	13	28	0	1.2625E-07
16	5.92	F42	0.5246	16.6579%	5716406	247647	23.1	2	16	28	0	9.1772E-08
28	24.88	ISTD	1.0000	0.0000%	4037566	74040	54.5	1	28	28	0	2.4767E-07

TOTAL AMOUNT = 3.1493

Data File = A:AB22.PTS Printed on 07-05-1989 at 06:59:43
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 60673 uv High Value: 735922 uv Scale factor: 1.0



****** INTERNAL STANDARD TABLE ******

********** 07-05-1989 07:01:40 Version 4.1 **********

* Sample Name: A1242 6 Data File: A:AB23 *

* Date: 07-03-1989 13:09:23 Method: A:AR042-2 07-03-1989 13:20:09 # 53 *

* Interface: 0 Cycle#: 23 Operator NID Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 10 Threshold: 1 Area Threshold: 100 *

****

* Instrument Type: HEWLETT PACKARD 5890 Column Type: MIXED PHASE/SINGLE *

* Solvent Description: NITROGEN *

* Conditions: ISOTHERMAL AT 200 CELSIUS INJ 250C *

* Detector 0: ECD 320C Detector 1: ECD 320C *

* Misc. Information: INSTRUMENT # 1 SF 6231 *

****

Starting Delay: 1.00 Ending retention time: 45.00

Area reject: 0 One sample per 1.000 sec.

Amount injected: 5.00 Dilution factor: 1.00

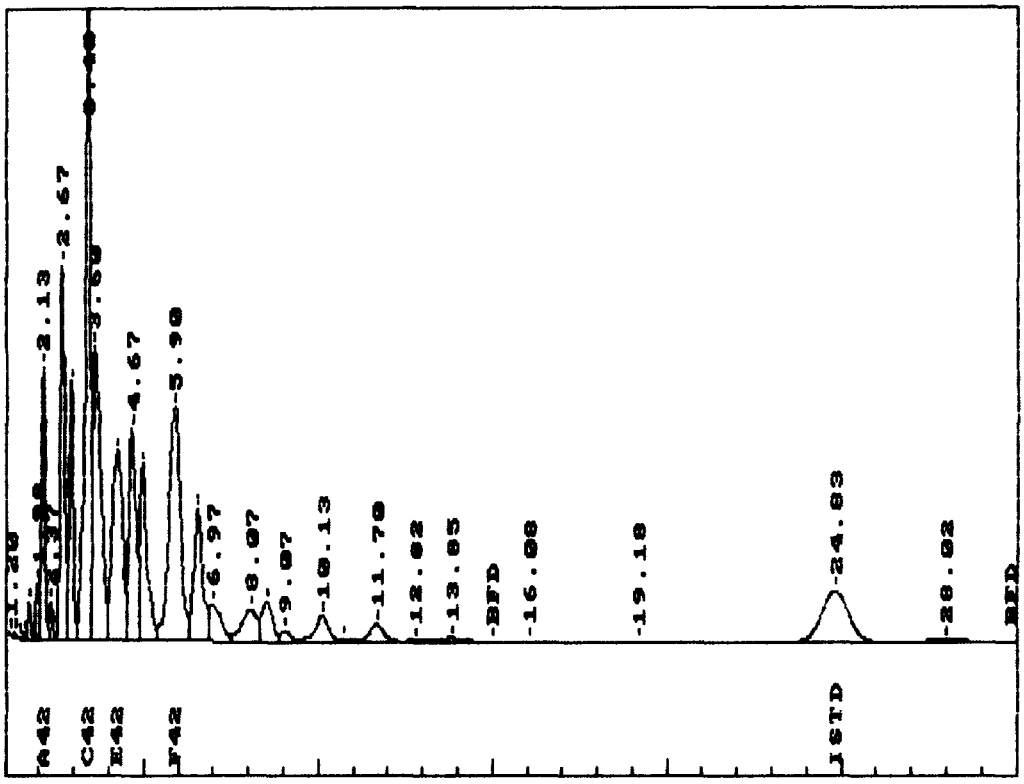
Internal Standard Amount: 1

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in UG/L	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
7	2.13	A42	0.7294	16.6203%	2743736	394307	7.0	2	7	29	0	2.6582E-07
9	2.67	B42	0.7275	16.5784%	4493425	542531	8.3	2	9	29	0	1.6191E-07
11	3.40	C42	0.7275	16.5783%	9571502	916711	10.4	2	11	29	0	7.6008E-08
12	3.60	D42	0.7371	16.7979%	6934441	425198	16.3	2	12	29	0	1.0630E-07
13	4.25	E42	0.7348	16.7443%	5563216	273009	20.4	2	13	29	0	1.3208E-07
16	5.90	F42	0.7320	16.6808%	7827628	337116	23.2	2	16	29	0	9.3516E-08
29	24.83	ISTD	1.0000	0.0000%	4026685	73963	54.4	1	29	29	0	2.4834E-07

TOTAL AMOUNT = 4.3883

Data File = A:AB23.PTS Printed on 07-05-1989 at 07:02:14
Start time: 1.00 min. Stop time: 30.00 min. Offset: 0 mv.
Low Value: 60503 uv High Value: 982217 uv Scale factor: 1.0



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JUL 20 1989

SUBJECT: **Review of Region 5 data for** T.O. Plastic

FROM: **Curtis Ross, Director** JVM for CR
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF 6231
Sample Numbers: 89F5225 11 - 512 - R17 / P12
Parameter(s): CN
Laboratory: CRL / FSAT

Results Status:

(X) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

S Griffin
JUL 20 1989

U.S. EPA CENTRAL
REGIONAL LAB

If there are any questions regarding the data, refer them to David Payne, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

AUG 01 1988

RECEIVED BY/DATE: [illegible] 7/20/89
Comments:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JUL 28 1989

SUBJECT: **Review of Region 5 data for** T.O. Plastics

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF6231
Sample Numbers: 89FS22S11-12, D12, 89FS11R17
Parameter(s): ICP
Laboratory: CRL

Results Status:

( ) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to David Payne, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

Sylvia Griffin
JUL 28 1989

U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE:
Comments:

DATA SET	SITE	DU/ACT.
SF6231	T.O. Plastics	TFA302

SAMPLES	PARAMETER(S)
89FS22S11-12, D12, 89FS11R17	ICP

SAMPLED	RECEIVED	DUE	LAB
20 June 89	21 June 89	12 July 89	CRC

SHIPPED	DATA RECEIVED	CONTRACT
NA	17 July 89	ESAT

Comments By Reviewer: Cu confirmed in undigested field blank 89FS11R17

(x) REVIEWED ( ) UNREVIEWED TEAM LEADER/DATE 26 July 89

( ) REVIEWED (✓) UNREVIEWED SECTION CHIEF/DATE 7/29/89

( ) REVIEWED ( ) UNREVIEWED QC COORDINATOR/DATE

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 7-28-89 TRANSMITTED 7-28-89 DATA MANAGEMENT COORDINATOR

ESAT CONTRACT

TID NO: 05-89-06-06
TASK NO: 3092

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on 7/10, 1989 for:

DATASET NO: SF6231 SITE NAME: T.O. PLASTICS

PARAMETER : ICAP

MATRIX : WATER SF DU/ACT NO: TFA 302 Y____ /C____

SAMPLE NUMBERS: 89FS22S11, S12, D12, 89FS11R17

NUMBER OF SAMPLES: 4

ESAT APPROVALS:

(ANALYST 7/11/89 DATE) (TEAM LEADER 7/12/89 DATE)

(QC COORDINATOR 7/14/89 DATE) (ESAT TEAM MANAGER 7/17/89 DATE)

COMMENTS: Released on approved EPA deviation – Mg results not reported for ICS + ACC High

The subject dataset was transferred to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the date indicated below.

(DELIVERED BY 7/17/89 DATE) (RECEIVED BY 7/17/89 DATE)

EPA APPROVALS:

(EPA TASK MONITOR 28 July 89 DATE)

[x] Reviewed
[ ] Unreviewed
[x] Accepted
[ ] Rejected
[ ] Returned/_____ (Date)

COMMENTS:

(SECTION CHIEF 7/27/89 DATE) [ ] Reviewed [✓] Unreviewed

(ESAT DPO 7-28-89 DATE) (DATA COORD'R REC'D 7-28-89, TRANSMTD 7-28-89)

DOC.NO.: ESAT-05-0003-FORM
REVISION NO.: 05 (04/05/89) FILE LOCATION NUMBER: 5.6.1

Sf 6231
R. Dily
7-11-89
Jun
26 July 89

SAMPLE REPORT

Sample SF6231 89FS22S11 Operator

Date analyzed 07/10/89 Factor 1.22000 File name RUN695

Element	Concentration	Units
Silver	6.0U	micrograms/Liter
Aluminum	80.0U	micrograms/Liter
Barium	48.0	micrograms/Liter
Beryllium	1.0U	micrograms/Liter
Calcium	87800.	micrograms/Liter
Cobalt	6.0U	micrograms/Liter
Chromium	8.0U	micrograms/Liter
Copper	8.5	micrograms/Liter
Magnesium	27200.	micrograms/Liter
Iron	219.	micrograms/Liter
Potassium	5000. U	micrograms/Liter
Manganese	154.	micrograms/Liter
Sodium	11400.	micrograms/Liter
Nickel	52.9	micrograms/Liter
Vanadium	5.0U	micrograms/Liter
Zinc	40.0U	micrograms/Liter

SF 6231

R. Dilg
7-11-89

given
16 July 89

SAMPLE REPORT

Sample SF6231 89FS22S12 Operator

Date analyzed 07/10/89 Factor 1.22000 File name RUN695

Element	Concentration	Units
Silver	6.0U	micrograms/Liter
Aluminum	80.0U	micrograms/Liter
Barium	77.8	micrograms/Liter
Beryllium	1.0U	micrograms/Liter
Calcium	96000.	micrograms/Liter
Cobalt	6.0U	micrograms/Liter
Chromium	8.0U	micrograms/Liter
Copper	19.8	micrograms/Liter
Magnesium	30400.	micrograms/Liter
Iron	80.0U	micrograms/Liter
Potassium	5000. U	micrograms/Liter
Manganese	85.0	micrograms/Liter
Sodium	19100.	micrograms/Liter
Nickel	15.0U	micrograms/Liter
Vanadium	5.0U	micrograms/Liter
Zinc	40.0U	micrograms/Liter

SF 6231
R. Dilg
7-11-89

JKM
26 July 89

SAMPLE REPORT

Sample SF6231 89FS22D12 Operator

Date analyzed 07/10/89 Factor 1.22000 File name RUN695

Element	Concentration	Units
Silver	6.0U	micrograms/Liter
Aluminum	80.0U	micrograms/Liter
Barium	76.3	micrograms/Liter
Beryllium	1.0U	micrograms/Liter
Calcium	95000.	micrograms/Liter
Cobalt	6.0U	micrograms/Liter
Chromium	8.0U	micrograms/Liter
Copper	20.7	micrograms/Liter
Magnesium	30000.	micrograms/Liter
Iron	80.0U	micrograms/Liter
Potassium	5000. U	micrograms/Liter
Manganese	81.6	micrograms/Liter
Sodium	18700.	micrograms/Liter
Nickel	15.0U	micrograms/Liter
Vanadium	5.0U	micrograms/Liter
Zinc	40.0U	micrograms/Liter

SF 6231
Q. Dilg
7-11-89

26 July 89

SAMPLE REPORT

Sample SF6231 89FS11R17 Operator

Date analyzed 07/10/89 Factor 1.22000 File name RUN695

Element	Concentration	Units
Silver	6.0U	micrograms/Liter
Aluminum	80.0U	micrograms/Liter
Barium	6.0U	micrograms/Liter
Beryllium	1.0U	micrograms/Liter
Calcium	500. U	micrograms/Liter
Cobalt	6.0U	micrograms/Liter
Chromium	8.0U	micrograms/Liter
Copper	124.	micrograms/Liter
Magnesium	100. U	micrograms/Liter
Iron	80.0U	micrograms/Liter
Potassium	5000. U	micrograms/Liter
Manganese	5.0U	micrograms/Liter
Sodium	1000. U	micrograms/Liter
Nickel	16.0	micrograms/Liter
Vanadium	5.0U	micrograms/Liter
Zinc	40.0U	micrograms/Liter

SF 6231
R. Dilg
7-11-89

DIGESTION RECORD

Prepared by R. DILG Date 7-6-89 Run Number 695

Vessel Number	Data Set	Sample Number	Notes	Vessel Number	Data Set	Sample Number	Notes
1	SF6231	89FS22311					
2		S12					
3		D12					
4		89FS11R17					
5		89FS22511	DUP				
6		S11	SPK +Smd A,B,C				
7		DIGESTBLANK					

COMMENTS:

SF 6231
R. Dilg
7-11-89

Samples analyzed by SED5 on 07/10/89 stored in file RUN695 .

Data set	Sample id	Lab id	Ins QC	Correction factor
	CU IEC	IEC	S	1.00000
	AL IEC	IEC	S	0.00250
	FE IEC	IEC	S	0.00250
	AS IEC	IEC	S	1.00000
	CR IEC	IEC	S	1.00000
	INSTR BLANK 1		B	1.00000
	AQC 1		Q	1.00000
	HIGH AQC 1		Q	1.00000
	AG AQC 1		Q	1.00000
SF6231	89FS22S11	SMP1	S	1.22000
SF6231	89FS22S12		S	1.22000
SF6231	89FS22D12		S	1.22000
SF6231	89FS11R17		S	1.22000
SF6231	89FS22S11 DUP	DUP1	S	1.22000
SF6231	89FS22S11 SPK	SPK1	S	1.52000
SF6231	DIGESTION BLANK		B	1.22000
SF6231 undigested	89FS11R17		S	1.00000 Re-Verification
	SOILS BLANK 29		B	1.00000 Not Used
EPA 1287	ICS		S	1.00000
	INSTR BLANK 2		B	1.00000 Not Used
(again)	INSTR BLANK 2		B	1.00000
	AQC 2		Q	1.00000
(again)	AQC 2		Q	1.00000
	HIGH AQC 2		Q	1.00000
	AG AQC 2		Q	1.00000
	INSTR BLANK 3		B	1.00000 Not Used
(again)	INSTR BLANK 3		B	1.00000
	AQC 3		Q	1.00000
	HIGH AQC 3		Q	1.00000
	AG AQC 3		Q	1.00000
SF6231 Be	89FS22S11	SMP2	S	1.22000
SF6231 Be	89FS22S12		S	1.22000 Be ↑
SF6231 Be	89FS22D12		S	1.22000
SF6231 Be	89FS11R17		S	1.22000
SF6231 Be	89FS22S11 DUP	DUP2	S	1.22000 ONLY
SF6231 Be	89FS22S11 SPK	SPK2	S	1.52000
SF6231 Be	DIGESTION BLANK		B	1.00000
EPA 1287 Be	ICS		S	1.00000 ↓
	INSTR BLANK 4		B	1.00000
	AQC 4		Q	1.00000
	HIGH AQC 4		Q	1.00000
	AG AQC 4		Q	1.00000

SF 6231
R. Dilg
7-11-89

BLANK REPORT

Blank name INSTR BLANK 1 Operator

Date analyzed 07/10/89 File name RUN695

Element	Blank Value	Detection Limit	
Ag	0.906	6	ug/L
Alhigh	-28.190	20000	ug/L
Allow	11.915	80	ug/L
Ba	0.054	6	ug/L
Be	-0.030	1	ug/L
Cahigh	-8.240	20000	ug/L
Calow	-0.270	500	ug/L
Co	0.217	6	ug/L
Cr	2.970	8	ug/L
Cu	2.851	6	ug/L
Mg	-4.400	100	ug/L
Felow	-0.990	80	ug/L
Fehigh	-37.760	20000	ug/L
K	1089.610	5000	ug/L
Mn	-0.430	5	ug/L
Na	-10.250	1000	ug/L
Ni	5.134	15	ug/L
V	1.604	5	ug/L
Znlow	-0.624	40	ug/L
Znhigh	-145.790	20000	ug/L

All values within ± detect. limits.

SF 6231
Q. Dilg
7-11-89

BLANK REPORT

Blank name INSTR BLANK 2 Operator

Date analyzed 07/10/89 File name RUN695

Element	Blank Value	Detection Limit	
Ag	0.428	6	ug/L
Alhigh	-29.270	20000	ug/L
Allow	11.296	80	ug/L
Ba	0.081	6	ug/L
Be	-0.057	1	ug/L
Cahigh	-9.570	20000	ug/L
Calow	8.560	500	ug/L
Co	-0.770	6	ug/L
Cr	-0.743	8	ug/L
Cu	0.990	6	ug/L
Mg	4.690	100	ug/L
Felow	0.000	80	ug/L
Fehigh	-84.780	20000	ug/L
K	604.860	5000	ug/L
Mn	-0.580	5	ug/L
Na	-48.640	1000	ug/L
Ni	-1.510	15	ug/L
V	1.170	5	ug/L
Znlow	-0.610	40	ug/L
Znhigh	-228.540	20000	ug/L

All values within ± detect. limits.

Sr 6231
R. Dilg
7-11-89

BLANK REPORT

Blank name INSTR BLANK 3 Operator

Date analyzed 07/10/89 File name RUN695

Element	Blank Value	Detection Limit	
Ag	0.642	6	ug/L
Alhigh	-40.120	20000	ug/L
Allow	10.677	80	ug/L
Ba	-0.027	6	ug/L
Be	0.347	1	ug/L
Cahigh	-14.900	20000	ug/L
Calow	2.640	500	ug/L
Co	-1.541	6	ug/L
Cr	1.012	8	ug/L
Cu	2.924	6	ug/L
Mg	-4.020	100	ug/L
Felow	-3.168	80	ug/L
Fehigh	-86.320	20000	ug/L
K	1239.750	5000	ug/L
Mn	-0.301	5	ug/L
Na	-36.390	1000	ug/L
Ni	-1.107	15	ug/L
V	2.248	5	ug/L
Znlow	0.611	40	ug/L
Znhigh	-204.900	20000	ug/L

All values within ±detect. limits.

SF 6231
R. Dilg
7-11-89

BLANK REPORT

Blank name INSTR BLANK 4 Operator

Date analyzed 07/10/89 File name RUN695

Element	Blank Value	Detection Limit	
Ag	1.029	6	ug/L
Alhigh	17.340	20000	ug/L
Allow	48.587	80	ug/L
Ba	0.000	6	ug/L
Be	-0.125	1	ug/L
Cahigh	36.480	20000	ug/L
Calow	48.010	500	ug/L
Co	0.435	6	ug/L
Cr	1.687	8	ug/L
Cu	2.347	6	ug/L
Mg	40.220	100	ug/L
Felow	17.818	80	ug/L
Fehigh	-34.680	20000	ug/L
K	1634.420	5000	ug/L
Mn	-0.461	5	ug/L
Na	-15.880	1000	ug/L
Ni	4.026	15	ug/L
V	1.049	5	ug/L
Znlow	-1.186	40	ug/L
Znhigh	-98.510	20000	ug/L

All values within ± detect. limits.

SF 6231

R. Dilg
7-11-89

BLANK REPORT

Blank name DIGESTION BLANK

Operator

Date analyzed 07/10/89

File name RUN695

Element	Blank Value	Detection Limit	
Ag	1.363	6	ug/L
Alhigh	-64.820	20000	ug/L
Allow	31.337	80	ug/L
Ba	0.428	6	ug/L
Be	0.005	1	ug/L
Cahigh	90.930	20000	ug/L
Calow	109.320	500	ug/L
Co	-1.807	6	ug/L
Cr	4.034	8	ug/L
Cu	5.003	6	ug/L
Mg	7.890	100	ug/L
Felow	10.990	80	ug/L
Fehigh	-110.960	20000	ug/L
K	863.540	5000	ug/L
Mn	-0.745	5	ug/L
Na	95.270	1000	ug/L
Ni	2.211	15	ug/L
V	1.420	5	ug/L
Znlow	1.740	40	ug/L
Znhigh	-274.020	20000	ug/L

All values within ± detect. limits.

SF 6231
R. Dily
7-11-89

BLANK REPORT

Blank name DIGESTION BLANK Operator

Date analyzed 07/10/89 File name RUN695

Element	Blank Value	Detection Limit	
Ag	0.846	6	ug/L
Alhigh	-46.620	20000	ug/L
Allow	12.843	80	ug/L
Ba	0.432	6	ug/L
Be	-0.124	1	ug/L
Cahigh	95.140	20000	ug/L
Calow	114.670	500	ug/L
Co	-1.580	6	ug/L
Cr	0.202	8	ug/L
Cu	3.676	6	ug/L
Mg	15.920	100	ug/L
Felow	7.523	80	ug/L
Fehigh	-110.220	20000	ug/L
K	428.980	5000	ug/L
Mn	-0.609	5	ug/L
Na	77.430	1000	ug/L
Ni	3.020	15	ug/L
V	-1.075	5	ug/L
Znlow	1.533	40	ug/L
Znhigh	-325.090	20000	ug/L

Be only.
All values within ± detect. limits.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AQC 1 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Allow	ug/L	5115	5000	2.3 %
Ba	ug/L	5085	5000	1.7 %
Be	ug/L	5190	5000	3.8 %
Calow	ug/L	5057	5000	1.1 %
Co	ug/L	5159	5000	3.2 %
Cr	ug/L	5061	5000	1.2 %
Cu	ug/L	5152	5000	3.0 %
Mg	ug/L	5111	5000	2.2 %
Felow	ug/L	5034	5000	0.7 %
Mn	ug/L	5140	5000	2.8 %
Ni	ug/L	5153	5000	3.1 %
V	ug/L	5011	5000	0.2 %
Znlow	ug/L	5039	5000	0.8 %

Results within 5%.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AQC 2 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Allow	ug/L	5179	5000	3.6 %
Ba	ug/L	5146	5000	2.9 %
Be	ug/L	5262	5000	5.2 % *
Calow	ug/L	5113	5000	2.3 %
Co	ug/L	5188	5000	3.8 %
Cr	ug/L	5100	5000	2.0 %
Cu	ug/L	5215	5000	4.3 %
Mg	ug/L	5132	5000	2.6 %
Felow	ug/L	5090	5000	1.8 %
Mn	ug/L	5177	5000	3.5 %
Ni	ug/L	5173	5000	3.5 %
V	ug/L	5072	5000	1.4 %
Znlow	ug/L	5103	5000	2.1 %

Results within 5% except for Be.

SF 6231
Q. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AQC 2 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Allow	ug/L	5177	5000	3.5 %
Ba	ug/L	5131	5000	2.6 %
Be	ug/L	5264	5000	5.3 % *
Calow	ug/L	5112	5000	2.2 %
Co	ug/L	5200	5000	4.0 %
Cr	ug/L	5117	5000	2.3 %
Cu	ug/L	5210	5000	4.2 %
Mg	ug/L	5130	5000	2.6 %
Felow	ug/L	5087	5000	1.7 %
Mn	ug/L	5168	5000	3.4 %
Ni	ug/L	5195	5000	3.9 %
V	ug/L	5066	5000	1.3 %
Znlow	ug/L	5103	5000	2.1 %

Results within 5% except for Be.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AQC 3 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Allow	ug/L	5150	5000	3.0 %
Ba	ug/L	5117	5000	2.3 %
Be	ug/L	5053	5000	1.1 %
Calow	ug/L	5089	5000	1.8 %
Co	ug/L	5181	5000	3.6 %
Cr	ug/L	5096	5000	1.9 %
Cu	ug/L	5189	5000	3.8 %
Mg	ug/L	5091	5000	1.8 %
Felow	ug/L	5054	5000	1.1 %
Mn	ug/L	5152	5000	3.0 %
Ni	ug/L	5167	5000	3.3 %
V	ug/L	5038	5000	0.8 %
Znlow	ug/L	5089	5000	1.8 %

Results within 5%.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AQC 4 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Allow	ug/L	5161	5000	3.2 %
Ba	ug/L	5104	5000	2.1 %
Be	ug/L	5055	5000	1.1 %
Calow	ug/L	5102	5000	2.0 %
Co	ug/L	5208	5000	4.2 %
Cr	ug/L	5115	5000	2.3 %
Cu	ug/L	5170	5000	3.4 %
Mg	ug/L	5133	5000	2.7 %
Felow	ug/L	5089	5000	1.8 %
Mn	ug/L	5165	5000	3.3 %
Ni	ug/L	5202	5000	4.0 %
V	ug/L	5048	5000	1.0 %
Znlow	ug/L	5103	5000	2.1 %

Results within 5%.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC 1 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Alhigh	ug/L	98521	100000	1.5 %
Cahigh	ug/L	99304	100000	0.7 %
Fehigh	ug/L	96445	100000	3.6 %
K	ug/L	101827	100000	1.8 %
Na	ug/L	105766	100000	5.8 %
Znhigh	ug/L	97567	100000	2.4 %

Results within 10%.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC 2 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Alhigh	ug/L	100692	100000	0.7 %
Cahigh	ug/L	101347	100000	1.3 %
Fehigh	ug/L	98626	100000	1.4 %
K	ug/L	102029	100000	2.0 %
Na	ug/L	108028	100000	8.0 %
Znhigh	ug/L	99699	100000	0.3 %

Results within 10%.

SF 6231
R. Dig
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC 3 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Alhigh	ug/L	101559	100000	1.6 %
Cahigh	ug/L	102149	100000	2.1 %
Fehigh	ug/L	99355	100000	0.6 %
K	ug/L	101240	100000	1.2 %
Na	ug/L	108412	100000	8.4 %
Znhigh	ug/L	100182	100000	0.2 %

Results within 10%.

SF 6231
L. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC 4 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Alhigh	ug/L	99478	100000	0.5 %
Cahigh	ug/L	100791	100000	0.8 %
Fehigh	ug/L	97992	100000	2.0 %
K	ug/L	99266	100000	0.7 %
Na	ug/L	105343	100000	5.3 %
Znhigh	ug/L	98304	100000	1.7 %

Results within 10%.

SF 6231
Q. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AG AQC 1 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Ag	ug/L	50.8	50	1.5 %

Result within 10%.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AG AQC 2 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Ag	ug/L	54.2	50	8.4 %

Result within 10%.

SF 6231

R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AG AQC 3 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Ag	ug/L	52.2	50	4.3 %

Result within 10%.

SF 6231
R. Dilg
7-11-89

QUALITY CONTROL SAMPLE REPORT

QC ID AG AQC 4 Operator

Date analyzed 07/10/89 File name RUN695

Element	Units	Found Value	True Value	Percent Deviation
Ag	ug/L	52.2	50	4.4 %

Result within 10%.

SF 6231
R. Dilg
7-11-89

DUPLICATE

Sample SF6231 89FS22S11 Operator

Date Analyzed 07/10/89 Factor 1.22 File RUN695

Element	Units	Sample	Duplicate	Difference	Limit	RPD	
Ag	ug/L	-1.9	0.1	2.0	6.0	-223%	U
Alhigh	ug/L	-100.0	-100.0	0.0	20000.0	3%	
Allow	ug/L	20.8	-1.1	-21.9	80.0	-222%	U
Ba	ug/L	48.0	47.8	-0.2	6.0	-1%	
Be	ug/L	0.1	-0.1	-0.2	1.0	0%	
Cahigh	ug/L	87800.0	88200.0	400.0	20000.0	1%	
Calow	ug/L	90100.0	90500.0	400.0	500.0	0%	
Co	ug/L	-3.1	-2.0	1.1	6.0	-44%	U
Cr	ug/L	0.1	3.8	3.7	8.0	191%	U
Cu	ug/L	8.5	11.9	3.4	6.0	34%	U
Mg	ug/L	27200.0	27200.0	0.0	100.0	0%	
Felow	ug/L	219.4	208.2	-11.2	80.0	-5%	
Fehigh	ug/L	200.0	200.0	0.0	20000.0	14%	U
K	ug/L	300.0	1000.0	700.0	5000.0	117%	U
Mn	ug/L	154.1	154.8	0.7	5.0	0%	
Na	ug/L	11400.0	11400.0	0.0	1000.0	0%	
Ni	ug/L	52.9	47.6	-5.3	15.0	-11%	U
V	ug/L	-1.3	1.0	2.3	5.0	0%	
Znlow	ug/L	25.4	15.9	-9.5	40.0	-46%	U
Znhigh	ug/L	-600.0	-500.0	100.0	20000.0	-14%	U

Results meet 10% RPD or detection limit criteria.

SF.6231
R. Dilg
7-19-89

Standard: blnk

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.00923	.17953	.00613	-.00240	.11453	.00020	-.00053
#1	-.01040	.17860	.00280	-.00280	.11360	.00000	-.00080
#2	-.01010	.17880	.00400	.01180	.11440	.00000	-.00040
#3	-.00720	.18120	.01160	-.01620	.11560	.00060	-.00040

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	.41507	.04107	.00167	.01813	-.00180	.00327	.01680
#1	.41280	.04120	.00180	.01440	-.00320	.00220	.01680
#2	.41440	.04120	.00040	.01560	-.00100	.00320	.01680
#3	.41800	.04080	.00280	.02440	-.00120	.00440	.01680

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.14027	.38333	.03953	.03767	.12187	.01653	.28853
#1	.13920	.38080	.03040	.03740	.12080	.02120	.28440
#2	.13960	.38240	.02440	.03760	.12200	.00260	.28840
#3	.14200	.38680	.06380	.03800	.12280	.02580	.29280

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	-.00227	.00233	-.00840	.04507	.17267	.00120	-.00067
#1	-.00240	.00140	-.00720	.04480	.17120	-.00240	-.00120
#2	-.00240	.00220	-.00480	.04480	.17240	.00120	-.00080
#3	-.00200	.00340	-.01320	.04560	.17440	.00480	.00000

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	.16587	.39507	.01033	.00513
#1	.16440	.39200	.00860	.00080
#2	.16800	.39440	.01040	.00380
#3	.16520	.39880	.01200	.01080

Standard: ten1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	1.0039	.19553	.14993	7.9990	.19653	.00053	-.00093
#1	.99930	.19600	.14960	7.9602	.19680	.00040	-.00080
#2	1.0074	.19560	.14960	8.0112	.19640	.00020	-.00120
#3	1.0049	.19500	.15060	8.0256	.19640	.00100	-.00080

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	.47613	.05933	.24640	33.768	9.8762	-.00640	21.869
#1	.47420	.05880	.24220	33.693	9.8152	-.00560	21.787
#2	.47720	.05920	.25380	33.875	9.9098	-.00720	21.968
#3	.47700	.06000	.24320	33.735	9.9036	-.00640	21.852

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.15093	.49387	.04180	1.9621	.12760	41.939	20.435

#1	.15080	.49440	.03360	1.9516	.12800	41.809	20.339
#2	.15160	.49280	.04260	1.9742	.12680	42.070	20.560
#3	.15040	.49440	.04920	1.9606	.12800	41.939	20.406

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	-.00217	.83887	5.0620	22.320	.17973	-.66220	21.920
#1	-.00120	.83580	5.0382	22.215	.18000	-.66840	21.826
#2	-.00040	.84400	5.0946	22.445	.17880	-.65860	22.036
#3	-.00490	.83680	5.0532	22.300	.18040	-.65960	21.898

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	.17893	.39087	.01300	.15030
#1	.17760	.39080	.01320	.14890
#2	.18000	.38920	.01280	.14920
#3	.17920	.39260	.01300	.15280

Standard: ten2

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.16147	.20427	.01340	.08867	8.1467	.00033	33.655
#1	-.16410	.20520	.01300	.05000	8.1110	.00020	33.575
#2	-.15830	.20440	.01100	.15420	8.1240	.00020	33.544
#3	-.16200	.20320	.01620	.06180	8.2052	.00060	33.846

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	6.0924	29.431	35.934	.11967	-.10967	7.9283	.06800
#1	6.0870	29.328	35.925	.06180	-.13380	7.8902	.02960
#2	6.0688	29.315	35.696	.23640	-.07200	7.8984	.14800
#3	6.1214	29.650	36.182	.06080	-.12320	7.9964	.02640

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.19700	.49573	1.5936	.04133	43.230	.10587	.33280
#1	.19680	.49960	1.5624	.03840	43.116	.02960	.30200
#2	.19640	.49400	1.5922	.04840	43.085	.26340	.40120
#3	.19780	.49360	1.6262	.03720	43.489	.02460	.29520

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	3.3091	.01993	.01040	.09013	.17267	24.319	.04353
#1	3.3002	.01840	.01000	.05160	.17280	24.249	.00440
#2	3.2856	.02240	.02400	.17040	.17240	24.241	.12480
#3	3.3416	.01900	-.00280	.04840	.17280	24.466	.00140

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	26.182	.72320	.00053	.00327
#1	26.124	.72640	.00000	.00320
#2	26.032	.72040	.00120	.00230
#3	26.390	.72280	.00040	.00430

Standard: ten3

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.01587	.84367	4.3146	.03347	.39847	12.358	.03573
#1	-.01620	.84560	4.3186	.03200	.40820	12.382	.07560
#2	-.01420	.83460	4.2334	.02400	.39100	12.098	.01640
#3	-.01720	.85080	4.3918	.04440	.39620	12.594	.01520

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	.45333	.06547	.03203	.09893	.00193	.01267	.01920
#1	.46140	.10040	.07160	.10000	.00400	.02440	.01920
#2	.45500	.04800	.01450	.10280	.00140	.00840	.01920
#3	.44360	.04800	.01000	.09400	.00040	.00520	.01920

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	6.8749	1.2729	.05193	.03833	.16307	.00833	.33827
#1	6.8934	1.2728	.08000	.03820	.21560	.00380	.34120
#2	6.7706	1.2628	.06280	.03880	.13920	.01560	.34120
#3	6.9608	1.2832	.01300	.03800	.13440	.00560	.33240

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	.00340	-.00007	.01787	.04700	19.744	.02627	.00153
#1	.00640	.00020	.01920	.04720	19.768	.06140	.00040
#2	.00280	.00040	.01800	.04760	19.385	.01380	.00220
#3	.00100	-.00080	.01640	.04620	20.079	.00360	.00200

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	.19973	.39740	.59553	4.3087
#1	.23120	.39860	.59680	4.3069
#2	.18640	.40280	.58580	4.2276
#3	.18160	.39080	.60400	4.3916

Standard: cazn

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.01010	.18080	-.03007	-.00753	.26573	.00407	.00140
#1	-.01120	.18040	-.02020	-.00540	.26960	.00460	.00200
#2	-.00820	.18040	-.04120	-.01400	.26520	.00440	.00100
#3	-.01090	.18160	-.02880	-.00320	.26240	.00320	.00120

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	220.44	252.21	.00773	.01987	-.00080	.00747	.02320
#1	219.27	252.20	.00720	.01000	.00360	.00480	.02320
#2	221.70	252.21	.01060	.02960	-.00560	.00920	.02320
#3	220.34	252.23	.00540	.02000	-.00040	.00840	.02320

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.15680	.38280	.04700	.04360	.12733	.20393	.32760
#1	.15640	.38320	.03240	.04320	.12720	.16060	.32660
#2	.15720	.38280	.05360	.04360	.12680	.21840	.32820

#3	.15680	.38240	.05500	.04400	.12800	.23280	.32800

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	-.00043	.00130	.00200	.06960	.20667	.00633	.00307
#1	-.00010	-.00120	.00360	.06920	.20680	-.00060	.00480
#2	-.00080	.00120	.00360	.07000	.20600	.01080	.00240
#3	-.00040	.00390	-.00120	.06960	.20720	.00880	.00200

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	479.84	13.930	.01347	-.21040
#1	479.84	13.876	.01520	-.21840
#2	479.84	13.994	.01280	-.21580
#3	479.84	13.919	.01240	-.19700

Standard: alfe

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.09993	24.771	147.76	1.5155	.67740	.00500	.34373
#1	-.09760	24.312	147.19	1.4920	.66200	.00500	.34040
#2	-.10210	24.925	147.91	1.4732	.68360	.00480	.34680
#3	-.10010	25.077	148.18	1.5814	.68660	.00520	.34400

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	.47027	.28253	-.02757	.03973	.00733	-.07027	.02707
#1	.47920	.30960	-.02790	.04420	.00920	-.06960	.02680
#2	.46720	.27320	-.02120	.04640	.00920	-.07000	.02700
#3	.46440	.26480	-.03360	.02860	.00360	-.07120	.02740

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	255.17	34.980	.03913	.03827	.36400	-.11560	.42473
#1	251.31	34.436	.03760	.03840	.36040	-.10660	.42700
#2	256.30	35.148	.04200	.03880	.36560	-.13820	.42120
#3	257.89	35.357	.03780	.03760	.36600	-.10200	.42600

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	.00003	-.13917	-.03867	.04647	.17687	-.05627	.00127
#1	-.00080	-.14100	-.03160	.04720	.17880	-.05680	.00100
#2	-.00110	-.14020	-.04520	.04620	.17600	-.05920	.00160
#3	.00200	-.13630	-.03920	.04600	.17580	-.05280	.00120

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	.52793	.38987	23.016	147.61
#1	.55400	.39800	22.587	147.04
#2	.52180	.38680	23.157	147.76
#3	.50800	.38480	23.306	148.02

Standardization Report Mon 07-10-89 10:16:32 AM page 1

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.000	ten1	blnk	987.069	9.11394	07/10/89 10:01:07
Alhigh	308.200	alfe	blnk	16.2656	-2.92021	07/10/89 10:14:17
Allow	396.100	ten3	blnk	2321.01	-14.2355	07/10/89 10:07:14
As	193.600	ten1	blnk	1249.78	2.99947	07/10/89 10:01:07
B	249.600	ten2	blnk	1244.99	-142.593	07/10/89 10:04:05
Ba	493.400	ten3	blnk	809.219	-.161844	07/10/89 10:07:14
Be	234.800	ten2	blnk	297.129	.158469	07/10/89 10:04:05
Cahigh	315.800	cazn	blnk	1.81801	-.754595	07/10/89 10:11:11
Calow	393.300	ten2	blnk	.934311	.025161	07/10/89 10:04:05
Cd	228.800	ten2	blnk	278.300	-.463833	07/10/89 10:04:05
Co	228.600	ten1	blnk	296.300	-5.37290	07/10/89 10:01:07
Cr	205.500	ten1	blnk	1012.35	1.82223	07/10/89 10:01:07
Cu	324.700	ten2	blnk	1261.82	-4.12194	07/10/89 10:04:05
Mg	297.500	ten1	blnk	.555051	.113475	07/10/89 10:01:07
Felow	259.900	ten3	blnk	1484.85	-208.276	07/10/89 10:07:14
Fehigh	271.400	alfe	blnk	11.5617	-4.43199	07/10/89 10:14:17
K	766.400	ten2	blnk	64.3473	-2.54386	07/10/89 10:04:05
Li	670.700	ten1	blnk	5196.25	-195.725	07/10/89 10:01:07
Mn	257.600	ten2	blnk	231.974	-28.2699	07/10/89 10:04:05
Mo	202.000	ten1	blnk	238.533	-3.94375	07/10/89 10:01:07
Na	589.000	ten1	blnk	4.96370	-1.43219	07/10/89 10:01:07
Ni	231.600	ten2	blnk	3019.87	6.84504	07/10/89 10:04:05
Pb	220.300	ten1	blnk	11954.1	-27.8929	07/10/89 10:01:07
Sn	189.900	ten1	blnk	1972.23	16.5667	07/10/89 10:01:07
Sr	421.500	ten1	blnk	448.936	-20.2321	07/10/89 10:01:07
Ti	334.900	ten3	blnk	510.943	-88.2228	07/10/89 10:07:14
V	292.400	ten2	blnk	411.224	-.493468	07/10/89 10:04:05
Y	371.000	ten1	blnk	456.186	.304124	07/10/89 10:01:07
Znlow	213.800	ten2	blnk	384.376	-63.7551	07/10/89 10:04:05
Znhigh	481.000	cazn	blnk	29.5539	-11.6758	07/10/89 10:11:11
2Al308	308.200	ten3	blnk	17088.2	-176.578	07/10/89 10:07:14
2Al396	396.100	ten3	blnk	2323.65	-11.9281	07/10/89 10:07:14

Method: SED5 Sample Name: CU IEC Operator:
Run Time: 07/10/89 10:17:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.38909	L.10518	108.47	L-19.747	258.46	L.26974	L.03962
#1	L.45420	L.12470	125.95	L-.49991	260.29	L.00000	L.03962
#2	L-1.5438	L.08566	99.030	L-38.493	258.29	L.32369	L-.01981
#3	L-.07772	L.10518	100.42	L-20.246	256.80	L.48553	L.09904

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.01467	L.01912	L2.3655	L-.65186	L-1.6873	10228.	L-.00405
#1	L.02060	L.02395	L2.9871	L-.21729	L-2.2272	10219.	L-.00405
#2	L.01115	L.01585	L2.4583	L-1.4025	L-3.4420	10222.	L-.00405
#3	L.01224	L.01755	L1.6512	L-.33581	L.60741	10244.	L-.00405

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L50.881	L.05935	L.09009	L1.3857	L.06186	L.46116	L.16447
#1	L69.095	L.09789	L.53194	L-.34642	L.21651	L3.4508	L.16613
#2	L37.022	L.01696	L.86654	L2.7713	L-.06186	L1.4948	L.16911
#3	L46.525	L.06320	L-1.1282	L1.7321	L.03093	L-3.5621	L.15818

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L3.3219	194.45	L25.376	L.17958	L1.2944	L.35639	L-.24330
#1	L-.40265	237.49	L7.1000	L.23943	L1.4988	L1.6449	L.12165
#2	L6.2411	182.50	L33.133	L.05986	L.88564	L.16449	L-.42577
#3	L4.1272	163.37	L35.895	L.23943	L1.4988	L-.74020	L-.42577

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	48.841	L.01773	86.580	103.63
#1	54.171	L.00394	100.25	122.61
#2	44.946	L.02758	76.327	92.172
#3	47.406	L.02167	83.162	96.122

Method: SED5 Sample Name: AL IEC Operator:
Run Time: 07/10/89 10:24:52
Comment:
Mode: CONC Corr. Factor: .0025

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00274	L.96428	857.74	L4.5205	L.18177	L.00101	L-.00005
#1	L.00060	L.97066	858.21	L4.4505	L.17513	L.00121	L-.00005
#2	L-.00186.	L.96720	858.01	L4.6542	L.18011	L.00061	L-.00020

#3	L.00949	L.95498	856.99	L4.4567	L.19007	L.00121	L.00010

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.00006	L.00006	L.00019	L-.00311	L.04522	L.01157	L-.00001
#1	L.00004	L.00005	L.00413	L-.00054	L.03695	L.01115	L-.00001
#2	L.00008	L.00008	L-.00172	L-.00217	L.04606	L.01367	L-.00001
#3	L.00007	L.00005	L-.00186	L-.00662	L.05264	L.00988	L-.00001

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.11186	L.00012	L.00131	L.00173	L.04957	L-.00334	L.00055
#1	L.10295	L.00002	L.00207	L-.00087	L.04902	L-.00688	L.00052
#2	L.12522	L.00012	L.00085	L.00433	L.04949	L-.00819	L.00055
#3	L.10740	L.00023	L.00101	L.00173	L.05018	L.00505	L.00057

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00981	L-4.0405	L.05292	L.00007	L.00324	L.00178	L-.00015
#1	L.00126	L-3.9907	L.10551	L-.00030	L.00119	L.00123	L-.00015
#2	L.01862	L-4.1042	L.01972	L.00015	L.00273	L.00226	L-.00106
#3	L.00956	L-4.0265	L.03353	L.00037	L.00579	L.00185	L.00076

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L.12306	L-.00021	977.53	857.88
#1	L.11506	L-.00040	984.40	858.37
#2	L.14561	L-.00034	980.86	858.15
#3	L.10852	L.00011	967.33	857.12

Method: SED5 Sample Name: FE IEC Operator:
Run Time: 07/10/89 10:27:50
Comment:
Mode: CONC Corr. Factor: .0025

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.22454	L.00084	L.37832	L.20163	L.79161	L.00776	L.25969
#1	L-.22040	L.00080	L.30328	L.23683	L.78019	L.00769	L.25325
#2	L-.23295	L.00098	L.55859	L.19622	L.79576	L.00728	L.26425
#3	L-.22027	L.00075	L.27311	L.17184	L.79887	L.00829	L.26157

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.00008	L.00002	L-.01693	L.01462	L-.00337	L-.22986	L.00000
#1	L.00010	L.00002	L-.01285	L.01620	L-.00202	L-.22481	L.00000
#2	L.00005	L.00002	L-.02148	L.00672	L.00354	L-.23365	L.00000
#3	L.00009	L.00002	L-.01647	L.02094	L-.01164	L-.23112	L.00000

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L

Avge	951.31	L1.0060	L.00139	L.00260	L.09047	L-.07601	L.00045
#1	944.43	L.99905	L.00419	L.00953	L.09032	L-.06436	L.00049
#2	961.85	L1.0165	L-.00189	L-.00606	L.09032	L-.10026	L.00036
#3	947.64	L1.0025	L.00188	L.00433	L.09078	L-.06341	L.00049

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.01208	L-.17931	L-.15975	L.00112	L.00068	L-.06018	L.00251
#1	L.01560	L-.14146	L-.11242	L.00127	L.00221	L-.05325	L.00190
#2	L.01711	L-.20720	L-.19525	L.00060	L-.00238	L-.06682	L.00122
#3	L.00352	L-.18927	L-.17158	L.00150	L.00221	L-.06045	L.00441

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L.12031	L-.00030	.31044	.39909
#1	L.12159	L-.00033	.24208	.30885
#2	L.11890	L-.00067	.48132	.59524
#3	L.12044	L.00010	.20791	.29317

Method: SED5 Sample Name: AS IEC Operator:
Run Time: 07/10/89 10:33:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.26145	L-.00108	L31.720	10122.	45.982	L-.05395	L-.07923
#1	L-1.1516	L-.02494	L28.471	10218.	45.650	L-.08092	L-.07923
#2	L-.25792	L-.01193	L33.113	10087.	44.156	L-.08092	L-.07923
#3	L.62514	L.03362	L33.577	10061.	48.140	L.00000	L-.07923

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.01685	L-.00228	94.399	L.98767	L-.26996	L2.3554	L-.00453
#1	L-.02666	L-.00233	96.607	L-.51359	L.20247	L1.6824	L-.00458
#2	L-.01830	L-.00233	95.717	L1.0272	L-2.2272	L2.9442	L-.00458
#3	L-.00558	L-.00219	90.874	L2.4494	L1.2148	L2.4395	L-.00441

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L22.471	L-.03623	L.33032	L-2.7713	L-.40209	L-.36575	L.03905
#1	L25.440	L-.07554	L1.2784	L-5.5427	L-.80418	L4.4526	L.02515
#2	L16.234	L-.04548	L.17159	L-2.4249	L-.34023	L-3.3713	L.03309
#3	L25.737	L.01233	L-.45901	L-.34642	L-.06186	L-2.1786	L.05890

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L6.8450	L-6.3755	L21.037	L-.23943	L-1.0219	L.10966	L-.33454
#1	L1.7113	L-3.9847	L21.300	L-.47886	L-2.1800	L.00000	L-.60825
#2	L11.677	L-1.5939	L14.200	L-.29929	L-1.1581	L.32898	L-.33454
#3	L7.1470	L-13.548	L27.611	L.05986	L.27250	L.00000	L-.06082

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L.69188	L-.17338	10.253	25.560
#1	L.12813	L-.35071	14.810	20.138
#2	L.97376	L-.20885	1.1392	23.391
#3	L.97376	L.03941	14.810	33.151

Method: SED5 Sample Name: CR IEC Operator:
Run Time: 07/10/89 10:37:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.31187	L.11820	131.83	L1.8330	283.19	L-.16184	L.01981
#1	L-.24306	L.10518	135.70	L3.4994	281.70	L.00000	L.09904
#2	L1.5808	L.08566	124.56	L-.49991	286.68	L-.48553	L.03962
#3	L-.40209	L.16374	135.24	L2.4996	281.20	L.00000	L-.07923

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.00679	L-.00019	L.01855	L3.1803	10375.	L1.0936	L-.00358
#1	L.00461	L-.00010	L1.0946	L3.1605	10380.	L1.4301	L-.00370
#2	L-.00267	L-.00036	L.92767	L.55309	10469.	L-1.5983	L-.00370
#3	L.01842	L-.00010	L-1.9667	L5.8272	10277.	L3.4490	L-.00334

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L14.651	L.18961	L.67350	L.69283	L.03093	L1.6220	L.19260
#1	L15.640	L.19732	L.37750	L-.34642	L-.06186	L-1.3676	L.17804
#2	L12.671	L.12333	L-.63918	L-2.4249	L-.34023	L2.8306	L.18003
#3	L15.640	L.24819	L2.2822	L4.8498	L.49488	L3.4031	L.21974

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.6106	L-8.3679	L36.552	L.11972	L3.3722	L-54.227	L-.03041
#1	L2.6172	L-2.7893	47.334	L.05986	L3.2360	L-53.953	L.48660
#2	L1.4093	L-30.284	L22.089	L-.11972	L2.3163	L-57.160	L.12165
#3	L.80530	L7.9694	40.234	L.41901	L4.5644	L-51.567	L-.69949

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L2.4088	L-.07881	112.78	124.47
#1	L2.0500	L-.09063	131.01	130.98
#2	L2.0500	L-.23249	117.34	124.24
#3	L3.1263	L.08669	89.998	118.20

Element:	Ag	Al	Al	As	B
Wavelength:	328.000	308.200	396.100	193.600	249.600
Use IECs:	YES	NO	YES	YES	YES
Number of IECs:	2	0	1	2	1
Affecting Element:	Fehigh	--n/a--	Cahigh	Alhigh	Fehigh
k1 factor:	-.22454	--n/a--	0	4.5205	.79161
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	NO	YES	YES
Affecting Element:	V	--n/a--	--n/a--	Fehigh	--n/a--
k1 factor:	-.01609	--n/a--	--n/a--	.20163	--n/a--
k2 factor:	0	--n/a--	--n/a--	0	--n/a--
use?:	YES	--n/a--	--n/a--	YES	--n/a--

Element:	Ba	Be	Ca	Ca	Cd
Wavelength:	493.400	234.800	315.800	393.300	228.800
Use IECs:	NO	YES	YES	NO	YES
Number of IECs:	0	1	0	0	3
Affecting Element:	--n/a--	Fehigh	--n/a--	--n/a--	As
k1 factor:	--n/a--	.25969	--n/a--	--n/a--	.00944
k2 factor:	--n/a--	0	--n/a--	--n/a--	0
use?:	--n/a--	YES	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Fehigh
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	-.01693
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Ni
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	NO

Element:	Co	Cr	Cu	Mg	Fe
Wavelength:	228.600	205.500	324.700	297.500	259.900
Use IECs:	YES	YES	YES	NO	YES
Number of IECs:	1	1	1	0	0
Affecting Element:	Ni	Fehigh	Fehigh	--n/a--	--n/a--
k1 factor:	0	-.00337	-.22986	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--

use?:	NO	YES	YES	--n/a--	--n/a--

Element:	Fe	K	Li	Mn	Mo
Wavelength:	271.400	766.400	670.700	257.600	202.000
Use IECs:	NO	YES	YES	YES	YES
Number of IECs:	0	0	0	1	1
Affecting Element:	--n/a--	--n/a--	--n/a--	Fehigh	Fehigh
k1 factor:	--n/a--	--n/a--	--n/a--	.09047	-.07601
k2 factor:	--n/a--	--n/a--	--n/a--	0	0
use?:	--n/a--	--n/a--	--n/a--	YES	YES

Element:	Na	Ni	Pb	Sn	Sr
Wavelength:	589.000	231.600	220.300	189.900	421.500
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	0	3	2	0
Affecting Element:	--n/a--	--n/a--	Alhigh	Alhigh	--n/a--
k1 factor:	--n/a--	--n/a--	-4.0405	.05292	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Cu	Fehigh	--n/a--
k1 factor:	--n/a--	--n/a--	.019445	-.15975	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Fehigh	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	-.17931	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Element:	Ti	V	Y	Zn	Zn
Wavelength:	334.900	292.400	371.000	213.800	481.000
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	2	0	3	0
Affecting Element:	--n/a--	Cr	--n/a--	Cu	--n/a--
k1 factor:	--n/a--	-.00542	--n/a--	.004884	--n/a--
k2 factor:	--n/a--	0	--n/a--	0	--n/a--
use?:	--n/a--	YES	--n/a--	YES	--n/a--

Affecting Element:	--n/a--	Fehigh	--n/a--	Fehigh	--n/a--
k1 factor:	--n/a--	-.06018	--n/a--	.12031	--n/a--
k2 factor:	--n/a--	0	--n/a--	0	--n/a--
use?:	--n/a--	YES	--n/a--	YES	--n/a--

Affecting Element:	--n/a--	--n/a--	--n/a--	Ni	--n/a--
k1 factor:	--n/a--	--n/a--	--n/a--	0	--n/a--
k2 factor:	--n/a--	--n/a--	--n/a--	0	--n/a--
use?:	--n/a--	--n/a--	--n/a--	NO	--n/a--

Element:	2Al	2Al
Wavelength:	308.200	396.100
Use IECs:	YES	YES
Number of IECs:	0	0

Method: SED5 Sample Name: INSTR BLANK 1 Operator:
Run Time: 07/10/89 10:49:38
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.90572	L-.02819	L11.915	L-27.193	L1.6899	L.05395	L-.02981
#1	L.61858	L-.04446	L12.224	L-19.780	L1.8876	L-.16184	L.05983
#2	L3.2253	L-.01193	L19.187	L-11.437	L.35884	L.00000	L.04842
#3	L-1.1268	L-.02819	L4.3326	L-50.363	L2.8232	L.32369	L-.19769

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.00824	L-.00028	L.88688	L.21729	L2.9696	L2.8514	L-.00441
#1	L-.01576	L-.00023	L.55647	L1.5013	L4.6568	L1.6645	L-.00441
#2	L-.00412	L-.00023	L1.0907	L-.09877	L5.0618	L3.4412	L-.00441
#3	L-.00485	L-.00036	L1.0134	L-.75063	L-.80988	L3.4486	L-.00441

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.98991	L-.03777	L1.0896	L-1.7321	L-.42960	L-1.9906	L-.01026
#1	L-.39597	L-.07785	L.14585	L-4.5034	L-.61155	L-4.3790	L-.02449
#2	L-2.7717	L-.03391	L1.8318	L-.34642	L-.33716	L.53810	L-.01952
#3	L.19798	L-.00154	L1.2912	L-.34642	L-.34009	L-2.1309	L.01324

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L5.1338	L3.4101	L19.718	L-.11972	L-.57907	L1.6039	L-.54742
#1	L5.9391	L12.525	L29.968	L-.11972	L-1.2603	L.67853	L-.06082
#2	L5.0331	L19.802	L24.451	L-.11972	L-.34063	L2.5750	L-.42577
#3	L4.4291	L-22.097	L4.7346	L-.11972	L-.13625	L1.5582	L-1.1557

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L-.62438	L-.14580	-26.202	-1.3942
#1	L-1.3313	L-.23249	4.5568	7.1259
#2	L-.11522	L-.12610	-5.6961	4.3375
#3	L-.42665	L-.07881	-77.466	-15.646

Method: SED5 Sample Name: AQC 1 Operator:
Run Time: 07/10/89 10:52:45
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q505.31	5.7218	5115.4	5145.8	5096.4	5085.0	5189.6
#1	Q496.77	5.6329	5018.2	5095.6	5006.9	4977.0	5108.4
#2	Q502.97	5.7044	5065.1	5084.5	5046.6	5016.2	5158.7

#3	Q516.18	5.8280	Q5262.8	Q5257.4	5235.6	Q5261.9	Q5301.8

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	5.3717	5.0572	Q5264.9	5159.0	5061.2	5151.6	5.1106
#1	5.2797	4.9526	5179.2	5077.7	4976.9	5052.9	5.0250
#2	5.3728	4.9953	5243.5	5134.2	5034.0	5102.9	5.0783
#3	5.4626	5.2238	Q5372.1	Q5265.1	5172.7	Q5298.8	5.2287

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	5033.7	6.4345	1.1754	5080.9	5139.7	5154.3	.00265
#1	4948.9	6.3643	1.6902	4979.7	5055.5	5055.7	.01125
#2	5000.3	6.4545	1.4971	5023.4	5104.2	5130.5	.03309
#3	5151.8	6.4846	.33890	5239.5	Q5259.4	Q5276.8	-.03640

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5152.7	5182.3	5088.0	5182.6	5069.3	5011.1	5200.1
#1	5088.1	5081.0	5057.1	5074.9	4973.4	4919.4	5097.5
#2	5112.8	5171.2	5029.1	5117.6	5025.0	4978.0	5143.9
#3	Q5257.2	Q5294.6	5177.8	Q5355.4	5209.4	5135.9	Q5358.9

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	5039.4	4.9256	4895.2	5102.5
#1	4966.6	4.8981	4792.7	5005.3
#2	5022.4	5.0281	4888.4	5053.9
#3	5129.3	4.8508	5004.6	5248.4

Method: SED5 Sample Name: HIGH AQC 1 Operator:
Run Time: 07/10/89 10:56:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-.83938	98.521	Q97751.	Q9.2754	Q-5.6313	Q2.4277	Q1.6959
#1	Q-.25712	98.853	Q97783.	Q7.3497	Q-5.3316	Q2.2658	Q1.4872
#2	Q-2.5908	98.593	Q98192.	Q-13.204	Q-8.7389	Q1.6184	Q1.0376
#3	Q.32980	98.116	Q97278.	Q33.680	Q-2.8233	Q3.3987	Q2.5629

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	99.304	Q.00000	Q2.8811	Q1.6593	Q3.8345	Q2.0638	Q81.282
#1	99.363	Q.00000	Q2.9927	Q1.2642	Q4.1721	Q2.4097	Q81.274
#2	99.246	Q.00000	Q3.1294	Q-.51359	Q4.3742	Q.62028	Q81.280
#3	99.302	Q.00000	Q2.5211	Q4.2272	Q2.9572	Q3.1615	Q81.292

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L

Avge	Q93933.	96.445	101.83	Q8.6604	Q11.085	Q10.988	105.77
#1	Q94066.	96.486	102.25	Q7.9676	Q10.927	Q11.691	105.99
#2	Q93985.	96.386	100.60	Q7.9676	Q10.240	Q15.071	106.16
#3	Q93747.	96.462	102.63	Q10.046	Q12.089	Q6.2031	105.15

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q9.7642	Q5.6986	Q28.864	Q3.8908	Q2.1119	Q2.6721	Q2.1897
#1	Q8.6570	Q34.934	Q3.8712	Q3.6514	Q1.7031	Q3.5263	Q1.7639
#2	Q8.0530	Q2.8217	Q30.691	Q3.1126	Q.88564	Q.97180	Q1.3990
#3	Q12.583	Q-20.660	Q52.029	Q4.9084	Q3.7469	Q3.5183	Q3.4062

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q89557.	97.567	97665.	97644.
#1	Q89434.	97.685	98033.	97689.
#2	Q89636.	97.615	97711.	98088.
#3	Q89599.	97.402	97250.	97156.

Method: SED5 Sample Name: AG AQC 1 Operator:
Run Time: 07/10/89 10:58:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	50.753	.01952	Q59.418	Q-44.407	Q5.6720	Q.10790	Q.20729
#1	49.941	.04012	Q124.56	Q-57.669	Q4.8243	Q-.16184	Q.28072
#2	52.348	.00108	Q28.471	Q-20.996	Q5.8331	Q.16184	Q.16608
#3	49.971	.01735	Q25.222	Q-54.556	Q6.3586	Q.32369	Q.17508

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	.03503	Q.04925	Q.95664	Q-2.4692	Q3.4420	Q-.00815	Q.04289
#1	.09478	Q.11526	Q.08033	Q-.75063	Q3.2395	Q-.59186	Q.10911
#2	.00715	Q.01951	Q1.1254	Q-5.6692	Q3.6445	Q-.09085	Q.01315
#3	.00315	Q.01297	Q1.6642	Q-.98767	Q3.4420	Q.65827	Q.00641

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q47.812	-.03546	-.30887	Q-1.7321	Q-.19784	Q-.62288	.01588
#1	Q111.86	-.01310	-.20162	Q-2.4249	Q-.47823	Q.82592	.06685
#2	Q19.204	-.02929	.13298	Q-2.4249	Q-.05921	Q-2.0377	-.00066
#3	Q12.374	-.06397	-.85796	Q-.34642	Q-.05607	Q-.65685	-.01853

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q1.0066	Q-7.8970	Q21.819	Q.17958	Q-1.1922	Q-.50435	Q-.12165
#1	Q.80530	Q-22.940	Q16.563	Q.05986	Q-1.5669	Q-2.1216	Q-.60825
#2	Q1.4093	Q17.533	Q29.184	Q.23943	Q-1.1581	Q.18249	Q.30412
#3	Q.80530	Q-18.284	Q19.711	Q.23943	Q-.85157	Q.42604	Q-.06082

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q48.306	-.13595	46.708	55.690
#1	Q115.29	-.26204	66.074	115.87
#2	Q17.583	-.06699	35.316	28.039
#3	Q12.048	-.07881	38.733	23.159

Method: SED5 Sample Name: 89FS22S11 Operator:
Run Time: 07/10/89 11:02:52
Comment: SF6231
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.8678	L-.09657	L20.765	L-15.151	23.759	48.046	L.14815
#1	L-1.3748	L-.08599	L30.770	L-9.0972	27.009	47.585	L.29633
#2	L-.61945	L-.07805	L5.2857	L-9.1451	24.532	47.487	L-.00905
#3	L-3.6091	L-.12568	L26.240	L-27.210	19.737	49.066	L.15719

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	87.756	H90.128	L-.10302	L-3.1329	L.08292	8.4555	27.171
#1	87.494	H89.966	L-1.2242	L-3.5185	L1.2356	11.018	27.079
#2	86.772	H89.663	L1.6972	L-.48198	L2.2239	10.416	26.843
#3	89.001	H90.756	L-.78200	L-5.3982	L-3.2107	L3.9319	27.590

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	219.44	L.17397	L.26168	L7.6073	154.10	L-5.7682	11.419
#1	220.52	L.16174	L1.7637	L7.1847	153.65	L-2.3546	11.370
#2	217.99	L.22098	L.93158	L9.7204	152.62	L-5.0856	11.247
#3	219.80	L.13917	L-1.9103	L5.9168	156.03	L-9.8644	11.641

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	52.930	L15.519	L24.575	102.02	L2.2441	L-1.2600	L.00000
#1	47.772	L15.024	43.822	101.73	L2.3272	L-.38492	L-.29683
#2	57.720	L44.246	L19.288	100.41	L2.8259	L.82807	L.48234
#3	53.299	L-12.713	L10.616	103.92	L1.5792	L-4.2233	L-.18552

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L25.386	L-.57689	6.9492	-110.46
#1	L26.437	L-.51439	-6.9492	-100.16
#2	L24.557	L-.49997	18.068	-122.84
#3	L25.162	L-.71631	9.7289	-108.39

Method: SED5 Sample Name: 89FS22S12 Operator:

Run Time: 07/10/89 11:05:54
Comment: SF6231
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.3322	L-.07276	L29.071	L-50.400	31.366	77.762	L.11302
#1	L-.20311	L-.02249	L13.214	L-43.834	34.336	76.117	L.09055
#2	L.76603	L-.08599	L27.372	L-61.204	31.414	77.203	L.20115
#3	L3.4338	L-.10980	L46.628	L-46.161	28.350	79.967	L.04736

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	95.984	H114.57	L2.0381	L-1.6628	L3.0465	19.814	30.352
#1	95.241	H100.76	L1.6154	L1.9038	L4.1992	16.550	30.029
#2	95.205	H108.11	L3.7462	L-4.8198	L5.1873	21.442	30.127
#3	97.507	H134.83	L.75271	L-2.0725	L-.24701	21.449	30.900

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L25.724	L.03009	L1.7428	13.947	85.050	L-.85134	19.119
#1	L29.226	L.11660	L.31925	17.328	84.930	L-3.1729	18.818
#2	L23.791	L-.03009	L2.7686	14.792	84.487	L-1.6125	19.078
#3	L24.154	L.00376	L2.1405	L9.7204	85.733	L2.2314	19.462

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L9.5790	L3.2152	L21.985	117.72	L3.0336	L.05178	L.51944
#1	L3.1930	L35.582	L37.555	115.97	L3.8232	L-1.7763	L.81627
#2	L12.035	L-5.6311	L12.512	117.06	L2.3272	L.62835	L.14841
#3	L13.509	L-20.305	L15.887	120.13	L2.9505	L1.3033	L.59365

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L8.5906	L-.55526	20.848	-123.22
#1	L9.3464	L-.31969	26.407	-131.35
#2	L8.5899	L-.65862	9.7289	-121.43
#3	L7.8355	L-.68746	26.407	-116.89

Method: SED5 Sample Name: 89FS22D12 Operator:
Run Time: 07/10/89 11:09:03
Comment: SF6231
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.1842	L-.05953	L.56633	L-19.561	29.332	76.281	L-.01074
#1	L1.2600	L-.06218	L-33.791	L-25.650	26.487	74.833	L.03417
#2	L3.4881	L-.02249	L3.5867	L-22.478	35.591	76.808	L-.25876
#3	L-1.1955	L-.09393	L31.903	L-10.554	25.919	77.203	L.19236

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mo

Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	94.956	H103.58	L1.5208	L-.69887	L.00014	20.740	30.006
#1	93.978	H96.674	L2.4613	L-1.9279	L1.2353	21.462	29.707
#2	95.313	H103.41	L1.0055	L4.0727	L-1.4819	24.851	30.055
#3	95.576	H110.66	L1.0956	L-4.2414	L.24701	15.907	30.255

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L15.700	L.04138	L3.1349	14.792	81.601	L-1.6266	18.700
#1	L16.908	L.05454	L4.0874	14.792	80.808	L-2.1299	18.506
#2	L17.632	L.06583	L4.8411	17.328	81.884	L6.1938	18.669
#3	L12.560	L.00376	L.47626	12.256	82.110	L-8.9437	18.927

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L7.6141	L13.461	L26.317	115.97	L2.9090	L.67141	L-.07421
#1	L4.6667	L9.0639	L2.8993	114.43	L2.8259	L.21066	L.14841
#2	L7.2457	L.40997	48.134	116.19	L3.8232	L3.8088	L-.07421
#3	L10.930	L30.910	L27.917	117.28	L2.0778	L-2.0052	L-.29683

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L5.1146	L-.49036	4.1695	-138.91
#1	L5.5784	L-.47113	9.7289	-166.22
#2	L5.2791	L-.37017	-6.9492	-116.89
#3	L4.4862	L-.62977	9.7289	-133.62

Method: SED5 Sample Name: 89FS11R17 Operator:
Run Time: 07/10/89 11:12:42
Comment: SF6231
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L3.8902	L-.00397	L46.250	L-.88476	11.287	L.98725	L.08813
#1	L5.2865	L.01720	L52.857	L6.9444	11.678	L1.3821	L.27658
#2	L4.6683	L-.00661	L46.061	L4.9174	12.589	L.98725	L-.08592
#3	L1.7158	L-.02249	L39.832	L-14.516	L9.5958	L.59235	L.07373

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.15141	L.15868	L3.2215	L-.43378	L1.7291	123.56	L.01936
#1	L.16620	L.16887	L1.4729	L2.5545	L-2.2231	123.67	L.02275
#2	L.14491	L.15339	L3.8687	L-1.4941	L1.7291	123.97	L.01799
#3	L.14313	L.15379	L4.3229	L-2.3617	L5.6813	123.03	L.01734

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L14.009	L-.06018	L2.2295	L-1.2679	L.21299	L1.7027	L.15826
#1	L16.183	L-.04138	L2.1091	L-.42263	L.43769	L2.8682	L.18087

#2	L13.284	L-.04138	L2.9099	L-.42263	L.26788	L2.5771	L.14938
#3	L12.560	L-.09780	L1.6695	L-2.9584	L-.06662	L-.33725	L.14453

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	15.965	L31.600	47.311	L.43816	L4.0726	L3.1163	L.29683
#1	22.351	L45.298	51.965	L.51119	L4.5712	L4.8017	L.81627
#2	17.193	L36.446	51.485	L.51119	L4.3219	L3.8198	L.37103
#3	L8.3510	L13.056	L38.484	L.29211	L3.3245	L.72729	L-.29683

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L11.909	L-.10817	27.797	41.767
#1	L12.969	L-.00961	34.746	49.516
#2	L11.654	L-.08894	22.237	40.444
#3	L11.103	L-.22595	26.407	35.341

Method: SED5 Sample Name: 89FS22S11 DUP Operator:
Run Time: 07/10/89 11:16:06
Comment: SF6231
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.14382	L-.06747	L-1.1327	L-9.9029	23.627	47.849	L-.07960
#1	L.56232	L-.10187	L26.806	L-25.802	22.435	48.375	L.00047
#2	L.01049	L-.03837	L-20.765	L-2.3153	23.299	47.585	L-.08741
#3	L-.14135	L-.06218	L-9.4388	L-1.5915	25.147	47.585	L-.15186

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	88.217	H90.480	L.31213	L-1.9761	L3.7883	11.851	27.209
#1	88.837	H90.782	L-.55685	L-4.2414	L6.1760	11.639	27.440
#2	87.771	H90.265	L-.60780	L1.6869	L3.7060	13.500	27.023
#3	88.043	H90.394	L2.1010	L-3.3739	L1.4828	10.414	27.165

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	208.20	L.21346	L1.0310	11.411	154.79	L-1.1478	11.427
#1	208.93	L.18431	L.17794	L7.1847	155.90	L-3.6333	11.543
#2	207.48	L.24355	L1.8579	17.328	153.75	L3.8211	11.345
#3	208.20	L.21252	L1.0572	L9.7204	154.71	L-3.6312	11.393

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	47.650	L11.202	L22.976	101.87	L2.7427	L.96988	L.14841
#1	54.036	L14.951	L34.683	103.04	L1.8285	L-.05575	L.81627
#2	48.878	L6.4320	L29.396	101.07	L3.5739	L2.2422	L-.40813
#3	40.035	L12.224	L4.8495	101.51	L2.8259	L.72320	L.03710

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L

Avge	L15.923	L-.54805	6.9492	-132.39
#1	L14.990	L-.71631	26.407	-117.74
#2	L16.286	L-.42786	-15.288	-140.42
#3	L16.493	L-.49997	9.7289	-139.00

Method: SED5 Sample Name: 89FS22S11 SPK Operator:
Run Time: 07/10/89 11:19:25
Comment: SF6231
Mode: CONC Corr. Factor: 1.52

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	52.575	L.78288	794.02	L-38.105	866.88	252.11	10.102
#1	53.058	L.78288	801.78	L-57.737	868.51	252.03	9.6774
#2	53.766	L.75322	748.16	L-42.014	859.85	250.68	10.053
#3	50.900	L.81255	832.12	L-14.563	872.28	253.63	10.575

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	137.78	Q.00000	28.271	95.480	99.405	61.399	H51.675
#1	137.66	Q.00000	28.584	96.230	95.712	62.296	H51.650
#2	136.71	Q.00000	29.280	94.609	101.87	61.900	H51.307
#3	138.97	Q.00000	26.950	95.600	100.64	60.000	H52.066

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	973.81	L1.2161	23.017	70.558	255.62	102.05	63.490
#1	978.02	L1.2278	22.561	67.399	255.08	98.447	63.334
#2	967.19	L1.1716	24.654	72.138	253.74	103.59	63.114
#3	976.22	L1.2489	21.837	72.138	258.04	104.10	64.021

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	196.46	796.83	446.82	1114.3	103.45	49.075	51.358
#1	203.19	806.51	453.42	1114.6	103.24	50.973	50.803
#2	196.31	762.78	456.41	1107.1	102.93	49.128	50.665
#3	189.88	821.21	430.64	1121.4	104.17	47.125	52.606

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	409.46	L-.06589	813.85	604.79
#1	409.54	L-.01198	775.76	627.86
#2	407.91	L-.10182	812.12	554.75
#3	410.95	L-.08385	853.68	631.75

Method: SED5 Sample Name: DIGESTION BLANK Operator:
Run Time: 07/10/89 11:23:20
Comment: SF6231
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.3627	L-.06482	L31.337	L-33.534	L-3.9625	L.42781	L.00465
#1	L.74129	L-.07805	L32.469	L-47.798	L-6.1560	L.39490	L-.12912
#2	L2.8262	L-.03043	L26.806	L-31.870	L-1.9790	L.69107	L.20847
#3	L.52064	L-.08599	L34.735	L-20.933	L-3.7526	L.19745	L-.06541

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.09094	L.10933	L2.3971	L-1.8074	L4.0344	L5.0033	L.00789
#1	L.08147	L.11061	L1.9199	L-3.0847	L5.4343	L4.7881	L.00803
#2	L.10587	L.10741	L3.2651	L-.26509	L5.1873	L4.8101	L.00782
#3	L.08547	L.10997	L2.0064	L-2.0725	L1.4817	L5.4116	L.00782

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L10.990	L-.11096	L.86354	L-2.9584	L-.74465	L1.5630	L.09528
#1	L9.2991	L-.15422	L.66466	L-2.9584	L-1.1935	L1.9866	L.07428
#2	L11.111	L-.05830	L.46056	L-.42263	L-.29660	L2.5177	L.12516
#3	L12.560	L-.12036	L1.4654	L-5.4942	L-.74380	L.18486	L.08640

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L2.2105	L-2.8098	L25.170	L.03651	L2.3272	L1.4199	L-.40813
#1	L-4.9123	L-3.8391	L23.078	L-.14605	L1.5792	L.82290	L-.96468
#2	L5.4036	L-10.922	L23.091	L.29211	L3.8232	L1.8307	L.37103
#3	L6.1404	L6.3316	L29.340	L-.03651	L1.5792	L1.6062	L-.63075

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L1.7396	L-.27402	-11.119	17.482
#1	L1.1832	L-.37017	-31.966	13.229
#2	L1.7342	L-.13220	22.237	21.450
#3	L2.3015	L-.31969	-23.627	17.765

Method: SED5 Sample Name: 89FS11R17 Operator:
Run Time: 07/10/89 11:30:14
Comment: SF6231 undigested
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.55475	L-.00542	L-6.9630	L-17.389	L1.5776	L-.21579	L.00020
#1	L1.2246	L.00759	L-9.5935	L-26.536	L1.8016	L-.16184	L-.08724
#2	L.60377	L-.02494	L-2.6305	L-18.877	L.36067	L-.32369	L.04902
#3	L-.16408	L.00108	L-8.6651	L-6.7543	L2.5705	L-.16184	L.03882

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.00315	L.00591	L.27546	L.13827	L.06745	124.42	L-.00012

#1	L.00606	L.00565	L2.3475	L.25679	L2.6321	124.58	L-.00015
#2	L.00024	L.00630	L-.34191	L.43457	L.60729	125.59	L.00003
#3	L.00315	L.00578	L-1.1793	L-.27655	L-3.0371	123.07	L-.00024

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-1.3859	L-.00077	L.32603	L2.4249	L.21658	L-.57254	L.00199
#1	L-2.1778	L.03083	L.94376	L5.8891	L.39930	L-.41111	L.01125
#2	L-.98993	L-.03623	L.86654	L-.34642	L.03421	L-1.8474	L-.00662
#3	L-.98993	L.00308	L-.83223	L1.7321	L.21623	L.54091	L.00132

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L5.9391	L3.1373	L14.463	L.17958	L.47688	L-.27383	L-.18247
#1	L1.7113	L.80143	L12.627	L.23943	L1.0900	L.01613	L-.15206
#2	L8.6570	L-13.707	L-.79336	L.05986	L.06813	L-.82133	L-.24330
#3	L7.4490	L22.317	L31.556	L.23943	L.27250	L-.01628	L-.15206

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L6.3625	L.03941	-17.088	-10.844
#1	L6.6653	L.05123	-19.367	-14.716
#2	L5.8997	L-.03152	-12.531	-7.9779
#3	L6.5223	L.09851	-19.367	-9.8368

Method: SED5 Sample Name: SOILS BLANK 29 Operator:
Run Time: 07/10/89 11:33:44
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.32206	L-.05747	L56.633	L-29.579	12.244	L2.1849	L-.09245
#1	L2.0667	L-.07048	L71.642	L-28.184	11.758	L2.5895	L-.20729
#2	L-.36856	L-.06398	L55.395	L-33.716	14.233	L1.8612	L-.09325
#3	L-.73197	L-.03795	L42.861	L-26.836	10.740	L2.1040	L.02320

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.35039	L.35136	L1.2077	L-.63211	74.846	6.9938	L.05479
#1	L.34421	L.35121	L.49857	L1.9753	76.736	9.0091	L.05447
#2	L.34966	L.35357	L.82940	L-.86915	72.687	L5.4803	L.05482
#3	L.35730	L.34931	L2.2953	L-3.0025	75.116	6.4919	L.05509

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	262.52	L.05087	L.75501	L-6.5819	L1.4182	L.84668	L.41932
#1	257.37	L.03546	L2.6425	L-6.5819	L1.4196	L5.3617	L.40939
#2	266.88	L.05396	L.26168	L-6.5819	L1.3251	L.30624	L.41634
#3	263.31	L.06320	L-.63918	L-6.5819	L1.5098	L-3.1279	L.43223

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L3.9258	L-1.5545	L28.411	L2.0651	L9.4013	L.90242	9977.3
#1	L5.6371	L-2.0475	L36.298	L2.0352	L9.6738	L3.2146	9971.6
#2	L1.4093	L-6.7309	L27.623	L2.0352	L9.0607	L-1.1652	10035.
#3	L4.7311	L4.1149	L21.312	L2.1250	L9.4695	L.65789	9925.6

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L27.225	L-.55561	29.620	53.599
#1	L27.524	L-.59896	28.480	63.591
#2	L27.539	L-.62851	11.392	49.881
#3	L26.611	L-.43937	48.986	47.325

Method: SED5 Sample Name: ICS Operator:
Run Time: 07/10/89 11:37:22
Comment: EPA 1287
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.3383	H503.47	H484870.	L34.348	45.253	L2.0230	L-.20391
#1	L-3.7148	H505.29	H485780.	L23.341	46.028	L1.7803	L.21885
#2	L-2.5276	H503.02	H484320.	L24.715	46.220	L2.0230	L-.40897
#3	L-.77266	H502.11	H484500.	54.988	43.510	L2.2658	L-.42160

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	H492.94	Q.00000	L-.48994	L5.8075	40.884	L4.5528	Q.00000
#1	H492.73	Q.00000	L-.75237	L2.8050	36.971	L2.9345	Q.00000
#2	H492.11	Q.00000	L-1.3314	8.0791	44.258	L4.5729	Q.00000
#3	H493.98	Q.00000	L.61394	6.5383	41.424	6.1509	Q.00000

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	H208480.	215.97	L-1.2140	48.152	55.900	L2.2784	L.27700
#1	H208800.	216.24	L-2.1063	47.459	56.184	L.37548	L.27038
#2	H208250.	215.69	L-.84509	51.616	55.817	L.95331	L.27534
#3	H208400.	215.96	L-.69066	45.381	55.699	L5.5065	L.28527

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L8.2543	L43.906	L-46.577	145.81	L8.3795	L2.2251	L4.7443
#1	L8.6570	L48.927	L-52.939	146.41	L8.0388	L.71287	6.6907
#2	L8.0530	L24.084	L-39.892	145.69	L8.4476	L2.5282	L3.7711
#3	L8.0530	L58.706	L-46.900	145.34	L8.6520	L3.4343	L3.7711

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L38.109	L-.67383	514620.	484480.
#1	L36.904	L-.70535	516410.	485360.

#2	L37.886	L-.65807	514280.	483980.
#3	L39.536	L-.65807	513180.	484120.

Method: SED5 Sample Name: INSTR BLANK 2 Operator:
Run Time: 07/10/89 11:41:25
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.87395	L.36757	433.26	L-13.014	L-1.4110	L-.05395	L.01239
#1	L1.6839	L.00108	L51.681	L-9.5011	L.34054	L.40461	L.16127
#2	L1.8080	L.00759	L58.180	L-21.517	L-.61152	L-.24277	L-.06202
#3	L-.87003	L1.0940	1189.9	L-8.0240	L-3.9619	L-.32369	L-.06207

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.39899	L.40399	L-.20006	L-.71112	L-.67455	L1.9589	.42873
#1	L.02206	L.03206	L-.09603	L2.3309	L-.00004	L3.9512	L.03230
#2	L.03224	L.04802	L-.37316	L-1.1062	L.20225	L1.9196	L.04933
#3	L1.1427	1.1319	L-.13099	L-3.3581	L-2.2259	L.00588	1.2046

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	183.82	L.10483	L.78504	L-2.0785	L-.53529	L-.13515	L-.04434
#1	L15.640	L-.01079	L2.8356	L3.8106	L-.15367	L-.27116	L-.02250
#2	L19.501	L-.06629	L-.07293	L-4.5034	L-.51981	L.72646	L-.04434
#3	516.33	L.39156	L-.40753	L-5.5427	L-.93239	L-.86076	L-.06618

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L5.4358	L15.811	L21.429	L-.14965	L-1.3625	L1.7298	L.69949
#1	L5.9391	L3.1134	L23.667	L-.11972	L-.54501	L4.6051	L.39536
#2	L9.8649	L41.422	L15.372	L-.20950	L-1.1581	L.81955	L.30412
#3	L.50331	L2.8967	L25.249	L-.11972	L-2.3844	L-.23524	L1.3990

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L-2.1491	L-.21279	398.72	418.57
#1	L-2.1192	L-.06699	14.810	39.192
#2	L-2.4870	L-.18520	42.151	55.923
#3	L-1.8409	L-.38617	1139.2	1160.6

Method: SED5 Sample Name: INSTR BLANK 2 Operator:
Run Time: 07/10/89 11:45:05
Comment: (again)
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.42756	L-.02928	L11.296	L-18.847	L1.2291	L.08092	L-.05722

#1	L.45302	L-.01193	L23.365	L-27.431	L3.8595	L.24277	L-.18448
#2	L-1.0128	L-.04446	L-1.2379	L-14.271	L-1.5617	L-.16184	L-.04701
#3	L1.8424	L-.03145	L11.760	L-14.840	L1.3896	L.16184	L.05983

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.00957	L.00857	L1.2155	L-.77038	L-.74268	L.98997	L.00469
#1	L-.00339	L.01114	L1.7980	L1.7383	L.60723	L1.9227	L.00747
#2	L-.01576	L.00761	L.50369	L-2.8840	L-2.2276	L-1.3745	L.00357
#3	L-.00957	L.00696	L1.3447	L-1.1654	L-.60767	L2.4216	L.00304

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.00001	L-.08479	L.60486	L-2.0785	L-.58000	L.15258	L-.04864
#1	L3.7616	L-.05241	L1.5358	L-1.3857	L-.24270	L2.5881	L-.02846
#2	L-2.7717	L-.12410	L-.83223	L-2.4249	L-.97853	L-2.2357	L-.08504
#3	L-.98993	L-.07785	L1.1111	L-2.4249	L-.51877	L.10540	L-.03243

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.5099	L27.740	L24.707	L-.26936	L-1.1581	L1.1697	L-.18247
#1	L.20133	L32.978	L33.915	L-.11972	L-.34063	L2.3029	L-.15206
#2	L6.2411	L32.898	L14.971	L-.47886	L-1.9756	L-1.9112	L-.42577
#3	L-10.972	L17.345	L25.234	L-.20950	L-1.1581	L3.1173	L.03041

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L-.60963	L-.22855	1.1392	8.1328
#1	L-.72058	L-.11427	1.1392	15.026
#2	L-1.1571	L-.31524	1.1392	-1.4716
#3	L.04879	L-.25613	1.1392	10.844

Method: SED5 Sample Name: AQC 2 Operator:
Run Time: 07/10/89 11:47:53
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q509.41	5.7586	5179.3	5233.9	5162.7	5145.8	Q5262.5
#1	Q509.44	5.7695	5195.0	5247.2	5162.2	5159.1	Q5273.9
#2	Q505.32	5.7304	5112.0	5173.9	5096.9	5068.8	5198.9
#3	Q513.48	5.7760	5230.8	Q5280.7	5229.2	5209.6	Q5314.5

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	5.3825	5.1134	Q5312.4	5188.1	5100.1	5215.1	5.1325
#1	5.3892	5.1288	Q5322.2	5182.4	5146.6	5236.9	5.1436
#2	5.3416	5.0399	Q5275.1	5151.4	5031.8	5139.0	5.0772
#3	5.4168	5.1716	Q5339.9	5230.4	5121.9	Q5269.2	5.1766

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	5090.0	6.4669	-.26168	5184.5	5176.8	5201.2	-.02912
#1	5104.2	6.4568	.36463	5214.6	5182.3	5210.5	-.03640
#2	5040.4	6.4869	1.3298	5081.6	5123.6	5162.2	-.00265
#3	5125.3	6.4568	-2.4795	Q5257.2	5224.7	5230.8	-.04831

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5173.0	5194.0	5053.7	5241.1	5143.4	5071.6	Q5256.6
#1	5181.7	5223.9	5050.4	Q5255.2	5156.6	5091.6	Q5268.3
#2	5139.4	5173.0	5065.8	5165.1	5080.9	5006.9	5190.2
#3	5198.0	5185.0	5044.9	Q5302.9	5192.6	5116.2	Q5311.3

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	5102.7	4.8587	4968.1	5176.2
#1	5095.8	4.8508	4977.2	5190.5
#2	5063.6	4.9808	4922.5	5105.2
#3	5148.6	4.7444	5004.6	5233.0

Method: SED5 Sample Name: AQC 2 Operator:
Run Time: 07/10/89 11:51:27
Comment: (again)
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q509.75	5.7716	5176.8	5242.8	5180.4	5131.4	Q5263.7
#1	Q510.39	5.7304	5164.9	Q5260.6	5153.7	5120.7	5244.4
#2	Q513.72	5.8247	5241.0	Q5288.9	Q5266.0	5203.2	Q5326.5
#3	Q505.13	5.7597	5124.5	5178.7	5121.5	5070.2	5220.2

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	5.3880	5.1121	Q5319.0	5200.4	5116.6	5210.4	5.1303
#1	5.3761	5.0997	Q5319.9	5177.9	5118.4	5195.8	5.1153
#2	5.4197	5.1822	Q5365.8	Q5255.5	5165.8	Q5280.9	5.1834
#3	5.3681	5.0545	Q5271.5	5168.0	5065.4	5154.4	5.0922

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	5086.5	6.4792	-.38608	5182.0	5168.0	5207.7	-.02713
#1	5063.6	6.4360	-1.3470	5168.9	5151.0	5189.6	-.02250
#2	5135.4	6.4961	.39037	Q5262.4	5223.7	Q5259.5	-.03640
#3	5060.6	6.5054	-.20162	5114.8	5129.1	5173.9	-.02250

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5195.3	5230.8	5073.8	5235.5	5131.0	5065.8	Q5254.0

#1	5190.8	5160.0	5105.6	5223.3	5115.8	5047.2	5240.1
#2	Q5251.5	Q5299.8	5068.6	Q5307.9	5190.5	5124.1	Q5318.0
#3	5143.6	5232.6	5047.3	5175.3	5086.6	5026.0	5203.9

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	5102.7	4.8665	4965.8	5171.3
#1	5088.9	4.9631	4929.4	5165.6
#2	5148.4	4.7385	5035.3	5232.6
#3	5070.9	4.8981	4932.8	5115.7

Method: SED5 Sample Name: ~~HGIH~~ HIGH DLJ 7/13/89 AQC 2 Operator:
Run Time: 07/10/89 11:54:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q.74392	100.69	Q100050.	Q9.0198	Q.77591	Q2.6165	Q1.8821
#1	Q2.2419	101.33	Q100640.	Q13.117	Q6.0458	Q3.5606	Q2.4726
#2	Q.86990	100.09	Q99284.	Q9.6709	Q1.8566	Q2.3467	Q1.3057
#3	Q-.88001	100.65	Q100210.	Q4.2715	Q-5.5747	Q1.9421	Q1.8681

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	101.35	Q.00000	Q3.5884	Q1.1654	Q2.4246	Q2.3128	Q82.511
#1	101.90	Q.00000	Q4.1514	Q1.2642	Q2.9661	Q4.5245	Q82.589
#2	100.79	Q.00000	Q3.4991	Q2.2716	Q2.5578	Q1.5189	Q82.412
#3	101.35	Q.00000	Q3.1146	Q-.03951	Q1.7498	Q.89518	Q82.533

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q95918.	98.626	102.03	Q9.3532	Q11.275	Q11.997	108.03
#1	Q96437.	99.099	103.08	Q10.046	Q12.129	Q16.994	108.83
#2	Q95382.	98.100	101.06	Q10.046	Q10.920	Q10.907	107.20
#3	Q95935.	98.680	101.96	Q7.9676	Q10.775	Q8.0891	108.06

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q4.6305	Q12.864	Q9.7695	Q4.0105	Q1.9756	Q3.1521	Q2.6459
#1	Q1.1073	Q16.684	Q6.9186	Q4.9084	Q2.7250	Q5.8153	Q3.5887
#2	Q6.8450	Q4.3852	Q-3.0366	Q3.4718	Q1.7031	Q1.9698	Q2.7675
#3	Q5.9391	Q17.524	Q25.427	Q3.6514	Q1.4988	Q1.6713	Q1.5814

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q91697.	99.699	99827.	99935.
#1	Q92242.	100.31	100470.	100540.
#2	Q91269.	99.092	99174.	99160.
#3	Q91578.	99.695	99837.	100110.

Method: SED5 Sample Name: AG AQC 2 Operator:
Run Time: 07/10/89 11:57:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	54.199	.04229	Q52.610	Q-.02842	Q8.3677	Q.51251	Q.68830
#1	52.898	.05313	Q85.104	Q-3.9999	Q10.500	Q.80922	Q.73932
#2	Q56.151	.04012	Q41.469	Q32.809	Q6.2945	Q.40461	Q.86718
#3	53.548	.03362	Q31.256	Q-28.895	Q8.3085	Q.32369	Q.45840

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	.02739	Q.03647	Q2.1713	Q.67161	Q.87737	Q1.8551	Q.02887
#1	.06387	Q.07130	Q2.8587	Q1.0272	Q2.6321	Q2.4514	Q.06405
#2	.01515	Q.02199	Q2.6220	Q1.5013	Q4.2519	Q1.9387	Q.01439
#3	.00315	Q.01611	Q1.0333	Q-.51359	Q-4.2519	Q1.1752	Q.00818

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q33.657	.01927	.27455	Q1.7321	Q.36942	Q-.74594	.02383
#1	Q68.501	.05164	.22307	Q1.7321	Q.49021	Q-4.0352	.05493
#2	Q18.610	.01696	.50620	Q1.7321	Q.40055	Q1.3530	.01522
#3	Q13.859	-.01079	.09438	Q1.7321	Q.21749	Q.44444	.00132

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q.90596	Q.13826	Q16.568	Q.68837	Q.06813	Q2.3362	Q.66907
#1	Q10.469	Q12.927	Q27.617	Q.77816	Q-.13625	Q2.8137	Q.94279
#2	Q-9.1603	Q-8.6389	Q4.7339	Q.77816	Q.47688	Q3.0671	Q.85155
#3	Q1.4093	Q-3.8737	Q17.352	Q.50880	Q-.13625	Q1.1277	Q.21289

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q34.992	-.05911	53.543	49.959
#1	Q71.066	.01576	62.657	84.271
#2	Q20.181	-.04335	62.657	39.192
#3	Q13.731	-.14974	35.316	26.412

Standard: blnk

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.00860	.17620	.01133	-.01667	.11680	.00040	-.00033
#1	-.00920	.17680	.01080	-.00600	.11600	.00060	-.00020
#2	-.00680	.17680	.01240	-.01360	.11560	.00020	-.00040
#3	-.00980	.17500	.01080	-.03040	.11880	.00040	-.00040

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	.40493	.05587	.00637	.01187	-.00013	.00453	.02253
#1	.40580	.05680	.00350	.01980	-.00040	.00440	.02360
#2	.40720	.05400	.00780	.01060	.00120	.00520	.02160
#3	.40180	.05680	.00780	.00520	-.00120	.00400	.02240

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.13813	.37533	.05040	.03747	.11913	.01040	.27860
#1	.13920	.37760	.03320	.03760	.11960	.01520	.27980
#2	.13760	.37640	.06000	.03800	.11980	-.00280	.28080
#3	.13760	.37200	.05800	.03680	.11800	.01880	.27520

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	-.00093	.00267	.00220	.04467	.16927	.00373	-.00047
#1	-.00200	.00240	.00920	.04520	.17000	.00280	.00120
#2	.00100	.00400	-.00040	.04480	.17000	.00400	-.00100
#3	-.00180	.00160	-.00220	.04400	.16780	.00440	-.00160

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	.17107	.38560	.00913	.00810
#1	.17240	.38560	.00960	.00940
#2	.17080	.39080	.00920	.00800
#3	.17000	.38040	.00860	.00690

Standard: ten1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	1.0514	.19213	.16040	8.2995	.20113	.00053	-.00073
#1	1.0524	.19120	.15900	8.3298	.20120	.00040	-.00020
#2	1.0422	.19320	.16100	8.2354	.20080	.00080	-.00080
#3	1.0596	.19200	.16120	8.3332	.20140	.00040	-.00120

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	.46360	.06227	.26107	35.248	10.366	-.00660	22.672
#1	.46440	.06280	.26270	35.357	10.369	-.00840	22.727
#2	.46560	.06160	.25440	34.902	10.265	-.00620	22.455
#3	.46080	.06240	.26610	35.486	10.466	-.00520	22.835

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.14760	.48607	.04980	2.0647	.12487	43.931	21.164
#1	.14840	.48480	.01840	2.0772	.12440	44.043	21.279
#2	.14840	.48980	.07380	2.0344	.12620	43.508	20.893
#3	.14600	.48360	.05720	2.0826	.12400	44.243	21.319

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	-.00123	.87380	5.0481	23.483	.17533	-.70340	23.090
#1	-.00270	.86860	5.0364	23.571	.17520	-.71920	23.142
#2	-.00100	.87260	5.0130	23.168	.17680	-.69620	22.815
#3	.00000	.88020	5.0948	23.710	.17400	-.69480	23.314

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	.17560	.37993	.01253	.15940
#1	.17720	.37940	.01160	.15980
#2	.17560	.38400	.01320	.16020
#3	.17400	.37640	.01280	.15820

Standard: ten2

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Avge	-.16893	.20347	.01467	.08540	8.4242	.00033	34.914
#1	-.16840	.20320	.01320	.09440	8.3910	.00010	34.837
#2	-.16720	.20520	.01720	.07540	8.3450	.00060	34.615
#3	-.17120	.20200	.01360	.08640	8.5366	.00030	35.290

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Avge	6.2474	30.535	37.367	.06413	-.13007	8.2619	.03000
#1	6.2324	30.444	37.279	.05980	-.13100	8.2456	.03080
#2	6.2216	30.219	37.198	.06740	-.12720	8.1724	.02920
#3	6.2882	30.944	37.625	.06520	-.13200	8.3678	.03000

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Avge	.19600	.49313	1.6208	.03787	44.726	.02867	.28680
#1	.19600	.49040	1.6012	.03760	44.570	.02980	.28760
#2	.19720	.49560	1.6296	.03840	44.397	.03620	.29040
#3	.19480	.49340	1.6316	.03760	45.211	.02000	.28240

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Avge	3.4619	.01877	-.00080	.04953	.16913	25.278	.00387
#1	3.4588	.01860	-.01000	.05040	.16920	25.204	.00560
#2	3.4382	.01840	-.00160	.04940	.17100	25.054	.00360
#3	3.4887	.01930	.00920	.04880	.16720	25.576	.00240

Elem	Znlow	Znhigh	2A1308	2A1396
Avge	26.827	.72867	.00013	.00363
#1	26.779	.72960	.00040	.00440
#2	26.686	.73040	.00040	.00570
#3	27.017	.72600	-.00040	.00080

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Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Cd	228.800	ten2	blnk	267.660	-1.70410	07/10/89 12:08:51
Be	234.800	ten2	blnk	286.416	.095472	07/10/89 12:08:51
Y	371.000	ten1	blnk	433.072	.202100	07/10/89 12:05:53
As	193.600	ten1	blnk	1202.48	20.0414	07/10/89 12:05:53

Method: SED5 Sample Name: INSTR BLANK 3 Operator:
Run Time: 07/10/89 12:12:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.56575	L-.02386	L6.4988	L-10.459	48.697	L.00000	1.1460
#1	L.42539	L-.04121	L15.473	L-.43609	54.190	L.16184	1.2656
#2	L-.57347	L-.01843	L8.9746	L-15.696	48.688	L.00000	1.3723
#3	L-1.5492	L-.01193	L-4.9515	L-15.244	43.212	L-.16184	L.80008

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.01454	L.00208	L.68632	L-2.2321	L3.5095	L2.3382	L-.00393
#1	L-.02012	L.00199	L.73413	L-2.8840	L3.8469	L3.4274	L-.00405
#2	L-.01212	L.00251	L1.0125	L-1.4025	L3.4420	L2.9295	L-.00370
#3	L-.01139	L.00173	L.31230	L-2.4099	L3.2395	L.65773	L-.00405

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-3.2667	L-.07477	L.27026	L-1.7321	L.74908	L-1.3415	L-.01985
#1	L-3.9596	L-.09403	L.44185	L1.7321	L.59617	L2.3464	L-.03640
#2	L-1.8808	L-.06397	L.77646	L-4.5034	L1.1502	L-4.0440	L-.00662
#3	L-3.9596	L-.06629	L-.40753	L-2.4249	L.50087	L-2.3268	L-.01655

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L8.2543	L2.2356	L14.847	L.38908	L-1.4306	L.64508	L.00000
#1	L10.469	L-5.4301	L23.654	L.23943	L-1.7713	L1.1666	L.37533
#2	L11.677	L-.54139	L13.007	L.50880	L-1.1581	L.01482	L-.14436
#3	L2.6172	L12.678	L7.8790	L.41901	L-1.3625	L.75378	L-.23097

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L3.2007	L-.22067	-2.2784	1.8589
#1	L2.8133	L-.31524	11.392	9.4495
#2	L3.1965	L-.19703	-5.6961	3.8728
#3	L3.5923	L-.14974	-12.531	-7.7455

Method: SED5 Sample Name: INSTR BLANK 3 Operator:
Run Time: 07/10/89 12:15:34
Comment: (again)
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.64188	L-.04012	L10.677	L-2.0459	L8.0363	L-.02697	L.34702
#1	L-.18341	L-.07699	L3.8684	L-8.1986	L7.9240	L-.48553	L.36464
#2	L3.2475	L-.01843	L27.543	L-8.0019	10.337	L.32369	L.56855

#3	L-1.1385	L-.02494	L.61894	L10.063	L5.8478	L.08092	L.10788

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-.01491	L.00264	L1.3115	L-1.5408	L1.0121	L2.9244	L-.00402
#1	L-.02630	L.00251	L.35137	L-2.8247	L-.20299	L1.3946	L-.00414
#2	L-.00558	L.00277	L2.6530	L1.2642	L1.4171	L5.4548	L-.00388
#3	L-.01285	L.00264	L.93023	L-3.0618	L1.8222	L1.9238	L-.00405

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L-3.1677	L-.08633	L1.2398	L-2.4249	L-.30149	L-.91299	L-.03640
#1	L-5.7415	L-.15416	L-.12440	L-2.4249	L-.69744	L-1.3793	L-.06221
#2	L-.39597	L-.05704	L3.4533	L-2.4249	L-.05670	L-1.9444	L-.01655
#3	L-3.3657	L-.04779	L.39037	L-2.4249	L-.15033	L.58475	L-.03044

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.1073	L9.7273	L20.368	L.17958	L-1.4988	L2.2483	L-.25984
#1	L1.4093	L-18.695	L6.2906	L-.11972	L-2.7932	L.97656	L-.31759
#2	L-1.0066	L30.491	L24.053	L.41901	L-.34063	L4.2810	L.02887
#3	L-3.7245	L17.386	L30.760	L.23943	L-1.3625	L1.4874	L-.49081

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L.61111	L-.20491	-27.341	.92946
#1	L.21674	L-.37435	-26.202	-3.5629
#2	L.80023	L-.05517	-26.202	10.844
#3	L.81636	L-.18520	-29.620	-4.4924

Method: SED5 Sample Name: AQC 3 Operator:
Run Time: 07/10/89 12:18:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q505.68	5.7380	5149.6	5015.4	5139.7	5117.5	5053.5
#1	Q503.46	5.7174	5131.9	4973.6	5120.8	5103.1	5042.0
#2	Q507.07	5.7597	5151.9	5025.8	5135.5	5108.6	5051.6
#3	Q506.52	5.7369	5164.9	5046.8	5162.7	5140.8	5066.9

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	5.3817	5.0893	5100.1	5180.8	5096.4	5189.3	5.0912
#1	5.3645	5.0766	5091.5	5170.8	5067.8	5174.1	5.0790
#2	5.3910	5.0786	5102.5	5186.5	5090.9	5181.9	5.0934
#3	5.3896	5.1128	5106.4	5185.0	5130.6	5212.0	5.1012

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L

Avge	5053.9	6.4422	.16301	5149.5	5152.4	5181.7	-.03772
#1	5048.1	6.4499	.00429	5130.4	5139.7	5166.6	-.03243
#2	5057.9	6.4430	.73785	5138.7	5156.0	5189.8	-.03441
#3	5055.8	6.4337	-.25310	5179.3	5161.4	5188.7	-.04633

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5166.8	5218.3	5039.5	5216.5	5119.8	5038.4	4972.5
#1	5146.1	5153.2	5066.2	5202.2	5106.9	5027.1	4960.6
#2	5171.4	5248.8	5048.1	5206.7	5115.7	5042.6	4966.1
#3	5182.9	Q5252.9	5004.3	5240.4	5136.7	5045.6	4990.7

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	5088.7	4.8626	4914.6	5141.8
#1	5071.6	4.8094	4888.4	5123.3
#2	5083.6	4.9335	4932.8	5142.9
#3	5111.0	4.8449	4922.5	5159.1

Method: SED5 Sample Name: HIGH AQC 3 Operator:
Run Time: 07/10/89 12:21:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-.87677	101.56	Q100980.	Q6.9124	Q.69669	Q5.1251	Q3.6229
#1	Q.48794	101.28	Q100960.	Q15.732	Q4.4878	Q6.6356	Q5.1579
#2	Q-3.5232	102.73	Q102310.	Q5.6648	Q-.62388	Q5.1790	Q3.9202
#3	Q.40490	100.66	Q99682.	Q-.66013	Q-1.7738	Q3.5606	Q1.7906

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	102.15	Q.00000	Q3.8384	Q2.9235	Q5.1941	Q4.0788	Q83.067
#1	102.05	Q.00000	Q6.0897	Q5.4717	Q9.6479	Q4.5431	Q83.024
#2	102.65	Q.00000	Q4.6458	Q2.3309	Q-3.1051	Q3.7165	Q83.177
#3	101.74	Q.00000	Q.77968	Q.96791	Q9.0395	Q3.9767	Q83.000

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q96685.	99.355	101.24	Q10.739	Q13.652	Q17.300	108.41
#1	Q96552.	99.180	101.44	Q12.125	Q15.183	Q17.955	108.37
#2	Q97376.	99.975	101.43	Q7.9676	Q13.998	Q14.151	109.91
#3	Q96127.	98.911	100.85	Q12.125	Q11.775	Q19.795	106.96

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q4.5298	Q13.278	Q-1.8618	Q6.5844	Q4.0875	Q4.7189	Q4.4173
#1	Q2.0132	Q22.482	Q-6.8716	Q8.1407	Q5.9951	Q6.1032	Q6.1785
#2	Q3.2212	Q-3.7900	Q24.735	Q7.0633	Q3.5425	Q3.3678	Q4.4462
#3	Q8.3550	Q21.143	Q-23.448	Q4.5492	Q2.7250	Q4.6856	Q2.6273

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q92212.	100.18	100750.	100870.
#1	Q92145.	100.33	100470.	100860.
#2	Q92843.	100.92	101940.	102180.
#3	Q91650.	99.299	99827.	99576.

Method: SED5 Sample Name: AG AQC 3 Operator:
Run Time: 07/10/89 12:24:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	52.165	.00976	Q42.242	Q-.36322	Q10.132	Q.37764	Q.32661
#1	53.971	.05313	Q56.787	Q11.133	Q10.751	Q.48553	Q.42636
#2	52.150	.00759	Q34.041	Q3.6545	Q11.293	Q.64737	Q.44077
#3	50.373	-.03145	Q35.898	Q-15.878	Q8.3524	Q.00000	Q.11269

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	.00448	Q.01716	Q.36018	Q-1.1852	Q.13504	Q2.5219	Q.01262
#1	.02460	Q.02722	Q1.3768	Q1.0272	Q-.40477	Q3.2079	Q.02290
#2	.00170	Q.01376	Q-.50747	Q-3.2395	Q3.4420	Q1.9334	Q.00925
#3	-.01285	Q.01049	Q.21121	Q-1.3432	Q-2.6321	Q2.4243	Q.00570

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q17.224	-.00771	1.1540	Q1.7321	Q.09349	Q-1.1774	-.01158
#1	Q28.113	.04933	1.3942	Q3.8106	Q.76879	Q.49672	.01324
#2	Q13.265	-.00617	.46759	Q1.7321	Q.03149	Q-.07998	-.01158
#3	Q10.295	-.06629	1.6001	Q-.34642	Q-.51981	Q-3.9488	-.03640

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.9391	Q1.5829	Q19.458	Q.41901	Q-.54501	Q1.0694	Q-.02887
#1	Q10.771	Q36.820	Q29.194	Q.77816	Q1.0900	Q2.0569	Q.37533
#2	Q8.0530	Q-8.7744	Q9.4653	Q.41901	Q-.74938	Q.34727	Q.20210
#3	Q-1.0066	Q-23.297	Q19.713	Q.05986	Q-1.9756	Q.80418	Q-.66404

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q17.004	-.11625	7.9745	32.221
#1	Q28.166	.00985	28.480	50.346
#2	Q13.419	-.06699	14.810	26.180
#3	Q9.4262	-.29160	-19.367	20.138

Method: SED5 Sample Name: 89FS22S11 Operator:

Run Time: 07/10/89 12:27:26
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.57470	L-.07276	L20.765	L-4.0180	27.473	47.322	L.22338
#1	L-1.6156	L-.06218	L8.6837	L-13.166	32.111	46.006	L.05396
#2	L-2.3635	L-.07805	L37.000	L14.487	23.914	47.388	L.26508
#3	L2.2549	L-.07805	L16.612	L-13.374	26.393	48.573	L.35108

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	87.219	H92.112	L-.44823	L-3.5426	L1.8945	9.6967	26.796
#1	86.387	H91.734	L.33518	L-4.3860	L1.7299	9.1892	26.504
#2	87.276	H92.139	L-2.5383	L-4.4583	L2.7179	7.9564	26.824
#3	87.994	H92.462	L.85847	L-1.7833	L1.2357	11.945	27.060

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	221.49	L.21628	L1.5230	10.988	152.62	L-.99240	11.178
#1	219.07	L.24073	L1.9207	13.524	150.80	L-2.9306	11.043
#2	223.42	L.23509	L.41345	L9.7204	153.18	L-2.3490	11.176
#3	221.97	L.17303	L2.2347	L9.7204	153.87	L2.3024	11.314

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	44.579	L-6.2774	L24.420	100.63	L2.5765	L-1.3146	L.24656
#1	40.035	L-2.3313	51.052	99.755	L3.3245	L-1.4812	L.03522
#2	49.983	L-25.707	L-4.7706	100.41	L2.3272	L-2.9813	L.03522
#3	43.720	L9.2061	L26.980	101.73	L2.0778	L.51881	L.66924

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L27.000	L-.55766	9.7289	-120.76
#1	L27.000	L-.45671	-15.288	-138.15
#2	L27.194	L-.61535	9.7289	-98.464
#3	L26.807	L-.60093	34.746	-125.68

Method: SED5 Sample Name: 89FS22S12 Operator:
Run Time: 07/10/89 12:30:07
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.2561	L-.01984	L-4.7194	L10.724	35.237	75.491	L-.01040
#1	L3.5033	L-.02249	L6.4184	L13.669	36.145	76.610	L.08180
#2	L.44114	L-.00661	L-14.536	L17.999	36.753	75.031	L.01191
#3	L-.17622	L-.03043	L-6.0408	L.50411	32.812	74.833	L-.12493

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mo

Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	94.941	H101.97	L-2.2433	L.79527	L.49446	20.453	29.704
#1	95.799	H107.46	L-.31182	L-.84347	L.49448	23.327	29.978
#2	94.488	H98.881	L-4.9896	L2.5545	L-.74059	19.633	29.576
#3	94.536	H99.568	L-1.4286	L.67477	L1.7295	18.399	29.558

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L29.588	L.12977	L3.0198	18.173	84.362	L3.6572	18.594
#1	L30.675	L.13353	L4.2130	17.328	84.702	L6.0244	18.795
#2	L28.501	L.13353	L2.7215	19.864	84.702	L1.0772	18.444
#3	L29.588	L.12225	L2.1248	17.328	83.684	L3.8700	18.543

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L8.5966	L12.671	L28.895	114.91	L4.3219	L1.4152	L.28179
#1	L6.1404	L13.577	60.657	116.30	L4.3219	L3.8236	L.98625
#2	L10.561	L6.4213	L21.196	114.21	L4.3219	L.60605	L-.17612
#3	L9.0878	L18.014	L4.8334	114.21	L4.3219	L-.18394	L.03522

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L9.3883	L-.37498	9.7289	-148.17
#1	L10.999	L-.41344	34.746	-144.39
#2	L8.9542	L-.34133	9.7289	-142.12
#3	L8.2113	L-.37017	-15.288	-158.00

Method: SED5 Sample Name: 89FS22D12 Operator:
Run Time: 07/10/89 12:33:09
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.96015	L-.05556	L-1.8878	L-16.777	33.780	76.347	L-.05978
#1	L2.2343	L-.07408	L-5.4745	L-20.407	30.145	76.808	L-.03306
#2	L-.40883	L-.05424	L7.5510	L-24.017	34.398	76.413	L-.10295
#3	L1.0550	L-.03837	L-7.7398	L-5.9058	36.797	75.821	L-.04332

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	95.713	H110.11	L1.0300	L-.67477	L1.8939	21.256	30.064
#1	95.631	H111.18	L1.4450	L.53018	L3.7052	19.611	30.073
#2	95.939	H112.92	L.95664	L-1.4218	L.24714	22.689	30.145
#3	95.570	H106.24	L.68838	L-1.1327	L1.7294	21.467	29.973

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L15.941	L.05078	L3.9095	14.792	81.771	L.06206	18.710
#1	L15.458	L.03761	L4.2444	12.256	81.657	L2.0011	18.765

#2	L15.458	L.03761	L3.6792	14.792	82.110	L-1.3746	18.741
#3	L16.908	L.07711	L3.8048	17.328	81.544	L-.44036	18.625

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L6.6316	L8.6078	L25.837	116.33	L2.9921	L1.5853	L-.42268
#1	L6.8773	L16.341	L20.703	116.41	L2.5765	L1.1261	L.56357
#2	L4.6667	L11.986	L37.544	116.62	L3.0752	L1.5087	L-.81013
#3	L8.3510	L-2.5031	L19.263	115.97	L3.3245	L2.1211	L-1.0215

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L6.8929	L-.52161	-1.3898	-138.53
#1	L7.8404	L-.55045	5.5593	-144.67
#2	L6.6999	L-.52882	1.3898	-141.84
#3	L6.1384	L-.48555	-11.119	-129.08

Method: SED5 Sample Name: 89FS11R17 Operator:
Run Time: 07/10/89 12:35:48
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.31624	L-.02249	L53.046	L-1.1468	12.241	L.52653	L-.13352
#1	L-1.1918	L-.04630	L44.929	L10.895	10.226	L.29617	L-.13034
#2	L-.69584	L-.01455	L45.495	L1.0647	14.461	L.39490	L-.27598
#3	L2.8364	L-.00661	L68.714	L-15.400	12.037	L.88852	L.00576

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.15008	L.16797	L.09598	L-1.2291	L3.0463	124.46	L.02181
#1	L.15289	L.17414	L.55899	L-4.0245	L7.6574	122.41	L.02361
#2	L.14358	L.16472	L-1.5357	L-.48198	L2.2228	124.26	L.02080
#3	L.15378	L.16504	L1.2646	L.81937	L-.74142	126.72	L.02102

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L11.956	L-.11378	L2.1353	L-1.2679	L-.17838	L.01075	L.13121
#1	L10.748	L-.12601	L1.2613	L-.42263	L-.40368	L-1.3870	L.12758
#2	L11.835	L-.10344	L1.1514	L-2.9584	L-.29252	L.30255	L.12516
#3	L13.284	L-.11190	L3.9932	L-.42263	L.16106	L1.1167	L.14090

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L12.404	L2.3299	L25.327	L.14606	L2.4934	L1.2806	L-.88058
#1	L9.8246	L4.2160	L26.931	L.07303	L1.9532	L.03394	L-1.2328
#2	15.351	L-16.105	L17.308	L.07303	L2.5765	L.60786	L-.59879
#3	L12.035	L18.879	L31.743	L.29211	L2.9505	L3.2001	L-.81013

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L

Avge	L11.286	L-.30768	1.3898	34.113
#1	L11.297	L-.38459	-31.966	28.538
#2	L10.723	L-.31248	18.068	27.971
#3	L11.837	L-.22595	18.068	45.830

Method: SED5 Sample Name: 89FS22S11 DUP Operator:
Run Time: 07/10/89 12:39:08
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1.22

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.40553	L-.03307	L-7.9286	L1.4607	28.530	47.256	L-.12132
#1	L.86436	L.00132	L-32.658	L-10.540	28.689	46.598	L-.04230
#2	L.25581	L-.02249	L-2.6429	L-1.6186	28.126	46.993	L-.23730
#3	L.09641	L-.07805	L11.515	L16.541	28.774	48.178	L-.08435

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	88.048	H92.465	L-1.1301	L-1.8556	L1.5654	11.253	26.950
#1	87.000	H91.923	L-.01444	L-.98806	L3.2123	11.676	26.560
#2	88.141	H92.537	L-1.3405	L-2.2171	L1.2360	10.431	27.024
#3	89.004	H92.935	L-2.0352	L-2.3617	L.24781	11.651	27.266

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	210.26	L.28775	L2.5069	14.792	153.78	L-.03633	11.216
#1	209.29	L.34229	L3.4908	17.328	151.30	L-5.3674	10.998
#2	211.10	L.28587	L2.2504	14.792	154.36	L7.3164	11.264
#3	210.38	L.23509	L1.7794	12.256	155.67	L-2.0580	11.386

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	49.737	L17.200	L10.474	100.92	L3.6154	L1.2299	L-.10567
#1	53.299	L59.148	L11.123	99.317	L4.8206	L1.5431	L.03522
#2	48.141	L-8.0206	L18.333	101.29	L2.9505	L1.9303	L-.38745
#3	47.772	L.47250	L1.9666	102.16	L3.0752	L.21617	L.03522

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L17.761	L-.37017	1.3898	-138.25
#1	L17.596	L-.17547	1.3898	-158.85
#2	L18.829	L-.42065	18.068	-135.32
#3	L16.859	L-.51439	-15.288	-120.58

Method: SED5 Sample Name: 89FS22S11 SPK Operator:
Run Time: 07/10/89 12:41:59
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1.52

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	51.391	L.78618	803.19	L6.0772	882.43	252.56	9.9087
#1	52.149	L.79277	784.85	L18.599	876.12	254.24	9.9392
#2	49.653	L.76311	784.14	L-4.6649	885.95	251.91	9.8485
#3	52.370	L.80266	840.59	L4.2973	885.20	251.54	9.9383

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	138.57	Q.00000	23.085	98.933	102.48	58.706	H51.783
#1	138.75	Q.00000	24.513	100.10	96.327	59.984	H51.893
#2	138.73	Q.00000	24.407	99.473	103.71	58.452	H51.898
#3	138.23	Q.00000	20.335	97.221	107.41	57.683	H51.557

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	978.93	L1.1845	21.068	68.452	256.68	99.120	63.500
#1	984.34	L1.1786	22.248	67.399	256.85	103.16	63.616
#2	979.83	L1.1927	21.094	68.978	257.13	92.788	63.758
#3	972.61	L1.1821	19.862	68.978	256.07	101.42	63.125

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	207.48	816.27	438.22	1119.2	103.86	47.423	48.361
#1	210.54	802.95	439.02	1122.5	103.86	51.098	48.229
#2	196.77	806.50	413.85	1121.5	103.86	45.013	47.966
#3	215.13	839.38	461.81	1113.6	103.86	46.158	48.887

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	413.45	L-.09583	822.51	604.08
#1	413.06	L-.17370	843.29	590.78
#2	414.93	L-.06589	780.95	607.03
#3	412.37	L-.04792	843.29	614.44

Method: SED5 Sample Name: DIGESTION BLANK Operator:
Run Time: 07/10/89 12:44:51
Comment: SF6231 Be
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.84633	L-.04663	L12.843	L3.2793	L-.74274	L.43158	L-.12413
#1	L1.3014	L-.01843	L19.651	L13.403	L1.8730	L.97106	L-.23281
#2	L-.42485	L-.07048	L4.3326	L-4.1405	L-4.0316	L.00000	L-.09483
#3	L1.6624	L-.05097	L14.545	L.57561	L-.06959	L.32369	L-.04475

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.09514	L.11467	L-.70197	L-1.5803	L.20210	L3.6760	L.01593

#1	L.13150	L.14366	L-.22567	L-1.3432	L1.4171	L4.4448	L.02769
#2	L.07296	L.10054	L-1.9352	L-1.4617	L-1.0129	L2.6575	L.01013
#3	L.08096	L.09982	L.05496	L-1.9358	L.20206	L3.9257	L.00996

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L7.5233	L-.11022	L.42898	L-4.5034	L-.60863	L-.94661	L.07744
#1	L9.9980	L-.05935	L1.0982	L-2.4249	L-.42765	L-1.0859	L.12244
#2	L4.9495	L-.14953	L-.17588	L-4.5034	L-.79065	L-3.5735	L.04302
#3	L7.6222	L-.12178	L.36463	L-6.5819	L-.60758	L1.8195	L.06685

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L3.0199	L.51730	L26.018	L.17958	L1.3966	L-1.0747	L-.25984
#1	L2.9192	L-6.5471	L27.603	L.59858	L2.2141	L-.07813	L-.14436
#2	L1.7113	L-9.1296	L38.636	L-.11972	L.47688	L-1.8239	L-.31759
#3	L4.4291	L17.229	L11.817	L.05986	L1.4988	L-1.3221	L-.31759

Elem	Znlow	Znhigh	2Al308	2Al396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L1.5328	L-.32509	1.1392	10.302
#1	L2.4967	L-.19703	11.392	18.977
#2	L1.2863	L-.42164	1.1392	4.3375
#3	L.81548	L-.35662	-9.1137	7.5906

Method: SED5 Sample Name: ICS Operator:
Run Time: 07/10/89 12:47:54
Comment: EPA 1287 Be
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.7543	H505.56	H488190.	L-48.612	52.264	L2.2119	L-1.0105
#1	L-.56322	H499.81	H486160.	L-1.7920	54.928	L2.2658	L-2.3833
#2	L-4.8530	H506.03	H488310.	L-43.898	49.408	L1.6184	L.02583
#3	L-2.8468	H510.84	H490120.	L-100.15	52.455	L2.7513	L-.67409

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	H497.27	Q.00000	L-1.2747	L5.2741	43.454	L4.7348	Q.00000
#1	H494.40	Q.00000	L-3.1692	6.1235	44.462	L5.1521	Q.00000
#2	H496.22	Q.00000	L-1.0097	L3.5754	45.883	L3.6869	Q.00000
#3	H501.20	Q.00000	L.35491	6.1235	40.018	L5.3654	Q.00000

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	H209480.	217.49	L-.57913	51.616	55.762	L1.3288	L.32234
#1	H207830.	216.01	L-.44614	55.773	55.741	L.50085	L.33889
#2	H209400.	217.32	L-.66492	49.538	55.622	L1.0299	L.32102
#3	H211200.	219.13	L-.62631	49.538	55.922	L2.4557	L.30712

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L13.489	L14.760	L-28.957	145.90	L8.6520	L2.1389	L1.7034
#1	L11.073	L18.344	L-31.387	144.53	L9.6738	L3.5358	L2.2808
#2	L11.677	L-25.580	L-43.735	145.69	L7.8345	L.82605	L.80840
#3	17.717	L51.516	L-11.749	147.49	L8.4476	L2.0548	L2.0210

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	40.513	L-.57138	516900.	487770.
#1	40.612	L-.43346	510590.	485750.
#2	40.538	L-.56349	517640.	487890.
#3	40.389	L-.71717	522460.	489650.

Method: SED5 Sample Name: INSTR BLANK 4 Operator:
Run Time: 07/10/89 12:51:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.0290	L.01735	L48.587	L14.358	L2.8494	L.00000	L-.12465
#1	L2.8912	L.07265	L73.499	L35.820	L3.7954	L.32369	L-.02650
#2	L.22415	L-.03795	L43.326	L-3.8121	L1.4244	L-.64737	L-.10203
#3	L-.02823	L.01735	L28.935	L11.067	L3.3285	L.32369	L-.24542

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	L.03648	L.04802	L-.41271	L.43457	L1.6871	L2.3474	L.04022
#1	L.07660	L.07810	L-1.9882	L-.03951	L.20257	L3.4555	L.07096
#2	L.02024	L.04082	L1.9700	L-.86915	L1.4169	L2.9163	L.03230
#3	L.01260	L.02513	L-1.2199	L2.2124	L3.4420	L.67049	L.01740

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	L17.818	L-.03468	L1.6344	L-1.0392	L-.46081	L-1.0363	L-.01588
#1	L34.053	L.02852	L1.3427	L-.34642	L-.25002	L.87679	L.00132
#2	L9.7010	L-.12178	L2.1921	L-6.5819	L-.79316	L-1.7108	L-.04037
#3	L9.7010	L-.01079	L1.3685	L3.8106	L-.33925	L-2.2748	L-.00860

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L4.0265	L-.38023	L16.297	L.05986	L-.88563	L1.0488	L-.11549
#1	L6.2411	L16.569	L26.033	L.23943	L.06813	L-.65514	L.63517
#2	L.80530	L-6.6074	L3.1381	L-.29929	L-2.1800	L1.3163	L-.83727
#3	L5.0331	L-11.102	L19.720	L.23943	L-.54501	L2.4854	L-.14436

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	L-1.1860	L-.09851	44.429	43.143
#1	L-.27656	L.02758	89.998	73.815

#2	L-2.2546	L-.30342	11.392	32.221
#3	L-1.0270	L-.01970	31.898	23.391

Method: SED5 Sample Name: AQC 4 Operator:
Run Time: 07/10/89 12:54:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q508.30	5.7814	5161.5	4988.1	5111.6	5104.3	5054.6
#1	Q507.24	5.7695	5144.0	4989.9	5091.7	5081.9	5036.5
#2	Q509.55	5.7890	5197.4	4981.7	5144.5	5139.8	5081.4
#3	Q508.09	5.7857	5143.1	4992.7	5098.8	5091.2	5045.8

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	5.4131	5.1024	5112.1	5207.7	5114.7	5170.3	5.1325
#1	5.3932	5.0814	5105.9	5193.5	5091.3	5139.3	5.1171
#2	5.4303	5.1377	5136.2	5225.6	5112.2	5206.2	5.1562
#3	5.4157	5.0881	5094.3	5204.2	5140.5	5165.6	5.1243

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	5089.0	6.5493	1.9733	5110.7	5165.4	5205.9	-.01324
#1	5075.7	6.5262	3.1830	5081.6	5149.0	5190.1	-.01655
#2	5109.6	6.5123	.81507	5149.1	5188.9	5224.0	-.02449
#3	5081.7	6.6094	1.9218	5101.3	5158.3	5203.6	.00132

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5201.8	Q5274.7	5034.9	5209.2	5118.9	5048.1	4981.3
#1	5197.4	Q5307.1	5047.3	5185.8	5094.8	5028.0	4960.3
#2	5234.2	Q5270.0	5057.1	5245.6	5146.5	5073.5	5010.4
#3	5173.8	5246.9	5000.4	5196.3	5115.5	5042.9	4973.3

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	5103.5	4.9316	4944.2	5149.7
#1	5083.6	4.9867	4943.0	5130.3
#2	5122.2	4.8153	4949.9	5188.9
#3	5104.5	4.9926	4939.6	5129.9

Method: SED5 Sample Name: HIGH AQC 4 Operator:
Run Time: 07/10/89 12:56:51
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q.34656	99.478	Q98279.	Q4.4094	Q1.1121	Q2.3737	Q.71185

#1	Q1.6175	98.981	Q97826.	Q-4.5800	Q4.6889	Q2.9132	Q.91068
#2	Q1.0483	99.323	Q98121.	Q26.056	Q1.5362	Q2.1040	Q.57022
#3	Q-1.6260	100.13	Q98891.	Q-8.2474	Q-2.8889	Q2.1040	Q.65463

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	100.79	Q.00000	Q1.4122	Q2.0939	Q3.5023	Q3.7653	Q83.298
#1	100.41	Q.00000	Q2.2945	Q3.8124	Q.53161	Q4.4478	Q83.224
#2	100.75	Q.00000	Q1.9553	Q1.0864	Q.12737	Q4.2433	Q83.288
#3	101.21	Q.00000	Q-.01331	Q1.3827	Q9.8478	Q2.6049	Q83.381

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q95146.	97.992	99.266	Q12.125	Q11.038	Q15.193	105.34
#1	Q94811.	97.667	99.086	Q12.125	Q11.145	Q14.405	104.93
#2	Q95097.	97.875	99.112	Q10.046	Q11.219	Q16.329	105.13
#3	Q95529.	98.433	99.601	Q14.203	Q10.751	Q14.845	105.96

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q3.5232	Q-.15001	Q3.1583	Q3.7711	Q2.7250	Q3.6681	Q1.9344
#1	Q8.0530	Q-22.952	Q-17.247	Q4.0105	Q3.1338	Q5.3870	Q2.8005
#2	Q3.2212	Q32.268	Q7.6183	Q3.6514	Q2.9294	Q3.9170	Q1.5879
#3	Q-.70464	Q-9.7659	Q19.104	Q3.6514	Q2.1119	Q1.7004	Q1.4147

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q90992.	98.304	98604.	98156.
#1	Q90767.	98.040	98050.	97689.
#2	Q91003.	98.087	98480.	98017.
#3	Q91206.	98.785	99283.	98764.

Method: SED5 Sample Name: AG AQC 4 Operator:
Run Time: 07/10/89 12:59:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag	Alhigh	Allow	As	B	Ba	Be
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	52.201	.04229	Q49.824	Q-2.5152	Q8.1370	Q.16184	Q.26832
#1	50.255	.05964	Q66.536	Q4.6189	Q9.2898	Q.00000	Q.03619
#2	53.433	.03362	Q52.610	Q.17041	Q11.793	Q.16184	Q.32681
#3	52.914	.03362	Q30.328	Q-12.335	Q3.3285	Q.32369	Q.44197

Elem	Cahigh	Calow	Cd	Co	Cr	Cu	Mg
Units	Mg/L	Mg/L	ug/L	ug/L	ug/L	ug/L	Mg/L
Avge	.01854	Q.03150	Q.06829	Q-2.9630	Q-2.7671	Q-.08501	Q.02680
#1	.03806	Q.05273	Q-.62340	Q-2.7655	Q1.0124	Q-.33471	Q.04826
#2	.01224	Q.02513	Q-.20696	Q-3.1210	Q-5.0618	Q.92339	Q.02042
#3	.00533	Q.01663	Q1.0352	Q-3.0025	Q-4.2519	Q-.84369	Q.01173

Elem	Felow	Fehigh	K	Li	Mn	Mo	Na
Units	ug/L	Mg/L	Mg/L	ug/L	ug/L	ug/L	Mg/L
Avge	Q30.885	-.00385	-.21449	Q.34641	Q.09314	Q.90613	.01191
#1	Q52.465	.00771	-.67779	Q1.7321	Q.03023	Q1.1137	.03111
#2	Q25.144	-.00848	.62202	Q-.34642	Q.31007	Q1.5419	.01522
#3	Q15.047	-.01079	-.58771	Q-.34642	Q-.06088	Q.06279	-.01059

Elem	Ni	Pb	Sn	Sr	Ti	V	Y
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q6.3417	Q-11.782	Q25.242	Q.35915	Q-.47688	Q-.81027	Q.25984
#1	Q3.8252	Q-22.862	Q28.400	Q.23943	Q-.74938	Q-1.3100	Q-.14436
#2	Q8.9590	Q-18.213	Q14.197	Q.41901	Q-.34063	Q.38326	Q.20210
#3	Q6.2411	Q5.7289	Q33.130	Q.41901	Q-.34063	Q-1.5041	Q.72179

Elem	Znlow	Znhigh	2A1308	2A1396
Units	ug/L	Mg/L	ug/L	ug/L
Avge	Q28.496	-.12216	58.100	51.895
#1	Q50.635	-.11427	69.492	65.217
#2	Q20.958	-.09063	42.151	51.275
#3	Q13.894	-.16156	62.657	39.192

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: AUG 22 1989

SUBJECT: **Review of Region 5 data for** T.O. Plastics

FROM: **Curtis Ross, Director** Chi Tang for
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF6231
Sample Numbers: 89FS22S11-S12, 89FS22DP, 89FS11R17
Parameter(s): As, Se, Sb, Tl, Cd, Pb
Laboratory: CRL/ESAT

Results Status:

(✓) **DATA ACCEPTABLE FOR USE***
( ) **DATA QUALIFIED AS TO USE**
( ) **DATA UNACCEPTABLE FOR USE**

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to David Payne, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

Sylvia Griffin

RECEIVED BY/DATE: AUG 22 1989

Comments:

U.S. EPA CENTRAL
REGIONAL LAB

DATA SET	SITE	DU/ACT. 51/22
SF6231	T.O. Plastics	TFA302

SAMPLES 89FS11R17	PARAMETER(S)
89FS22S11, S12, D12	As, Sb, Se, TL, Cd, Pb

SAMPLED	RECEIVED	DUE	LAB
6/20/89	6/21/89	7/12/89	CRL/ESAT

SHIPPED	DATA RECEIVED	CONTRACT

Comments By Reviewer:

TL is not reported for sample 89FS22 D12 because of difficulty to get fit and control std within the QC window. Notified Tom Clyne of E&E about this and was told that TL result is not critical to the project

C. Yang

( ) REVIEWED ( ) UNREVIEWED TEAM LEADER/DATE

(✓) REVIEWED ( ) UNREVIEWED SECTION CHIEF/DATE Chi Yang 8/21/89

( ) REVIEWED ( ) UNREVIEWED QC COORDINATOR/DATE

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED 8/22/89 TRANSMITTED 8/22/89 DATA MANAGEMENT COORDINATOR Sylma Griffin

CC: QUALITY CONTROL COORDINATOR

058906-06

ESAT CONTRACT TID NO: 058908-06
TASK NO: 3092,1052

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on August 10, 1989 for:

DATASET NO: SF6231 SITE NAME: T.O. Plastics

PARAMETER : GFAA Metals

MATRIX : Water SF DU/ACT NO: TFA 302 Y ___ /C ___

SAMPLE NUMBERS: 89FS22S11-12, 89FS22D12, 89FS11R17

NUMBER OF SAMPLES: 4

ESAT APPROVALS:

John W. Gary 8/10/89 (ANALYST DATE)
D Kane 8/10/89 (TEAM LEADER DATE)
Richard Ohm 8/14/89 (QC COORDINATOR DATE)
Vam C Nella 8/14/89 (ESAT TEAM MANAGER DATE)

COMMENTS: Chi Tang has authorized the submittal of this case with incomplete TI data due to continuing problems with instruments. TI for 89FS22S12 was not done.

The subject dataset was transferred to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the date indicated below.

D Kane 8/14/89 (DELIVERED BY DATE)
Chi Tang 8/14/89 (RECEIVED BY DATE)

EPA APPROVALS:

Chi Tang 8/21/89 (EPA TASK MONITOR DATE)

[✓] Reviewed
[ ] Unreviewed
[✓] Accepted
[ ] Rejected
[ ] Returned 8/21/89 (Date)

COMMENTS: TI is not reported for sample 89FS22D12 because of instrument problem. FIT indicated TI is not critical for this project.

Chi Tang 8/21/89 (SECTION CHIEF DATE) [✓] Reviewed [ ] Unreviewed

Jay Thacker 8-22-89 (ESAT DPO DATE)
Sylvia Griffin 8/22/89 8/22/89 (DATA COORD'R REC'D TRANSMTD)

DOC.NO.: ESAT-05-0003-FORM
REVISION NO.: 05 (04/05/89) FILE LOCATION NUMBER: 5.6.1

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

TFA302

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/13/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY _____ CONTRACTOR _____

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1271
89FS22S11	RW1 5-188326	✓	✓ 2u	✓ 3	✓ 2u	✓ 2u	✓ 2u [illegible] 7/17/89
S12	RW2 5132838	✓	✓ 2u	✓ 2u	✓ 2u [illegible] 8/7/89	✓ 2u	
D12	Dup 5-188334	✓	✓ 2u	✓ 2u	✓ 2u [illegible] 8/7/89	✓ 2u	2u [illegible] 8/10/89
89FS11R17	BLK 5-188342	✓	✓ 2u	✓ 2u	✓ 2u	✓ 2u	✓ 2u [illegible] 7/14/89
			J Gang	[illegible]	[illegible] 8/7/89	J Gang	
			6/27/89	7/7/89		6/30/89	

(9)

ENVIRONMENTAL PROTECTION AGENCY TFA 302
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND SAMPLING DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/12/89

DU NUMBER TFA DATASET NUMBER 6231 STUDY T.O. PLASTICS PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	MATRIX WATER TEST CD UNITS UG/L ME1235826
89FS22		
S11	RW1 5-188326	0.2u
S12	RW2 5-132838	0.2u
D12	DUPLICATE 5-188339	0.2u
89FS11R17	BLANK 5-188342	0.2u
		J Gary
		8/8/89

CRL V.2: 3/89

---

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: GANZ
DATE OF ANALYSIS --: 06-28-1989
PARAMETER NAME ----: AS
DATA SET # --------: SF6231

J Ganz 6/28/89

SAMPLE NO.	CONC.	R VALUE	SLOPE		
BLANK	-.1219512	.9997291	2.460001E-02	Limit = ±2 ug/L	
AQC TV=19.76 UG/L				%R=104.4 Limit=100±10%	
	20.63875	.9998638	.02364		
89FS21D44	.2407136	.9991558	.01911		SF6213
89FK11R13	.2396488	.9998833	.02295		SF6214
89FK21S58	18.76	.9215421	.0125	Rerun	
89FK21S59	2.470585	.9998372	2.125001E-02		
89FK21D58	2.625007	.9997779	1.999999E-02		
AQC TV=19.76 UG/L				%R=98.8 Limit=100±10%	
	19.52179	.9998488	.02342		SF6211
89FS11R17	-8.477923E-02	.9993143	.02241		SF6231
89FS22S11	-9.064711E-02	.999954	.02096		
89FS22S12	-1.736693E-02	.9997379	.01727		SF623
89FM22D01	-.0156081	.9998761	.01922		SF623
89FS22D12	8.240286E-02	.9998659	.01699		SF623
89FM11R15	7.731959E-02	.9996256	.0194		SF623
89FM22S01	-.2910085	.9999413	.0189		
AQC TV=19.76 UG/L				%R=107.7 Limit=100±10%	
	21.2773	.9996121	.02106		
AQC TV=19.76 UG/L					
	17.47767	.9997428	.0224	%R=88.4 -Restandardize	

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	-.003	-.007	233.3334 %
10	.234	.2430001	9.000063E-03	3.703729 %
20	.486	.4890002	3.00014E-03	.6135254 %
30	.74	.7350002	-4.999817E-03	-.680247 %

AQC TV=19.76 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.487	.4879	9.000301E-04	.1844702 %
10	.722	.7243	2.300024E-03	.3175513 %
20	.968	.9607001	-7.29996E-03	-.7598584 %
30	1.193	1.1971	4.099965E-03	.3424915 %

89FS21D44

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	4.600037E-03	-3.999635E-04	-8.69479 %
10	.188	.1957	7.700041E-03	3.934614 %
20	.401	.3868001	-1.419994E-02	-3.671133 %
30	.571	.5779001	6.900072E-03	1.193991 %

89FK11R13

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	5.499939E-03	1.499939E-03	27.27192 %
10	.234	.235	9.999573E-04	.4255139 %
20	.471	.4645	-6.500036E-03	-1.399362 %
30	.69	.694	4.000008E-03	.5763701 %

J Barry 6/28/89 SF6231

89FK21S58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.299	.2345	-6.450001E-02	-27.50533 %
10	.274	.3595	.0855	23.78303 %
20	.462	.4845	2.249998E-02	4.643959 %
30	.653	.6095	-4.350001E-02	-7.136998 %

89FK21S59

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.048	5.249994E-02	4.499939E-03	8.571321 %
10	.27	.265	-5.000025E-03	-1.886802 %
20	.481	.4775	-3.499985E-03	-.7329811 %
30	.686	.6900001	4.000068E-03	.5797199 %

89FK21D58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.056	5.250012E-02	-3.499881E-03	-6.666424 %
10	.245	.2525001	7.500053E-03	2.970317 %
20	.457	.4525	-4.500002E-03	-.9944756 %
30	.652	.6525	4.999042E-04	7.661368E-02 %

AQC TV=19.76 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.455	.4572002	2.200186E-03	.4812304 %
10	.691	.6914002	4.001856E-04	5.788046E-02 %
20	.933	.9256002	-7.399857E-03	-.7994658 %
30	1.155	1.1598	4.800201E-03	.4138817 %

89FS11R17

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	-1.899902E-03	-8.899903E-03	468.44 %
10	.214	.2222001	8.200065E-03	3.690397 %
20	.436	.4463001	1.030004E-02	2.307874 %
30	.68	.6704	-9.600043E-03	-1.431987 %

89FS22S11

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	-.002	-1.899963E-03	1.000367E-04	-5.265193 %
10	.206	.2077001	1.700044E-03	.8185091 %
20	.421	.4173001	-3.699958E-03	-.8866422 %
30	.625	.6269	1.900017E-03	.3030814 %

J Bang 6/28/89 SF6231

89FS22S12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-2.999268E-04	2.700073E-03	-900.2441 %
10	.179	.1724	-6.599963E-03	-3.828284 %
20	.34	.3451	5.100012E-03	1.477836 %
30	.519	.5178	-1.20002E-03	-.2317537 %

89FM22D01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-2.999878E-04	-2.299988E-03	766.6939 %
10	.191	.1919	9.000301E-04	.4690099 %
20	.379	.3841001	5.100042E-03	1.32779 %
30	.58	.5763001	-3.699899E-03	-.642009 %

89FS22D12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	1.400024E-03	-5.999757E-04	-42.85466 %
10	.168	.1713	3.300011E-03	1.926451 %
20	.346	.3412	-4.799992E-03	-1.406797 %
30	.509	.5111	2.099991E-03	.4108767 %

89FM11R15

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	.0015	.0045	300 %
10	.198	.1955	-2.499998E-03	-1.278771 %
20	.398	.3895	-8.49998E-03	-2.18228 %
30	.577	.5835	6.500006E-03	1.113968 %

89FM22S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-5.500061E-03	-1.500061E-03	27.27353 %
10	.18	.1835	3.49994E-03	1.907325 %
20	.375	.3725	-2.500057E-03	-.6711565 %
30	.561	.5615	4.999638E-04	8.904075E-02 %

AQC TV=19.76 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.455	.4481	-6.900043E-03	-1.539844 %
10	.651	.6587	7.699907E-03	1.168955 %
20	.864	.8692999	5.299866E-03	.6096706 %
30	1.086	1.0799	-6.100059E-03	-.5648726 %

AQC TV=19.76 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.39	.3914999	1.499891E-03	.3831141 %
10	.622	.6154999	-6.500125E-03	-1.056073 %
20	.831	.8394999	8.499921E-03	1.012498 %
30	1.067	1.0635	-3.500104E-03	-.3291118 %

J Gang 6/28/89

SF 6231

Begin Element - AS

-0.001		
0.000	AZ	
-0.004		
0.251		
0.487		
0.664		

Not used
gwa 6/27/89

J Gang 6/27/89

SF6231

Begin Element - AS

-0.014			
0.000	AZ		
0.004	+0		
0.234	+10	Blank	
0.486	+20		
0.740	+30		
0.487	+0		
0.722	+10	AQC TV= 19.76 ug/L	
0.968	+20		
1.193	+30		
0.005	+0		
0.188	+10	89FS21D44	
0.401	+20		
0.571	+30		SF6213
0.004	+0		SF6214
0.234	+10	89FK11R13	
0.471	+20		
0.690	+30		
0.299	+0		
0.274	+10	89FK21S58	
0.462	+20		
0.653	+30		
0.048	+0		
0.270	+10	89FK21S59	
0.481	+20		
0.686	+30		
0.056	+0		
0.245	+10	89FK21D58	
0.457	+20		
0.652	+30		
0.455	+0		
0.691	+10	AQC TV= 19.76 ug/L	
0.933	+20		
1.155	+30		
0.001		Blank	SF6214
0.007	+0		SF6231
0.214	+10	89FS11R17	
0.436	+20		
0.680	+30	89FS11R17	
-0.002	+0		
0.206	+10	89FS22S11	
0.421	+20		
0.625	+30		
-0.003	+0		
0.179	+10	89FS22S12	
0.340	+20		
0.519	+30		SF6231
0.002	+0		SF6232
0.191	+10		

SF6231

0.214	+10	89FS11R17
0.436	+20	
0.680	+30	89FS11R17
-0.002	+0	
0.206	+10	
0.421	+20	89FS22S11
0.625	+30	
-0.003	+0	
0.179	+10	
0.340	+20	89FS22S12
0.519	+30	
0.002	+0	
0.191	+10	89FM22D01
0.379	+20	
0.580	+30	89FM22D01

SF6231
SF6232

SF6232
SF6231

0.002	+0	
0.168	+10	89FS22D12
0.346	+20	
0.509	+30	
-0.003	+0	
0.198	+10	
0.398	+20	89FM11R15
0.577	+30	
-0.004	+0	
0.180	+10	
0.375	+20	89FM22S01
0.561	+30	
0.455	+0	
0.651	+10	
0.864	+20	AQC TV= 19.76 ug/L
1.086	+30	
-0.002		Blank
0.005		
0.195		
0.400		
0.594		
-0.001		
0.172		
0.385		
0.567		
0.081		
0.282		
0.491		
0.706		
-0.002		
0.173		
0.363		
0.538		
0.344		
0.577		
0.782		
1.003		
0.057		
0.233		
0.424		
0.625		
0.390	+0	
0.622	+10	
0.831	+20	AQC TV=19.76 ug/L
1.067	+30	

Not used
AQC out of control

J. Gary
6/27/89
SF6231

AAS Run Log

Element As

Date 6/27/89

J Barry 6/27/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC TV= 19.76 ug/L	0	
6		10	
7		20	
8		30	
9	89FS21D44	0	
10		10	
11		20	
12		30	
13	89FK11R13	0	
14		10	
15		20	
16		30	
17	89FK21S58	0	
18		10	
19		20	
20		30	
21	89FK21S59	0	
22		10	
23		20	
24		30	
25	89FK21D58	0	
26		10	

AAS Run Log

Element As

Date 6/27/89

J Gary 6/27/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
27	89FK21D58	20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 2		
1	89FS11R17	0	
2		10	
3		20	
4		30	
5	89FS22S11	0	
6		10	
7		20	
8		30	
9	89FS22S12	0	
10		10	
11		20	
12		30	
13	89FM22D01	0	
14		10	
15		20	
16		30	

AAS Run Log

Element As

Date 6/27/89

J Gary 6/27/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
17	89FS22D12	0	
18		10	
19		20	
20		30	
21	89FM11R15	0	
22		10	
23		20	
24		30	
25	89FM22501	0	
26		10	
27		20	
28		30	
29	A&C	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 3		
1			
2			
3			
4			
5			
6			

J Gary 6/27/89 SF6231

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☐ WP 284 TM I #2	Analyst JWG
☒ As	☐ 4000	☐ WP 1183 TM II #1	Date 6/27/89
☐ Cd	☒ 5000 ZE	☐ WP 1183 TM II #2	Lamp # 8316
☐ Cr	☐ 5000 ZW	☒ ICV 2	Energy 51
☐ Pb	☐ 5100	☐ SPEX II	Expansion 5
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 0187MD
☐ Se		☐	☐ platform ☐ MSC
☐ Tl		☐	☒ wall ☒ MSA

Blank	Slope	AQC	Digestion QC
-.122	.0246	20.64	
-.0508	.02363	19.52	
		21.28	
		21.11	
		19.29	
		17.96	
		20.19	

Blank cup absorbance
.001
-.002
.008
-.001
.005

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: GANZ
DATE OF ANALYSIS --: 07-03-1989
PARAMETER NAME ----: SE
DATA SET # --------: SF 6231

J Ganz 7/3/89

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	-.5465724	.9993092	.01299	Limit = ±2 ug/L
AQC TV=19.6 UG/L				%R=98.5 Limit=100±10%
	19.30751	.9999761	.01343	
89FS11R10	-.1059485	.9976154	.01227	
89FS21S46	-.2794419	.999919	.01503	
89FS21S47	-2.146935E-02	.9982609	.01397	
89FS21S48	-.4432529	.9987992	.01489	
89FS21S49	-.692865	.9997042	.01501	
AQC TV=19.6 UG/L				%R=99.1 Limit=100±10%
	19.4186	.9994657	.0129	
89FS21S50	-.1459372	.9993695	.01439	
89FS21D47	-.7237733	.999629	.01506	SF6203
~~89FS11R08~~	~~-.2225884~~	~~.9996332~~	~~1.102727E-02~~	SF6204
89FS11R08	-.8677662	.9982222	.0121	
89FS21S37	-.2617071	.9999203	.01452	
89FS21S38	.4201733	.9991115	.0119	
89FS21S39	-.1654779	.9994251	.01269	
89FS21S40	-.4199086	.9997389	.01286	
AQC TV=19.6 UG/L				%R=99.8 Limit=100±10%
	19.56418	.9993968	.01239	
89FS21S41	-.2666667	.9999723	.01125	
89FS21S42	-.2874424	.9999382	.01322	
89FS21D38	-.2083308	.9992716	.012	SF6204
89FS11R09	-.154129	.9991273	.01103	SF6213
89FS21S43	-.6140998	.9983218	.01319	
89FS21S44	-8.511155E-02	.9995113	.01175	
89FS21S45	-.4378402	.9999102	.01279	
AQC TV=19.6 UG/L				%R=106.4 Limit=100±10%
	20.85613	.9992506	.01133	
89FS21D44	-.4458021	.9992962	.01144	SF6213
89FK11R13	-.5603448	.9982138	.0116	SF6214
89FK21S58	-1.23348	.9978991	.01135	
89FK21S59	-.5386436	.9984757	.01281	
~~89FK21D58~~	~~3.214282~~	~~.466149~~	~~4.581819E-03~~	
89FK21D58	-.3792462	.9994146	.01002	SF6214
89FS11R17	-.6804499	.9977323	.01161	SF6231
89FS22S11	-.2146577	.9996788	.01351	
AQC TV=19.6 UG/L				%R=102.0 Limit=100±10%
	19.98227	.9978162	.01127	
BLANK	.1459854	.9987025	.0137	Limit = ±2 ug/L
AQC TV=19.6 UG/L				%R=106.8 Limit=100±10%
	20.9306	.9993398	1.353999E-02	
89FS22S12	.1345315	.9998249	.01561	
89FS22D12	.3783423	.9999731	.01533	SF6231
89FM11R15	-.175304	.9997108	.01312	SF6232
89FM22S01	.3282088	.9983567	.01432	
89FM22S02	.5886183	.9988298	.01546	
AQC TV=19.6 UG/L				%R=107.6 Limit=100±10%
	21.08188	.9995784	.01331	
89FM22S03	.5994543	.9999779	.01468	

89FM22S04	.1577789	.9992067	.01331
89FM22S05	4.707136E-02	.9996099	.01487
89FM22D01	.1974561	.9998568	.01418
AQC TV=19.6 UG/L			
	21.38892	.9996164	1.259999E-02

%R = 109.1 Limit = 100 ± 10%

BLANK

J Harry 7/3/89

SF 6231

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.006	-7.099976E-03	-1.099975E-03	15.49266 %
10	.117	.1228	5.800016E-03	4.72314 %
20	.261	.2527	-8.300006E-03	-3.28453 %
30	.379	.3826	3.600001E-03	.9409308 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.26	.2592999	-7.000566E-04	-.2699795 %
10	.392	.3936	1.599997E-03	.4065034 %
20	.529	.5279	-1.100004E-03	-.2083735 %
30	.662	.6622001	2.000928E-04	3.021637E-02 %

89FS11R10

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	-1.299988E-03	-8.299988E-03	638.4666 %
10	.115	.1214	6.400012E-03	5.271838 %
20	.232	.2441	1.210003E-02	4.956996 %
30	.377	.3668	-1.019999E-02	-2.780805 %

89FS21S46

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-4.200013E-03	-1.200012E-03	28.57164 %
10	.143	.1461	3.100008E-03	2.12184 %
20	.299	.2964001	-2.599955E-03	-.8771776 %
30	.446	.4467001	7.000566E-04	.1567174 %

89FS21S47

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-2.999268E-04	-2.299927E-03	766.8295 %
10	.129	.1394	1.040004E-02	7.460574 %
20	.293	.2791	-1.390001E-02	-4.980298 %
30	.413	.4188	5.799979E-03	1.384904 %

89FS21S48

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-6.600037E-03	-8.600037E-03	130.3029 %
10	.129	.1423	1.329999E-02	9.346443 %
20	.292	.2912	-8.000136E-04	-.2747299 %
30	.444	.4401	[illegible]	[illegible]

20	.292	.2912	-8.000136E-04	-.2747299 %
30	.444	.4401	-3.899992E-03	-.8861602 %

89FS21S49 J Gary 7/3/89 SF 6231

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.007	-.0103999	-3.399902E-03	32.69167 %
10	.133	.1397001	6.700069E-03	4.796038 %
20	.293	.2898001	-3.199965E-03	-1.104198 %
30	.44	.4399001	-9.995699E-05	-2.272266E-02 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.25	.2504999	4.99934E-04	.1995745 %
10	.384	.3795	-4.500062E-03	-1.185787 %
20	.501	.5085	7.499993E-03	1.474925 %
30	.641	.6375	-3.500044E-03	-.5490266 %

89FS21S50

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.100037E-03	-1.000364E-04	4.763555 %
10	.137	.1418	4.799962E-03	3.385024 %
20	.295	.2856999	-9.300053E-03	-3.255182 %
30	.425	.4296	4.599929E-03	1.070747 %

89FS21D47

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.006	-1.090002E-02	-4.900025E-03	44.95425 %
10	.134	.1397	5.699963E-03	4.080146 %
20	.287	.2903	3.299952E-03	1.136739 %
30	.445	.4409	-4.100025E-03	-.9299218 %

89FS11R08 Not used JWK 7/3/89

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-2.454543E-03	5.454575E-04	-22.22237 %
10	.104	.1078182	3.818184E-03	3.541318 %
20	.22	.2180909	-1.909092E-03	-.8753652 %
0	0	-2.454543E-03	-2.454543E-03	100 %

89FS11R08

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-1.049997E-02	-7.499969E-03	71.42848 %
10	.104	.1105	6.500006E-03	5.882358 %
20	.222	.2315	9.499982E-03	4.103665 %
30	.361	.3525	-8.500039E-03	-2.411359 %

89FS21S37

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	-.004	-3.799988E-03	2.000125E-04	-5.263503 %
10	.14	.1414	1.400024E-03	.9901156 %
20	.29	.2866001	-3.399938E-03	-1.186301 %
30	.43	.4318	1.800001E-03	.4168598 %

J Harry 7/3/89 SF 6231

89FS21S38

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.000001E-03	5.000061E-03	-2.99994E-03	-59.99806 %
10	.116	.124	8.000039E-03	6.451643 %
20	.25	.243	-.007	-2.880658 %
30	.36	.362	1.999974E-03	.5524791 %

89FS21S39

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-2.099915E-03	1.900086E-03	-90.48396 %
10	.131	.1248001	-6.199926E-03	-4.967887 %
20	.245	.2517001	6.700039E-03	2.661914 %
30	.381	.3786001	-2.399951E-03	-.6339015 %

89FS21S40

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-5.400025E-03	-2.400024E-03	44.4447 %
10	.118	.1232	5.199977E-03	4.220761 %
20	.255	.2518	-3.200024E-03	-1.27086 %
30	.38	.3804	3.99977E-04	.1051464 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.238	.2424002	4.400134E-03	1.815236 %
10	.37	.3663001	-3.699899E-03	-1.010073 %
20	.496	.4902001	-5.799949E-03	-1.18318 %
30	.609	.6141	5.099952E-03	.8304759 %

89FS21S41

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-.003	-9.999999E-04	33.33333 %
10	.108	.1095	1.500003E-03	1.369866 %
20	.222	.222	0	0 %
30	.335	.3345	-4.999936E-04	-.1494749 %

89FS21S42

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-3.799988E-03	2.000125E-04	-5.263503 %
10	.13	.1284	-1.600012E-03	-1.246116 %
20	.258	.2606	2.599985E-03	.9976918 %
30	.394	.3927999	-1.20008E-03	-.3055194 %

89FS21D33

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-2.49997E-03	-4.49997E-03	180.001 %
10	.114	.1175	3.500015E-03	2.978736 %
20	.231	.2375	6.499991E-03	2.736838 %
30	.363	.3575	-5.500019E-03	-1.538467 %

J Gary 7/3/89 SF 6231

89FS11R09

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	-1.700043E-03	-4.700043E-03	276.4661 %
10	.1	.1086	8.599959E-03	7.918935 %
20	.222	.2189	-3.100038E-03	-1.416189 %
30	.33	.3292	-8.000434E-04	-.2430266 %

89FS21S43

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	-8.099975E-03	-9.099975E-03	112.3457 %
10	.11	.1238	1.380001E-02	11.14702 %
20	.256	.2557	-3.0002E-04	-.1173328 %
30	.392	.3876	-4.400015E-03	-1.135195 %

89FS21S44

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-1.000061E-03	-3.000061E-03	299.9878 %
10	.11	.1165	6.499976E-03	5.57938 %
20	.238	.234	-3.999993E-03	-1.709399 %
30	.351	.3515	5.000234E-04	.1422542 %

89FS21S45

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-5.599976E-03	-5.999757E-04	10.7139 %
10	.123	.1223	-6.999895E-04	-.5723544 %
20	.247	.2502	3.20001E-03	1.278981 %
30	.38	.3781	-1.899988E-03	-.5025093 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.236	.2363	2.999902E-04	.1269531 %
10	.354	.3496	-4.399985E-03	-1.258577 %
20	.455	.4629001	7.90003E-03	1.706638 %
30	.58	.5762	-3.799975E-03	-.6594889 %

89FS21D44

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-5.099976E-03	-1.099975E-03	21.56825 %
10	.104	.1093	5.30003E-03	4.849066 %

20	.231	.2237	-7.299975E-03	-3.263287 %
30	.335	.3381001	3.100038E-03	.9168995 %

J Gary 7/3/89 SF 6231

89FK11R13

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-.0065	-8.500001E-03	130.7692 %
10	.098	.1095	1.150002E-02	10.5023 %
20	.223	.2255	2.500013E-03	1.108653 %
30	.347	.3415	-5.499989E-03	-1.610538 %

89FK21S58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-.014	-9.000001E-03	64.28571 %
10	.088	.0995	.0115	11.55779 %
20	.209	.213	3.999993E-03	1.877931 %
30	.333	.3265	-6.500006E-03	-1.990813 %

89FK21S59

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	-6.900025E-03	-7.900025E-03	114.4927 %
10	.108	.1212	1.319998E-02	10.89107 %
20	.252	.2493	-2.700016E-03	-1.083039 %
30	.38	.3774	-2.600014E-03	-.688928 %

~~89FK21D58~~ Not used gmk 7/3/89

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	1.472726E-02	1.472726E-02	100 %
10	9.000001E-02	6.054545E-02	-2.945456E-02	-48.64868 %
20	.198	.1063636	-9.163637E-02	-86.15386 %
20	0	.1063636	.1063636	100 %

89FK21D58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-3.800049E-03	-3.800049E-03	100 %
10	9.000001E-02	9.639999E-02	6.399989E-03	6.638994 %
20	.198	.1966	-1.399964E-03	-.7120874 %
30	.298	.2968001	-1.199931E-03	-.4042893 %

89FS11R17

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	-7.900024E-03	-8.900024E-03	112.6582 %
10	.099	.1082	9.199984E-03	8.502759 %
20	.216	.2243	8.299977E-03	3.700391 %
30	.349	.3404	-8.600026E-03	-2.526447 %

89FS22S11

0	-.007	-2.900025E-03	4.099976E-03	-141.3773 %
10	.137	.1321999	-4.800052E-03	-3.630903 %
20	.27	.2672999	-2.700091E-03	-1.010135 %
30	.399	.4023999	3.399909E-03	.8449079 %

J Gary 7/3/89

SF 6231

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.234	.2252001	-8.799926E-03	-3.907603 %
10	.328	.3379001	9.900034E-03	2.92987 %
20	.444	.4506001	6.600023E-03	1.464719 %
30	.571	.5633	-7.700026E-03	-1.36695 %

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.999999E-03	.002	-.007	-350 %
10	.126	.139	1.299997E-02	9.352495 %
20	.281	.2759999	-5.000055E-03	-1.811615 %
30	.414	.4129999	-1.000077E-03	-.2421493 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.278	.2834002	5.400151E-03	1.905486 %
10	.424	.4188001	-5.199909E-03	-1.241621 %
20	.56	.5542001	-5.799949E-03	-1.046544 %
30	.684	.6896	5.599916E-03	.8120529 %

89FS22S12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	2.100037E-03	1.000364E-04	4.763555 %
10	.161	.1582	-2.799988E-03	-1.769904 %
20	.309	.3143	5.300015E-03	1.686292 %
30	.473	.4704	-2.599985E-03	-.5527178 %

89FS22D12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.007	5.799988E-03	-1.200012E-03	-20.68991 %
10	.157	.1591	2.099991E-03	1.319919 %
20	.313	.3124	-6.000102E-04	-.1920647 %
30	.466	.4657	-3.0002E-04	-6.442345E-02 %

89FM11R15

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	-2.299988E-03	-3.299988E-03	143.4785 %
10	.126	.1289	2.89999E-03	2.249798 %
20	.256	.2601	4.099965E-03	1.576304 %
30	.395	.3913	-3.700018E-03	-.9455706 %

89FM22S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	4.699951E-03	-3.000489E-04	-6.384085 %
10	.14	.1479	7.89997E-03	5.341428 %
20	.306	.2911	-.0149	-5.118516 %
30	.427	.4343	7.30002E-03	1.68087 %

J Gary 7/3/89 SF 6231

89FM22S02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.999999E-03	9.100037E-03	1.000371E-04	1.099304 %
10	.157	.1637	6.700009E-03	4.092858 %
20	.332	.3183	-1.369998E-02	-4.304109 %
30	.466	.4729	6.899983E-03	1.459079 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.28	.2805999	5.998612E-04	.2137782 %
10	.411	.4136999	2.699852E-03	.6526113 %
20	.554	.5467999	-7.200122E-03	-1.316775 %
30	.676	.6799	3.899932E-03	.5736038 %

89FM22S03

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	8.799988E-03	-1.200012E-03	-13.63652 %
10	.154	.1556	1.599982E-03	1.028266 %
20	.302	.3024	4.000068E-04	.1322774 %
30	.45	.4492	-7.999838E-04	-.1780908 %

89FM22S04

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.005	2.100037E-03	-2.899964E-03	-138.0911 %
10	.127	.1352	8.200005E-03	6.065092 %
20	.276	.2683	-7.699996E-03	-2.86992 %
30	.399	.4014	2.399981E-03	.5979026 %

89FM22S05

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	6.999512E-04	-1.300049E-03	-185.7342 %
10	.144	.1494	5.399987E-03	3.61445 %
20	.305	.2981	-6.900013E-03	-2.314664 %
30	.444	.4468	2.800018E-03	.6266825 %

89FM22D01

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	.004	2.799927E-03	-1.200073E-03	-42.86088 %
10	.141	.1445999	3.599927E-03	2.489577 %
20	.29	.2863999	-3.600061E-03	-1.257005 %
30	.427	.4281999	1.199931E-03	.2802268 %

AQC TV=19.6 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.266	.2695001	3.500134E-03	1.29875 %
10	.402	.3955001	-6.499946E-03	-1.643475 %
20	.519	.5215	2.499998E-03	.479386 %
30	.647	.6474999	4.998446E-04	7.719608E-02 %

J Kany
7/3/89

SF 6231

¿BEGIN DATA FILE: SE630.DF

Begin Element - SE

J Gary 6/30/89

Begin Element - SE

0.003		
0.000	AZ	
-0.006	+0	
0.117	+10	Blank
0.261	+20	
0.379	+30	
0.260	+0	
0.392	+10	AQC TV=19.6 ug/L
0.529	+20	
0.662	+30	
0.007	+0	
0.115	+10	89FS11R10
0.232	+20	
0.377	+30	
-0.003	+0	
0.143	+10	89FS21S46
0.299	+20	
0.446	+30	
0.002	+0	
0.129	+10	89FS21S47
0.293	+20	
0.413	+30	
0.002	+0	
0.129	+10	89FS21S48
0.292	+20	
0.444	+30	
-0.007	+0	
0.133	+10	89FS21S49
0.293	+20	
0.440	+30	
0.250	+0	
0.384	+10	AQC TV=19.6 ug/L
0.501	+20	
0.641	+30	
0.004		Blank
-0.002	+0	
0.137	+10	89FS21S50
0.295	+20	
0.425	+30	
-0.006	+0	
0.134	+10	89FS21D47
0.287	+20	
0.445	+30	
-0.003	+0	
0.104	+10	89FS11R08
0.222	+20	
0.361	+30	
-0.004	+0	
0.140	+10	89FS21S37
0.290	+20	
0.430	+30	
0.008	+0	
0.116	+10	89FS21S38
0.250	+20	
0.360	+30	
-0.004	+0	89FS21S39

SF 5231

SF 6231

SF6203
SF6204

J Garry 6/30/89

SF 6231

0.131	+10	89FS21S39
0.245	+20	
0.381	+30	
-0.003	+0	89FS21S40
0.118	+10	
0.255	+20	
0.380	+30	
0.238	+0	AQC TV= 19.6 ug/L
0.370	+10	
0.496	+20	
0.609	+30	
-0.005		Blank
0.002	+0	89FS21S41
0.108	+10	
0.222	+20	
0.335	+30	
-0.004	+0	89FS21S42
0.130	+10	
0.258	+20	
0.394	+30	
0.002	+0	89FS21D38
0.114	+10	
0.231	+20	
0.363	+30	
0.003	+0	89FS11R09
0.100	+10	
0.222	+20	
0.330	+30	
0.001	+0	89FS21S43
0.110	+10	
0.256	+20	
0.392	+30	
0.002	+0	89FS21S44
0.110	+10	
0.238	+20	
0.351	+30	
-0.005	+0	89FS21S45
0.123	+10	
0.247	+20	
0.380	+30	
0.236	+0	AQC TV= 19.6 ug/L
0.354	+10	
0.455	+20	
0.580	+30	
0.000		Blank
-0.004	+0	89FS21D44
0.104	+10	
0.231	+20	
0.335	+30	
0.002	+0	89FK11R13
0.098	+10	
0.223	+20	
0.347	+30	
-0.005	+0	89FK21S58
0.088	+10	
0.209	+20	
0.333	+30	
0.001	+0	89FK21S59
0.108	+10	
0.252	+20	
0.380	+30	
0.000	+0	89FK21D58
0.090	+10	

SF6204
SF6213

SF6213
SF6214

0.198	+20	89FK21D58
0.298	+30	
0.001	+0	
0.099	+10	89FS11R17
0.216	+20	
0.349	+30	
-0.007	+0	
0.137	+10	89FS22S11
0.270	+20	
0.399	+30	
0.234	+0	
0.328	+10	AQC TV= 19.6 ug/L
0.444	+20	
0.571	+30	
0.001		Blank

SF6214
SF6231

J Gamy
6/30/89

SF 6231

Begin Element - SE

J Gary
6/30/89

SF 6231

-0.008		
0.000	AZ	
0.009	+0	Blank
0.126	+10	
0.281	+20	
0.414	+30	
0.278	+0	
0.424	+10	AQC TV= 19.6 ug/L
0.560	+20	
0.684	+30	
0.002	+0	
0.161	+10	89FS22S12
0.309	+20	
0.473	+30	
0.007	+0	
0.157	+10	89FS22D12
0.313	+20	
0.466	+30	
0.001	+0	SF6231
0.126	+10	SF6232
0.256	+20	89FM11R15
0.395	+30	
0.005	+0	
0.140	+10	89FM22S01
0.306	+20	
0.427	+30	
0.009	+0	
0.157	+10	89FM22S02
0.332	+20	
0.466	+30	
0.280	+0	
0.411	+10	AQC TV= 19.6 ug/L
0.554	+20	
0.676	+30	
0.007		Blank
0.010	+0	
0.154	+10	89FM22S03
0.302	+20	
0.450	+30	
0.005	+0	
0.127	+10	89FM22S04
0.276	+20	
0.399	+30	
0.002	+0	
0.144	+10	89FM22S05
0.305	+20	
0.444	+30	
0.004	+0	
0.141	+10	89FM22D01
0.290	+20	
0.427	+30	
0.266	+0	
0.402	+10	AQC TV= 25.0 ug/L
0.519	+20	
0.647	+30	
-0.003		Blank

AAS Run Log

Element Se

Date 6/30/89

J. Gary 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC TV = 19.6 µg/L	0	
6		10	
7		20	
8		30	
9	89FS11R10	0	
10		10	
11		20	
12		30	
13	89FS21546	0	
14		10	
15		20	
16		30	
17	89FS21547	0	
18		10	
19		20	
20		30	
21	89FS21548	0	
22		10	
23		20	
24		30	
25	89FS21549	0	
26		10	

AAS Run Log

Element Se

Date 6/30/89

J Harry 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
27	89FS21549	20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 2		
1	89FS21550	0	
2		10	
3		20	
4		30	
5	89FS21D47	0	
6		10	
7		20	
8		30	
9	89FS11R08	0	
10		10	
11		20	
12		30	
13	89FS21537	0	
14		10	
15		20	
16		30	

AAS Run Log

Element Se

Date 6/30/89

J Gary 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
17	89FS21538	0	
18		10	
19		20	
20		30	
21	89FS21539	0	
22		10	
23		20	
24		30	
25	89FS21540	0	
26		10	
27		20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 3		
1			
2			
3			
4			
5			
6			

AAS Run Log

J Hany 6/30/89

Wheel #3

Element Se

Date 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
1	89FS21541	0	
2		10	
3		20	
4		30	
5	89FS21542	0	
6		10	
7		20	
8		30	
9	89FS21D38	0	
10		10	
11		20	
12		30	
13	89FS11R09	0	
14		10	
15		20	
16		30	
17	89FS21543	0	
18		10	
19		20	
20		30	
21	89FS21544	0	
22		10	
23		20	
24		30	
25	89FS21545	0	
26		10	

AAS Run Log

Element Se

Date 6/30/89

J Barry 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
27	89FS21545	20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel ~~2~~ 4 qwt 6/30		
1	89FS21D44	0	
2		10	
3		20	
4		30	
5	89FK11R13	0	
6		10	
7		20	
8		30	
9	89FK21558	0	
10		10	
11		20	
12		30	
13	89FK21559	0	
14		10	
15		20	
16		30	

AAS Run Log

Element Se

Date 6/30/89

J Harry 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
17	89FK21P58	0	
18		10	
19		20	
20		30	
21	89FS11R17	0	
22		10	
23		20	
24		30	
25	89FS22S11	0	
26		10	
27		20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 3		
1			
2			
3			
4			
5			
6			

AAS Run Log

Element Se

Date 6/30/89

g Kamy 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC TV= 19.6 ug/L	0	
6		10	
7		20	
8		30	
9	89FS22S12	0	
10		10	
11		20	
12		30	
13	89FS22D12	0	
14		10	
15		20	
16		30	
17	89FM11R15	0	
18		10	
19		20	
20		30	
21	89FM22S01	0	
22		10	
23		20	
24		30	
25	89FM22S02	0	
26		10	

AAS Run Log

Element Se

Date 6/30/89

J Barry 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
27	89FM22S02	20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 2		
1	89FM22S03	0	
2		10	
3		20	
4		30	
5	89FM22S04	0	
6		10	
7		20	
8		30	
9	89FM22S05	0	
10		10	
11		20	
12		30	
13	89FM22D01	0	
14		10	
15		20	
16		30	

AAS Run Log

Element Se

Date 6/30/89

J Gary 6/30/89

Initials JWG

Data Set SF 6231

	ID	Spike	Comment
17	AQC	0	
18		10	
19		20	
20		30	
21	Blank		
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
	Wheel 3		
1			
2			
3			
4			
5			
6			

J Gary 6/30/89

SF 6231

Element	Instrument	QC Source
☐ Ag	☐ 5000	☐ WP 284 TM I #2
☐ As	☐ 4000	☐ WP 1183 TM II #1
☐ Cd	☒ 5000 ZE	☐ WP 1183 TM II #2
☐ Cr	☐ 5000 ZW	☒ ICV 2
☐ Pb	☐ 5100	☐ SPEX II
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b
☒ Se		☐
☐ Tl		☐

Analyst JWG
Date 6/30/89
Lamp # 4453
Energy 54
Expansion 5
Stock 2-44-MD

☐ platform ☐ MSC
☒ wall ☒ MSA

Blank	Slope	AQC	Digestion QC
-.546	.01299	19.31	
.146	.0137	19.42	
		19.56	
		20.86	
		19.98	
		20.93	
		21.08	
		21.39	

Blank cup absorbance
.007
-.003
.004
-.005
.000
.001

AAS Run Log

Element Pb

Date 7/6/89

DKruse 7/7/89

Initials BK

Data Set SF 6231

	ID	Spike	Comment
1	Stds 0 ppb		
2	40		
3	30		
4	20		
5	10		
6	CCB1		AQC at position 37
7	89FS21S39	0	SF6204
8	SpK	20	
9	S40	0	
10	SpK	20	
11	S41	0	
12	SpK	20	
13	S42	0	
14	SpK	20	
15	89FS11R09	0	SF6213
16	SpK	20	
17	89FS21S43	0	
18	SpK	20	
19	S44	0	
20	SpK	20	
21	D44	0	
22	SpK	20	
23	CCB2		
24	S45	0	
25	SpK	20	
26	89FK11 R13	0	SF6214

AAS Run Log

Element Pb

Date 7/6/89

DKruse 7/7/89

Initials DK

Data Set SF 6231

	ID	Spike	Comment
27	89 FK 11 R 13 SpK	20	
28	89FK 21358	0	
29	SpK	20	
30	D58	0	
31	SpK	20	
32	S59	0	
33	SpK	20	
34	CCB3	0	
35			
	Wheel 2		
1	89 FS 11 R17	0	SF 6231
2	SpK	20	
3	89FS22S11	0	
4	SpK	20	
5	S12	0	
6	SpK	20	
7	D12	0	
8	SpK	20	
9	89 FM 11 R15	0	SF 6232
10	SpK	20	
11	89 FM 22 S01	0	
12	SpK	20	
13	D01	0	
14	SpK	20	
15	S02	0	
16	SpK	20	

AAS Run Log

Element pb

Date 7/6/89

DK Runge 7/7/89

Initials DK

Data Set SF 6231

	ID	Spike	Comment
17	89FM22S03	0	
18	SpK	20	
19	S04	0	
20	SpK	20	
21	CCB4	0	AQC
22	S04	0	
23	SpK	20	
24	CCB5		AQC
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
	Wheel 3		
1			
2			
3			
4			
5			
6			

DKruse 7/7/89

Element File: PBCON.GEL
Date: 07/06/89
Data Storage File: PB6204.DAT
Technique: HGA

Element: Pb
Time: 12:33
ID/Weight File: SF6204.A60
Calibration Type: Linear

SF 6231

ID: Blank Seq. No.: 00001 A/S Pos.: 1 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 1
Replicate. 1 (Peak Stored) Time: 12:36
Peak Area (A-s): 0.007 Peak Height (A): 0.014
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): -0.009
Concentration (ug/L): -2.2

Auto-zero performed.

ID: Standard 1 Seq. No.: 00002 A/S Pos.: 2 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 2
Replicate 1 (Peak Stored) Time: 12:39
Peak Area (A-s): 0.091 Peak Height (A): 0.177
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.061
Blank Corrected Pk Area (A-s): 0.083
Concentration (ug/L): 42.9

Standard number 1 applied. [40.0]
Correlation coefficient: 1.00000 Slope: 0.0021 Int: 0.000

ID: Standard 2 Seq. No.: 00003 A/S Pos.: 3 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 3

Replicate 1 (Peak Stored) Time: 12:42
Peak Area (A-s): 0.070 Peak Height (A): 0.137
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.063
Concentration (ug/L): 30.2

DKruse 7/7/89 SF 6231

Standard number 2 applied. [30.0]
Correlation coefficient: 0.99999 Slope: 0.0021 Int: 0.000

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ID: Standard 3 Seq. No.: 00004 A/S Pos.: 4 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 4
Replicate 1 (Peak Stored) Time: 12:45
Peak Area (A-s): 0.051 Peak Height (A): 0.096
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 21.0

Standard number 3 applied. [20.0]
Correlation coefficient: 0.99952 Slope: 0.0021 Int: 0.001

~~~~~~

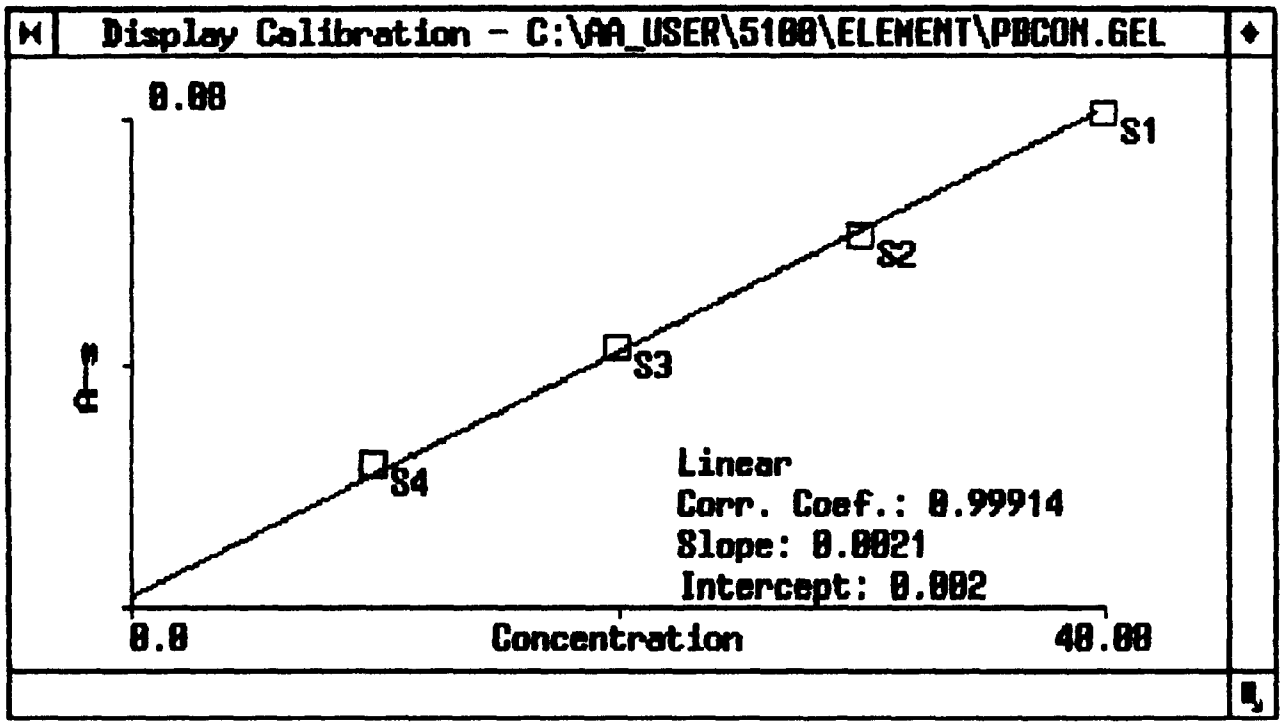
ID: Standard 4 Seq. No.: 00005 A/S Pos.: 5 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 5
Replicate 1 (Peak Stored) Time: 12:48
Peak Area (A-s): 0.031 Peak Height (A): 0.053
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.024
Concentration (ug/L): 11.1

Standard number 4 applied. [10.0]
Correlation coefficient: 0.99914 Slope: 0.0021 Int: 0.002

7/7/89

SF 6231


Display Calibration - C:\AA_USER\5100\ELEMENT\PBCON.GEL
0.00
S1
S2
S3
S4
Linear
Corr. Coef.: 0.99914
Slope: 0.0021
Intercept: 0.002
0.0
Concentration
40.00

ID: AQC 22.4 UG/L Seq. No.: 00006 A/S Pos.: 37 Date: 07/06/

SF 6231

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored) Time: 12:52
Peak Area (A-s): 0.055 Peak Height (A): 0.104
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 22.1 98.7% R Limit = 100 ± 10%

Check sample is within range 20.16 - 24.64

DKruse 7/7/89

ID: CCB1 Seq. No.: 00007 A/S Pos.: 6 Date: 07/06/

uL dispensed: 5 from 36, 15 from 6
Replicate 1 (Peak Stored) Time: 12:55
Peak Area (A-s): 0.013 Peak Height (A): 0.014
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.7 Limit = ± 2 µg/L

ID: 89FS21S39 Seq. No.: 00008 A/S Pos.: 7 Date: 07/06/

uL dispensed: 5 from 36, 15 from 7
Replicate 1 (Peak Stored) Time: 12:59
Peak Area (A-s): 0.009 Peak Height (A): 0.016
Background Pk Area (A-s): 0.190 Background Pk Height (A): 0.073
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.0 2u

ID: dispensed: 5 from 36, Seq. No.: 00009 A/S Pos.: 8 Date: 07/06/89

Spike for S39
printer failure - value from screen 20.0 µg/L 100% R

ID: 89FS21S40 Seq. No.: 00010 A/S Pos.: 9 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 9
Replicate 1 (Peak Stored) Time: 13:06
Peak Area (A-s): 0.007 Peak Height (A): 0.017
Background Pk Area (A-s): 0.147 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -1.0 2u

ID: SPK Seq. No.: 00011 A/S Pos.: 10 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 10
Replicate 1 (Peak Stored) Time: 13:09
Peak Area (A-s): 0.064 Peak Height (A): 0.120
Background Pk Area (A-s): 0.178 Background Pk Height (A): 0.063
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 26.7 128.5% result is < IDL therefore acceptable.

ID: 89FS21S41 Seq. No.: 00012 A/S Pos.: 11 Date: 07/06/89

Replicate 1 (Peak Stored)   Time: 13:13
Peak Area (A-s): 0.011   Peak Height (A): 0.017
Background Pk Area (A-s): 0.078   Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.9   2u

SF 6231

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ID: SPK   Seq. No.: 00013   A/S Pos.: 12   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 12   DKruge 7/7/89
Replicate 1 (Peak Stored)   Time: 13:16
Peak Area (A-s): 0.049   Peak Height (A): 0.100
Background Pk Area (A-s): 0.098   Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 19.5   93.0 % R

~~~~~~

ID: 89FS21S42   Seq. No.: 00014   A/S Pos.: 13   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 13
Replicate 1 (Peak Stored)   Time: 13:19
Peak Area (A-s): 0.008   Peak Height (A): 0.018
Background Pk Area (A-s): 0.193   Background Pk Height (A): 0.074
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.5   2u

~~~~~~

ID: SPK   Seq. No.: 00015   A/S Pos.: 14   Date: 07/06/89
uL dispensed: 5 from 36, 15 from 14
Replicate 1 (Peak Stored)   Time: 13:22
Peak Area (A-s): 0.053   Peak Height (A): 0.100
Background Pk Area (A-s): 0.211   Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 21.4   109.5 % R

~~~~~~

ID: 89FS11R09   Seq. No.: 00016   A/S Pos.: 15   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 15

Replicate 1 (Peak Stored)   Time: 13:26
Peak Area (A-s): 0.011   Peak Height (A): 0.013
Background Pk Area (A-s): 0.033   Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.8   2u

~~~~~~

ID: SPK   Seq. No.: 00017   A/S Pos.: 16   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 16
Replicate 1 (Peak Stored)   Time: 13:29
Peak Area (A-s): 0.050   Peak Height (A): 0.100
Background Pk Area (A-s): 0.042   Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 19.8   95.0 % R

~~~~~~

ID: AQC 22.4 UG/L   Seq. No.: 00018   A/S Pos.: 37   Date: 07/06/89

OK nuse 7/7/89

SF 6231

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored)   Time: 13:32
Peak Area (A-s): 0.055   Peak Height (A): 0.108
Background Pk Area (A-s): 0.044   Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 22.1   98.7%R   Limit = 100 ± 10%R

Check sample is within range 20.16 - 24.64   Extra AQC due to programming error

~~~~~~

ID: 89FS21S43   Seq. No.: 00019   A/S Pos.: 17   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 17
Replicate 1 (Peak Stored)   Time: 13:35
Peak Area (A-s): 0.010   Peak Height (A): 0.017
Background Pk Area (A-s): 0.153   Background Pk Height (A): 0.058
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.7

2u

~~~~~~

ID: AQC 22.4 UG/L   Seq. No.: 00020   A/S Pos.: 37   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored)   Time: 13:42
Peak Area (A-s): 0.056   Peak Height (A): 0.106
Background Pk Area (A-s): 0.040   Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.049
Concentration (ug/L): 22.9   102.2%R   Limit = 100 ± 10%R

Check sample is within range 20.16 - 24.64   Extra AQC due to programming error

~~~~~~

ID: SPK   Seq. No.: 00021   A/S Pos.: 18   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 18
Replicate 1 (Peak Stored)   Time: 13:45
Peak Area (A-s): 0.054   Peak Height (A): 0.106
Background Pk Area (A-s): 0.165   Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 22.1   107.0%R

~~~~~~

ID: 89FS21S44   Seq. No.: 00022   A/S Pos.: 19   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 19
Replicate 1 (Peak Stored)   Time: 13:48
Peak Area (A-s): 0.006   Peak Height (A): 0.014
Background Pk Area (A-s): 0.198   Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -1.4   2u

~~~~~~

ID: SPK   Seq. No.: 00023   A/S Pos.: 20   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 20
Replicate 1 (Peak Stored)   Time: 13:52
Peak Area (A-s): 0.053   Peak Height (A): 0.099
~~~~~~

Background Pk Area (A-s): 0.227 Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 21.2 113.0 % R Result is acceptable because it is < IDL

~~~~~~

ID: 89FS21D44 Seq. No.: 00024 A/S Pos.: 21 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 21
Replicate 1 (Peak Stored) Time: 13:55 SF 6231
Peak Area (A-s): 0.004 Peak Height (A): 0.013
Background Pk Area (A-s): 0.220 Background Pk Height (A): 0.085
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -2.3 run by MSA [signature] 7/7/89

~~~~~~

ID: SPK Seq. No.: 00025 A/S Pos.: 22 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 22
Replicate 1 (Peak Stored) Time: 13:58
Peak Area (A-s): 0.051 Peak Height (A): 0.100
Background Pk Area (A-s): 0.224 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 20.6 114.5 % R

~~~~~~

ID: AQC 22.4 UG/L Seq. No.: 00026 A/S Pos.: 37 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored) Time: 14:01
Peak Area (A-s): 0.051 Peak Height (A): 0.106
Background Pk Area (A-s): 0.054 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 20.4 91.2 % R Limit = 100 ± 10 % R

Check sample is within range 20.16 - 24.64

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ID: CCB2 Seq. No.: 00027 A/S Pos.: 23 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 23
Replicate 1 (Peak Stored) Time: 14:04
Peak Area (A-s): 0.005 Peak Height (A): 0.013
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -1.8 Limit = ± 2 μg/l

~~~~~~

ID: 89FS21S45 Seq. No.: 00028 A/S Pos.: 24 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 24
Replicate 1 (Peak Stored) Time: 14:07
Peak Area (A-s): 0.012 Peak Height (A): 0.029
Background Pk Area (A-s): 0.234 Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.5 2u

~~~~~~

ID: SPK Seq. No.: 00029 A/S Pos.: 25 Date: 07/06/8

uL dispensed: 5 from 36, 15 from 25
Replicate 1 (Peak Stored)   Time: 14:10
Peak Area (A-s): 0.058   Peak Height (A): 0.113
Background Pk Area (A-s): 0.250   Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 23.9   112.0 %R   result is < IDL and acceptable

---

ID: 89FK11R13   Seq. No.: 00030   A/S Pos.: 26   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 26
Replicate 1 (Peak Stored)   Time: 14:14   SF 6231
Peak Area (A-s): 0.008   Peak Height (A): 0.013
Background Pk Area (A-s): 0.030   Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.3   2u

DKrause 7/7/89

ID: SPK   Seq. No.: 00031   A/S Pos.: 27   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 27
Replicate 1 (Peak Stored)   Time: 14:17
Peak Area (A-s): 0.051   Peak Height (A): 0.102
Background Pk Area (A-s): 0.046   Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 20.4   103.5 %R

ID: 89FK21S58   Seq. No.: 00032   A/S Pos.: 28   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 28
Replicate 1 (Peak Stored)   Time: 14:20
Peak Area (A-s): 0.010   Peak Height (A): 0.014
Background Pk Area (A-s): 0.202   Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.3   2u

ID: SPK   Seq. No.: 00033   A/S Pos.: 29   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 29
Replicate 1 (Peak Stored)   Time: 14:24
Peak Area (A-s): 0.052   Peak Height (A): 0.102
Background Pk Area (A-s): 0.226   Background Pk Height (A): 0.085
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 20.7   102 %R

ID: 89FK21D58   Seq. No.: 00034   A/S Pos.: 30   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 30
Replicate 1 (Peak Stored)   Time: 14:27
Peak Area (A-s): 0.010   Peak Height (A): 0.015
Background Pk Area (A-s): 0.213   Background Pk Height (A): 0.084
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.4   2u

ID: SPK   Seq. No.: 00035   A/S Pos.: 31   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 31
Replicate 1 (Peak Stored) Time: 14:30 W Kruse 7/7/89
Peak Area (A-s): 0.054 Peak Height (A): 0.100
Background Pk Area (A-s): 0.220 Background Pk Height (A): 0.081
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L ,): 21.6 106%R

SF 6231

~~~~~~

ID: 89FK21S59 Seq. No.: 00036 A/S Pos.: 32 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 32
Replicate 1 (Peak Stored) Time: 14:33
Peak Area (A-s): 0.009 Peak Height (A): 0.014
Background Pk Area (A-s): 0.204 Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.2 2u

~~~~~~

ID: SPK Seq. No.: 00037 A/S Pos.: 33 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 33
Replicate 1 (Peak Stored) Time: 14:36
Peak Area (A-s): 0.053 Peak Height (A): 0.103
Background Pk Area (A-s): 0.211 Background Pk Height (A): 0.077
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 21.3 108.0%R

~~~~~~

ID: AQC 22.4 UG/L Seq. No.: 00038 A/S Pos.: 37 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored) Time: 14:40
Peak Area (A-s): 0.053 Peak Height (A): 0.108
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 21.3 95.1%R Limit = 100 ± 10%R

Check sample is within range 20.16 - 24.64

~~~~~~

ID: CCB3 Seq. No.: 00039 A/S Pos.: 34 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 34
Replicate 1 (Peak Stored) Time: 14:43
Peak Area (A-s): 0.009 Peak Height (A): 0.013
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): -0.1 Limit = ± 2µg/l

~~~~~~

ID: 89FS11R17 Seq. No.: 00040 A/S Pos.: 1 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 1
Replicate 1 (Peak Stored) Time: 15:11
Peak Area (A-s): 0.011 Peak Height (A): 0.023
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 1.1 2u
~~~~~~

~~~~~~

ID: SPK   Seq. No.: 00041   A/S Pos.: 2   Date: 07/06/89

SF 6231

uL dispensed: 5 from 36, 15 from 2
Replicate 1 (Peak Stored)   Time: 15:14
Peak Area (A-s): 0.056   Peak Height (A): 0.112
Background Pk Area (A-s): 0.043   Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.049
Concentration (ug/L): 23.0   109.5 % R   DKruse 7/7/89

~~~~~~

ID: 89FS22S11   Seq. No.: 00042   A/S Pos.: 3   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 3
Replicate 1 (Peak Stored)   Time: 15:17
Peak Area (A-s): 0.015   Peak Height (A): 0.026
Background Pk Area (A-s): 0.117   Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.007
Concentration (ug/L): 2.8   3 µg/L

~~~~~~

ID: SPK   Seq. No.: 00043   A/S Pos.: 4   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 4
Replicate 1 (Peak Stored)   Time: 15:20
Peak Area (A-s): 0.059   Peak Height (A): 0.112
Background Pk Area (A-s): 0.153   Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.052
Concentration (ug/L): 24.3   107.5 % R

~~~~~~

ID: 89FS22S12   Seq. No.: 00044   A/S Pos.: 5   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 5
Replicate 1 (Peak Stored)   Time: 15:23
Peak Area (A-s): 0.010   Peak Height (A): 0.014
Background Pk Area (A-s): 0.154   Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.3   2u

~~~~~~

ID: SPK   Seq. No.: 00045   A/S Pos.: 6   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 6
Replicate 1 (Peak Stored)   Time: 15:27
Peak Area (A-s): 0.053   Peak Height (A): 0.103
Background Pk Area (A-s): 0.180   Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 21.6   106.5 % R

~~~~~~

ID: 89FS22D12   Seq. No.: 00046   A/S Pos.: 7   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 7
Replicate 1 (Peak Stored)   Time: 15:30
Peak Area (A-s): 0.008   Peak Height (A): 0.017
Background Pk Area (A-s): 0.170   Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.001

Concentration (ug/L): -0.3 2u

~~~~~~

ID: SPK Seq. No.: 00047 A/S Pos.: 8 Date: 07/06/89

AKruse 7/7/89
SF 6231

uL dispensed: 5 from 36, 15 from 8
Replicate 1 (Peak Stored) Time: 15:33
Peak Area (A-s): 0.055 Peak Height (A): 0.102
Background Pk Area (A-s): 0.164 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 22.1 112 %R results < IDL and acceptable

~~~~~~

ID: 89FM11R15 Seq. No.: 00048 A/S Pos.: 9 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 9
Replicate 1 (Peak Stored) Time: 15:36
Peak Area (A-s): 0.009 Peak Height (A): 0.013
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): -0.0 2u

~~~~~~

ID: SPK Seq. No.: 00049 A/S Pos.: 10 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 10
Replicate 1 (Peak Stored) Time: 15:40
Peak Area (A-s): 0.051 Peak Height (A): 0.101
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 20.4 97.1 %R

~~~~~~

ID: 89FM22S01 Seq. No.: 00050 A/S Pos.: 11 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 11
Replicate 1 (Peak Stored) Time: 15:43
Peak Area (A-s): 0.008 Peak Height (A): 0.014
Background Pk Area (A-s): 0.101 Background Pk Height (A): 0.041
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.4 2u

~~~~~~

ID: SPK Seq. No.: 00051 A/S Pos.: 12 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 12
Replicate 1 (Peak Stored) Time: 15:46
Peak Area (A-s): 0.052 Peak Height (A): 0.102
Background Pk Area (A-s): 0.119 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 21.0 107.0 %R

~~~~~~

ID: 89FM22D01 Seq. No.: 00052 A/S Pos.: 13 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 13
Replicate 1 (Peak Stored) Time: 15:49
Peak Area (A-s): 0.009 Peak Height (A): 0.012
Background Pk Area (A-s): 0.100 Background Pk Height (A): 0.041

Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.2 2u

DKruse 7/7/89

~~~~~~

ID: SPK Seq. No.: 00053 A/S Pos.: 14 Date: 07/06/89

SF 6231

uL dispensed: 5 from 36, 15 from 14
Replicate 1 (Peak Stored) Time: 15:53
Peak Area (A-s): 0.052 Peak Height (A): 0.103
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 21.0 106.0%R

~~~~~~

ID: 89FM22S02 Seq. No.: 00054 A/S Pos.: 15 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 15
Replicate 1 (Peak Stored) Time: 15:56
Peak Area (A-s): 0.007 Peak Height (A): 0.015
Background Pk Area (A-s): 0.175 Background Pk Height (A): 0.070
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.8 2u

~~~~~~

ID: SPK Seq. No.: 00055 A/S Pos.: 16 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 16
Replicate 1 (Peak Stored) Time: 15:59
Peak Area (A-s): 0.053 Peak Height (A): 0.099
Background Pk Area (A-s): 0.187 Background Pk Height (A): 0.066
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 21.2 110.0%R

~~~~~~

ID: 89FM22S03 Seq. No.: 00056 A/S Pos.: 17 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 17
Replicate 1 (Peak Stored) Time: 16:02
Peak Area (A-s): 0.008 Peak Height (A): 0.016
Background Pk Area (A-s): 0.136 Background Pk Height (A): 0.054
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.5 2u

~~~~~~

ID: SPK Seq. No.: 00057 A/S Pos.: 18 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 18
Replicate 1 (Peak Stored) Time: 16:05
Peak Area (A-s): 0.055 Peak Height (A): 0.105
Background Pk Area (A-s): 0.157 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.048
Concentration (ug/L): 22.4 114.5%R result < IDL therefore acceptable

~~~~~~

ID: 89FM22S04 Seq. No.: 00058 A/S Pos.: 19 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 19
Replicate 1 (Peak Stored) Time: 16:09
Peak Area (A-s): 0.012 Peak Height (A): 0.023

Background Pk Area (A-s): 0.186 Background Pk Height (A): 0.072
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.6 2u

DKruse 7/21/89

~~~~~~

ID: SPK , Seq. No.: 00059 A/S Pos.: 20 Date: 07/06/89

SF 6231

uL dispensed: 5 from 36, 15 from 20
Replicate 1 (Peak Stored) Time: 16:12
Peak Area (A-s): 0.055 Peak Height (A): 0.112
Background Pk Area (A-s): 0.196 Background Pk Height (A): 0.071
Blank Corrected Pk Area (A-s): 0.048
Concentration (ug/L): 22.4 104.0% R

~~~~~~

ID: AQC 22.4 UG/L Seq. No.: 00060 A/S Pos.: 37 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored) Time: 16:15
Peak Area (A-s): 0.057 Peak Height (A): 0.108
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.050
Concentration (ug/L): 23.4 104.5% R Limit = 100±10% R

Check sample is within range 20.16 - 24.64

~~~~~~

ID: CCB4 Seq. No.: 00061 A/S Pos.: 21 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 21
Replicate 1 (Peak Stored) Time: 16:18
Peak Area (A-s): 0.009 Peak Height (A): 0.014
Background Pk Area (A-s): 0.035 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.1 limit = ±2 µg/l

~~~~~~

ID: 89FM22S05 Seq. No.: 00062 A/S Pos.: 22 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 22
Replicate 1 (Peak Stored) Time: 16:21
Peak Area (A-s): 0.010 Peak Height (A): 0.017
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.3 2u

~~~~~~

ID: SPK Seq. No.: 00063 A/S Pos.: 23 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 23
Replicate 1 (Peak Stored) Time: 16:24
Peak Area (A-s): 0.049 Peak Height (A): 0.102
Background Pk Area (A-s): 0.118 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 19.3 95.0% R

~~~~~~

ID: AQC 22.4 UG/L Seq. No.: 00064 A/S Pos.: 37 Date: 07/06/89

uL dispensed: 5 from 36, 15 from 37
Replicate 1 (Peak Stored)   Time: 16:28
Peak Area (A-s): 0.057   Peak Height (A): 0.112
Background Pk Area (A-s): 0.052   Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.050
Concentration (ug/L): 23.3   104.0 %R Limit = 100 ± 10 % R

Check sample is within range 20.16 - 24.64

~~~~~~

ID: CCB5   Seq. No.: 00065   A/S Pos.: 24   Date: 07/06/89

uL dispensed: 5 from 36, 15 from 24
Replicate 1 (Peak Stored)   Time: 16:31
Peak Area (A-s): 0.008   Peak Height (A): 0.012
Background Pk Area (A-s): 0.034   Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.3   Limit = ± 2 µg/L

SF 6231

D Kruse 7/7/89
~~~~~~

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☒ WP 284 TM I #2	Analyst DR
☐ As	☐ 4000	☐ WP 1183 TM II #1	Date 7/6/89
☐ Cd	☐ 5000 ZE	☐ WP 1183 TM II #2	Lamp # 382152
☐ Cr	☐ 5000 ZW	☐ ICV 2	Energy 51
☒ Pb	☒ 5100	☐ SPEX II	Expansion 4.19
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 1-139-5A
☐ Se		☐	☒ platform ☒ MSC
☐ Tl		☐	☐ wall ☐ MSA

Blank	Slope	AQC	Digestion QC
1.7	.0020	22.1	
-1.8		22.1	
-0.1		22.9	
0.1		20.4	
-0.3		21.3	
		23.4	
		23.3	

SF 6231

D Kruse 7/7/89

Blank cup absorbance

* FLAMELESS * CSC VERSION 1.00 *

SF 6231

NAME OF ANALYST ---: DSK
DATE OF ANALYSIS --: 07-17-1989
PARAMETER NAME ----: TL
DATA SET # ---------: SF6231

OK use 7/17/89
K. Korobka 7/18/89

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	.3508748	.9996596	.01539	Limit = ± 2µg/L
AQC 25 UG/L	22.79151	.9951163	.01458	91.2% R Limit = 100 ± 10%
89FS21S49	.2259887	.9998531	8.850001E-03	2u
89FS21D47	.3600508	.9934722	8.609999E-03	not used SF 6203
89FS21S42	.5021875	.9875646	4.579999E-03	Not used
89FS21D38	-.7575757	.9991746	.0033	2u SF6204
89FS21S45	.1129969	.9981539	.00354	2u SF 6213
AQC 25 UG/L	23.99857	.9950676	.01393	95.99% R Limit = 100 ± 10%
89FS21D47 1:5	.7728697	.9999329	.01268	10u SF6203
89FS21S42 1:5	.3459759	.997565	8.960003E-03	10u SF6204
89FS21D44	1.839767	.9992699	3.369999E-03	2u SF 6213
89FK21S58	9.009102E-02	.9494349	.00333	Not used
89FK21D58	.2506989	.9987067	.00359	2u SF 6214
89FK21S59	-.4868925	.9999578	.00267	2u
89FS11R17	9.434179E-02	.9986913	.01696	2u SF6231
AQC 25 UG/L	22.63595	.9927668	1.563001E-02	r < .995
AQC 25	29.9248	.9864079	.0133	not used
AQC 25	24.22951	.9971411	.01525	96.9% R Limit = 100 ± 10%

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.999999E-03	5.399964E-03	-3.600036E-03	-66.66779 %
10	.157	.1593	2.29995E-03	1.443785 %
20	.307	.3132	6.199956E-03	1.979552 %
30	.472	.4671	-4.900038E-03	-1.049034 %

AQC 25 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.341	.3323	-8.699954E-03	-2.618102 %
10	.478	.4781	1.000166E-04	.0209196 %
20	.598	.6239	2.589995E-02	4.151298 %
30	.787	.7696999	-1.730013E-02	-2.247646 %

89FS21S49

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	.002	-.001	-50.00001 %
10	.088	9.050001E-02	2.500005E-03	2.762437 %
20	.181	.179	-1.999974E-03	-1.117304 %
30	.267	.2675	5.000234E-04	.1869246 %

89FS21D47

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	3.100037E-03	-8.999635E-04	-29.03074 %
10	.097	8.920002E-02	-7.799976E-03	-8.744365 %
20	.157	.1753	1.830001E-02	10.43925 %
30	.271	.2614	-9.599984E-03	-3.672526 %

89FS21S42 L. Korobka 7/18/89 DK Kruse 7/17/89 SF 6231

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.011	2.300018E-03	-8.699981E-03	-378.2571 %
10	.035	4.810001E-02	1.310001E-02	27.23494 %
20	9.399999E-02	9.389999E-02	-1.000017E-04	-.1064981 %
30	.144	.1397	-4.299999E-03	-3.078023 %

89FS21D38

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-.0025	-.0015	60 %
10	.028	3.050001E-02	2.500003E-03	8.196731 %
20	.064	.0635	-5.00001E-04	-.7874032 %
30	.097	9.650001E-02	-4.999936E-04	-.518128 %

89FS21S45

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	4.000092E-04	1.400009E-03	349.9943 %
10	.036	3.580001E-02	-1.999885E-04	-.5586269 %
20	.075	7.120001E-02	-3.799997E-03	-5.337075 %
30	.104	.1066	2.599999E-03	2.439024 %

AQC 25 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.335	.3343001	-6.999672E-04	-.2093829 %
10	.46	.4736001	1.360002E-02	2.871626 %
20	.638	.6129	-2.509999E-02	-4.095284 %
30	.74	.7522001	1.220006E-02	1.621917 %

89FS21D47 1:5

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	9.799988E-03	-2.000118E-04	-2.040939 %
10	.135	.1366	1.599982E-03	1.17129 %
20	.266	.2634	-2.600014E-03	-.9870973 %
30	.389	.3902	1.199991E-03	.3075322 %

89FS21S42 1:5

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	3.099945E-03	-6.900055E-03	-222.5863 %
10	.086	[illegible]	[illegible]	[illegible]

89FS21S42 1:5

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.01	3.099945E-03	-6.900055E-03	-222.5863 %
10	.086	9.269998E-02	6.699972E-03	7.227588 %
20	.175	.1823	7.300005E-03	4.004391 %
30	.279	.2719	-7.099986E-03	-2.611249 %

SF 6231

89FS21D44

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.006	6.200013E-03	2.000122E-04	3.225998 %
10	.039	3.990001E-02	9.000041E-04	2.255649 %
20	.076	.0736	-2.399996E-03	-3.260864 %
30	.106	.1073	.0013	1.211556 %

89FK21S58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.012	3.000031E-04	-.0117	-3899.96 %
10	.023	.0336	.0106	31.54761 %
20	.053	.0669	1.389999E-02	20.77727 %
30	.113	.1002	-1.280001E-02	-12.77446 %

D Krue 7/17/89 L. Korobka 7/18/89

89FK21D58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	9.000092E-04	-9.999087E-05	-11.10998 %
10	.035	3.680001E-02	1.800008E-03	4.891326 %
20	.076	7.270001E-02	-3.299989E-03	-4.539187 %
30	.107	.1086	1.600012E-03	1.473308 %

89FK21S59

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.300003E-03	-3.00003E-04	23.0771 %
10	.025	.0254	3.999975E-04	1.574793 %
20	.052	.0521	9.999797E-05	.1919347 %
30	7.900001E-02	.0788	-2.000108E-04	-.2538209 %

89FS11R17 SF 6231

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.000001E-03	1.600037E-03	-6.399964E-03	-399.9886 %
10	.169	.1712	2.200022E-03	1.28506 %
20	.326	.3408	1.479998E-02	4.342718 %
30	.5210001	.5104	-1.060003E-02	-2.076809 %

AQC 25 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.363	.3538	-9.200066E-03	-2.600359 %

AQC 25 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.363	.3538	-9.200066E-03	-2.600359 %
10	.482	.5101	2.810001E-02	5.508726 %
20	.695	.6664001	-2.859992E-02	-4.291704 %
30	.813	.8227001	9.70006E-03	1.179052 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.382	.3979999	1.599988E-02	4.020073 %
10	.536	.5309999	-5.000115E-03	-.9416413 %
20	.702	.664	-3.800011E-02	-5.722909 %
30	.77	.797	2.700001E-02	3.387705 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.374	.3695	-4.500032E-03	-1.217871 %
10	.526	.522	-4.000068E-03	-.7662966 %
20	.653	.6745	2.149999E-02	3.187545 %
30	.84	.827	-1.299995E-02	-1.571941 %

D Kruse 7/17/89 SF 6231

L. Korobka 7/18/89

333BEGIN DATA FILE: TL714.DF

Begin Element - TL
-0.008
0.000 AZ
-0.002
0.168
0.323
0.507
0.350
0.515
0.594
0.784
0.008

Not used
AQC out of control

SF 6231

Begin Element - TL
0.002
0.000 AZ
0.009
0.157 Blank
0.307
0.472
0.241
0.478 AQC
0.598
0.787
0.003
0.088 89FS21S49
0.181
0.267
0.004
0.097
0.157 89FS21D47
0.271
0.011
0.035
0.094 89FS21S42
0.144
-0.001
0.028
0.064 89FS21D38
0.097
-0.001
0.036 89FS21S45
0.075
0.104
0.335
0.460 AQC
0.638
0.740
0.008 Blank Cup
0.010
0.135
0.266 89FS21D47
0.339
0.010
0.086
0.175 89FS21S42
0.279
0.006

D Kunz 7/17/89
L. Korobka

page 1 of 2

SF 6231

0.039 89FS21D44
0.076
0.106
0.012 89FK21S58
0.023 ~~89FS~~ DX
0.053
0.113
0.001
0.035
0.076 89FK21D68
0.107
-0.001
0.025
0.052 89FK21S59
0.079
0.008
0.169 89FS11R17 SF 6231
0.326
0.521
0.363
0.482 AQC
0.695
0.813
0.001 Blank Cup
0.382
0.536 AQC
0.702
0.770
0.374
0.526 AQC
0.653
0.840

page 2 of 2

D Kruse
7/17/89

L. Korolika 7/18/89

~~BEGIN DATA FILE: TL715.DF~~

Begin Element - TL
0.006
0.062
0.123
0.202
0.010
0.054
0.075
0.124
0.001
0.037
0.091
0.140

Not used
AQC out of control

AAS Run Log

L. Korobka 7/18/89

Element TL

Initials DR

Date 7/14/89

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Data Set SF 6231

	ID	Spike	Comment
1	Std 0		SF 6231
2	10		
3	20		
4	30		
5	AQC	0	
6		10	
7		20	
8		30	
9	89FS21S49	0	SF 6203
10		10	
11		20	
12		30	
13	D47	0	
14		10	
15		20	
16		30	
17	89FS21S42	0	SF6204
18		10	
19		20	
20		30	
21	D38	0	
22		10	
23		20	
24		30	
25	89FS21S45	0	SF6213
26		10	

AAS Run Log

L. Korobka 7/18/89

Element TL

Initials DK

Date 7/14/89

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Data Set SF6231

	ID	Spike	Comment
27	89FS21S45	20	SF 6231
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank Exp	0	
34			
35			
	Wheel 2		
1	89FS21~~S49~~ 07 D47	0	1:5
2		10	
3		20	
4		30	
5	89FS21S42	0	1:5
6		10	
7		20	
8	~~8~~	30	
9	89FS21D44	0	
10	-	10	
11	-	20	
12		30	
13	89FK21S58	0	SF6214
14		10	
15		20	
16		30	

AAS Run Log

L. Korobka 7/18/89

Element Tl

Initials LK

Date 7/14/89

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Data Set SF 6231

	ID	Spike	Comment
17	89FK21D58	0	SF 6231
18		10	
19		20	
20		30	
21	89FK21B55	0	
22		10	
23		20	
24		30	
25	89FS11 R17	0	SF6231
26		10	
27		20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank cup	0	note: 2 additional
34			AQCs were run
35			due to poor fit.
	Wheel 3		
1			
2			
3			
4			
5			
6			

SF 6231

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☐ WP 284 TM I #2	Analyst DX
☐ As	☐ 4000	☐ WP 1183 TM II #1	Date 7/14/89
☐ Cd	☐ 5000 ZE	☒ WP 1183 TM II #2	Lamp # 1819
☐ Cr	☒ 5000 ZW	☐ ICV 2	Energy 48
☐ Pb	☐ 5100	☐ SPEX II	Expansion 5
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 2-51-MD
☐ Se		☐	☐ platform ☐ MSC
☒ Tl		☐	☒ wall ☒ MSA

L. Kroeber 7/18/89

Blank	Slope	AQC	Digestion QC
.351	.01539		
	.01458 ~~22.99~~	22.79	
	.01525	24.23	
	.0393	23.99	

Blank cup absorbance

.001

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: DSK
DATE OF ANALYSIS --: 07-17-1989
PARAMETER NAME ----: TL
DATA SET # --------: SF6231

SF 6231

W Kruse 7/17/89

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	.17554	.9997558	.01766	limit = ± 2 ug/L
AQC 25 UG/L	25.6569	.9958331	.01469	102.6%R limit = 100±10%
89FS22S11	1.093477	.9992451	5.669998E-03	2u
AQC 25 UG/L	27.07401	.9982986	.01473	108.3%R limit = 100±10%

L. Korobka 7/18/89

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.004	3.100037E-03	-8.999635E-04	-29.03074 %
10	.182	.1797	-2.299965E-03	-1.279891 %
20	.349	.3563	7.30002E-03	2.048841 %
30	.537	.5329001	-4.099965E-03	-.7693685 %

AQC 25 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.368	.3768999	8.899898E-03	2.361343 %
10	.546	.5237999	-2.220011E-02	-4.238281 %
20	.653	.6707	1.769996E-02	2.639028 %
30	.822	.8176	-4.400015E-03	-.5381623 %

89FS22S11

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	8.000001E-03	6.200013E-03	-1.799988E-03	-29.03201 %
10	.062	.0629	8.999929E-04	1.430831 %
20	.116	.1196	3.599979E-03	3.010017 %
30	.179	.1763	-2.700046E-03	-1.531507 %

AQC 25 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.398	.3988001	8.000434E-04	.2006127 %
10	.555	.5461	-8.899987E-03	-1.629736 %
20	.678	.6933999	1.539993E-02	2.220931 %
30	.848	.8406999	-7.300079E-03	-.8683334 %

SSBEGIN DATA FILE: TL716.DF

Begin Element - TL
-0.007
0.000 AZ
0.004
0.182
0.349 Blank
0.537
0.358
0.546
0.653 AQC
0.822
0.008
0.062 89FS22S11
0.116
0.179
0.398
0.555
0.678 AQC
0.848
0.004 B/K cup

SF 6231

D Kruse
7/17/89

L. Korobka
7/18/89

AAS Run Log

Element TL

Date 7/14/89

SF 6231

Initials [illegible]

Data Set 6231

	ID	Spike	Comment L. Korobka 7/18/89
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC	0	
6		10	
7		20	
8		30	
9	89FS22S11	0	
10		10	
11		20	
12		30	
13	AQC	0	
14		10	
15		20	
16		30	
17	Blank Cup	0	
18			
19			
20			
21			
22			
23			
24			
25			
26			

SF 6231

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☐ WP 284 TM I #2	Analyst DK
☐ As	☐ 4000	☐ WP 1183 TM II #1	Date 7/14/89
☐ Cd	☐ 5000 ZE	☒ WP 1183 TM II #2	Lamp # 1819
☐ Cr	☒ 5000 ZW	☐ ICV 2	Energy 85 ~~8~~ 42
☐ Pb	☐ 5100	☐ SPEX II	Expansion 5
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 2-51-MD
☐ Se		☐	☐ platform ☐ MSC
☒ Tl		☐	☒ wall ☒ MSA

K. Korobka 7/18/89

Blank	Slope	AQC	Digestion QC
.175	.09766		
	.01469	25.66	
	.01473	27.07	

Blank cup absorbance
.004

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: DSK
DATE OF ANALYSIS --: 08-07-1989
PARAMETER NAME ----: SB
DATA SET # --------: SF6231

W Kruse 8/7/89

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	-.2880646	.9992726	9.720001E-03	Limit = ± 2 µg/l
AQC 20 UG/L	18.89243	.9983177	9.390003E-03	94.5% R Limit = 100 ± 10%
89FS11R08	-.779084	.9987461	9.370001E-03	2u SF 6204
89FS21D38	-.1216855	.998581	9.040001E-03	2u
89FK21S58	-1.872909	.9998471	8.969999E-03	2u SF 6214
89FK21D58	-1.157892	.9937871	9.499998E-03	rerun fit < .995
89FK21S59	-1.093588	.9987782	9.510001E-03	2u
AQC 20 UG/L	20.07841	.9987946	8.929997E-03	100.4% R Limit = 100 ± 10%
89FS11R09	-.7268443	.9972857	8.529999E-03	2u SF 6213
89FS21S43	-1.21764	.9954871	.01043	2u
89FS21S44	-1.157898	.9976372	9.500001E-03	2u
89FS21D44	-1.240309	.9975972	.01032	2u
89FS21S45	-1.387068	.9944574	.01067	rerun fit < .995
89FS11R17	-.9561729	.9998295	.01004	2u ~~SF 6213~~ 07
89FS22S11	-.5367788	.9990409	.01006	2u SF 6231
AQC 20 UG/L	19.5733	.9891633	.00914	rerun fit < .995
AQC 20 UG/L	18.16436	.9999058	9.369999E-03	90.8% R Limit = 100 ± 10%

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.799988E-03	-7.999877E-04	28.57111 %
10	9.000001E-02	9.440002E-02	4.400023E-03	4.66104 %
20	.198	.1916	-6.39996E-03	-3.34027 %
30	.286	.2888001	2.800048E-03	.9695453 %

AQC 20 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.179	.1774	-1.600042E-03	-.9019404 %
10	.274	.2713	-2.700001E-03	-.9952087 %
20	.355	.3652001	1.020005E-02	2.793005 %
30	.465	.4591001	-5.899966E-03	-1.285116 %

89FS11R08

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-7.300019E-03	-5.300018E-03	72.60281 %
10	.081	8.639999E-02	5.399987E-03	6.249986 %
20	.175	.1801	5.099997E-03	2.831759 %
30	.279	.2738	-5.199999E-03	-1.899196 %

89FS21D38

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	-1.100037E-03	-4.100037E-03	372.7182 %
10	.087	8.929998E-02	2.299979E-03	2.575565 %
20	.172	.1797	7.699982E-03	4.284909 %
30	.276	.2701	-5.899996E-03	-2.184375 %

89FK21S58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.015	-1.679999E-02	-1.799989E-03	10.71423 %
10	.07	7.290001E-02	2.900005E-03	3.978058 %
20	.163	.1626	-4.000068E-04	-.2460067 %
30	.253	.2523	-7.000268E-04	-.2774581 %

D Rose 8/7/89 SF6231

89FK21D58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	-1.099997E-02	-1.299997E-02	118.1819 %
10	.066	8.400001E-02	1.800001E-02	21.42858 %
20	.176	.179	2.999991E-03	1.675973 %
30	.282	.274	-8.000046E-03	-2.919725 %

89FK21S59

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.013	-1.040002E-02	2.599976E-03	-24.99971 %
10	.092	8.469999E-02	-7.300012E-03	-8.618669 %
20	.173	.1798	6.800011E-03	3.781986 %
30	.277	.2749	-2.099991E-03	-.7639108 %

AQC 20 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.179	.1793001	3.001094E-04	.1673783 %
10	.273	.2686001	-4.399926E-03	-1.638095 %
20	.35	.3579001	7.90006E-03	2.207337 %
30	.451	.4472	-3.800005E-03	-.8497327 %

89FS11R09

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.011	-6.199982E-03	4.800019E-03	-77.41988 %
10	.081	7.910001E-02	-1.899988E-03	-2.402007 %
20	.175	.1644	-.0106	-6.447689 %
30	.242	.2497	7.699982E-03	3.083693 %

89FS21S43

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-1.269998E-02	-1.069998E-02	84.25194 %
10	.073	9.160001E-02	1.860001E-02	20.30569 %
20	.201	.1959	-5.099997E-03	-2.603367 %

30	.303	.3002	-2.800018E-03	-.9327174 %

89FS21S44

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-1.100003E-02	-8.000031E-03	72.72736 %
10	.073	8.399998E-02	1.099999E-02	13.09522 %
20	.177	.179	1.999989E-03	1.117312 %
30	.279	.274	-4.999995E-03	-1.824816 %

89FS21D44

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-1.279999E-02	-7.799988E-03	60.93746 %
10	.077	9.040001E-02	1.340001E-02	14.82302 %
20	.197	.1936	-3.399998E-03	-1.756197 %
30	.299	.2968	-2.199978E-03	-.7412323 %

89FS21S45 DKruse 8/7/87 SF6231

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.480002E-02	-1.380002E-02	93.24325 %
10	.074	.0919	.0179	19.47769 %
20	.193	.1986	5.600021E-03	2.819748 %
30	.315	.3053	-9.699971E-03	-3.177193 %

89FS11R17

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.01	-9.599975E-03	4.000245E-04	-4.166932 %
10	.093	9.080002E-02	-2.199985E-03	-2.422891 %
20	.188	.1912	3.200024E-03	1.673653 %
30	.293	.2916	-1.400024E-03	-.4801179 %

89FS22S11

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-5.399994E-03	-4.399994E-03	81.48145 %
10	.087	9.519999E-02	8.199998E-03	8.613442 %
20	.199	.1958	-3.200024E-03	-1.634333 %
30	.297	.2964	-6.000102E-04	-.2024326 %

AQC 20 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.174	.1789	4.899964E-03	2.738941 %
10	.265	.2703	5.299986E-03	1.960779 %
20	.387	.3617	-2.530006E-02	-6.994764 %
30	.438	.4531	1.509997E-02	3.332592 %

AQC 20 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	.17	.1702	2.000034E-04	.1175108 %
10	.263	.2639	8.999705E-04	.3410272 %
20	.36	.3576	-2.400041E-03	-.6711524 %
30	.45	.4513	1.299977E-03	.2880517 %

SF6231

DKruse 8/7/81

Begin Element - SB

0.015
0.000 AZ

-0.002
0.090
0.198 Bank
0.286

0.179
0.274
0.355 A2C
0.465

-0.002
0.081
0.175 R08
0.279

0.003
0.087
0.172 D38
0.276

-0.015
0.070
0.163 S58
0.253

0.002
0.066
0.176 D58
0.282

-0.013
0.092
0.173 S59
0.277

0.179
0.273
0.350 A2C
0.451

-0.012 BK Cap

-0.011
0.081
0.175 R09
0.242

-0.002
0.073
0.201 S43
0.303

-0.003
0.073
0.177 S44
0.279

-0.005
0.077
0.197 D44
0.299

-0.001
0.074
0.193 S45
0.315

-0.010
0.093
0.188 R10
0.293

-0.001
0.087 S11

SF6231

D Kruse 8/7/89

0.199	
0.297	
0.174	
0.265	AQC
0.387	
0.438	
-0.004	DIK cup
0.170	
0.263	AQC
0.360	
0.450	

SF6231

D Kruse
8/7/89

AAS Run Log

Element Sb

Initials DK

Date 8/4

Data Set SF6231

	ID	Spike	Comment
1	Blank	0	
2		10	DK 8/7/89
3		20	
4		30	
5	ARC	0	
6		10	
7		20	
8		30	
9	89FS11 R08	0	6204
10		10	
11		20	
12		30	
13	89FS21 D38	0	
14		10	
15		20	
16		30	
17	89FK21 S58	0	6214
18		10	
19		20	
20		30	
21	89FK21 D58	0	
22		10	
23		20	
24		30	
25	89FK21 S59	0	
26		10	

AAS Run Log

Element Sb

Initials [illegible]

Date 8/4/89

Data Set SF6231

	ID	Spike	Comment
27	89EK21 S 59	20	
28		30	[illegible] 8/7/89
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank Cup		
34			
35			
	Wheel 2		
1	89FS11R09	0	62 13
2		10	
3		20	
4		30	
5	89FS21S43	0	
6		10	
7		20	
8		30	
9	89FS21S44	0	
10		10	
11		20	
12		30	
13	89FS21D44	0	
14		10	
15		20	
16		30	

AAS Run Log

Element Sb

Initials DK

Date 8/4/89

Data Set SF6231

	ID	Spike	Comment
17	89FS21S45	0	DK use 8/7/89
18		10	
19		20	
20		30	
21	89FS11R17	0	6231
22		10	
23		20	
24		30	
25	89FS22S11	0	
26		10	
27		20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	blank cup		
34			
35			
	Wheel 3		
1			
2			
3			
4			
5			
6			

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☐ WP 284 TM I #2	Analyst DR
☐ As	☐ 4000	☐ WP 1183 TM II #1	Date 8/4/89
☐ Cd	☐ 5000 ZE	☒ WP 1183 TM II #2	Lamp # 1113
☐ Cr	☒ 5000 ZW	☐ ICV 2	Energy 32
☐ Pb	☐ 5100	☐ SPEX II	Expansion 5
☒ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 1-110-MO
☐ Se		☐	☐ platform ☐ MSC
☐ Tl		☐	☒ wall ☒ MSA

Blank	Slope	AQC	Digestion QC
-.288	.00972		
	.00939	18.9	
	.00893	20.07	SF6231
	.00934	18.16	DKruse 8/7/89

Blank cup absorbance

-.012

-.004

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: GANZ
DATE OF ANALYSIS --: 08-07-1989
PARAMETER NAME ----: SB
DATA SET # --------: SF6231

J Ganz 8/7/89

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	-.4349571	.9996497	.02506	Limit = ±2 ug/L
AQC TV=20.0 UG/L				%R = 92.7 Limit = 100±10%
	18.54786	.9992301	.02486	
89FK21S58	-1.340802	.9980324	.02588	SF6214
89FS21S45	-.3573924	.9979859	.02882	SF6213
89FS22S12	-.1181439	.9992975	2.624001E-02	SF6231
89FS22D12	-.5397931	.9995069	.02538	
89FM11R15	-.4547513	.9967478	2.243001E-02	SF6232
AQC TV=20.0 UG/L				%R = 101.0 Limit = 100±10%
	20.19608	.9962739	.02295	
AQC TV=20.0 UG/L				
	17.87446	.9996584	2.597002E-02	%R = 89.4 Limit = 100±10% Restandardize

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BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.005	-1.090002E-02	-5.900025E-03	54.12854 %
10	.236	.2397	3.699958E-03	1.543579 %
20	.48	.4903	1.029995E-02	2.100745 %
30	.749	.7409	-8.100093E-03	-1.093278 %

AQC TV=20.0 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.454	.4610999	7.099867E-03	1.539768 %
10	.712	.7096999	-2.300143E-03	-.3241009 %
20	.975	.9582999	-1.670015E-02	-1.742685 %
30	1.195	1.2069	1.189983E-02	.9859831 %

89FK21S58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.015	-3.469995E-02	-1.969995E-02	56.77227 %
10	.2	.2241001	2.410008E-02	10.75416 %
20	.472	.4829001	1.090011E-02	2.257218 %
30	.757	.7417001	-1.529998E-02	-2.062825 %

89FS21S45

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.012	-1.030005E-02	-2.230005E-02	216.5043 %

0	.012	-1.030005E-02	-2.230005E-02	216.5043 %
10	.25	.2779	2.789998E-02	10.03958 %
20	.555	.5661	1.109999E-02	1.960783 %
30	.871	.8542999	-1.670003E-02	-1.95482 %

89FS22S12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.007	-3.100098E-03	3.899903E-03	-125.7994 %
10	.256	.2593	3.299952E-03	1.272639 %
20	.54	.5217001	-.0183	-3.507763 %
30	.773	.7841001	1.110011E-02	1.41565 %

89FS22D12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-1.369995E-02	-9.69995E-03	70.80281 %
10	.228	.2401001	1.210006E-02	5.039589 %
20	.489	.4939001	4.900068E-03	.9921173 %
30	.755	.7477001	-7.29996E-03	-.9763219 %

89FM11R15

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.012	-1.020007E-02	-2.220008E-02	217.6462 %
10	.185	.2141	2.909997E-02	13.59177 %
20	.43	.4384	8.399993E-03	1.916057 %
30	.678	.6627001	-1.529992E-02	-2.308724 %

AQC TV=20.0 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.469	.4635	-5.500019E-03	-1.186628 %
10	.668	.693	2.499998E-02	3.6075 %
20	.956	.9224999	-3.350008E-02	-3.631445 %
30	1.138	1.152	1.399994E-02	1.215273 %

AQC TV=20.0 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.467	.4641999	-2.800167E-03	-.6032244 %
10	.726	.7239	-2.100051E-03	-.2901023 %
20	.971	.9836001	1.260012E-02	1.281021 %
30	1.251	1.2433	-7.699728E-03	-.6192975 %

J Gary 8/7/89

SF6231

Begin Element - SB
0.026
0.000 AZ
-0.017
0.106
0.187
0.318
0.255
0.353
0.521
0.587

Not used gwk 8/7/89

Begin Element - SB
-0.007
0.000 AZ
-0.043
0.117
0.353
0.542

J Gary 8/7/89

SF6231

Begin Element - SB
-0.005
0.000 AZ
-0.015
0.129
0.337
0.503

Begin Element - SB
-0.001
0.000 AZ
-0.011
0.047
0.156
0.292

Begin Element - SB
-0.018
0.000 AZ
-0.005 +0
0.236 +10
0.480 +20
0.749 +30

Blank

0.454 +0
0.712 +10
0.975 +20
1.195 +30

AQC TV=20.0 49/L

-0.015 +0
0.200 +10
0.472 +20
0.757 +30

89FK21558

SF6214

0.012 +0
0.250 +10
0.555 +20
0.871 +30

89FS21545

SF6213

SF6213

-0.007 +0
0.256 +10

89FS22512

SF6231

0.540	+20	89FS22S12
0.773	+30	
-0.004	+0	
0.228	+10	89FS22D12
0.489	+20	
0.755	+30	
0.012	+0	
0.185	+10	89FM11R15
0.430	+20	
0.678	+30	
0.469	+0	
0.668	+10	AQC TV=20.0 µg/L
0.956	+20	
1.138	+30	
0.006		Blank
0.011		
0.230		
0.485		
0.779		
0.005		
0.240		
0.506		
0.781		
0.002		
0.219		
0.503		
0.786		
0.003		
0.274		
0.609		
0.922		
-0.014		
0.234		
0.519		
0.775		
0.000		
0.262		
0.520		
0.776		
0.467	+0	
0.726	+10	AQC TV=20.0 µg/L
0.971	+20	
1.251	+30	

Not used

AQC out of control

SF6231

SF6232

J Gary 8/7/89

SF6231.

AAS Run Log

Element Sb

Date 8/7/89

J Harry 8/7/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC TV= 20.0 µg/L	0	
6		10	
7		20	
8		30	
9	89FK21558	0	
10		10	
11		20	
12		30	
13	89FS21545	0	
14		10	
15		20	
16		30	
17	89FS22512	0	
18		10	
19		20	
20		30	
21	89FS22D12	0	
22		10	
23		20	
24		30	
25	89FM11R15	0	
26		10	

AAS Run Log

Element Sb

Date 8/7/89

g Barry 8/7/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
27	89FM11R15	20	
28		30	
29	ARC TV=200 ug/L	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 2		
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

g Harry 8/7/89 SF6231

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☐ WP 284 TM I #2	Analyst JWG
☐ As	☐ 4000	☐ WP 1183 TM II #1	Date 8/7/89
☐ Cd	☐ 5000 ZE	☐ WP 1183 TM II #2	Lamp # 2237
☐ Cr	☒ 5000 ZW	☐ ICV 2	Energy 40
☐ Pb	☐ 5100	☐ SPEX II	Expansion 5
☒ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 1-110-MD
☐ Se		☒ WP 186(II)	☐ platform ☐ MSC
☐ Tl		☐	☒ wall ☒ MSA

Blank	Slope	AQC	Digestion QC
-.435	.02506	18.55	
		20.20	

Blank cup absorbance
.006

J Ganz 8/8/89

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: GANZ
PARAMETER NAME ----: CD
DATE OF ANALYSIS --: 08-08-1989

DATA SET NUMBER ---: SF6231
DU NUMBER ---------: TFA

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = +6.28352E-03
+2.91071E+00 * SIGNAL

COEFFICIENT OF DETERMINATION : .9995392

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION	CALCULATED
1	+0.003	+0.000	+0.015
2	+0.160	+0.500	+0.471
3	+0.345	+1.000	+1.010
4	+0.515	+1.500	+1.505
5	+0.684	+2.000	+1.997

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	CONCENTRATION	
AQC TV=0.975	+0.342	+1.001	%R=102.7 Limit = 100±10%
BLANK	-0.001	+0.003	Limit = ±0.2 ng/L
89FS11R17 +0	+0.014	+0.047	> %R = 98.9
+1	+0.354	+1.036	
89FS22S11 +0	+0.019	+0.061	> %R = 103.6
+1	+0.375	+1.097	
89FS22S12 +0	+0.006	+0.023	> %R = 106.0
+1	+0.370	+1.083	
89FS22D12 +0	+0.011	+0.038	> %R = 100.7
+1	+0.357	+1.045	SF6231
89FM11R15 +0	+0.026	+0.081	> %R = 94.9 SF6232
+1	+0.352	+1.030	
AQC TV=0.975	+0.342	+1.001	%R=102.7 Limit = 100±10%
BLANK	+0.017	+0.055	Limit = ±0.2 ng/L
89FM22S01 +0	+0.011	+0.038	> 94.0 = %R
+1	+0.334	+0.978	
89FM22S02 +0	+0.039	+0.119	> %R = 102.5
+1	+0.391	+1.144	
89FM22S03 +0	+0.015	+0.049	> %R = 101.3
+1	+0.363	+1.062	
89FM22S04 +0	+0.020	+0.064	> %R = 99.0
+1	+0.360	+1.054	
89FM22S05 +0	+0.089	+0.265	> %R = 101.6
+1	+0.438	+1.281	
89FM22D01 +0	+0.007	+0.026	> %R = 98.7
+1	+0.346	+1.013	
AQC TV=0.975	+0.353	+1.033	%R=105.9 Limit = 100±10%
BLANK	+0.014	+0.047	Limit = ±0.2 ng/L

J Gary 8/8/89

SF6231

Begin Element - CD
-0.324
0.000 AZ gwk 8/8
-0.008 not used
0.112
0.246
0.345
0.487

Begin Element - CD
-0.315
0.000 AZ
0.003 std 0 ppb
0.160 0.5 ppb
0.345 1.0 ppb
0.515 1.5 ppb
0.684 2.0 ppb
0.342 AQC TV= 0.975 ug/L
-0.001 Blank
0.014 +0 89FS11R17
0.354 +1
0.019 +0 89FS22S11
0.375 +1
0.006 +0 89FS22S12
0.370 +1
0.011 +0 89FS22D12
0.357 +1 SF6231
0.026 +0 89FM11R15 SF6232
0.352 +1
0.342 AQC TV=0.975 ug/L
0.017 Blank
0.011 +0 89FM22S01
0.334 +1
0.039 +0 89FM22S02
0.391 +1
0.015 +0 89FM22S03
0.363 +1
0.020 +0 89FM22S04
0.360 +1
0.089 +0 89FM22S05
0.438 +1
0.007 +0 89FM22D01
0.346 +1
0.353 AQC TV=0.975 ug/L
0.014 Blank
~~0.000~~ gwk no cups
~~0.004~~ 8/8/89

AAS Run Log

Element Cd

J Gamy 8/8/89

Initials JWG

Date 8/8/89

Data Set SF6231

	ID	Spike	Comment
1	0 ppb Standard		
2	0.5 ppb		
3	1.0 ppb		
4	1.5 ppb		
5	2.0 ppb		
6	AQC TV= 0.975 µg/L		
7	Blank		
8	89FS11R17	0	
9		1	
10	89FS22S11	0	
11		1	
12	89FS22S12	0	
13		1	
14	89FS22D12	0	
15		1	
16	89FM11R15	0	
17		1	
18	AQC		
19	Blank		
20	89FM22S01	0	
21		1	
22	89FM22S02	0	
23		1	
24	89FM22S03	0	
25		1	
26	89FM22S04	0	

AAS Run Log

Element Cd

Date 8/8/89

J Harry 8/8/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
27	89FM22S04	1	
28	89FM22S05	0	
29		1	
30	89FM22D01	0	
31		1	
32	AQC		
33	Blank		
34			
35			
	Wheel 2		
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

J Gary .. 8/8/89 SF6231

Element	Instrument	QC Source
☐ Ag	☐ 5000	☒ WP 284 TM I #2
☐ As	☐ 4000	☐ WP 1183 TM II #1
☒ Cd	☐ 5000 ZE	☐ WP 1183 TM II #2
☐ Cr	☒ 5000 ZW	☐ ICV 2
☐ Pb	☐ 5100	☐ SPEX II
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b
☐ Se		☐
☐ Tl		☐

Analyst JWG

Date 8/8/89

Lamp # WL36016

Energy 43

Expansion 5

Stock 2-126-MD

☒ platform ☒ MSC

☐ wall ☐ MSA

Blank	Slope	AQC	Digestion QC
.003	2.91071	1.001	
.055		1.001	
.047		1.033	

Blank cup absorbance

---

* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: GANZ
DATE OF ANALYSIS --: 08-10-1989
PARAMETER NAME ----: TL
DATA SET # --------: SF6231

J Ganz 8/10/89

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	-.968321	.9998488	.01673	Limit = ± 2 ug/L
AQC TV=12.5 UG/L				%R = 109.1 Limit = 100 ± 10%
	13.64059	.9991569	.01291	
89FK21S58	-4.372469	.9713951	.00247	Rerun SF6214
89FS22S12	-3.400577	.9781248	.00347	Rerun SF6231
89FS22D12 *	-1.526476	.9962654	.00321	SF6231
89FM11R15 *	-.9452709	.9994312	.01005	SF6231
89FM22S01 *	-1.134161	.9988484	7.229999E-03	
AQC TV=12.5 UG/L				
	15.68182	.9978671	.01232	%R = 125.5 - Restandardize

---

* These results are <IDL and therefore acceptable despite the AQC high bias

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.015	-1.620001E-02	-1.200012E-03	7.407476 %
10	.147	.1511	4.10001E-03	2.713441 %
20	.323	.3184	-4.599989E-03	-1.44472 %
30	.484	.4857	1.700014E-03	.3500131 %

AQC TV=12.5 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.17	.1761	6.099969E-03	3.463924 %
10	.315	.3052	-9.800017E-03	-3.211015 %
20	.433	.4343	1.299948E-03	.2993202 %
30	.561	.5634	2.399981E-03	.4259818 %

89FK21S58

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-.0108	-6.799996E-03	62.96295 %
10	.007	.0139	6.900002E-03	49.64029 %
20	.032	.0386	6.599996E-03	17.09844 %
30	.07	.0633	-6.700009E-03	-10.58453 %

89FS22S12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.006	-.0118	-5.800003E-03	49.15256 %
10	.01	.0229	.0129	56.33188 %
20	.066	5.760001E-02	-8.399997E-03	-14.58333 %
30	.091	9.230001E-02	1.300007E-03	1.408458 %

89FS22D12

SPIKE	MEASURED	CALC.	ERROR	PER CENT

20	.066	5.760001E-02	-8.399997E-03	-14.58333 %
30	.091	9.230001E-02	1.300007E-03	1.408458 %

89FS22D12

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.007	-4.899986E-03	2.100014E-03	-42.85755 %
10	.028	2.720001E-02	-7.999912E-04	-2.941143 %
20	.064	5.930001E-02	-4.699998E-03	-7.925796 %
30	.088	.0914	3.399998E-03	3.719911 %

89FM11R15

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.013	-9.49997E-03	3.500031E-03	-36.84254 %
10	9.399999E-02	9.100001E-02	-2.999991E-03	-3.296693 %
20	.196	.1915	-4.500017E-03	-2.349878 %
30	.288	.2919999	3.999949E-03	1.369846 %

89FM22S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-8.000001E-03	-8.199981E-03	-1.99981E-04	2.438799 %
10	.067	6.410001E-02	-2.899997E-03	-4.524176 %
20	.13	.1364	6.399989E-03	4.692075 %
30	.212	.2087	-3.300026E-03	-1.58123 %

AQC TV=12.5 UG/L

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.184	.1932	9.200007E-03	4.761908 %
10	.326	.3164	-9.600014E-03	-3.034139 %
20	.448	.4396	-8.400023E-03	-1.910833 %
30	.554	.5628	8.79997E-03	1.563605 %

J Gary 8/10/89

SF6231

BEGIN DATA FILE: TLS10.DF

J Gary 8/10/89

SF6231

Begin Element - TL

-0.012
0.000 AZ
0.012
0.162
0.349
0.527
0.185
0.348
0.465
0.588

quit 8/10/89
not used

Begin Element - TL

0.022
0.000 AZ
-0.015 +0
0.147 +10
0.323 +20
0.484 +30

Blank

0.170 +0
0.315 +10
0.433 +20
0.561 +30

AQC TV=12.5 µg/L

-0.004 +0
0.007 +10
0.032 +20
0.070 +30

89FK21S58

SF6214

-0.006 +0
0.010 +10
0.066 +20
0.091 +30

89FS22S12

SF6231

-0.007 +0
0.028 +10
0.064 +20
0.088 +30

89FS22D12

SF6231

-0.013 +0
0.094 +10
0.196 +20
0.288 +30

89FM11R15

SF6232

-0.008 +0
0.067 +10
0.130 +20
0.212 +30

89FM22S01

0.184 +0
0.326 +10
0.448 +20
0.554 +30

AQC TV= 12.5 µg/L

-0.005

Blank

AAS Run Log

Element: Tl

Date: 8/10/89

J Barry 8/10/89

Initials: JWG

Data Set: SF6231

	ID	Spike	Comment
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC TV=12.5 µg/L	0	
6		10	
7		20	
8		30	
9	89FK21S58	0	
10		10	
11		20	
12	JWG 8/10/89	30	
13	89FS22D512	0	
14		10	
15		20	
16		30	
17	89FS22D12	0	
18		10	
19		20	
20		30	
21	89FM11R15	0	
22		10	
23		20	
24		30	
25	89FM22S01	0	
26		10	

AAS Run Log

Element TI

Date 8/10/89

J Gary 8/10/89

Initials JWG

Data Set SF6231

	ID	Spike	Comment
27	89FM22501	20	
28		30	
29	AQC	0	
30		10	
31		20	
32		30	
33	Blank		
34			
35			
	Wheel 2		
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

J Gary 8/10/89 SF6231

Element	Instrument	QC Source	
☐ Ag	☐ 5000	☐ WP 284 TM I #2	Analyst JWG
☐ As	☐ 4000	☐ WP 1183 TM II #1	Date 8/10/89
☐ Cd	☐ 5000 ZE	☒ WP 1183 TM II #2	Lamp # 1819
☐ Cr	☒ 5000 ZW	☐ ICV 2	Energy 42
☐ Pb	☐ 5100	☐ SPEX II	Expansion 5
☐ Sb	☐ Varian 30	☐ NBS SRM 1643b	Stock 2-51-MD
☐ Se		☐	☐ platform ☐ MSC
☒ Tl		☐	☒ wall ☒ MSA

Blank	Slope	AQC	Digestion QC
-.968	.01673	13.64 15.68	

Blank cup absorbance
-.005

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: AUG 22 1989

SUBJECT: Review of Region 5 data for T.O. Plastics

FROM: Curtis Ross, Director Chi Tang for
Region 5 Central Regional Laboratory

To: Data User: FIT

Attached are the results for:

CRL Data Set Numbers: SF6231
Sample Numbers: 89FS22S11-S12, 89FS22D12, 89FS11R17
Parameter(s): As, Se, Sb, Tl, Cd, Pb
Laboratory: CRL/ESAT

Results Status:

(✓) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

RECEIVED
AUG 29 1989
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

If there are any questions regarding the data, refer them to David Payne, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

DESIGNATED BY
Sylvia Griffin
AUG 22 1989
U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE: [illegible] 8/22/89

Comments:

Griffin

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JUL 28 1989

SUBJECT: **Review of Region 5 data for** T.O. Plastics

FROM: **Curtis Ross, Director**
Region 5 Central Regional Laboratory

To: **Data User:**

Attached are the results for:

CRL Data Set Numbers: SF6231
Sample Numbers: 89FS22S11-12, D12, 89FS11R17
Parameter(s): ICP
Laboratory: CRL

Results Status:

( ) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

AUG 29 1989
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

If there are any questions regarding the data, refer them to David Payne, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

S. Griffin
JUL 28 1989
U.S. EPA CENTRAL REGIONAL LAB
Griffin

RECEIVED BY/DATE: [illegible] 8/1/89
Comments:

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: AUG 11 1989

SUBJECT: Review of Region 5 data for T.O. Plastics

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User: FIT

Attached are the results for:

CRL Data Set Numbers: SF-6231
Sample Numbers: 89FS22S11, 89FS22S12, 89FS22D12, 89FS11R17
Parameter(s): VOA / water
Laboratory: CRL / Weston ESAT

Results Status:

(X) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

RECEIVED
AUG 29 1989
US EPA ... LAB
536 S. ...
CHICAGO, ILLINOIS

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY
S Griffin
AUG 11 1989
U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE: [signature] 8/14/89

Comments:

Griffin 8/29/89

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: JUL 20 1989

SUBJECT: Review of Region 5 data for T. C. Plastics

FROM: Curtis Ross, Director P. S. Evangelista, for.
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF-G231
Sample Numbers: 89FS22811-812; D12; 89FS11R17
Parameter(s): PCB / Pesticides
Laboratory: CRL

Results Status:

( ) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

AUG 01 1989

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

TRANSMITTED BY
S Griffin
JUL 20 1989

U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE: 7/20/89

Comments:

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

Please contact the Superfund Records Manager for further information.

I. Unscannable item due to format

___ Graph

✓ Mail receipts

___ Sample tags

II. Image Quality (Pages follow / No. of pages ____)

___ Resolution / Contrast

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FMN01885A
PROJECT NAME: SAS-4476E Case 12189 F05-8811-003 T.O. Plastics
SAMPLERS: (Signature) [signature]

Low Conc.

REMARKS: Superfund 6231

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter Amber	40 ml VOA					Tag #	Matrix
S11	6/20/89	1100		✓	RW1	4	1	3					5188330-33	Water
S12	6/20/89	1355		✓	RW2	4	1	3					5132842-45	Water
D12	6/20/89	1355		✓	Dup	4	1	3					5188338-41	Water
S11	6/20/89	1100		✓	RW1-MSD	8	3	5					5132723-30	Water
R17	6/20/89	1110		✓	Blank	4	1	3					5188346-49	Water

Lot 1 liter Amber - H9060104
H9067014
40 ml - B9039104

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/20/89 1630	[signature]			
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
		[signature]	6/21/89 3:08pm	Shipped Fed Ex to CRL Airbill # 2184749280 Custody Seal - 12639, 40

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

05-02325

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FMN0188SA
PROJECT NAME: F05-8811-003 SAS 4476E
T.O. Plastics case 12189
SAMPLERS: (Signature) Connie Gilmore

REMARKS: Low Conc. Superfund 6231

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter Plastic M	1 liter Plastic CN					Tag Number	Matrix
S11	6/20/89	1100		✓	RW1	2	1	1					5188326-27	Water
S12	6/20/89	1355		✓	RW2	2	1	1					5132838-39	Water
RE ~~R~~ D12	6/20/89	1355		✓	Dup	2	1	1					5188334-35	Water
R17	6/20/89	1110		✓	Blank	2	1	1					5188342-43	Water

Lot # 1 liter Plastic
C9065074

(ITR in Cooler # 146)
(~~A~~ RE

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Connie Gilmore	6/20/89 1630	William Superfund			
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
		William Superfund	6/21/89 3:08pm	Shipped Fed Ex to CRL Airbill # - 2184749280 Custody Seal - 12635, 36

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

05-02326

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

TFA302

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/~~14~~ 12/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
89FS22S11	RW1 5188327		✓			
S12	RW2 5132839		✓			
D12	Dup 5188335		✓			
89FS11R17	Blk 5188343		✓			

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/~~6~~12/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17564	WATER ABN ORGANICS SCAN UG/L TOX 17574	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
89FS22S11	MSD/RW1 5-132726-30 5-188331-33	✓			
S12	RW2 5-132843-45	✓			
D12	Dup 5-188331-341	✓			
89FS11R17	Blk 5-188347-49	✓			

SUPERFUND

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

TFA302

DIVISION/BRANCH FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/13/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
89FS22S11	MSD/RW1 5-132723-25 5-188330		✓	✓		
S12	RW2 5-132842		✓	✓		
D12	Dup 5-188338		✓	✓		
89FS11R17	Blk 5-188346		✓	✓		

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

TFA302

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/12/89

DU NUMBER TFA DATA SET NUMBER 6231 STUDY T.O. Plastics PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
89FS22S11	RW1 5-188326	✓	✓	✓	✓	✓	✓
S12	RW2 5-132838	✓	✓	✓	✓	✓	✓
D12	Dup 5-188334	✓	✓	✓	✓	✓	✓
89FS11R17	Blk 5-188342	✓	✓	✓	✓	✓	✓

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ENVIRONMENTAL PROTECTION AGENCY TFA302
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND SAMPLING DATE 6/20/89 LAB ARRIVAL DATE 6/21/89 DUE DATE 7/12/89

RU NUMBER TFA DATASET NUMBER 6231 STUDY T.O. PLASTICS PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	MATRIX WATER TEST CD UNITS UG/L PE1235826
89FS22		
S11	RW1 5-188326	X
S12	RW2 5-132838	X
D12	DUPLICATE 5-188334	X
89FS11R17	BLANK 5-188342	X

CRL V.2: 3/85